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A Case Study Examining Students' Perceptions of LMS Discussion Board Use as a Tool to Promote Student-Centered Learning

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A CASE STUDY EXAMINING STUDENTS' PERCEPTIONS OF LMS DISCUSSION

BOARD USE AS A TOOL TO PROMOTE STUDENT-CENTERED LEARNING

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

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Title: A Case Study Examining Students' Perceptions of LMS Discussion Board Use as a
           Tool to Promote Student-Centered Learning

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This qualitative case study examined the perceptions of seven undergraduate male Saudi English language learners (ELL) as students using Learning Management System (LMS) discussion boards in a US college classroom to promote active learning and writing development. Because students in Saudi Arabia are typically taught using teacher-centered pedagogies, this study explored how these Saudi learners would respond to the use of student-centered pedagogies. Specifically, the study looked at how Saudi students respond to using LMS discussion boards as part of their college classes. This study sought to gather information about how the use of LMS discussion boards impacted these ELL students' development of writing skills and the extent to which posting on discussion boards enhanced theses students' learning skills. The data collected in this study consisted of individual interviews. The individual interviews occurred during the beginning, middle, and end of a spring semester. The findings indicated that LMS discussion boards actively engaged students in discussion by allowing them time to reflect and construct meaning while interacting with native and nonnative speakers. These interactions helped the students gain awareness of their language use and development. This increased language awareness caused the participants to employ similar writing process in order to post responses while utilizing online language tools to fill gaps in their language knowledge.

Bases on analysis of interviews, Saudi participants reported an overall positive experience using LMS discussion boards in a student-centered classroom. The Saudi students reported that

they believe the student-centered pedagogy enhanced their writing development. In addition, participants talked about how they were positively impacted as learners in the student-centered LMS discussion responses indicated students were actively engaged in the learning process. The results of this study can be used to provide suggestions for best practices in teaching in the light of a student-centered approach. The study's findings can also help English language educators to better understand how LMS discussion boards can be integrated into classrooms to not only promote student-centered pedagogy, but to also teach L2 students English language skills in college class.

DEDICATION

I would like to dedicate this dissertation to my late father, Suliman, Allah bless his soul. My father always had been my role model in life. He taught me to study hard and to give priority in my life to the quest for knowledge. Remembering him provide me with strength to overcome all the obstacles. For that I dedicate all the success in my life to his blessed soul and to make him proud.

I also dedicate to my mother, who has always been beside me even when I am overseas. She has always kept me in her prayers and thoughts. She facilitated all the difficulties and boundaries, which I faced throughout this journey. To my brothers, Ehab, Bander Mhamood, Mohammad, sisters, Nouf, Hind, for their endless support. Finally, to my beautiful family starting with my all, my wife, Manar; my daughters Leen, Lana, Elan, and my son Suliman.

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CHAPTER ONE

INTRODUCTION

English language has achieved a critical status among world languages as the most commonly used language in academic and global settings. English language is used to communicate, conduct international trade, broadcast world news, and disseminate scientific and technological information (Crystal, 2012; Graddol, 1997). Due to that, the widespread use of English language as a global language has increased in several countries.

One of these countries is Saudi Arabia, where English language has also expanded and increased. After the launch of King Abdullah Foreign Scholarship Program in 2005, the number of Saudi students who have been granted scholarship to study in English speaking countries such as United States, has drastically increased. Since the program was launched ten years ago, more than 44,000 Saudi students have been reported as studying abroad in the United States in the 2012/13 academic year (Open Door Report, 2013). In the fact, the number of Saudi students studying in the United Sates increased by 30% between the 2011/12 academic year and the 2012/13 academic year. Thus, Saudi Arabia is the fourth highest country in terms of sending students to the United States for study. In addition, it is the most active country among Middle Eastern countries to send students to the United States for study (Open Doors Report, 2013).

The Saudi program sends students from different educational levels to purse their education in different fields of specialization to the United States for study. The major goal of the program is to allow scholarship holders to gain knowledge as well as become competent English language users in today's global society (Ministry of Higher Education, 2012). With so many students considering studying in the United States, there has been an increase in demand for high quality of English teaching in Saudi Arabi. The Ministry of Education in Saudi Arabia

has spared no expense in working to develop better English language teaching. The Ministry has expanded the teaching of English at all levels of the curriculum. Another step the Ministry has taken is increased spending on the use of modern teaching aids, such as computers and software programs for English classrooms.

Saudi Arabia and the Lecture Model

Despite the Ministry of Education's efforts, however, several studies have shown that some Saudi Arabian students still struggle to learn English (Alfahid, 2017; Algahtani, 2017; Bakarman, 2004; Juhary, 2010). One of the many reasons for this problem is that the primary mode of instruction used in most of Saudi Arabian classrooms is a teacher-centered pedagogy (Algahtani, 2017; Juhary, 2010). This means the teachers' role in classroom is limited to one of information delivery. According to Al-Awaid (2018) the "teacher's role in the Saudi educational system is that of an information imparter" (p. 51). In other words, the teaching style is a teacher-centered approach in which the teacher is the only source of information and is the knowledge provider in the classroom. This places students typically in a passive role as learners in the Saudi Arabian educational environment.

In Saudi Arabia a traditional lecture model is used in all subject areas including language learning classrooms. According to Alam (2013) the "traditional language classroom is teacher-centered where the teacher is all in all" (p. 27). Abu Ras (2002) reported in his study that the teaching style in the EFL classrooms in Saudi Arabia uses a teacher-centric ideology. This matches Alfahid's (2017) study which reported that "the majority of English language programs offered by public and private universities in Saudi Arabia are taught in the traditional way, lecture-type session" (p. 6). In other words, teaching in Saudi Arabia remains focused on the

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teacher as the sole knowledge provider. Students are not engaged as active learners in most Saudi Arabian classrooms.

Paolo Friere (1970) has labeled this teacher-centered approach, the banking model. In this approach, students are seen as empty banks into which knowledge must be deposited. Students are not asked to actively engage in learning under this approach. Instead an expert teacher tells the students what they need to know, the students dutifully copy the information off the blackboard, they memories the information, and then the regurgitate the information for the test. This view of education "transforms students into receiving objects" (p. 77). Friere was highly critical of this educational approach. He wanted students to be active learners engaged in a critical examination of the world around them.

Other scholars concur with Friere. For example, Cheong (2010) notes that a teacher-centered approach turns students into passive learners. Qutoshi, & Poudel (2014) also say that teacher lecturing makes students passive learners. Similarly, Bransford, Brown, and Cocking (2000) believe that the traditional lecture model leads to passive and not active learning and fails to encourage student motivation. Weimer (2002) notes that lecturing generally prevents students from developing confidence in their own ideas (Weimer, 2002). In addition, Juhary (2010), states that the traditional lecture model of teaching stifles "independent thought, creativity and deeper learning processes" among students (p.454), In that sense, students' learning skills are limited to memorizing the information the teacher provides them, leaving no room for the students to develop or practice other learning skills such as analyzing, synthesizing, applying, reflection, and participation (Alam, 2013, Freire, 1970).

A teacher centered approach is just as ineffective for students' language learning. For example, Alfahid (2017) in her study pointed out that lecture-type classes put students in a

passive state. Alfahid reported "the majority of Saudi students in public schools struggle most in speaking and writing in English and thus do not have minimum levels of English competency" (p.1). Teacher lecturing provides very little to no chance to practice the language skills about which they are being lectured.

Furthermore, in Bakarman's (2004) study, he researched the negative influence of teacher-centered learning on language learners in Saudi Arabia. Bakarman found that English language teachers dominated whole class sessions, being the sole active speaker in the classroom. This creates little to no chance for students to practice the spoken language in the classroom or even interact with each other in the target language. This matches Al-Ahaydib's (1986) findings. Al-Ahaydib pointed out that the dominant role of teachers in most of Saudi Arabian classrooms limited the students' participation in class activities. A traditional lecture model does not effectively promote the development students' learning skills or language skills. In other words, since students remain passive in their learning within a teacher-centered approach, the students do not have many chances to speak English, to practice listening, or to improve on those language skills they have already taught. Thus, a teacher-centered approach to English language instruction ultimately has a negative effect on students' language growth and development.

Shifting to a Student-Centered Pedagogy

Since studies have shown that the teacher-centered approach does not actively engage students in the learning process, a student-centered or learner-centered approach to teaching is recommended (Wright, 2011).

In this approach, the focus in education is shifted from the teacher to the students. In other words, teachers shift their teaching approach to motivate students to be active learners

engaged in a process of knowledge creation and discovery. In a learner-centered pedagogy, the teacher's role shifts from who lecturing to providing support and encouragement. This is commonly referred to having the teacher shift from being "a sage on the stage to being a guide at the side" (Morrison, 2014, p. 1). Instead of telling students what to think, the teacher helps students to actively engage in learning new material.

According to Candela, Dalley, and Benzel-Lindley (2006), in a student-centered approach, the "teachers and students are both learners, working together to explore and develop students' abilities" (p. 59). In other words, in a student-centered pedagogy, teachers involve students in the process of learning. In this approach, students take active roles in the learning process through employing practices such as inquiring, applying knowledge, and learning from others (Hannafin & Hannafin, 2010). In that sense, students become active participants instead of passive receivers (Idris, 2016).

As a result, studies have recommended shifting teaching instruction from a teacher-centered to a student-centered approach in order to help students to enhance their learning skills, engage in learning the course content actively, and to maximize retention of subject knowledge. Al-Ismaiel (2013) argues for the need to shift the way of instruction in classrooms from lecturing to student-centered approaches. Specifically, Al-Abbad (2009) has suggested adopting a student-centered approach as way to help improve English teaching in Saudi classrooms.

Student-Centered Learning Online

A number of other studies also argue for the potential benefits of using Learning Management System (LMS) discussion boards as a tool to promote student-centered learning. These studies argue that LMS discussion boards help students to actively engage in learning

course content as well as enhancing language skills (Garcia & Molina, 2009; Ming & Bidmeshki, 2004; Yates & Delgado, 2008).

This dissertation study seeks to build on this line of research. The study explores the potential benefits of using LMS discussion boards to promote a student-centered approach to teaching Saudi students. Saudi Arabian universities have recently begun utilizing online LMS in conjunction with traditional face-to-face learning in a variety of courses. Despite the aforementioned research showing the potential benefits of using discussion boards to promote active learning, LMS discussion boards are still not widely used in Saudi Arabia. This study is an exploratory effort to better understand how Saudi students respond to student-centered teaching involving LMS discussion board use. The study was conducted with Saudi students at a university in the United States. The positive outcomes from this study are a starting point for arguing that student-centered teaching using LMS discussion boards has potential to be successful in Saudi Arabia.

Problem of the Statement

Having acknowledged the widespread use of a teacher-centered approach in Saudi educational system, it can be understood that most Saudi students' experiences with learning has been as a passive participant. As a result, students who are granted a scholarship and deployed to the U.S to continue their education in U.S universities have very little experience with student-centered classrooms. Most Saudi students have been taught to be passive learners and their learning skills have primarily focused on listening, memorizing, remembering, recalling, and repeating. This means that student-centered teaching approaches which require learners to be active are very new for most Saudi students. In particular, because LMS uses is very new in Saudi Arabia, very few Saudi students have ever used an LMS discussion board. In addition, a

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lot of the literature are coming out in the field of American education research is acknowledging the widespread use of student-centered. Consequently, the use of LMS discussion boards as a tool of active learning in a student-centered approach in U.S college classrooms is likely to be a new experience for Saudi students and one which makes for interesting research. In particular, the study context of the present research.

There are several studies which have examined students' perceptions of discussion board use. Studies have looked at student English writing accuracy (Nielsen, 2013), cultural barriers to discussion board use (Alanazy, 2013), and develop social relationships to discussion board use (Ebrahimi, Faghih, & Dabir-Moghaddam, 2017). Another study looked at instructor-student and student-student interaction usefulness and challenges in a blended English as a foreign language (EFL) writing course, who speak the same first language (Kim, 2017). Yet another study looked at instructor's interactions with students on LMS discussion boards (Lee, 2018). Overall, one can see growing interest in researching the use of LMS discussion boards to promote active student-centered learning.

My study seeks to build on the work of these other researchers by examining how Saudi ELL students perceive the use of LMS discussion boards and how they react to taking part in a student-centered learning environment. This study tries to understand how the individual perceptions of these students regarding the effectiveness of these platforms impacts their experiences in an active learning environment. Thus, my study hopes to understand whether or not discussion boards are a positive tool of active learning for Saudi students and whether or not this approach could potentially be used in Saudi classrooms in future studies.

Although the context for the current study was the United States, the participants in this study are coming from a teacher-centered learning background and being placed into a student-

centered environment for the first time. Therefore, this is a preliminary study to understand the perceptions of ELL Saudi students regarding the use of LMS discussion boards to promote active learning. This study will discuss Saudi students' perceptions about active learning experiences using LMS discussion boards for the first time.

The Purpose of the Study

The purpose of the study was to:

- Investigate ELL students' perceptions regarding the use of LMS discussion boards as a tool to promote students' active learning in college classroom,

- And to explore how ELL students perceive their writing development through the using LMS discussion boars in a college classroom.

Research Questions

The goal of the current study was to investigate Saudi students' perceptions regarding the use of LMS discussion boards as a tool to promote students' active learning and development of writing ability. The study seeks to answer the following questions:

Q1. What are Saudi students' perceptions of student-centered learning in an LMS discussion board environment?

Q 2. How do Saudi students perceive LMS discussion board use impacting their writing development?

Significance of the Study

Shifting to a student-centered approach as a teaching method is preferred by many educators based on the current body of research on teaching and learning. One way to utilize a student-centered approach is through active learning. One tool for promoting active learning is engaging students in dialogue with their peers on an LMS discussion board (Hiriri, 2013). Coville (2017) pointed out that "adult students, in particular, look for interaction that is

collaborative and student-centered" (p. 139). Coville notes that the integration of discussion boards into a course can promote "active user engagement" (p. 139).

According to Jarosewich, Vargo, Salzman, Lenhart, Krosnick, Vance, and Koskos (2010), in order to achieve the goal of utilizing LMS discussion boards effectively in the classroom, students should "engage in higher-order thinking, then the potential for this useful tool will be realized" (p. 120). Bliuc, Ellis, Goodyear, & Piggott (2009), pointed out that learning through LMS discussion boards will allow for greater student reflection which may lead to higher course active engagement through the use of in-depth learning techniques that an LMS discussion board can provide in an e-learning environment. This aligns with Smith (2015), who believes discussion boards are a "valuable course component" to connect, engage, and enhance students' learning of course content through constructing knowledge, applying course material, and "critical reflection" (p. 229).

To explore the benefits of LMS discussion boards for promoting students' active learning, it is helpful to examine the raw experiences and perceptions of students who are enrolled in U.S university college classrooms and are using LMS discussion boards for the first time. It is important to understand students' perceptions of their ability to learn as they use online discussion boards so that instructors can better assess students' online work (Andresen, 2009). Consequently, examining students' perceptions of their ability to learn actively through discussion boards use can help researchers to better understand the potential benefits and drawbacks of LMS-based learning. By recognizing what factors and practices in discussion boards impact student learning, researchers could better understand how to apply this student-centered approach in classrooms where a traditional teacher-based model has been previously used.

Background Literature

There are several studies which report on the use of LMS discussion boards in various educational fields to promote active learning. Fernández, Simó, Castillo and Sallán (2014), along with Patel and Aghayere (2006), pointed out that LMS discussion boards promote active learning through situating students in the center of the learning process. This helps enhance students' learning experiences, motivates students to be more thoughtful, and makes students into more active learners (Fernández et al., 2014; Patel & Aghayere, 2006).

A study by Hariri (2013) investigated how Blackboard-CE8 promoted student-centered learning practices. According to Hariri (2013), Blackboard can help students contribute to a course by becoming involved in the learning process actively. In Hariri's study, graduate students were provided with Blackboard-CE8 as a tool for learning in an advanced structural geology masters level course. Students made use of online discussion forums, e-mail, and announcements in this Blackboard course. At the end of the study, students were given a survey to determine their perceptions regarding the use of the LMS in the course. Responses from the survey indicated a high satisfaction rate. Students report positive feedback in regard the use of LMS to help promote students' active engagement for learning the course content (Hariri, 2013).

Also, Szabo and Schwartz's (2009) study investigated the use of LMS in the form of Blackboard discussions to promote in-depth learning by increasing the critical thinking skills of the study participants. The authors believe that Blackboard discussion forums promote teamwork (Szabo & Schwartz, 2009). The study's participants used LMS Blackboard discussion to collaborate in learning by presenting, evaluating, reflecting, and applying the course content when responding to each other in the LMS. Thus, the LMS use helped improve the students' critical thinking abilities and transformed them into active learners (Szabo & Schwartz, 2009).

Additional positive results can be seen in a study by Ojeda-Castro, Murray-Finley, Sánchez-Villafañe, Sharma, and Rivera-Collazo (2013). These researchers examined the positive advantages of integrating an LMS into teaching instruction. In this study, the researchers investigated the effectiveness of Educosoft as a form of LMS to teach math at a private university in Puerto Rico. The findings revealed the effectiveness of using the Educosoft LMS discussion boards to teach math when compared with a traditional lecturing method of instructional delivery (Ojeda-Castro et al., 2013). The students in the study's experimental group were given more content to learn than their peers in the control group. Also, the students in the experimental group had lower college entrance exam scores in math as compared to the students in the control group. Even with these disadvantages, the students using the LMS still outperformed their peers in the lecture-oriented classroom. The students using the LMS discussion boards demonstrated higher academic performance in the same time period when compared to students being taught through a traditional lecture teaching method.

A study by Dengler (2008) employed online discussion boards as a supplement for teaching geography. Dengler found that students finished their classroom debates in the online discussion boards. In addition, non-native speakers of English become involved more in these online debates and thus became more active participants in the classroom.

Similar findings were reported in other EFL settings. In a study by Al-Jerf (2004), the researcher investigated the influence of web-based instruction versus traditional instruction on EFL writing at King Saud University in Saudi Arabia. The findings of the study indicated that web-based instruction had positive effects on unskilled, low-ability EFL female freshman writers when compared to a traditional EFL writing classroom (Al-Jerf, 2004).

In summary, these studies provide some evidence of the effectiveness of employing LMS discussion boards in relation to the students' involvement in the learning process, including how it may promote deep learning and critical thinking (Dengler, 2008; Hariri, 2013; Ojeda-Castro et al., 2013; Szabo & Schwartz, 2009).

Theoretical Framework

A student-centered approach to education focuses on placing students in the center of the teaching/learning process. In other words, for students to achieve the goal of learning, they must engage with the course content actively and interact with their peers in order to construct knowledge. One of the many methods to promote active student learning is through discussion boards use.

The term "discussion board" is used for the present study because it is most typically the term used in LMS environments. However, the term "discussion board" is very similar to the terms "online discussion group," "discussion forum," "message board," and "online forum" (Shaff, Altman, & Stephenson, 2005). Through discussion boards users can interact actively by posting comments and responding to other class members' posts (Spiliotopoulos & Carey, 2005). Integrating discussion boards into classes lets teachers extend their classes beyond the traditional class meeting time. An LMS discussion board can be a place for students to interact with each other and with their teacher through written postings. These discussion board posts allow students to exchange ideas, share experiences, and construct knowledge (Balaji & Chakrabarti, 2010). Interaction with peers through online discussion boards give students the opportunity to read, understand, reflect and then post in order to respond. Through these practices, students can enhance their learning skills. And this aligns with the active learning theory of education.

To understand exactly how the learning process is demonstrated through discussion board use, we have to first understand active learning theory. Active learning theory is based on three theories. Constructivism Learning Theory. It indicates individuals interact with each other to connect their prior knowledge to new information or to prior experiences in order to enhance comprehension as an active learner (Bransford, Brown, Cocking, 1999). Social constructivism theory by Vygotsky. In this theory, learning occurs as people interact actively with each other to construct knowledge and make meaning from their experiences within a given setting (Gee, 2003; Richards, 2008).

Aligns with Piaget (1952) and other scholars (Brandon & All, 2010; Michael, 2006; Piaget, 1952; Prince, 2004; Slavich & Zimbardo, 2012; Vygotsky, 1978) add to constructivism theory by suggesting that learners can "assimilate new information into an existing framework or can modify that framework to accommodate new information that contradicts prior understanding" (Brame, 2016, p. 1). This means individuals in a specific context not only receive knowledge but engage with that knowledge actively in order to take responsibility for their learning and to reflect on their learning (Michael & Modell, 2003). This aligns with Grunert (1997) who believes students learn the most as they participate in a learning process through discussion, practice, review, or application.

Hence, in the light of active learning theory, LMS discussion boards create a learning context wherein students interact actively with each other to enhance their learning skills, construct knowledge through reading, reflecting, posting and responding to each other. In other words, as ELL students interact through LMS discussion boards with other ELL learners and their English native speaking peers, these ELL students are not only learning the course content but enhancing their language skills as well.

Therefore, my study is based on active learning theory. This theory can be used to examine tool-based, collaborative learning in various fields of education, including language learning. I apply this theory to investigate ELL students' perceptions regarding the use of LMS discussion boards as a tool to promote student's active learning in a college classroom, and to explore how ELL students perceive their writing development through using discussion boards in a college classroom.

Rationale for the Study

I utilized a qualitative research approach for the current study. Denzin and Lincoln (2008), point out that qualitative research can emphasize processes and meanings which cannot be explained or revealed through quantitative research. In other words, qualitative research analyzes the phenomenon under investigation from a social viewpoint to clarify the various social experiences and meanings of a given phenomenon (Denzin & Lincoln, 2008).

In addition, the qualitative research approach helps the researcher to understand a profound social view of the phenomenon under investigation from the perspective of the participants (Bloomberg & Volpe, 2015). Qualitative research helps researcher such as myself to understand how participants perceive or interpret a specific phenomenon (in this case LMS discussion board use) in a certain context (in this case a college classroom) to become active learners.

Qualitative research is the process of transferring the worldviews of participants to theoretical or interpretive positions which illuminate the sources of the data collection, the procedure of the data analysis, and the use of the findings to create a change (Creswell, 2013). My research utilized a case-study approach because I provided an up-close examination of ELL Saudi students' perceptions about using LMS discussion boards for promoting student-centered

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learning. The data obtained from the present study allowed me to attain a better comprehension of how-to Saudi students respond to a student-centered pedagogical approach.

Creswell, Hanson, Clark, and Morales (2007) define case study as a type of qualitative research approach in which the researcher investigates a certain case or cases during a period of time by using various thorough data collection methods. These methods involve interviews, document reviews, observations, and field notes (Creswell et al., 2007). In other words, a case study helps build a comprehensive understanding of the investigated phenomenon within a certain setting through utilizing multiple data collection methods (Yin, 2014).

Study Overview

I had chosen a qualitative case study approach for the present study to seek answers for the research questions. A case study allows researchers to scrutinize the experiences of participants within an exact context using thorough details. It includes the study of a specific case which regulate rules and principles based on the case's context analysis that mirror daily experience (Pacho, 2015).

In order to complete my study, I purposefully selected seven Saudi students from a pool of ten who were enrolled in two different classes (three were in a history class and four were in a political science class) through a bachelor's degree program in a US university. The participants in the current study needed to be enrolled in a course which utilized LMS platform, such as Desire to Learn (D2L), to create opportunities for interaction using discussion boards as a tool for active learning.

The reason the population sample came from two different classes was to better understand how the different experiences of the participants using LMS discussion boards influenced their perceptions in a student-centered classroom. Using a group of participants who

were enrolled in different classes allowed the researcher to better consider different perceptions which may result from participation in LMS discussion boards in various classroom settings.

In both classes, students had to participate in discussion boards in the LMS. The nature of the assignments should be designed in a way that each student was required to ask questions and respond to questions which were asked by other students. For instance, Student A asks a question, and then responds to two questions that are asked by student B, and so on. This type of activity required students to express their opinions, reflect on their experiences, and respond to each other. The activity created an environment in which students interacted with one another on the LMS discussion board.

The rationale behind selecting seven participants for the present study was to conduct the study in best accordance to my timeline limitation and resources availability. This sample size provided me with depth but was also manageable for the timeframe of the study. Furthermore, this range of participants helped ensure that I selected individuals who had buy-in to the study and were willing to participate in my study.

To ensure that participations were completely voluntary, the participants had to agree to the terms of the study. A written consent form was provided to the students that highlighted the main concepts of the study.

Data Sources for the Study

Since the study utilized a case study approach, which is mostly descriptive in nature (Baxter & Jack, 2008); I utilized one source of data collection to create an in-depth picture of the phenomenon under study. The main source of data in my case study included transcripts of in-depth interviews.

The primary source of data collection for the present study was interviews. I was interested in learning students' perceptions of how LMS discussion board use influenced their learning and writing. To explore this issue, I interviewed the students in dept to obtain a detailed picture of the learning experience from each of the participants to better understand my phenomenon under study (Merriam, 2002). The interviews allowed me to explore the perceptions of the individual students who used the LMS discussion boards.

Finally, as I listened to the interviews, I also took notes. These notes helped me as I did the data analysis. Writing notes helped increased the credibility of my case study by addressing my own personal thoughts, perceptions, and feelings which may have affected the collection and analysis of my data (Merriam, 2002).

Limitations of the Study

Despite careful planning for my current study, there were still limitations and shortcomings which may have influenced the findings. First, the population of the study participants was very small which cause generalizing the data difficult. Second, the study duration was not sufficient for me to notably investigate the impact of the LMS discussion board on the learning skills of Saudi students over a long-term period. To simply put, a longitudinal study would be better in order for the researcher to trace the development of language skills more fully as the students' progress through their undergraduate programs.

Finally, this study was limited to ELL Saudi students' perceptions of LMS use in a college course. It does not examine the impact of language courses the students were enrolled in which may influence their perceptions of the participants or other tools which may be utilized to promote active learning.

Organization of the Study

The current study is organized into five chapters. The first chapter introduced the discussion about the problem statement, the purpose of the study, the research questions, and the significance of the study.

The second chapter introduced the literature reviews which build a foundation leading the readers gradually to narrowed topics which focus on the main goal of the study. This helped readers to have an overview of the study topics while helping me to answer the research questions. In the third chapter, the research methodology was introduced. It involved research paradigm's rational, descriptions of data sources, and data collection methods. The fourth chapter introduced the data analysis. Finally, the fifth chapter introduced discussion of the findings, recommendations and applications, and suggestion for future research.

Chapter Summary

Due to fact of the English language status in the world, more specifically in Saudi Arabia, integrating technology such as LMS discussion boards in course content and language teaching classes, facilitates the process of learning and teaching in relation to student-centered approach. In the current study, the researcher investigated ELL students' perception regarding the use of LMS discussion boards as a tool to promote students' active learning in college, and to explore how ELL students perceive their writing development through using discussion boards in a college classroom.

Using purposeful sampling of Saudi ELL students enrolled in an undergraduate program in the US, the researcher applied a qualitative case study research approach to extract profound meaning based on participants' experiences and perceptions. Further explanation and detail on the how, when, why and who of the study were presented later in chapter three.

CHAPTER TWO

LITERATURE REVIEW

This study focused on understanding undergraduate Saudi English language learners'
perceptions regarding the use of LMS discussion boards as a tool to promote students' active
learning in college classrooms, including their perceptions of their writing development. In this
chapter the literature review is divided into three sections: active learning theory, teaching
approach in Saudi Arabia, and learning management system (LMS) discussion boards. In the
first section, there is discussion about the history and background of active learning theory. The
second section evaluates the student-centered approach in teaching while comparing it to the
banking model approach which is commonly utilized in Saudi Arabia. The third section includes
information about LMS discussion boards including definitions, history, classroom use, benefits
and drawbacks to active learning, and second language learners' (L2) perceptions of using
discussion boards. This literature review is aimed at providing a more nuanced understanding of
how using LMS discussion boards promotes student-centered, active learning.

Theoretical Framework

Many educators and theorists have argued that teacher-centered pedagogy is ineffective.
Instead these scholars have argued that learning should be an active process in which students
take responsibility to negotiate meaning and construct knowledge. This research has proposed
several educational theories which focus on developing a student-centered teaching/learning
process. One of these theories is active learning theory. Active learning theorists believe that
teachers should use classroom strategies which engage students in acquiring new skills so that
the students can develop knowledge. Active learning theory is therefore a student-centered
approach to teaching and learning. One type of teaching strategy which can be used to promote
active learning in a student-centered classroom is having students post on LMS discussion

boards. In order to better understand how LMS discussion boards promote active learning, we first must gain a better understand of the history and background of active learning theory.

Active Learning Theory

The concept of active learning theory is derived from three major theories in education. These theories are: Piaget's Assimilation and Accommodation Theory, Vygotsky's Social Constructivism Theory, and Constructivism Theory. Elements of these three theories were merged together to develop active learning theory in order to move away from traditional teaching/learning methods which focus too much on the teacher as the sole source of knowledge ("Active learning", 2018; Pardjono, 2016).

Historical Background

Piaget's (1952) theory of "Assimilation and Accommodation," is a rejection of the traditional learning method which is teacher-centered Piaget (1952) pointed out in his research the disconnection between the students and the teacher especially when the teacher is the one who talks while the students are the ones who listen. Piaget explained the terms "assimilation" and "accommodation" in terms of learning process. According to Piaget, "assimilation" is the process by which people acquire knowledge in order to build a foundation for learning. People work to assimilate new information into their current understanding of the world. Piaget said "accommodation" is a process people use when they receive new information which contradicts their prior knowledge. People modify their prior understanding in order to accommodate the new information they are learning.

Brame (2016) builds on this idea by further explaining the learning process in terms of assimilation and accommodation. According to Brame, the process of assimilation and accommodation is when students "assimilate new information into an existing framework or can

modify that framework to accommodate new information that contradicts prior understanding"
(p. 1). In other words, meaningful learning occurs when people integrate new experiences into
their current knowledge structures. Therefore, the development of a new knowledge structure (a
cognitive structure) is the result of the stimulation arising from new experiences in students'
learning environment.

Piaget (1952) pointed out that students try to balance between assimilation and
accommodation in order to develop mentally and grow cognitively as they respond to
educational tasks. Piaget called this process of learning "adoption". Adoption requires a process
of active learning. Pardjono (2016) explained Piaget's four principles of active learning as such:
"students should construct their own knowledge, so that is meaningful. Students learn best when
they are active and interact with concrete materials. Learning should be student-centered and
individualized. Social interaction and cooperative work should play a significant role in the
classroom" (p.168). Therefore, Pardjono states that "learning is the act of constructing
knowledge and teaching is providing a stimulating environment with concrete material" (p.168).

The second major theory that active learning is built upon is Vygotsky's Social
Constructivism Theory. Vygotsky viewed students as the active agents in the learning process,
since on daily basis student are interacting actively within the social context of the classroom.
Social Constructivism theory focuses on the importance of the social context for cognitive
development. In that sense, learning cannot be separated from its social context which in the case
of students is the classroom and their peers. In addition, humans by nature are social beings who
interact in an assortment of communities to gain new information and knowledge (Vygotsky,
1978). In other words, learning occurs as students interact within their social context to construct
new knowledge.

Through the social constructivism lens, learners can have the chance to examine concepts and ideas on their own with the assistance of their peers, who are slightly more knowledgeable than themselves, through interaction. Vygotsky emphasized that language and communication are essential to learning and the cognitive development of the learner. According to Vygotsky (1978), people use language not only to solve problems and acquire assistance from others, but also to achieve new learning.

The third major theory in this framework of active learning is Constructivism Learning Theory. It indicates individuals interact with each other to connect their prior knowledge to new information or to prior experiences in order to enhance comprehension as an active learner (Bransford et al., 1999). According to Pardjono (2016), learning is a constructive process "in which learners do not passively receive information but actively construct knowledge as they strive to make sense of their world" (p.172). First, knowledge is actively built on and not passively received; and secondly, students interpret new information based on their prior experiences and their interactions with the context (Pardjono, 2016).

Definition

Active learning theory is grounded in a student-centered approach to teaching, which is unlike the traditional teacher-centered approach. According to Knowles, Holton, and Swanson (2012) the teacher-centered approach is defined as a teacher-controlled learning style utilizing lecturing to students while requiring them to memorize information which is reproduced later typically in the form of an assessment. Bonwell and Eison (1991) define active learning theory through the lens of student-centered approach which actively involves students "in doing things and thinking about what they are doing" throughout the daily lesson (p. 2). This coincides with Meyers and Jones' (1993) definition of active learning theory as it "involves providing

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opportunities for students to meaningfully talk and listen, write, read, and reflect on the content, ideas, issues, and concerns of an academic subject" (p. 6).

In that sense, Liang (2007) explains the students' role in this approach "is to participate actively and creatively in learning, using both the materials they study in the course and their own knowledge and language resources" (p. 12). To expand on this, Michel (2006) stated in light of active learning theory students construct meaning as they interact with their peers to enunciate explanations as they engage in the process of the activity.

Characteristics of Active Learning

E1Din (2014) and Santos, Moura, de Araújo, and de Barros (2016) explain that active learning practices can occur through "engaging students in (a) thinking critically or creatively, (b) speaking with a partner, in a small group, or with the entire class, (c) expressing ideas through writing, (d) exploring personal attitudes and values, (e) giving and receiving feedback, and (f) reflecting upon the learning process" (ElDin, 2014, as quoted in Santos et al., 2016, p. 199). This coincides with Drake (2012), who believes that active learning practices can be achieved through "talking, reading, writing, and reflection" (p. 40). In other words, an active learning approach is one in which every learning activity is centered around the student in order to create chance for students to interact with their teachers and peers. This interaction helps students to acquire new skills and build on prior knowledge. Thus, a classroom which utilizes active learning theory will have a student-centered approach to teaching and learning.

Application and Forms of Active Learning

A student-centered approach to teaching and learning through active learning theory can take various forms within a classroom daily through activities and tasks which engage the students as active participants. While tasks and activities may vary from class to class based on

student needs, the activities and tasks all have the same goal: the student is playing the central role in learning.

For the purposes of this study I have focused on one form of active learning based on current research which is a technology-based activity. LMS discussion boards actively involve students by engaging them in the learning process since they are responsible for their learning through reflection on course material and interactions with peers. Michael, Modell (2003), and Drake (2012), pointed out that students develop learning skills as they utilize what they have learned. To explain more, through the use of discussion boards students interact daily with their peers in order gain new information while they build on prior concepts. In other words, LMS discussion boards help students not only to obtain the knowledge of course content through a student-centered approach, but to enhance their learning skills through interactions with peers which can be applied in other classes as well.

Working within active learning theory, LMS discussion boards reflect a student-centered approach that requires social, interactive engagements by students using technology which pulls learning out of the traditional "brick-and-mortar" classroom (Adnan &Hassan, 2015). In brief, active learning theory can help readers to understand how LMS discussion board use enhances writing skills and language learning development in a student-centered classroom.

The Banking Model of Education

The Banking Model of Education is a concept introduced by Paulo Freire in 1970. Using this model, Freire (1970) described the teacher-student relationship in traditional classrooms which used a teacher-centered approach. In this model the teacher is the "depositor" and students are "depositories" who receive the information "deposits". In other words, the teacher provides students with information through lecturing while the students listen to the information,

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memorize it, and recall it later for a test. This teaching approach completely ignores the idea that learning should be a two-way exchange. Instead this approach focuses on a one-way exchange of information.

Freire (1970) explained that under the banking model teachers were the sole source of the knowledge and it was the teacher's duty to provide students with knowledge. Based on that approach, students depended on their teachers for learning the knowledge through receiving, memorizing, storing, and repeating information. Freire argued that this type of education hinders students' intellectual growth and prevents students from enhancing their learning skills beyond a surface level.

This coincides with Micheletti (2010) who explains that students in the banking model are "objects" who have "no autonomy and therefore no ability to rationalize and conceptualize knowledge at a personal level" (Micheletti, 2010, p. n.d). In other words, students are prevented from developing skills such as analyzing, synthesizing, applying and critically thinking. In such classes, students' opportunities to participate in the classroom daily are limited since interaction is restricted to responses from questions posed directly to the students from the teacher. In addition, their scope of action is limited to receiving, absorbing, remembering and recalling the knowledge precisely as taught by the teachers (Freire,1970).

According to Freire (1970), the Banking Model deprives students of their humanity. He used the term "dehumanization" to refer to the volition of the fundamental human skill of reasoning (Dale, 2003). Freire believed that the banking model deprived students of a chance to use their reasoning abilities. According to Alam (2013), dehumanization affects students to the extent that they "gradually become an inactive object of deposition, far from being the active participant in the classroom" (p. 28).

The most common form of the banking model of education is the lecture-based classroom. Freire (1970) criticized lectured-based teaching as a sickness of the education process. He depicted the lecturing teacher as narrating subject and students as listening object. In a lecture-based approach the teacher is the sole conduit for learning since all information comes through the teacher and students are required to be passive participants. Thus, a lecture-based approach used in a teacher-focused classroom prevents students from having opportunities for active learning.

The Teacher-Centered Approach

The traditional teaching style of teaching in public and higher education institutions in Saudi Arabia is the banking model approach using a lecture-based classroom. The traditional lecture approach is the most common and currently implemented teaching method in Saudi schools (Algahtani, 2017; Juhary, 2010). According to Alebaikan and Troudi (2010a) "the traditional didactic, lecture-based classroom is the standard in Saudi public universities" (p. 52). This coincides with Young, Robertson, and Alberts (2009) who stated that, in Saudi "university teaching popularly and historically revolves around the traditional 'chalk-and-talk' lecture method" (p. 41). In other words, the teacher stands before the classroom and delivers the information while Saudi students remain passive in the learning process (Algahtani, 2017; Juhary, 2010).

In addition, public schools in Saudi Arabia have also relied on the "traditional didactic, lecture-based classrooms" (Alebaikan & Troudi, 2010b, p. 508). This coincides with Neil (2011) who stated that "teachers in Saudi K-12 schools are most likely to teach by rote and memorization. Lecturing followed by testing is the status quo with little, if any, encouragement for problem-solving skills and critical thinking" (p.8). In that sense, the teachers' role in these

classrooms is constrained to information transporter with no chances for students to be actively

engaged in the learning process. According to Al-Awaid (2018) the "teacher's role in the Saudi

educational system is that of an information imparter" (p.51). In other words, the most widely

used teaching style in Saudi Arabia is a teacher-centered approach in which the teacher is the

only source of information and the knowledge provider. In Saudi Arabia using this teacher-

centered approach, information is deposited into students who are asked to remain passive

participants in the learning process.

The traditional lecture model is used in all subject areas including language teaching

classes. According to Alam (2013), the "traditional language classroom is teacher-centered

where the teacher is all in all' (p. 27). Similarly, Abu Ras (2002) reported in his study that the

teaching style for English language courses in Saudi Arabia is teacher-centric. This aligns with

Alfahid's (2017) study which reported "the majority of English language programs offered by

public and private universities in Saudi Arabia are taught in the traditional way, lecture-type

session" (p. 6).

The traditional lecture model in education "transforms students into receiving objects"

(Freire,1970, p. 77) and passive learners (Cheong, 2010, Qutoshi, & Poudel, 2014). This aligns

with Bransford, Brown and Cocking (2002), who believe that the traditional lecture model leads

to passive and not active learning which fails to encourage student motivation and confidence

development (Weimer, 2002). This passive state of learning for students can become a form of

dependency. Due to the nature of a lecture approach, students can become solely dependent on

their teachers in order to gain information. According to Khan (2011), teachers are "expected to

teach, and the students believe that it is the responsibility of the teacher to pass on the knowledge

to the target learners" (p. 116). Didactic teaching places students into passive agents in the learning process (Algahtani, 2017, Juhary, 2010).

This results in limited students' skills and access to external information (Alshahrani, 2013, O'Brien, 2000). This aligns with Juhary (2010), who believed that the traditional lecture model stifles "independent thought, creativity and deeper learning processes" among students (p. 454). In this approach students' learning skills are limited to memorizing information with no room to develop or practice other high-order thinking skills such as analyzing, applying, reflecting, and participating (Alam, 2013, Freire, 1970).

Thus, in terms of language learning skills, studies have pointed out the negative influence of lecturing on students' learning. Alfahid (2017) in her study pointed out that the lecture-type class puts students into a "pause state" where learning cannot advance beyond a certain point once the information has been received. Alfahid reported that "the majority of Saudi students in public schools struggle most in speaking and writing in English and thus do not have minimum levels of English competency" (p.1). This is supported by Bakarman's (2004) study which investigated the negative influence of teacher-centered learning on language learners in Saudi Arabia. Bakarman discovered that English language teachers dominate the whole session of teaching and are the only speakers in class, which creates little to no opportunity for students to practice the spoken language in the classroom or even with each other in the target language. This also aligns with Al-Ahaydib (1986) who pointed out dominant teacher roles in a class significantly limit students' participation in class activities.

The traditional teacher-centered approach through a lecture-based model is constraining teachers' style. This approach limits teachers to simply explaining the content, responding to the students' questions, controlling the flow of the conversation, and assigning homework. In this

approach, the teacher designs applications or tasks for students to work on in small groups or individually, which limits students' engagement and types of interactions based on these types of activities (Strauss, 2012).

Based on the current body of research, the teacher-centered approach does not actively engage students in the learning process. Students in such classes are observed as being bored or losing attention in the class session (Hmelo, 1998) which negatively influences their academic progress. Hmelo (1998) pointed out that lecture type classrooms are often associated with relatively low grades and reduced attendance rates. Traditional teacher-centered classrooms utilizing a lecture model do not lead effectively to student learning.

The Student-Centered Approach

Based on proponents of active learning, a student-centered approach is recommended over the traditional teacher-centered approach. In this approach, the focus in education is changed from the teacher to the students. In other words, teachers shift their teaching approach from lecturing to encourage students to actively play a part in their own learning. This approach places students in the center of the learning process. According to Candela et al., (2006), the student-centered approach is one in which "teachers and students are both learners, working together to explore and develop students' abilities" (p. 59). Thus, in a student-centered classroom, learning occurs through a two-way exchange rather than a one-way exchange as in traditional teacher-centered methods.

This means the students' traditionally passive role in a classroom is changed to an active role in the learning process by employing various practices. These practices include inquiring, applying, and learning from others through various and frequent interactions with teacher and peers (Hannafin & Hannafin, 2010). This results in making students more effective participants

instead of passive receivers of information (Idris, 2016). Hence, this student-centered approach helps students to explore their own boundaries in learning while getting to know what they are capable of in terms of enhancing learning skills.

Several scholars recommend shifting instruction from a teacher-centered to a student-centered approach to help students enhance their learning skills while maximizing retention of subject knowledge. Al-Ismaiel (2013) urges the need to shift the method of instruction in classrooms to a student-centered approach. Similarly, Al-Abbad (2009) suggested several remedies to improve teaching in Saudi classrooms through a student-centered approach. Al-Abbad recommends shifting from a traditional teacher-centered approach to a student-centered, in which learning revolves around students in order to promote responsibility for their knowledge construction. In other words, students engage in the content through exploring topics in depth while constructing knowledge with the assistance of teacher and peers through employing educational technology (Strauss, 2012).

In a student-centered approach, the teacher's role shifts from "information imparter" (Al-Awaid, 2018) to a facilitator and information organizer (Alshahrani, 2013) who assists students to practice inquiries and construct knowledge while providing them with all the materials and resources they need to be active in their learning. According to Hightower (2014) "this approach does not use a single teaching method" (p. 24). Alsardary and Blumberg (2009), stated that student-centered approach "emphasizes a variety of different types of methods that shifts the role of the instructors from givers of information to facilitating student learning or creating an environment for learning" (p. 401). In that sense, teachers should consider new ways of teaching which brings the focus onto the learner rather than the teacher. Weimer (2002) stated that

"attention is given not only to what the student is learning, but how the student is learning" (p. 186).

The Ways LMS Discussion Boards Promote Student-Centered Learning

Educational resources are often a compliment to the teaching process since they can be helpful in simplifying the teaching/learning process in different disciplines. With the rapid growth in technology, Alshahrani (2013) and Albouraik (2009) encourage utilizing technology in all classes, including language teaching classes, to develop better ways of teaching students. Strauss (2012) pointed out that using technology in various courses can assist learners to engage actively with the course content. Barrel (1999) asserted that integration of new technologies helps to positively influence learner's skills.

One current technology resource which can be used to help place students in the center of the learning process is LMS discussion boards. Employing such a resource in a student-centered classroom helps to promote various active learning skills for students. Integrating LMS discussion boards into a course will center students in the learning process, which

> establishes learners' community and connections, facilitates critical, cognitive thinking and writing skills, enhances learners' explorative learning by going through others' work exposing them to diverse ways of learning and it encourages the learners to express their ideas more comfortably than a face-to-face learning situation (Using Online Discussion, 2018).

Jose and Abidin (2016) stated that employing LMS discussion boards promotes students' engagement with their peers, teachers, and the text in order to construct knowledge while building on prior knowledge. This resource of active learning aligns with the goal of the student-centered approach in terms of making students learn through reading, researching, analyzing, applying, and reflecting on the material through daily interactions with teacher and peers.

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Discussion Boards

The history of discussion boards can be dated back to the development of the online learning environment and distance education in higher education. Discussion boards are based on instructional technology and computer-assisted instruction typically seen in distance and online learning (Larreamendy-Joerns & Leinhardt, 2006). Traditionally, discussion boards were meant to provide educational opportunities for students who were separated in time and place from teachers through text-based interactions (Harasim, 2000; Tiene & Ingram, 2001).

In the late twentieth century, the online learning environment expanded distance student-teacher interactions by using radio and television (Huang, 2000). In the 1970's computer mediated communication (CMC) systems were introduced as a teaching tool in higher education. CMC offered communication between individuals based on computers and networks through electronic mail (email) and computer conferences (Harasim, 2000). This enabled teachers to develop university courses equipped with email and computer conferencing (Ryan, 2013).

In the 1990's, the World Wide Web (WWW) emerged along with the continued development of computer mediated communication to become the foundation of internet-based technology. According to Harasim (2000), the online classrooms use WWW and computers as major tools in online learning environment for participation and discussion between students and teachers. Mixed mode or blended classrooms employ online mediums for teaching in conjunction with interactions in a traditional face-to-face classroom (Allen & Seaman, 2010). The many useful functions and features which CMC offers in terms of administration and teaching led to CMC becoming the cornerstone of blended classrooms in higher education (Gunawardena, Lowe, & Anderson, 1997). Ryan (2013), Park and Bodzin (2000) define CMC as asynchronous tool which is based on the internet. It allows individuals and groups to interact and

exchange information on different time and place through e-mail or discussion boards. In other words, CMC creates channels such as discussion boards for students, who are separated in time and place, to actively engage in negotiate meaning and constructing knowledge (Gunawardena et al., 1997).

Today the newest version of Computer Mediated Communication is the Learning Management System (LMS). An LMS is defined as an internet-based system which is used to administer the teaching and learning process. The LMS creates a digital educational environment as an alternative to a physical classroom. The LMS commonly includes tools such as home pages, electronic bulletin boards, email systems, test generators, chat rooms, and other multimedia applications (Bednar, Husar, Hricova, Liptakova & Marton, 2013).

Terminology

There are several terms which are used to refer to discussion boards such as message boards, asynchronous discussion boards (ADB), discussion groups, discussion forums, online forums and bulletin boards (Rodas, 2016). While there are differences among these technologies, they are all relatively similar. All these technologies allow users to interact with each other by posting messages which are read and responded to at a later time by other users. Since all of these terms are similar, for the sake of clarity and consistency, I have chosen to use the term "discussion boards."

In a nutshell, discussion boards can be defined as a place where students can participate in an organized conversation based on topics within a discussion thread. According to Alharbi (2015), the discussion board is "synonymous with the traditional online bulletin board where students are prompted to discuss themes related to the course or to voice their opinions on discussion threads created by the course tutor or peers" (p. 112).

A discussion board does work differently from chat and instant messages (IM). Discussion boards are asynchronous. Students read and respond to each other's posts whenever opportune and therefore do not need to be logged in at the same time. This is different from chat and instant messages which are synchronous and require immediate responses from someone who is logged into the system at the same time. Although discussion boards are typically an asynchronous medium, they can be synchronous if the teacher sets a specific time period for simultaneous participation on the discussion board by the whole class (LCC, 2013).

Discussion boards are employed frequently in online courses, e-learning, and blended/hybrid courses as a replacement or even as supplement to face-to-face class participation. Discussion boards are utilized to connect students to class conversations in order to overcome the limitations of time and place in a traditional classroom. This feature not only adds pedagogical benefits, but it enhances communications among and between students and their teachers by providing opportunities for interaction while allowing time for reflection (UALR, 2016).

Alharbi (2015) further explains that discussion boards assist students in voicing their opinions and ideas based on the assigned reading tasks and/or research activities. Discussion boards also assist students to make inquiries, answer classmates' questions, refute other students' comments, and respond thoughtfully to the teacher's discussion posts (Alharbi, 2015, Raleigh, 2000; UO, 2016). In other words, discussion boards are an important tool for active learning since they allow students to directly interact with the course material and each other.

Discussion Board Assignment

The nature of discussion boards assignment is to have students interact with each other's. Teachers may instruct students to use discussion boards weekly as a method of classroom participation with each other. Discussion board assignments in most classes are basically structured in a way to encourage each student to reflect upon course readings or topics within a limited time frame. After reading the assigned chapter or material, teachers will post several questions related to the reading. The questions are designed to encourage students to synthesize, evaluate, and extend their knowledge and understanding of the assigned materials. Each student may then be required to write his or her perspective as an answer to the questions followed by a researched insightful post to initiate further discussion from the class (Mooney, Southard, & Burton, 2014).

At the same time, students respond thoughtfully to other students' posts depending on their point of view. Responses can to build upon the current discussion or provide debate. The teacher will typically monitor the discussion board to provide necessary guidance and feedback or to guide the discussion if it goes off track. Discussion boards keep the focus of the learning centered upon the student's ideas and their interactions with their classmates.

Typically, all the responses on the discussion boards must be submitted by a due date set by the teacher. The teacher evaluates student's posts individually and provide a feedback about the post. In addition, the teacher is able to intervene and comment on the student's posts to direct the overall class discussion by adding new points of view (Haynie, 2013; Picciano, 2002; Vanderbilt University, 2016).

Ajayi (2010a) also described discussion board assignments as a thread which consists of the main posting or questions and all the related replies. To explain more, a student shares a post.

This post is a response to the main question or thread. The comments of other students, which follow that post, will be placed under the thread. This means that every student's post can have numerous consecutive threads as replies to the first post (Ajayi, 2010a).

In brief, online discussion boards are not only meant as a tool to facilitate teaching, but they also work as a resource for enhancing student learning skills through students' active participation. Discussion boards in the light of active learning theory represent a teaching method which promotes self-learning procedures which involve cognitive ability (Levine, 2007). The role of discussion boards in promoting learning skills through active learning is presented in the following section.

Discussion Board and Active Learning

One way to promote a student-centered approach in the learning process in relation to active learning theory is through the use of discussion boards. By completing tasks using discussion boards, students are required to read, understand, search, reflect and then share ideas with one another through an active learning process. These regular activities within the discussion boards help to promote the ideas of active learning which place the student in the center of the learning process.

Blackmon (2012) pointed out discussion boards enable students to interact with each other's while discussing and sharing what they have learned about the course content. This aligns with Baglione and Nastanski (2007) who described discussion boards as a tool to promote student's active interaction with each other and with the faculty. This interaction helps students to enhance their understanding of the content. Dangler (2008) pointed out that discussion boards are not only an aid to deliver content but are also a form of active learning. He highlighted the

role of discussion boards in creating the opportunities for students to understand and construct knowledge through interactions with each other.

Smith (2015) conducted a study in which he used discussion boards as a supplement tool in a leadership course. Smith noticed students' profound engagement in the discussion board interactions which he had not observed in his traditional face-to-face classes. Smith also noted by reading students' posts and replies that he was able to observe a deep comprehension of the course content through the students' reflections. According to Smith, students "were indeed making" analysis, application, connection, and practicing to the course as well as "challenging, supporting and learning from one another" (p. 229). Smith concluded that discussion boards "were a valuable course component that helped students become genuinely interested in the course material" (p. 229).

Dengler (2008) supports this idea through a study in which he used dissuasion boards in his geography course. Dengler highlighted that when students involve in debate in a face-to-face class, they can continue their classroom discussions and debates on the discussion board. Also, Dengler noted that non-native English-speaking students engaged more actively in debates on discussion boards as compared with face-to-face interactions. Blackmon (2012) explained that due to the asynchronous nature of discussion board, non-native English speakers' students have the opportunity to use the dictionary and check sentence structures, word choice, or syntax before posting since they are given more time to reflect and construct responses. This time for reflection is something non-native English speakers are not afforded in a traditional classroom setting.

Meyer (2006) and Rainsbury and Malcolm (2003) shared similar research findings stating that students go through multiple steps before posting. These steps allow students to become

active learners. The steps require students to read, research, analyze course content, think more about theirs and their peers' posts, and then "generate new ideas and opinions" (Rainsbury & Malcolm, 2003, p. 58). Students can then write a meaningful, grammatically well written response, reflect on their writing, and then share their ideas by posting. In that sense, Mauriano (2006) pointed out that when student read each other's posts it allows them opportunities to think critically while constructing knowledge. Alvarez-Torres (2001) pointed out the usefulness of this reflective process to non-native English speakers' students. This coincides with Satar and Akcan (2018) and Kadagidze (2014) who believe that using discussion boards as a learning strategy in a blended learning context create more opportunities to enhance English language skills along with other skills.

Pedagogical Benefits of Using Discussion Boards

There are several pedagogical benefits which can be deduced from the utilization of discussion boards as a form of active learning: promoting a student-centered approach, extending learning content in terms of time and place, and enhancing language knowledge and acquisition. Based on the current body of research, discussion boards may positively influence the learning process whether in college classrooms or in language learning classrooms (Goggins & Xing, 2016; Jose & Abidin, 2016; Ringler, Schubert, Deem, Flores, Friestad-Tate, & Lockwood, 2015; Teng, Chen, Kinshuk, & Leo, 2012). In the following section, I expand on these pedagogical benefits while describing their relevance to the current study.

Promote a Student-Centered Approach

In traditional classrooms, teachers dominate classrooms through a teacher-centered approach as the only major source of knowledge (Davies & Graff, 2005; Smith & Hardaker, 2000). As previously stated, students are reliant on the teacher to learn the knowledge, which is

transferred to students through a one-way banking approach of lecture (Ajayi, 2009; Black, 2005; Doering & Beach, 2002). This means, students do not work independently and become "passive learners" (Freire, 1970).

Utilizing technology such as LMS discussion boards enables teachers to create student-centered classroom (Jose & Abidin, 2016). Ajayi (2010b) and Gee (2003) point out that employing LMS discussion boards can facilitate innovative teaching techniques. LMS discussion boards encourage collaboration between students to build knowledge and negotiate meaning (Ajayi, 2010a; Bonk & King, 1998). In addition, Cole and Feng (2015) and Warschauer, Shetzer, and Meloni (2000) state that one way to help students become active learners in college classrooms, including language classes, is to use LMS discussion boards.

Through discussion board participation students actively take part in the learning process, become responsible for knowledge construction, and acquire learning skills rather than being receptive and passive participants (Freire, 1970). In brief, discussion board interactions allow students not only to share knowledge, but they encourage students to inquire, create, discover, and reflect on the topic (Warschauer et al., 2000).

The current research shows that LMS discussion boards are an effective way to create a student-centered classroom. This study attempts to build on the current body of research by examining whether or not participants actually perceived LMS discussion boards to be a benefit in their learning process.

Extend Content and Language Learning Time and Place

The second benefit of LMS discussion boards discussed in the literature is the extension of content and language learning in relation to time and place. Typically, traditional classroom discussion is limited by the duration of the classrooms' period and space whereas LMS

discussion boards create the opportunity for students to continue and extend what they have started in the class at any time in both college and language classes (Jose, & Abidin, 2016; Mooney, Southard, & Burton, 2014, Oztok, Zingaro, Brett, & Hewitt, 2012).

This coincides with Cole and Feng (2015) and Warschauer et al, (2000) who point out that LMS discussion boards in language class can also be used to extend language practice among the learners outside the boundaries of the classroom times. Since discussion boards eliminate boundaries such as class space and time, they allow students to access information while actively participating from the comfort of their own homes. In other words, discussion boards facilitate classroom access in terms of time and place may motivate students to engage more actively in the discussion by providing immediate accommodations for students based on their life circumstances and levels of comfort.

Furthermore, discussion boards can reduce classroom participation pressures while increasing student interaction by allowing students to communicate in an environment in which they are not confined by time or space (Ajayi, 2010a; Jose, & Abidin, 2016; Oxford University Press ELT, 2015; Oztok et al., 2012; Warschauer et al., 2000). In addition, this benefit provides students with the time they may need to put more effort into their responses. In other words, struggling students such as some non-native speakers of English may need additional time to respond to the discussion board questions based on their current level of understanding.

Students are able to read discussion board questions and their peers' posts in order to better understand the material being presented and discussed. Students then can actively analyze what they have read, synthesize their ideas, reflect on their writing, and then share their answers through a new discussion post. These steps lead students to enhance their language skills since they are responsible for acquiring and analyzing the information presented through the

discussion board. Since the discussion boards extend time and space beyond the "brick-and-mortar" of the classroom, students are allowed to read, evaluate, analyze, and reflect on information based on their own individual needs (Adnan & Hassan, 2015).

Thus, since discussion boards gives students the ability to log in to their classroom experience outside of a structured meeting time, the discussion boards provide students with a chance to interact with their classmates and professor in a way which is more comfortable. They also provide a new location where learning can occur through the online platform. This provides additional learning time which can be both accessible and convenient for the individual student. Based on this literature, my study analyzes how participants responded to the freedom the discussion boards gave them to control the time and location of their posting. The study examines how individual participants benefited from having a classroom tool which extended the space and time of learning beyond the traditional class setting.

Promotes Students' Language Learning and Knowledge Acquisition

The third benefit of discussion boards is the promotion of students' language learning and knowledge acquisition. According to the current body of research, discussion boards engage students in higher order thinking skills (Kirk & Orr, 2003). This coincides with Goggins and Xing' (2016), and Lang's (2000) suggestion that discussion boards encourage students to engage in collaborative learning. The use of discussion boards promotes a "dialogical process that produces increasingly sound, well-grounded, and valid understanding of topics or issues" (Lang, 2000, p. 24).

In other words, the process of commenting and communicating via discussion boards in a text-based format requires students both native and non-native speakers of English, to spend a good amount of time in reading, reflecting, researching, and composing in the target language

(LCC, 2013). Thus, students are required to make clear and meaningful posts so their peers can understand them while continuing an active discussion. This is supported by Hall (2016) who agrees that students should pay attention to the major element of the learning process which requires meaningful involvement and quality contributions to class interactions.

In his research Hall (2016) explains that discussion boards require students to justify their responses while appropriately communicating their meaning to classmates. Thus, discussion boards require students to think thoroughly while reflecting on their replies before posting them (Hall, 2016). This means, students in general develop higher order thinking skills as well as enhancing individual language learning skills. Rankin (1997) notes that non-native speakers of English increase their own interactions with the English language through the use of discussion boards and daily interactions with their peers.

In addition, Blackmon (2012) and Dengler (2008) argue that discussion boards can be useful for learning English language within a college classroom. Dengler (2008) points out that active discourse through discussion board posts can motivate non-native speakers of English to participate in debates with native speaking peers. Dengler argues that non-native speakers of English may choose to more carefully evaluate their vocabulary and sentence structures before posting to the discussion board in order to keep pace with native speakers. Thus, the discussion board posting can act as a confidence promoter for non-native speakers of English who are uncertain about syntax or word choice since it provides them with opportunities to evaluate and construct responses (Biesenbach-Lucas, 2003; Blackmon, 2012; Dengler, 2008).

Another aspect of discussion boards in terms of enhancing language skills is that native speakers' postings can work as samples for appropriate responses for non-native speakers of English. To explain further, Bikowski and Kessler (2002) reported that non-native speakers of

English find discussion boards a useful tool because it allows them to reflect on what they have learned in the classroom and provides them with opportunities to examine native speakers' posts. This allows the students to learn from reading their peer's writing. The researchers further explain that classmates' postings provide non-native speakers of English with "ideas on organization, word choice, paraphrasing, and use" (p. 27). In other words, discussion boards are a useful means to improve English language skills for non-native speakers of English as well as content inclusiveness (Biesenbach-Lucas, 2003; Blackmon, 2012; Dengler, 2008).

Another aspect of discussion boards in terms of enhancing language skills is encouraging shy "lurkers" to "speak up" (Cole & Feng, 2015; Warschauer et al., 2000). In other words, LMS discussion boards can motivate a broader range of student interaction in order to produce more meaningful learning output and more in-depth and reasoned discussions than in traditional face-to-face classrooms (Davies & Graff, 2005; Smith & Hardaker, 2000).

This aligns with Biesenbach-Lucas (2003) who points out that non-native speakers of English often do not readily participate in traditional classrooms because they lack the linguistic flexibility to contribute quickly to the ongoing discussion. By contrast, on a discussion board a learner can respond in their own time without feeling rushed. Thus, they are afforded whatever time they need to learn the course content and discipline related vocabulary which they can then use later on in face-to-face discussions with peers.

In brief, discussion boards may take part in developing students' cognitive and critical thinking skills since it provides students with time for reflection on course topics. Thus, discussion boards can help to promote exploratory learning by enabling students to review and respond to others, thereby paving the way to promote learning in diverse ways while acquiring new language skills. Through interviews with participants about individual experiences with

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discussion boards, I studied individuals' perceptions regarding the use of discussion boards in developing language skills.

Discussion Board Drawbacks

Despite the amount of research promoting the use of discussion boards as a tool for active learning, there are some downsides to the use of discussion boards. Some of the drawbacks to the use of discussion boards in a student-centered classroom include technical difficulties, unfamiliarity due to first time use, time consumption, and audience awareness.

Technical Difficulties

One of the drawbacks to discussion boards are technical difficulties which may arise during use of an LMS system. Technology can be useful in various fields beyond education, but total reliance on technology may cause unforeseen obstacles. For example, internet disconnections or electricity outages may prevent students from actively participating in the discussion boards (Buckley et al., 2005). In other words, if discussion boards are the sole means of classroom interaction, students are reliant on being able to access the LMS system to respond to questions and posts (Northover, 2002). Thus, this interaction could become impossible in the case of technical difficulties which can impede student learning.

Another issue related to technical difficulties is the lack of knowledge some students may have about computers. Since, it is impossible to assume every student has had equal access to computer technology, educators cannot assume that every student begins the learning process with an equal footing (Buckley et al., 2005). One of the most common reasons for this lack of computer knowledge and experience is the lack of financial aid to gain computer access. This is often a problem for students coming from lower socio-economic backgrounds (Gilbert, 2015).

Thus, a student who is unfamiliar with the use of a computer in general may be at a complete

loss to the benefit and approach of LMS discussion boards in classrooms.

First Time Use of LMS Discussion Boards

Even students with experience and knowledge of technology may have limited or no

experience with LMS discussion boards. Based on their educational background and history, not

all students will have had the experience using discussion boards. This may be especially true for

students coming from teacher-centered classrooms where technology has a limited role in the

teaching process. Therefore, this may cause intimidation and discomfort for some first-time users

which may result in "reticence initially to participate in a discussion" (Buckley et al., 2005, p.

32).

Thus, if a student approaches discussion boards with reluctance due to unfamiliarity and

discomfort, they may not receive the same benefits in learning as their more experienced peers.

This is also due to the fact that most classrooms which employ discussion boards assume that

most students have familiarity and prior experience in their use. Many teachers do not spend a

substantial amount of classroom time demonstrating to students how to navigate and use

discussion boards other than tutorials which may be built into the LMS system itself.

Time Consumption

Another drawback of LMS discussion boards is time consumption. Even though some

researchers considered time flexibility as a merit of discussion boards in allowing students

additional time to reflect on their writing, other scholars argue that discussion board use is time

consuming and can take away from the learning process. Sapnas, Walsh, Vilberg, Livingstone,

Asher, Dlugasch, and Villanueva (2002) pointed out that for students to adequately read others'

comments and respond to each question can be very time consuming. This coincides with Clark

(2003) who believes that because students' responses on discussion boards are more elaborate and include "evidence of research and support for arguments," these posts are likely very time consuming for students to make (p. 23).

Buckley et al., (2005) also point out that students who come from traditional classrooms where lecturing is used as the primary teaching method sometimes find it difficult to transition to discussion board use where students must take initiative for their own learning. Students may think participation in LMS discussion boards is "boring, tedious, or unfulfilling" since it demands students to devote a large amount of time to class interactions (p. 32). Therefore, for some students, discussion boards can be seen as a burden rather than as a tool of learning in a student-centered classroom.

Audience Awareness

Another possible drawback of LMS discussion boards is audience awareness. Even though audience awareness can be a positive factor for students to pay attention to their written posts, some students may feel intimidated when posting knowing that their post may be read by the entire class. Students who come from traditional teacher-centered classroom environments are used to submitting their work only to a teacher. But when using LMS discussion boards in a student-centered classroom, students become aware that their written posts are read by their classmates as well as their teachers. Buckley, Beyna, and Dudley-Brown (2005) point out that students "may fear criticism, or even ridicule, by their classmates for their contributions" (p. 32). This means students with less confidence in their language skills, which often includes non-native English speakers, may be more reluctant to participate in LMS discussion boards. Some students may fear or even dread posting because they are so concerned with audience and they may not understand the value or goal of discussion boards for active learning.

Discussion Boards and EFL Writing

In this section, I will review articles which discuss the use of LMS discussion boards as a means to actively engage students in learning while providing opportunities to enhance language learning skills for non-native speakers of English (Blackmon, 2012; Dangler, 2008). According to the current literature, discussion boards allow non-native speakers of English to become active learners since it provides them with opportunities to directly practice their language skills. Students must use writing to participate in LMS discussion boards. The students responding to posts and answering each other's questions about the course content using writing. This process requires students to read, understand, analyze, reflect, and then write and post a response. This process requires active learning on the part of students. For non-native speakers of English, going through all these steps to take part in a discussion board helps them to learn the course content while enhancing their language learning and writing skills.

Writing represents a fundamental part of communication in the LMS discussion board participation process. Interacting in the discussion boards can motivate students to use available resources in order to participate and construct well-written statements. Aydın and Yıldız (2014) assert that writing skills require the "acquisition of a range of linguistic abilities such as grammatical accuracy, lexical knowledge, syntactic expression and a range of planning strategies such as organization, style and rhetoric" (p. 160). The authors also believe that EFL students can develop better writing skills once they are exposed to the writing process through the discussion board environment since it allows them regular opportunities to practice these skill sets. In addition, Cole and Feng (2015) emphasize exposing students "to the writing process itself through various venues is an excellent way" to improve students' writing skills (p. 5). Furthermore, Cole and Feng add that employing online collaborative environments such as

discussion boards is one of the various venues in which "students can communicate with one another as well as the teacher, receive peer feedback and practice conversational skills, all the while putting complete thoughts together in the form of typed sentences" (p. 11). This writing allows them to actively practice their language skills.

This coincides with Warschauer et al. (2000) who argue that language teachers should integrate into their courses necessary tools for teaching language such as online discussion board in an LMSs' platform. The use of discussion boards serves as an approach to language instruction through the communicative and collaborative approaches which were not previously possible thus giving students more opportunity to practice and utilize these skills (Warschauer et al., 2000; Bonk & King, 1998).

Aydin and Yildiz's (2014) assert the use of asynchronous discussion boards will allow language teachers innovative chances to include all the important components of teaching writing such as audience awareness, grammatical accuracy, appropriate use of grammatical forms in different contexts, and multiple drafting and revising (Aydin, & Yildiz, 2014; Lund, 2008). Jose and Abidin's (2016) investigated the influence of discussion boards use on EFL writers' performance in terms of linguistic complexity. The quantitative analysis of the data revealed that there were no significant differences between the groups' writing performance in terms of linguistic complexity. Yet the qualitative data analysis, which collected through interviews, displayed that incorporating online discussion forums can be considered a best practice to not only facilitate teaching English, but to enhance students' writing.

In addition, Zhang, Gao, Ring, and Zhang (2007) investigated the impact of discussion boards' use on English as Second Language (ESL) students' performance in terms of vocabulary, grammar, writing, reading, and critical thinking. Their findings reported that the participants who

used discussion boards were better at organizing the structure of certain essays than participants who did not use discussion boards. In addition, the results showed that online discussions with classmates provided opportunities to practice organizing and writing using a specific essay style and topic. The instructor also stated that the students who utilized the online discussion feature could understand the structure of certain essays more precisely and comprehensively than the students who did not engage in online discussions. This provided support for using online discussion forums to help students improve their writing skills.

This coincides with Alharbi's (2015) research in which he investigated the impact of discussion boards' use on EFL students' integrated reading and writing performance and their attitude. Alharbi's results indicated that discussion board use created an online discourse community. This online discourse community created chances for students to engage actively in collaborative learning through fostering social interactions during learning activities equipped toward the development of integrated writing and reading skills. In other words, discussion boards established an online discourse community which contributed to the development of students' language learning skills.

As previously discussed in the research, discussion boards can have several potential benefits for English language learners. Discussion boards allow more time for students to organize their thoughts before postings and responding to other's thoughts while providing more opportunities for students to practice language skills. This active intellectual process can not only improve students' high order thinking, but it also helps to enhance writing skills (Reonieri, 2006; Birch & Volkov, 2007; Ringler et al., 2015). Therefore, my study hopes to contribute to the current body of literature by better understanding how Saudi student perceptions of discussion

board use in a student-centered classroom influences their active engagement and development of learning skills.

Students' Perceptions of Discussion Board Use

While my study examines the perceptions of Saudi students on the use of discussion boards as a tool for active learning in a student-centered classroom, there are few studies focusing solely on L2 learner perceptions of using discussion boards. Rather, most of the research focuses on the perceptions of L1 and L2 students using discussion boards. In most of these studies, researchers studied students' perceptions and attitudes toward discussion board use in various educational environments (e.g. blended/hybrid classrooms, online/e-learning classrooms, and face-to-face classrooms), at various academic levels (undergraduate, and graduate), and in various disciplines (language classes, course content) (Bassett, 2011; Dietz-Uhler & Bishop-Clark, 2001; Lane, 2016; Levine, 2007, Meyer, 2003; Rodriguez & Anicete, 2010; Ryan, 2013; Tiene, 2000; Vonderwell, 2003).

In a study by Cantor Barragán (2009), EFL students' perceptions of using the ALEX virtual program in English language class for undergraduate students at Universidad Nacional de Colombia were explored. The findings of this study revealed that using ALEX's virtual discussion boards created the opportunities for the participants to express their ideas freely. However, despite the ability to express ideas freely, the participants stated that using ALEX's virtual discussion boards did not help them to develop responsibility or "autonomy" in English learning. In addition, the participants reported that a lack of feedback from their teacher in discussion boards made them feel the absence of the teacher in their learning process. General perceptions of the participants using the ALEX virtual program's discussion boards was positive;

however, the absence of the instructor's role lead them to struggle in developing other language learning skills.

Findings were similar in hybrid settings where the classroom was designed to provide online tasks through the integration of discussion board tools using an open source Modular Object-Oriented Dynamic Learning Environment (MOODLE) LMS platform. Rodriguez and Anicete (2010) conducted a study at De La Salle-College of Saint Benilde in the Philippines to examine EFL students' perceptions of an undergraduate ecology course. The findings pointed out that discussion boards allowed students to think critically as they read, motivated reflection as the students asked questions, and promoted learning of content knowledge as they interacted with each other (Rodriguez & Anicete, 2010).

In another context, Nielsen (2013) examined 23 Japanese EFL students' perceptions of using discussions boards in terms of writing accuracy and the teacher's role in their participation and language production. The participants in this study were enrolled in a university online English writing course. The findings reveled that students' participation and interactivity through discussion boards increased, yet the quality and the quantity of the written posts markedly declined. Also, the participants reported that the teacher's role had no effect in the discussion boards on students' participation and language production. Most of the participants reported positive perceptions of using discussion boards; however, some reported negative experiences of using discussion boards due to having inadequate knowledge of computer-based skills, the heavy workload, and their unfamiliarity with discussion boards use.

Discussion board use can help to overcome cultural barriers. Alanazy (2013) conducted a study about Saudi female EFL students' perceptions on their participation in online and face-to-face discussions in a U.S university. She concluded that Saudi female EFL students were

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uncomfortable participating in face-to-face mixed-gender classes. The Saudi female EFL students come from a conservative education system, which segregates classes and schools by gender. For some participants being in a face-to-face mixed-gender class for the first time made them too uncomfortable to participate in the class. Consequently, the use of online discussion boards made them feel more comfortable to participate in the class since it eliminated the problematic face-to-face interactions.

Likewise, Ebrahimi, Faghih, and Dabir-Moghaddam's (2017) study highlighted the cultural aspect of discussion board use. Ebrahimi, Faghih, and Dabir-Moghaddam examined the perceptions of 32 Iranian EFL student teachers' who were enrolled in an online introductory corpus linguistics class. The participants were asked how effective they thought the discussion boards in the online course were for promoting discussion. The researchers' findings indicated that the students' interactions on the discussion boards were not effective. The participants reported that their discussion boards use did not help them to improve their learning outcomes and did not enhance their learning of course content. This was due to their inability to "express their emotions, answer their peers' questions, critique others' views, express acknowledgements and make references to other sources" (p. 467). However, the discussion board use did help them to "develop social relationships" (p. 467).

A different study looked at EFL learners in a blended learning environment in a Korean higher education setting. Kim (2017) conducted this study to understand how students work within blended learning environments. Kim examined EFL students' perceptions in terms of instructor-student and student-student interaction, usefulness, and challenges in the blended EFL writing course. Ten EFL students were enrolled in an English writing for academic purposes course in a Korean university. The researcher's findings indicated that the blended learning

format helped the students to develop their critical thinking and paper development by using their peers' posting as writing samples. However, participants reported some challenges such as the frequency of posting demands by the instructor. This led to participants feeling frustrated enough to post anything just to meet the required number of postings. In addition, students reported a limitation in student-student and student-instructor interaction because of the English-only policy. According to them it was difficult for the students to interact effectively with their peers and instructor in English. Thus, they preferred interactions in a face-to-face classroom where they could use their first language.

On the same topic of the instructors' role in discussion boards, Lee's (2018) study revealed students' positive perceptions of using discussion boards in terms of the instructors' role. Lee (2018) investigated the perceptions of Korean EFL students in terms of instructor interaction in a blended learning class. The participants of the study were undergraduate students who enrolled in an English communication course. The researcher's findings indicated the active involvement of the instructor in the blended learning classroom encouraged greater participation from the students.

Within the literature, these studies have examined English language learners' perceptions of incorporating LMS discussion boards into various educational environments (e.g. blended/hybrid classrooms, online/e-learning classrooms, and as a supplement to face-to-face classrooms), various educational domains (e.g. course content, and language class), from different perspectives (e.g. teacher's role in discussion boards, online learning achievement, cultural barrier), and in various contexts (Colombia, Korea, Philippines, and Japan). My study builds on this work by examining the individual perceptions of Saudi students' experiences of using discussion boards as a tool for active learning. My study discusses some of

the challenges and problems participants faced through their individual experiences with the LMS discussion boards. It is my hope that this study will help further discussion on the use of LMS discussion boards in active learning by examining how individual experiences influence the perceptions and learning of Saudi students.

Chapter Summary

The use of LMS discussion board earns it significance as a complement to teaching in college classroom, which may have a great influence in promoting students to become active learners while enhance language learning skills. This chapter reviewed current literature regarding discussion boards, differences between teacher-centered and student-centered learning, and the push for active learning in today's classrooms while providing justification for the researcher's questions in this study. In addition, the gap in research relating to L2 perceptions of discussion boards as a tool of active learning was also addressed.

Although the context of the study is in a US college classroom, the participants in this study are coming from a traditional teacher-centered background into a student-centered environment for the first time. Therefore, this is a preliminary study to understand if active learning using LMS discussion boards is beneficial to ELL students in terms of their perceptions towards their learning experiences and language learning skills. Thus, the significance of my study is to help fill in the existing research gap regarding L2 student perceptions of discussion boards as a tool of active learning. In the following chapter, my research methodology is discussed explicitly.

CHAPTER THREE

RESEARCH METHODOLOGY

Merriam (2002) indicates the aim of the qualitative research is to understand how the participants make meaning of their experiences as they construct their social life. According to Crotty (1998) "meaning does not inhere in the object, merely waiting for someone to come upon it". This means, meaning is not a discovered object, but it is "constructed". In that sense, people construct meaning through interacting with the world around them and interpret it as they experience it (p. 42).

The chapter's goal is mainly to provide a comprehensive overview of the research design integrated in this study. To do so, the fundamental elements of my overview encompass the following:

1- Study methodology: I discussed the reason behind choosing a qualitative approach as the research method followed by a discussion of the research paradigm. In addition, I discussed the research design which included a brief background of case study research while exploring the characteristics and misconceptions of case study methods. Next, I defined the research involved in a case study, and the reasons behind choosing a case study for the qualitative research design.

2- Study components: In this section, I provided a description of the research context, the study participants, the explanation of the data source, the procedures of the data collection, and the methods of analysis. I concluded the chapter with a brief overview about the criteria of trustworthiness.

The abovementioned elements were necessary in accomplishing the following research focal point: to study the perceptions of seven Saudi students using LMS discussion boards who

were currently enrolled in bachelor programs in the United States; to explore how LMS discussion boards use promote these students learning skills, and how their participation through LMS discussion boards enhance their own writing development.

For this study, the following research questions were examined and answered through data collection and analysis:

Q 1. What are Saudi students' perceptions of student-centered learning in an LMS

discussion board environment?

Q 2. How do Saudi students perceive LMS discussion board use impacting their writing

development?

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Research Design

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In this section, I provided a road map for the readers to follow the research design of the current study which consisted of a full description of the research elements of the study. This also included the rational for choosing a qualitative research approach, research paradigm, and a rationale for choosing case study as a methodological approach.

Why Qualitative?

Due to the nature of my research, where I investigate ELL students' perception regarding the use of LMS discussion boards as a tool to promote students' active learning in college classroom, and to explore how ELL students perceive their writing development through using discussion boards in a college classroom, I utilized a qualitative research design because the study focused primarily on human perception and understanding to make meaning of the topic under investigation (Stake, 2010). Based on Denzin and Lincoln's (2008) definition of qualitative research, the following statement helps to explain why this research approach is the most useful approach in this instance:

The word qualitative implies an emphasis on the qualities of entities and on processes and

meanings that are not experimentally examined or measured (if measured at all) in terms

of quantity, amount, intensity, or frequency. Qualitative researchers stress the socially

constructed nature of reality, the intimate relationship between the researcher and what is

studied, and the situational constraints that shape inquiry. …. [Researchers] seek answers

to questions that stress how social experience is created and given meaning (p. 14).

In order to accomplish the goal of my research, and gain a better understanding of the current

study, I chose a qualitative research approach. There were several compelling reasons why I

chose this approach.

First, qualitative research methods "promote a deep understanding of social setting or

activity as viewed from the perspective of the research participants" (Bloomberg & Volpe, 2012,

p. 7). This aligns with Bogdan and Biklen (2003) who believe the methods of the qualitative

research are effective in exploring the significance and meaning which participants give to the

certain context and events they experience (Bogdan & Biklen, 2007). In other words, qualitative

research helps the researcher, including myself, to understand how the participants perceive or

interpret a specific phenomenon (ELL Saudi students who attend bachelor programs and use

LMS discussion boards) in a certain context (US university classroom).

Second, qualitative research methods are ideal to tackle studies, which research questions

demand a certain nature of exploration throughout the data analysis process, and ultimately to

produce meaning (Stake, 2010). Frequently, qualitative research questions initiate with how or

what questions, in order for the researcher to gain a comprehensive understanding of the topic

from various perspectives (Patton, 2002). For the present study, the research questions were

asking the following what, and, how questions: (a) What are Saudi students' perceptions of

student-centered learning in an LMS discussion board environment? (b) How do Saudi students perceive LMS discussion board use impacting their writing development?

Third, qualitative research methods allow the researcher to discover perceptions, thought process, emotions or feelings, which are complex in order to learn about a phenomenon through conventional research methods (Strauss & Corbin, 1998). In the current study, I investigated participants' perceptions and lived experiences (Jones, Torres, & Arminio, 2006) of using LMS discussion boards.

Fourth, Denzin and Lincoln (2003), and Esterberg (2002) agree that qualitative research methods are better than quantitative approach because they are not only allowing the researchers to study a specific phenomenon in their natural settings (Denzin & Lincoln, 2003), but they help to gain a better understanding of the social processes in the context (Esterberg, 2002). Based on that, the present study focused on participants' perception of using LMS discussion boards in US college. The environment of the discussion boards and the interaction among students shape their experiences and perceptions as a member of the cyber community.

Fifth, qualitative research methods allow the investigator to be an active participant in the study as well (Creswell, 2013). In other words, the researcher is the main instrument of data collection and interpretation of those findings (Stake, 2010). With that in mind, the researcher dons the mindset of a qualitative investigator to "study things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2005, p. 3).

In addition, qualitative research methods draw a sketch of the research through utilizing numerous procedures. This coincides with Creswell's (2007) conception of qualitative research in which he states that:

Qualitative research begins with assumptions, a worldview, the possible use of a

theoretical lens, and the study of research problems inquiring into the meaning

individuals or groups ascribe to a social or human problem. …The final written report or

presentation includes the voices of participants, the reflexivity of the researcher, and a

complex description and interpretation of the problem and it extends the literature or

signals a call for action. (p. 37)

With Creswell's definition of the succession of procedures in qualitative research, the

reason for selecting a qualitative framework for research has been clarified. Therefore, the next

step for the qualitative researcher is to describe the epistemology frame, or the research

paradigm.

Social Constructivist as a Research Paradigm

Acknowledging the persuasive reasons of choosing qualitative research methods as the

research design of the current study, a step forward required the researcher to choose the research

paradigm or worldview. Denzin and Lincoln (2000) define research paradigm as "the net that

contains the researchers' epistemological, ontological, and methodological premises" (p. 9).

Thus, research paradigm announces, "a basic set of beliefs that guide action" (Guba, 1990, p. 17)

about the study context's nature, researcher's epistemology, and the process acquiring

knowledge (Denzin & Lincoln, 2005).

According to Vygotsky (1978), humans by nature are social beings who interact in an

assortment of communities not only to gain information, but to construct knowledge. Vygotsky

emphasized that using language to communicate are essential to learning and the development of

learners' cognitive skills. He argued that individual perception is formed within social

interaction. In other words, language and society are the frameworks which shape human

experiences and individual understanding of realities. To be precise, community members make meaning as they interact with each other's to construct knowledge, negotiate meanings and form perceptions collaboratively.

As a consequence, it is significant to consider Stake's (1995) argument that, "most contemporary qualitative researchers nourish the belief that knowledge is constructed rather than discovered. The world we know is a particularly human construction" (p. 99). In aligns with this concept, I positioned myself as a social constructivist to examine, understand, and reconstruct the alternative meanings out of the community members' experiences. These experiences were formed through community members' collective actions and interchanges, regarding the examined phenomenon (Creswell, 2007, Gubrium & Holstein, 1997; Jones, 1997). The interpretations of the phenomenon being studied could be drawn by investigating the detailed community members' experiences (Jones, Torres, & Arminio, 2006), and by using open-ended questions (Crotty, 1998).

Acknowledging the fact that lived experiences and perceptions constitute meanings, which could be diverse and complex, directed me to discuss those meanings with the participants. This helped me to co-construct a sense of participants' beliefs they held regarding the use of LMS discussion boards as a tool to promote students' active learning in college classroom, and how ELL Saudi students perceive their writing development through using discussion boards in a college classroom.

Case Study as a Methodological Approach

In the field of qualitative research, there are several research methods and designs which can be used to study the phenomena such as narrative inquiry, phenomenology, and case study. Regarding the present study, utilizing a case study as a qualitative methodological approach was

essential. Since case study involved the study of a specific case, rules and principles could be strained based on the analysis of that case context, which reflected participants' daily experiences (Yin, 2014).

Flyvbjerg (2006) highlights the important role of case study researches as major contributors to various fields of research. While Flyvbjerg (2006) highlights the essential of case studies within the field of social science, he lists five misunderstandings of case study research which researchers need to be aware of : "(1) theoretical knowledge is more valuable than practical knowledge; (2) one cannot generalize from a single case; therefore, the single-case study cannot contribute to scientific development; (3) the case study is most useful for generating hypotheses, whereas other methods are more suitable for hypotheses testing and theory building; (4) the case study contains a bias toward verification; and (5) it is often difficult to summarize specific case studies" (p. 1).

Researches through the qualitative methods is the process of transferring the paradigms to interpretive positions which silhouette the data collection's sources, the data analysis's procedures, and the use of the findings to create a change (Creswell, 2007). In that sense, my study utilized a qualitative case study as a research methodological approach because I provided profound and comprehensive investigation of the Saudi student perceptions to the use of LMS discussion boards as a tool to promote students' active learning in college classroom, and how these students perceive their writing development through using discussion boards in a college classroom. The information gained from a case study approach allowed me to produce qualitative data to help me answer my specific research questions in order to get a thoughtful comprehension of what are Saudi students' perceptions of student-centered learning in an LMS

discussion board environment? How do Saudi students perceive LMS discussion board use impacting their writing development?

Creswell, Hanson, Clark, and Morales (2007) define case study as a type of qualitative research approach in which the researcher investigates a certain case or cases during a period of time by using various thorough data collection methods. These methods involve interviews, document reviews, observations, and field notes. In other words, a case study helps to build a comprehensive understanding of the case context depending on numerous data sources (Pacho, 2015). Thus, a case study approach examines an issue discovered through one or more cases within the study setting or context.

An effective case study research consists of five components. According to Yin (2014) the five components are: (1) research questions; (2) purpose of study; (3) unit analysis; (4) logic that links data to propositions; and (5) criteria for interpreting findings. The first component was about research questions. In a qualitative case study research, the suitable research questions are the ones which start with "how" and "what". Thus, I asked 1) What are Saudi students' perceptions of student-centered learning in an LMS   discussion board environment? 2) How do Saudi students perceive LMS discussion board use impacting their writing development?

The second component was about the study's purpose. My purpose in the present case study was to investigate ELL students' perceptions regarding the use of LMS discussion boards as a tool to promote student's active learning in a college classroom, explore how ELL students perceive their writing knowledge through using discussion boards in a college classroom.

The third component was the unit analysis or the study's participants. Yin (2014) defines the unit analysis as the area of focus for which the case study will be analyzed. The criteria for choosing the unit analysis is directly connected to the researcher's questions. Thus, the units

analysis of the present study were the ELL Saudi students, who represent cases to be studied, in a large university in a Northeast state (Merriam, 1988).

The fourth component was to tie data to the logic propositions, which represented the literature review and theoretical framework. The researcher analyzed the data through categorizing data into themes. Each theme was consisting of compatible patterns. The researcher, then attempted to correspond patterns which appeared in the data to the logic propositions of the study. The emerging themes in the current study formed a basis to answer research questions posed in the first chapter.

The fifth component was the criteria for interpreting findings. After the researcher discussed themes and their connections to the logic propositions (Yin, 2014). I carefully extracted meaning from the findings in order to determine recommendations for best practices and future research.

Study Overview

In this section I provide a thorough description of the study portrait. It includes the study context, the participants' description which includes participant selection criteria, procedures for participant recruitment, the sources of the data collection, the analysis of the data, and the study's trustworthiness.

The Study Context

The present study was conducted during one spring of 2018 semester (January-May) at Indiana University of Pennsylvania (IUP) a large, public, research university located in western Pennsylvania. The university offers all academic levels of higher education starting from the bachelor's degree to doctoral programs in various disciplines. The student population is approximately 14,000 students who "are enrolled in accredited and nationally recognized

programs, incorporating both traditional and nontraditional classroom experiences" (IUP, 2016, p. n.d).

In 1997, Indian University of Pennsylvania equipped its facilities and classrooms with LMS' platforms to be used by faculty and students. One form of LMS' platforms was D2L. D2L built on "a vendor-hosted learning management system contracted by the Pennsylvania State System of Higher Education to offer collaborative learning to students" (IUP, 2016, p. n.d). D2L like other LMS' platforms are mostly used by higher education institutions around the world (Kempfert, 2003, Piña, 2012). D2L can be used as a supplement of teaching in hybrid classes. Also, D2L can be used as instructions medium in online classes. Through D2L instructors can upload course materials, monitor discussion, and facilitate learning. Thus, utilizing D2L in classrooms is not only to facilitate teaching process, but to enable students to interact, collaborate, and construct knowledge.

The Participants

In this part, I will provide a description of my use of purposeful sampling, procedures of recruiting participants, and the selection criteria for participants. In order to complete this case study, I employed purposeful sampling to select participants. Patton (2015) claims that qualitative research requires purposeful sampling. The purposeful sampling helped me to select participants who had experiences, insights, and rich reflections about the phenomenon under study. This aligns with Maxwell's (2005) "purposeful selection" strategy.

Maxwell (2005) defines this as the "selection strategy in which particular settings, persons or activities are selected deliberately in order to provide information that can't be gotten as well from other choices" (p. 88). In addition, Esterberg (2002) and Merriam (2002),

recommend including various participants from within the university. This process helps to attain a comprehensive, rich description for the case study (Esterberg, 2002; Merriam, 2002).

Based on that, I purposefully selected seven Saudi students to be interviewed for this study from a pool of 10, who were enrolled in two different classes (three were in a history class and four were in a political science class), through a bachelor's degree program in a US university. The participants in this study needed to be enrolled in a course which utilized LMS platform, such as D2L, to create opportunities for interaction using discussion boards as a tool for active learning.

The reason the population sample came from two different classes was to better understand how the different experiences of the participants using LMS discussion boards influenced their perceptions in a student-centered classroom. Using a group of participants who were enrolled in different classes allowed the researcher to better consider different perceptions which may result from participation in LMS discussion boards in various classroom settings.

Criteria for the Participants' Selection

A compatible step with purposeful sampling is criterion sampling. Criterion sampling is to select participants based on predetermined certain criteria as a good source of data (Patton, 2015). Thus, I employed criterion sampling to narrow down participants' selection.

General sampling criteria included elements such as age, demographic differences, experiences, and gender. However, for the present study several criteria were considered to select the participants. The criteria for selection included the following:

1- Voluntarily participated.

2- ELL Saudi students who were currently living abroad in United States.

3- ELL Saudi students who were currently enrolled in at least one hybrid college course as an undergraduate student in an accredited college or university in the United States.

Strategies for Recruiting Participants

Due to logistical constraints such as access to potential participants and travel, I first selected participants from the pool of undergraduate students enrolled in my university who may had fitted the criteria for the study. Due to the familiarity I had with these students already enrolled in the undergraduate program, I contacted potential participants through school e-mail.

The e-mail described the study's purpose, the study methodological approach, and included any potential risk factors involved in participation. In addition, the e-mail (see Appendix C) communicated the participation in the study was voluntary, and the participants had the choice to drop out at any time at any time if they feel like they can no longer continue with the study. The e-mail also contained a consent form (See Appendix B) for the students to fill out, including contact information to the university, if they had additional questions concerning the study.

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Data Collection and Data Sources

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The case study research method under the umbrella of the qualitative research approach was used in the present study as data sources to help answer the overall research question. In this section, I provide a description about the data source, and the time frame for data collection.

Clandinin and Connelly (2000), refer to data collections as "field texts" due to the fact that collected data are "created, neither found nor discovered, by participants and researchers" (p. 92). Prasad (2005) defines methods as the suitable use of techniques to collect and analyze data. In addition, Yin (2014) concurs suggesting that case study qualitative research has six possible sources for data collection that can be employed: documents review, archival records, interviews, direct observation, participant-observation, and physical artifacts. Based on the current

research's scope, which is to make meaning out of participants' experiences, I selected interviews as the main data collection medium.

Interviews

In general, Esterberg (2002) defines interview as a dialog between the interviewer and interviewee, in a systematic style which the interviewer asks questions and the interviewee responds. Nevertheless, Hatch (2002) defines interviews in the light of qualitative research as a mean "to uncover the meaning structures that participants use to organize their experiences and make sense of their world" (p. 91).

To be more specific, the main goal of qualitative interviews as Rubin and Rubin (2012) state is "to explore in detail the experiences, motives, and opinions of [the participants] to see the world from [their] perspectives" (p. 3). The rationale for selecting interviews as the dominant data source for this study are as follow: 1) it is appropriate to "study people's understanding of the meaning in their lived world" (Kvale, 1996, p. 105); 2) it allows the researchers "to find out from them those things we can't observe" (Patton, 1987, p. 196); 3) interviews yield descriptions which provide depth and breadth of the study's participants to allow readers to make decisions about transferability of study results (Merriam, 2002).

This can be deduced clearly from Seidman's (1991) statement about in-depth interviews which "allow us to put behavior in context and provides access to understanding their action" (p. 128). To explain more, the in-depth interviews helped to make sense of meaning in terms of investigating ELL students' perception regarding the use of LMS discussion boards as a tool to promote students' active learning in college classroom and exploring how ELL students perceive their writing development through using discussion boards in a college classroom as they utilized discussion boards to interact with their classmates. In that sense, I employed three levels of

interviews to gather the information from the participants: preliminary interviews, follow up

interviews, and final interviews. Further explanations were provided in the data sources section.

Data Collection

Interviews

Preliminary Interview	Follow up Interview	Final Interview
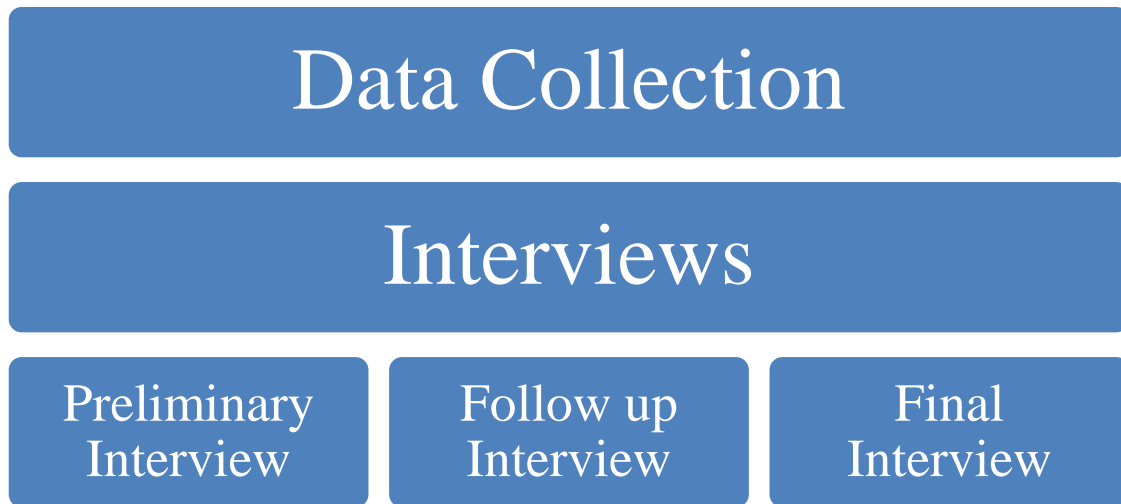
Figure 1. Data collection outline.

Data Sources

In the process of data collection, I employed interviews as my primary data source. Hatch

(2002) suggests three categorizations of interviews which I followed: 1) the informal interview;

2) the formal interview guided approach; and 3) the standardized open-ended interview. The

interview's main goal was to voice out explicitly ELL students' perception regarding the use of

LMS discussion boards as a tool to promote students' active learning in college classroom, and

ELL students' perception of their writing development through using discussion boards in a

college classroom.

Therefore, I conducted in-person interviews on three separate occasions over the course

of one, 16-week semester: preliminary interviews, which was at the beginning; the follow up

interviews, which was in the middle; and final interviews, which was toward the end of the

semester. In the subsequent section, I provide a description of about the procedures process of

data collection. The description includes definition, rational, and how the data source assisted me in responding to my research questions.

Preliminary Interviews

In the first step of collecting data, I used preliminary or informal conversations to break the ice with my participants through questions related to demographic background. This process was essential since it helped the researcher to build rapport and strengthen the relation between the researcher and the participants (Hatch, 2002), while paving the way for the participants to freely speak about their views and educational background (Creswell, 2007), as well as their expectations in using LMS discussion boards as a means of interactions.

Therefore, I used standardized interviews with the participants at the first meetings. Hatch (2002) defines standardized interviews as asking predetermined questions, which are carefully worded, follow similar order, and using similar words to all the participants to gather data that can be compared systematically. Using Patton's advice, I constructed in advance open-ended interview questions to allow participants the opportunity to provide responses which contain both depth and breadth (see Appendix D).

Follow up Interviews

As the semester progresses, the participants contributed to the data of the research by using discussion boards for posting and responding to their classmates. While the students were involved in the LMS' discussion boards, I met with each participant individually for follow up interviews throughout the semester. These interviews created the chances for the participants to share, reconstruct and further discuss the details of experiences they gained as they utilized discussion boards during class interactions. The follow up interviews were essential for opening a channel to develop an unfathomable comprehension of the participants' experiences and

perceptions of the academic process while providing an avenue for them to air their feelings regarding those experiences.

The questions used throughout the follow up interviews were based on Patton's (1990) general interview guided approach. According to Hatch (2002), structured interviews are designed to establish a set of time, while also factoring the use of a tape recording predominantly. Therefore, structured interviews were ideal for the study at hand.

In that sense, formal interview questions encouraged participants to discuss emerging topics and questions. In addition, these questions created a space for the participants to diverge from the main topics, and the interview questions once the participants were motivated to do so. Also, as a researcher and interviewer I learned to be flexible as I conducted the interviews. This allowed me to entice participants to share their experiences. Similarly, flexibility played a role in planning for the follow up interviews' meetings. In other words, I scheduled for the follow up interviews at the participants' convenience. I tried to meet with each participant individually three times during the semester in 30-minute sessions.

Final Interviews

Final interviews with the participants occurred as the semester ended. These final interviews permitted the participants to complete their reflections and analyze their own perceptions in regard to the use of LMS discussion boards as a tool to promote students' active learning in college classroom, and to explore their writing development through using discussion boards in a college classroom, as well as determine the meaning they deduced from these experiences. My intention from the final interview was to create the opportunity for the participants to talk about topics and issues that I might had missed asking them in the previous

interviews. Also, participants were free to add any supplementary information they had gained

from their experiences with the LMS discussion boards.

For the final interview, I followed Hatch's (2002) informal interview which is basically

unstructured and conduct casual conversations in which questions are spur-of-the-moment

produced. According to Patton (1990) informal interviews' questions have to be "emerge[ed]

from the immediate context" and should be "asked in the natural course of things; there is no

predetermination of question topics or wording" (p. 288). In that sense, the final interviews were

administered by me accordingly (see Appendix D). All the interviews (preliminary, follow up,

and final) were recorded digitally and transcribed. I transcribed each interview recording

immediately upon conclusion of the interview to read carefully and build new interview

questions for the coming follow up.

Data Analysis

Data analysis was the step which come after the study's designing and data collection.

According to Marshall and Rossman (2011) analyzing data is the process in which raw data will

be interpreted and presented in a written form to the reader to obtain meaning from the topic

under study. Data analysis consists of two processes: data reduction and data interpretation. Data

reduction entails the researcher to bring the large amount of the collected data into controllable

amounts and data interpretation entails the researcher categorizing and coding that data into

themes.

In that sense, I conducted data analysis of the qualitative data section through five steps.

First, after each type of interview, I transcribed the interview data and stored it electronically. In

other words, I organized the data by creating folders for each individual participant to keep all

his data grouped together. I read through the set of data of everyone more than once in order to

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generate a holistic overview of each participant. For instance, this helped me to know the demographic background, university grade, university degree, LMS discussion boards exposure, and difficulties they face in using the LMS (Park, 2006).

Second, I studied the data to identify categories. These categories included data which had similarity in terms of meanings in order to outline major themes. The themes and categories were categorized based on the interviews' questions. This step helped me to organize the interview data to gain a general sense of the meaning related by the participant and to my research questions, so that I could generate a list of themes or categories.

Third, I used a coding scheme. To explain more, after categorizing the interview data into themes, I assigned codes to the themes. These codes consisted of abbreviations and numbers of keywords which in turn helped me to group those codes into themes (Creswell, 2013). This step helped me to link the interview data together to form major categories and themes.

Fourth, I read the coding themes and interpreted them. I created an electronic memo in which I wrote my interpretations and analysis (Marshall & Rossman, 2011). Patton (2002) suggests that "interpretation means attaching significance to what was found, making sense of the findings, offering explanations, drawing conclusions, extrapolating lessons, making inferences, considering meanings, and otherwise imposing order" (p. 480). Thus, I endeavored to connect my interpretations and analysis in consistent with the topics presented in chapter two in the dissertation, which was literature review. This step allowed me to compare findings of other previous studies in the field with my analyzed data to search for exceptional findings.

The fifth step was about trustworthiness of the study. In this step, I reviewed the data with participants through member checks in order to help improve the transferability, dependability, and confirmability. Finally, I drew conclusions in order to generate implications

for future research. By employing this method, I enriched my study with detailed findings in order to convince my readers of the research conducted (Creswell, 2013; Hatch, 2002).

Researcher Role

The researcher had been living abroad in the United States as international student from 2009 until the writing of this study. The researcher was an English teacher in multiple public middle schools in Saudi Arabia for 8 years where instruction was traditionally focused around a teacher-centered classroom. The researcher did not have any experience employing LMS discussion boards for teaching purposes either in Saudi Arabia or in the U.S. However, as a Saudi student and teacher, the present study increased the researcher's knowledge of LMS discussion boards and strongly influenced the researcher's belief about the use of LMS discussion boards and their positive impact on Saudi students. The researcher's preference for these learning tools may had affected his interpretation of the findings.

Trustworthiness

As a part of conducting the research, I followed strategies and criteria that enhanced my study's trustworthiness. Lincoln and Guba (1985) determine criteria of qualitative research quality and trustworthiness. They categorize the criteria into four areas which are credibility, transferability, dependability, and confirmability with the purpose of determining the trustworthiness of the current research study.

Credibility

Williams (2011) defines credibility as when the research study is "to be believable to critical readers and to be approved by the persons who provided the information gathered during the study" (Williams, 2011, para. 1). In that sense, Lincoln and Guba (1985) recommend numerous procedures which may be used to improve the credibility of a qualitative research. One

of these procedures is member check. Member check is to test the data with the study's

participants. Member check includes several activities, one of them is to allow the participants to

read the interview transcripts. This will help to assure the accuracy of the data.

As explained earlier, that interviews encompassed preliminary interviews, follow up interviews,

and final interview. After each interview, I did the member check with the participants. In

addition, my research was based on seven participants' contributions that help to form and verify

the finding at various points in time (Williams, 2011). This means that, if the conclusion was

based on only one participant's contribution that collected through one interview, the study is

than less credible (Williams, 2011).

Transformability

Transferability is a term which focuses on applying the study conclusion on other

contexts. According to Schwandt (2007), transformability is "the issue of generalization in terms

of case-to-case transfer" (p. 299). As I analyzed the data, I provided a detailed and explicit

description of time and context in a way that helped the readers to "make decisions regarding

transferability" (Creswell, 2007, p. 209). The findings' detailed description allows the readers to

decide whether the extracted results can be applicable to other contexts.

Dependability

Shenton (2004), defines dependability as when conducted study were repeated "in the

same context, with the same methods and with the same participants, similar results would be

obtained" (p. 71). This coincides with Schwandt's (2007) notion about dependability which is

"the process of inquiry and the inquirer's responsibility for ensuring that the process was logical,

traceable and documented" (p. 299). In the light of that, dependability can be addressed when

"the processes within the study should be reported in detail, thereby enabling a future researcher

to repeat the work, if not necessarily to gain the same results" (Shenton, 2004, p. 71). This means that, the researcher starts to document every stage he or she takes in conducting the study. In other words, I used a research journal in which I continually documented my reactions, opinions and emotions for every stage in the process of the research. In addition, this journal includes my reflection about my interaction with participants and research site as well as reflections and decisions in relation to data analysis and data collection.

Confirmability

Tobin and Begley (2004) define confirmability as "concerned with establishing that data and interpretations of the findings are not figments of the inquirer's imagination but are clearly derived from the data" (p. 392). This means that, the study findings and interpretations are "linking assertions …...and so on to the data themselves in readily discernible ways" (Schwandt, 2007, p. 299). In that sense, confirmability can be achieved through several procedures one of them is an audit trail (Anney, 2014). Audit trail is a process of the research which aims to make sure the collected data and their interpretations which are made by the researcher and supported by material in the audit trail are not only consistent internally, but also represent more than "figments of the [inquirer's] imagination." (Guba & Lincoln, 1989, p. 243). To do so, I requested one of my qualified colleagues to audit my data analysis in order to authenticate my results.

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Chapter Summary

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To conclude, this chapter of my dissertation guides the readers through the major components of research methodology. I explain the reasons behind employing qualitative research, research paradigm, and the rationale for selecting case study as my research method. In addition, I explain the sources of the data and the collection methods of the data which helped me to extract in depth meaning of my participants' experiences.

CHAPTER FOUR

DATA ANALYSIS

The purpose of this study was to investigate Saudi students' perceptions regarding the use of LMS discussion boards as a tool for promoting active learning and writing development in college classrooms.

The chapter's goal is to present the findings from the data collection. The findings were derived from data collected via in-person interviews. These findings are then analyzed and linked to the relevant literature in chapter five. The findings seek to answer the research questions as follow:

Q 1. What are Saudi students' perceptions of student-centered learning in an LMS discussion board environment?

Q 2. How do Saudi students perceive LMS discussion board use impacting their writing development?

Using qualitative research methods, I analyzed one data source to uncover findings about my research questions: interviews. I conducted in-person interviews on three separate occasions over the duration of one 16-weeks semester: once at the beginning, once in the middle, and once toward the end of the semester. The open-ended interview questions allowed the participants to describe their perceptions and raw experiences with using the LMS discussion boards.

In the subsequent pages, this chapter introduces: demographic information about the participants. The key research topics for this study included evaluation of the discussion boards as a tool for active learning, the writing development of the participants, and the participant's perceptions of the LMS discussion boards. Finally, a chapter summary is presented.

Demographic Information

This section describes key demographic information about the study participants, including their English language knowledge, the number of English language learning courses they have taken, and their experience with blended classes, specifically their use of LMS discussion boards like D2L. General information about the participants, consisting of their name, age, reasons to study abroad, and their English proficiency before coming to U.S. are also presented. The questions used to obtain this data can be referenced in Appendix D Number 1 Section 1. The study participants had to meet the following selection criteria: 1) Voluntarily participated, 2) ELL Saudi students who were currently living abroad in the United States, and 3) ELL Saudi students who were currently enrolled in at least one blended college course as an undergraduate student in an accredited college or university in the United States.

Ultimately, seven students were selected. All the participants were Saudi male undergraduate students majoring in various bachelor's degree programs at the university. The participants were from two different classes. Three were in a history class and four were in a political science class. The participants' ages ranged from 20 to 25 years old. All the participants were English language learners. All of the participants studied English in Saudi Arabia for six years, dividing into three years in middle school and three years in high school. This means the participants' educational experience is with a teacher-centered environment where lecturing is the dominant method of instruction. According to Neil (2011), "teachers in Saudi K-12 schools are most likely to teach by rote and memorization. Lecturing followed by testing is the status quo with little, if any, encouragement for problem-solving skills and critical thinking" (p.8).

In the Saudi teacher-centered environment students are passive learners who only listen and memorize course material with no chance to practice high-order thinking such as analyzing,

applying, reflecting, and participating (Alam, 2013, Freire, 1970). This cumulative educational background creates students who may resist and feel intimidation to be in a different teaching environment such as a student-centered environment that requires learning skills beyond listening and memorizing. For this reason, these Saudi students were ideal study participants because they all came from the same traditional educational background. They all came from a lecture dominated background where the banking model of education was widely used. The students thus were excellent choices to see how they would respond to a student-centered online LMS discussion board environment. According to Zaed, who was for the first time in a student-centered classroom using LMS discussion boards, at "the beginning of the time of the semester, ahh I never used or have strong foundation like using D2L discussion board ahh.. so, I can like have a fear on how, why and when and what can I use it and all that stuff." Zaed raises the kind of concerns many students from teacher-centered educational environments may have when entering the LMS discussion board environment.

Since Saudi Arabia considered English language as a foreign language, the participants learned English as a school subject with very little or no exposure to native speakers. It was even rare for the participants to use English outside of the classroom. In most cases the types of Saudi students graduate from high school unable to speak or write correct sentences in English (Al-Nasser, 2015). All the participants came to the U.S. after graduating from high school in Saudi Arabia. Some of the participants were not able to conduct a conversation or write a short paragraph in English. Nevertheless, they valued English not only as a school subject but as a necessary means for continuing their education. One of the participants held learning English in such high regard that it motivated him to continue learning English by attending English

language centers during the summer before arriving in the United States. For these reasons, the participant's English proficiency was varied from poor to very good.

All the participants attended English language classes in various English language institutes across the United States. The duration of their study in English language institutions varied from ten months to two years. The participants' goal was to learn English in order to prepare for a bachelor's degree program. In order to be accepted, they had to pass an English language proficiency test such as the TOEFL or IELTS.

All the participants were familiar with the use of computers and laptops. However, the participants had different experiences with using LMS platforms such as Moodle or D2L. Six out of seven of the participants had no experience with these platforms. One participant had previous experience with Blackboard from high school. The participants who were new to the experience expressed feelings of nervousness, fear, and excitement with regard to the use of D2L.

Table 1

Participants' Demographic Information

Participant*	Gender	Years of English in S. A	Years of English in U. S	Language Test (TOEFL/IELTS)	University Degree	University Grade	Experience with LMS prior to this study
Ahmad	M	6	1 year	IELTS	Bachelor of Arts	Freshman	None
Bander	M	6	2 years and 6 months	IELTS	Bachelor	Freshman	None
Maher	M	6	1 year	IELTS	Bachelor	Freshman	high school
Naser	M	6	2 years	IELTS	Bachelor	Freshman	None
Rajih	M	6	1 year and 6 months	IELTS	Bachelor	Freshman	None
Yaser	M	6	10 months	IELTS	Bachelor	Freshman	None
Zaed	M	6	1 year and 6 months	IELTS	Bachelor	Freshman	None

Note. Participants have been given pseudonyms to protect their privacy.

Themes

Using a thematic analysis, participants' responses were analyzed to highlight relevant patterns within the data which corresponded to the research questions. Themes were identified based on common topics which were mentioned by at least half of the participants during the in-person interviews. The analysis of the data looked for evidence of active learning through discussion board use as discussed by Baglione and Nastanski (2007) and Blackmon (2012).

Research Question 1: Student-Centered Learning

The first research question looked to identify Saudi students' perceptions of student-centered learning in an LMS discussion board environment. In studying how the LMS discussion board environment impacted the learners, I found five major themes that showed how the

students perceived their experience working in this new online environment. The students said that the environment:

- Required adaptation over time
- Promoted responsibility for learning
- Increased learner engagement
- Encouraged free expression
- Encouraged learner collaboration and interaction.

Required Adaptation Over Time

This was the first time for most of participants in the present study to be in a student-centered classroom. It was also for most of the participants the first-time using LMS discussion boards. The participants of this study offered various perceptions of their experiences with the discussion boards. These perceptions ranged from feelings of hesitation and intimidation to the feeling of excitement and a sense of adaptation. The causes of their intimidation were varied.

According to active learning theory, in a student-centered classroom, students engage directly in the learning process which extends their skills and helps them generate their own ideas (Bonnell, & Eison, 1991). In this study, the discussion board use required and encouraged students to actively engage in class activities like reading, discussion, and writing in order to reflect on the content of the course while responding to their classmates. The students learned by actively applying higher-order cognitive practices such as evolution, synthesis, reflection and analysis (Bonnell, & Eison, 1991; Smith, 2015; & Rusbult, 2007).

With that in mind, the participants of this study needed time to adapt to a student-centered classroom and to become familiar with using the LMS discussion boards. They were asked to provide their impressions about using the LMS discussion boards and whether they felt

the LMS was helpful in learning course content as well as improving the English skills. The participants said their feelings about using the LMS discussion boards changed from the beginning to the end of the semester. The participants lacked experience with student-centered classrooms, so they needed time to adapt to being in this new learning environment to using LMS discussion boards use as a tool for their writing.

According to their answers, the participants were initially stressed and intimidated about using this new technological tool; however, toward the end of the semester, they all felt satisfied with using the LMS platform. They said they felt that the LMS discussion boards assisted them in learning the course content and in improving their English reading, writing, speaking, and listening skills. Ahmed stated that:

Actually, at the beginning of the semester, the use of the discussion boards was very difficult for me, [but] then I get to use to it over the time. Actually, I enjoyed learning and using discussion boards as a method of learning. I feel it helped me to learn more about the content by searching and reading different materials related to the subject and it improves my English skill as well.

Bander agreed with Ahmed:

I felt there are some difficulties regarding the [use of LMS discussion boards as a new] technology because I am not good at technology.

Likewise, Rajih stated that:

As I said at the beginning of the semester, I was worried of using it and not getting to understand the course requirements but this feeling like decrease as the semester goes toward the end since I get to use to it and be familiar with it. When I start to use discussion board, I taught myself to use new words or academic words. Because my classmates use words that I do not know. So, I try to learn from them.

Also, Zaed shared his initial fear of using LMS discussion boards:

> By the beginning of the time of the semester, ahh I never used or have strong foundation
> like using D2L discussion board ahh.. so, I can like have a fear on how, why and when
> and what can I use it and all that stuff. Ahh… by the time the semester is keep going I
> learned how to use it and when to use it when I should submit the method, I should
> submit in …ahh… the forms

The participants shared their initial feelings of the stressfulness of using the LMS discussion boards for the first-time. However, these negative feelings wore off gradually as they progressed during the semester. Over time the students adapted to the student-centered classroom while using the LMS discussion boards. The participants also shared other reasons they felt intimidated about using the LMS discussion boards.

Posts are read by their classmates. One characteristic of a student-centered approach is having students collaborate to co-construct knowledge. In an LMS discussion board, collaboration occurs by students reading and responding to each other's posts. This aspect of the course was one thing the students had to adapt to. Having other students read their posts made some of the participants feel intimidated. For example, Naser, as a first-time user of LMS discussion boards, said he was worried and stressed about posting because he knew that his native-speaker classmates would read his posts. He said:

> To be honest with you, I was so worried. This was the first time for me to write
> something and post it and my classmates who are native speakers of English will read my
> posts. I used to submit my homework and the professor is the only one to read. Now
> everybody will read my post and that makes me worried and stressed out to use
> discussion board. I feel intimidated because I think what I wrote is less better than my

native classmates. Of course, their first language is English, and they write better than

me.

Similarly, Rajih shared his concerns about using LMS discussion boards in blended classes for

the first time. He said it was a very tough experience due to his writing skills. He said:

To participate in online discussion is a little bit tough for me because it is going to be

hard [for me] to state my idea, whether my writing [uses] correct grammar or the right

vocabulary. Yeah, I believe it is a little bit tough.

Zaed also expressed his anxiety about using LMS discussion boards as an initial experience

because of his inability to understand his classmates' post. He stated:

There is nothing that I dislike it is more like… sometimes I am not going to understand

some thoughts of my classmates.

The novelty of responding to posts in the discussion boards and the participants' lack of

confidence in their language skills caused stress for some of the participants as they collaborated

with their peers.

Technical difficulties. Another element of using discussion boards that participants had

to adapt to was having a lack of technical knowledge. The participants as first-time discussion

board users sometimes perceived technical difficulties as a barrier to their learning. This caused

frustration, but as the semester progressed, the students overcame these technical issues. One

student, Bander, said he had trouble uploading a large file that Moodle would not accept. Bander

said:

I had a problem with submitting one of my homework because the file was too large

based on the Moodle's system to upload. So, I first contacted one of my classmate[s] and

he did not respond to me at that time, so I emailed my professor and he directed me to consult the IT department for help. Then my friend responded to me and provided help.

To follow up with this issue, I asked during the interviews the participants if they had someone to go to for help when they were having LMS difficulties. All the participants said they felt comfortable asking a fellow classmate or the professor for help when they needed it.

Overall the participants said that they had to address feelings of intimidation and discomfort when utilizing the LMS discussion boards for the first time. Those negative feelings were often associated with their unfamiliarity with LMS systems. Fortunately, those negative feelings dissipated as the course progressed and the students' confidence levels increased. In the long run the participants perceived the LMS discussion boards to be effective tools for learning to write.

Use of extra time. One way that students adapted to using the discussion boards was by making use of the extra time the online environment gave them to write their posts. LMS discussion boards help to create a learning environment where students can work at their own pace and take responsibility for searching out resources they may need for their writing.

Many of the participants purposefully allocated the time to read relevant material and resources thoroughly, learn more about the topics being discussed, analyze what they had read, and synthesize their thoughts to construct responses and provide in-depth reflections about what they had learned. The participants said they did not rush through assignments, instead they took their time to do a good job. The actions of these participants in using extra time effectively to construct appropriate and in-depth responses reflects components of active learning discussed by Meyers and Jones (1993): talking, listening, writing, reading, and reflecting. Ahmed shared his thoughts on this point. He said:

I feel like posting in the discussion boards make[s] me spend a good amount of time in doing my discussion. I go through several steps, like I said, starting [with] searching for the knowledge to the step of sharing it with my classmates in proper English. This all helps me to learn.

Ahmed also explained that the discussion board format gave him greater flexibility with his time. He explained that in class, he is forced to think quickly but the online format had a different effect:

In LMS discussion boards, I have more chances more choices to read, write, review, and come up with ideas.

Bander agreed with Ahmed's statements by explaining:

I think it is very beneficial in many positive aspects such as the flexibility of time and place. The flexibility of doing the assignment of the activity so I can do it any time. It is too comfortable to know that you can do your homework anytime and anywhere.

Similarly, Naser said:

I have the time to read, understand and write my thoughts. This process makes me have good information about the topic and build up the knowledge which I share in the next class.

Having extra time to think about what they wanted to say was a common but powerful issue for why the participants perceived the LMS discussion boards as effective for their learning. As Zaed said:

I like discussion board because there is stuff like flexible time [. It helps me to] keep thinking again and again of the thought that I am going to submitted and going to share it with classmates even though with my professor. Whenever it is through the discussion

board you have your time to think and rethink and write and rewrite whatever your thought is and come up with a perfect answer. [In class], you are limited by time, you have to give an answer right away, and you have to be ready in class.

Promoted Responsibility for Learning

One of the traits of a student-centered approach is to promote active learning by making students accountable for their own learning. Participants did indicate that they believed participating in online discussions made them more responsible for their own learning. The participants said the LMS discussion boards encouraged them to develop autonomy in language learning and in course content learning as well. Zaed shared his opinion saying that:

I think studying through LMS puts the student under the responsibility of searching and looking for the information.

Bander shared a similar view to Zaed's. He said:

Actually, participating in LMS discussion boards makes me want to learn more about the content.

Similarly, Naser used the online opportunity to deepen his learning. He explained:

LMS gives me the chance to use the internet to search for the information from different websites. This helps me to understand the topic and the entire course.

Ahmed's thoughts also matched the other participants. He said:

[LMS discussion boards] gives me the chance to study in deep about the content and develop my language. For example, when I search and read the material, I write my own thoughts then I read about it then I put my post in proper English.

Thus, participants in student-centered classroom become active learners while using the LMS discussion boards. In other words, students on their own took the responsibility to search and

construct knowledge with their peers instead of sitting quietly and listening passively. Using the LMS discussion boards helped the students develop a sense of awareness as a learner and responsibility for knowledge construction, abilities which the students can apply to any course they take.

Increased Learner Engagement

Another key part of a student-centered approach is actively engaging with peers. The LMS discussion board created many opportunities for students to discuss and share ideas in posts.

New technology is engaging. The participants said that they were very engaged with using this technology because for most them it was brand new. The participants indicated that using the LMS discussion board environment increased their general participation in class. The participants also said that the newness of the LMS platform led most of them to become more active students, increasing their involvement in the class beyond face-to-face interactions where they were more hesitant to participate. Ahmed further explained:

Yeah, you know, I feel like posting in the discussion board makes me want to spend a good amount of time in doing my discussion.

Naser's perception was similar to Ahmed. He said:

I feel like I participate more in blended classes than in regular class. Because, as I am an international student, I do not like participating in class because I cannot pronounce the words correctly and this makes me feel that other students will laugh at me or even do not understand what I want to say. Also, before answering the question I need time to organize my thoughts and practice how to say it. And sometimes I do not know the

answer and I need to read more to look for the answer. But, [participating through LMS

discussion boards] make[s] me to read and write a lot. I learned about the content and I

improve my language. I feel it involved all the skills of English.

Bander also agreed with Ahmed's and Naser's views. He stated that:

I will be more involved with discussion boards, more than in class discussion because

here I have time to answer, I have sources, I can look for the answer, I can arrange my

ideas.

Similarly, Rajih shared his fellow participants' desire to better learn the assigned topic:

LMS discussion board, in my opinion, make me search and discover the knowledge about

the topic. Whenever I write my reflection about the topic, answering my peers' question,

and commenting to their reflections requires me to read a lot and have information to

discuss with my peers.

As for Yaser, he mentioned an interesting reason that actively engaged him to participate in

using the LMS discussion boards. He stated:

I think I feel more active in interactions with peers through LMS discussion board than in

class. I have the time and the resources to make sure what I write is correct in terms of

content and grammar. I choose the questions from the posts that I can answer. But in

class the teacher may ask me question that I have no idea about it. I do not feel ok talking

in front of the class. I do not know may be because my speaking is not good as native.

Make me want to write [to engage actively in participation].

Since LMS discussion boards require students to answer other students' posts, this create the

opportunity for students to choose the specific posts where they can write responses which will

allow them to share their knowledge. This is a valuable element of LMS discussion boards for engaging students actively in the learning process.

Using LMS discussion boards is enjoyable. Using LMS discussion boards attracts students' attention and often motivates them to focus more deeply on the required work. All the participants said they enjoyed using the LMS discussion boards and found them engaging. Each one offered their own reason for liking them.

Ahmed used to do his homework with paper and pencil, so using D2L to participate and finish his schoolwork was completely new to him. He said:

Actually, it was a new experience for me. It is a great idea to do schoolwork with technology and computers. In high school back home, I used to do my homework with a paper and pencil.

Bander expressed a more immediate appreciation for using LMS discussion boards. He indicated that it was less stressful than other learning methods with which he was familiar. He said:

This semester is the first time for me to take a blended class and I felt confident at the beginning because there is no face to face lecturing with the professor and there is no pressure.

As for Zaed, he agreed with Bander in terms of stress relief, not only for students but for the professor, too. According to him the platform is designed to facilitate classroom management as well as basic assignment completion. Additionally, Zaed said he liked using the LMS discussion boards because he felt they offered time and location flexibility. He said:

In my opinion blended class is such a great idea. It is combining technology [and] also it is putting less stress on students and also on the professors for fixing stuff, checking on the grade, and all that because pretty much the online computer is doing all the work. It is also

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flexible with the students because they can do their work from any place and feel

comfortable. Also, they have a few days to do the work and submit before the due date, not

as the old classic school [model where] you have to submitted during the class time.

Yaser also appreciated using the LMS discussion boards. As a first-time user, he preferred

submitting his homework online over handing it in to the professor personally. He stated that:

It is an exciting experience because in other classes, I use the computer to type my

homework and print it to give it to the teacher. But [through using] online discussion, I

can submit my homework and I do not [need] to print it. It is also interesting to talk to my

class friend in writing.

Bander even felt that using the LMS discussion boards in the U.S was preparation for him to

potentially use LMS discussion boards once he became a teacher in Saudi Arabia. He said:

I was not familiar with online classes and its process. Plus, when I go back to Saudi

Arabia as a teacher, I might face the same situation with my students, so if I did not adopt

myself here, I cannot survive over there. Now, I have more experience to apply once I go

back.

Limited engagement. The only participant who expressed some dislike of the LMS

discussion boards was Maher. Maher was the one participant in this study who had previous

experience using LMS discussion boards. He said when he first was introduced to LMS

discussion boards in high school, he appreciated them a lot and was excited to use them.

However, Maher said his positive feelings changed once the LMS was no longer something new

and exciting. After a while, he said he felt the system became repetitive:

For me, I think of [LMS discussion boards as interesting] when the subject is a topic of

interest for me. [However,] I think of it as hideous to do. I feel like I am forced to do it.

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[Because] the activities are [not] being distinguished. I do not like to write the same idea

as my classmates do. My idea is going to be the same as other people. I need to be a little

bit different than them. So, to make it more a discussion board rather than repeating the

idea which makes it difficult to respond to other people since I have the same idea.

Encouraged Free Expression

One of student-centered characteristics is to motivate students to think critically and to

express their thoughts freely. Participants explained that they believe LMS discussion board use

permitted them the freedom to articulate themselves more effectively because they did not worry

about their spoken language skills. Rajih explained how when the pressure to perform in class

fell away, he was better able to express himself:

For me, I am not an active participant in the classroom, even if I know the answer

because I would be under pressure a little bit in terms of speaking. I mean, I will be a

little bit [worried] to make any mistake. I like discussion board more because I would be

more active on it. I have time to read other sources to answer the question and check my

writing before postings. Because of using LMS discussion board, I already know what to

say and I already read what I wrote. So, discussion boards prepare me to participate.

Naser had a similar experience and went on to explain how discussion boards made him feel

more capable of keeping up with his native-speaker classmates:

In blended classes that has LMS discussion board, I can participate freely through

writing. I can use all the sources to help me write a good answer. And I have the time to

read, understand and write my thoughts. This process makes me have good information

about the topic and build up the knowledge which I share in the next class.

Zaed also agreed, mentioning how the lack of time constraints online gave him the space to craft

more educated responses:

> Well, whenever the professor asks you in class, he is expecting you to answer right away,
>
> within a second. But whenever it is through the discussion board you have your time to
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> think and rethink and write and rewrite whatever your thought is and come up with a
>
> perfect answer.

Overall the participants said they enjoyed having more freedom to express their ideas in

the discussion boards. This shows that this online teaching environment was achieving the goal

of student-centered learning by encouraging students to actively participate.

Encouraged Learner Collaboration and Interaction

Through the lens of active learning theory, LMS discussion boards are a virtual

community wherein the members interact with each other not only to "assimilate" new

knowledge, but to "accommodate" and construct on their prior knowledge (Piaget, 1952).

Participants reported that using LMS discussion boards made them learn more about the content

by reading their classmates' posts before making their own posts. The use of peer responses to

help construct knowledge is a key part of active learning theory which describes students

actively engaging in "(a) thinking critically or creatively, (b) interacting with a partner, in a small

group, or with the entire class, and (c) expressing ideas through writing" (ElDin, 2014, as quoted

in Santos *et al.,* 2016, p. 199).

In that sense, the LMS discussion boards created an environment where knowledge was

mutually constructed as students interacted with each other. Active learning occurs through the

discussion board reading and posting as students build knowledge together through their

interactions. Bander said that:

I feel like reading my peers' posts help me to learn something new about the content. The peers' posts discuss the topic from different aspects and this kind of helps me to know more things about the content that even the professor did not explain in the class.

According to the participants, reading peers' posts was not only helpful in terms of learning the content, it also provided them with ideas on how to better construct written responses when encountering new words or phrases. Naser said:

It is very helpful. Whenever I read different points that is [*sic*] different than mine I discuss with them. I read my peers' post to learn new words that they use, also the way they say their arguments.

Yaser confirmed this point Naser had stated. Yaser said:

I read my peers' posts to make sure that I understand the question right and I answer based on my understanding. I use them like guidelines for my work. As a Saudi student, I always try to see the way they express their thoughts. I want to sound like native speakers when I write.

Another characteristic of active learning is students actively engaging in the class by "thinking critically or creatively and expressing ideas through writing" (ElDin, 2014, as quoted in Santos et al., 2016, p. 199). One participant in his interviews described the value of LMS discussion boards not only to express his thoughts and improve his English, but also as a method for improving his critical thinking skills. Zaed said that being able to develop his ideas online first before responding in a face-to-face class made it possible for him to express his complex thoughts in a precise and meaningful way through writing to his classmates. He said:

I can recognize myself that ahh… I am really good in connecting thoughts together even though they are in two different areas also developing complex ideas and write so fast

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and make easy and not difficult to understand and write it in easy word that is going to be

make it able for any students would understand my idea.

For one participant, however, face-to-face collaboration was more positive than online

collaboration. Maher said:

The experience of using discussion board for me is not interesting because I was bored

most of the time and...I like face to face discussion. But discussion board really helped

me improve my language. I mean, I start to type faster, write correctly mostly. I like in-

class discussion more than writing a post and wait for people to reply and come back to

check on it in order to reply which is tiring and like full time job to check your post every

30 minutes, so you can reply to other people. So, that is why face-to-face discussion is

more beneficial for me especially if I have somebody has an opinion or an idea I can

reply to then instantly. But if I have a question to ask through discussion boards, I may

forget about it and my line of thought is going to be disconnected even if I get back to it.

Maher's negative views of the discussion boards shows that no single teaching method will work

effectively for all students. This is why it is good for teachers to use multiple pedagogies so that

if one pedagogy is uncomfortable for a student some other pedagogy may reach them. This

means that blended/hybrid courses may prove to be the most effective types of courses for many

students.

Research Question 2: Writing Development

The second research question looked to identify how Saudi students perceive their

writing development when using LMS discussion boards. In studying how the LMS discussion

board environment impacted the learners' writing development, I found five major themes:

motivation to use language tools, impacts on participants' writing process, additional language

learning, improved English learning skills, and skills not addressed by LMS discussion board use.

According to Usó and Martínez (2006) and Sánchez-Gómez (2017), language learners must develop their speaking, listening, reading, and writing skills in order to communicate effectively in a second language. This study focused on two of those skills, reading and writing.

Reading is defined as the process of making meaning of a certain text in a specific context and about a specific topic (Pressley, 2000; Sánchez-Gómez, 2017). In other words, reading is not about understanding the meaning of isolated words or sentences, but it is the process of obtaining overall meaning from a text as a whole (Woolley, 2011).

Writing is defined as the skill which requires students to think, draft, and revise in order to produce a written text (Nunan, 1989). Writing requires students to think about what material they comprehend and what they need aid to make sense of (Bean, 1996). Sánchez-Gómez (2017) explains that when writing language learners have to learn "how to generate ideas, how to organize them coherently, how to use discourse markers and rhetorical conventions coherently into a written text, how to revise text for clearer meaning and how to edit text for appropriate grammar and how to produce a final product" (p. 36). Lado (2000) notes that writing requires language learners to attend to issues such as grammar, vocabulary, and coherence as they try to compose an effective text.

With this in mind, LMS discussion boards create an important opportunity for students to develop their writing. Analysis of individual interviews yielded five sub-themes around participants' perceptions of their writing development. These themes included:

- Motivation to use language learning tools
- Impacts on participants' writing processes

- Additional language learning

- Improved English skills

- Skills not addressed by LMS discussion board use

Motivation to Use Language Learning Tools

Participants expressed that using the LMS discussion boards gave them the motivation to discover other online language resources which they then utilized to craft their written posts. These resources helped participants attempt to write clearly while utilizing academic level English. Examples of such sources included Grammarly, Google Translate, Dictionary.com and word processing tools. Participants reported using these resources to look up the meanings of new words, check spelling, and correct grammatical mistakes. Additionally, participants searched the Internet using Google and Explorer to search for articles or YouTube videos which helped them to learn more about their assigned topic either by providing good explanations to improve understanding or by using illustrations. Ahamed, who used online language resources, said that:

I use Google Translate and Explorer to [find] material and I use grammar websites like Grammarly to check on my grammar before posting.

Bander made a similar declaration to Ahmed's. He said:

Usually when I do my homework, I use [the] Grammarly website, which is a tool to help with writing. It helps me with grammar, word choice, punctuation and academic writing style. [The] Grammarly website is very helpful and very useful with word choice because it gives the writer many options. Also, I use [the] Longman dictionary website to look up the definition of the new words. That helps me in understanding the articles as I

read. Also, I use Google Translate to know the Arabic meaning of the words and make

sure I am using the correct word in the correct context.

Similarly, Maher shared corresponding opinions. He said:

I first type my thought in a word processor to check my spelling, then I copy/paste what I

wrote into [the] Grammarly website to check the grammar, then I read to myself to see if

it sounds right, then I copy/paste to discussion board and post it. I use Grammarly to check

my grammar.

Participants used these additional resources outside of the LMS discussion board in order to

improve their written posts. While the discussion board provided the students with a means to

actively engage in the learning process, it did not provide students with all the tools or resources

they needed to write and communicate effectively with their classmates. Therefore, the students

turned to websites like Grammarly and Google Translate to help them craft more grammatically

correct and linguistically varied responses.

What this shows is that the students perceived posting on the LMS discussion boards to

be an important public performance. The participants wanted their posts to be well written. They

did not view this as informal writing. Instead, they view the posts as formal writing and spent

time not only composing but also checking their compositions using online tools. For English

language learners, posting on discussion boards is a challenging activity, one that encourages

them to work actively to create quality posts.

Impacts on Participants' Writing Process

Another important area to discuss is the writing processes used by participants during this

study. The writing process, as typically taught in many schools worldwide, covers

prewriting/brainstorming, writing, revising, editing, and publishing. This process is taught

commonly throughout the U.S. (Schools, 2007). This study identified some ways participants' writing processes changed as a result of working in the LMS discussion board environment. The study also describes some of the benefits associated with using LMS discussion boards for learning to write.

Jose and Abidin (2016) discuss how LMS use impacts students' writing processes. Specifically, they found that students worked through a variety of writing process stages. The students in their study brainstormed ideas, drafted, worked on organization, checked spelling, and checked grammar. Jose and Abidin also found that the use of the LMS encouraged students to develop more original ideas and express themselves creatively.

The current study bears out Jose and Abidin's findings. The current study shows that participants changed their writing processes because they were working in the LMS discussion board environment.

The participants in this study were asked about the procedure they followed before posting in the discussion boards. Most of the participants identified processes which helped them to take responsibility for learning the content, constructing the knowledge, and developing their writing skills. This routine not only described their writing process but reflected elements of active learning consistent with a student-centered course. According to participants their writing processes included reading the material, brainstorming ideas, organizing their thoughts, and drafting responses while paying attention to spelling, grammar, and efficiency of thought expression. Responding to the LMS discussion board questions, according to Rusbult (2007), "produce active learning, because educationally productive mental activity can occur-with or without physical activity in which you 'do' something-during a wide variety of mentally-active experiences" (p. n.d).

A deeper look into the writing process used by the LMS participants illuminated several steps which participants took when constructing responses. The first step involved reading the material and began with first understanding the questions asked on the discussion board. This often would involve the participants utilizing translation resources as discussed in the previous section. Next, participants would read or watch the assigned article or video link respectively in order to actively make meaning of the material. For the participants, this often involved looking up the meaning of new words which required them to read other online materials to understand the subject. Participants would also read their peers' responses to make sure they understood the question correctly before responding or to gain ideas on how to respond. Finally, they would organize and compose their thoughts using word processing tools like Grammarly or Microsoft Word which allowed them to thoroughly check for grammar and spelling mistakes.

In addition, participants indicated using other resources to check on their writing. For instance, two participants (Yaser, Zaed) mentioned going to the university's writing center for editing help during this step of the writing process. One participant (Zaed) also read his responses aloud to himself to make sure they "sounded right". Another participant (Rajih) asked one of his native speaker classmates to read and edit his responses.

Ahamed, in his individual interview, described his appreciation of various language resources in helping him to post responses. He said:

> First of all, I read the material or the chapters. I use [online] translators and dictionary websites to understand. Then, I write down my ideas from my own perspective. I use Grammarly websites to correct grammar and spelling. Then, I compare my answers with my peers to make sure that I answered the question correctly. After that I post it.

Rajih agreed with Ahmed. He said:

> First, I would go the PowerPoint as a source of information, if there is any. Also, I would use the book and I would look at some online sources related to the subject. Then, I start to brainstorm the ideas and start to write it on Microsoft Word to help check my spelling. After that, I read it, then I post it. I more often read my classmates' postings because it gives me [an] idea about how to organize my thoughts and write it in perfect English. Also, I read comments that made by the professor on my classmates' posting because I see what the mistakes are, so I do not make [them too].

Some of the participants used several methods for helping insure the correctness of their writing in terms of grammar and meaning before posting. Yaser mentioned that:

> I write my ideas on the Grammarly website to spell check [*sic*] and grammar. If I have time, I go to [the] writing center in the library to see if they can understand what I wrote. Finally, I post it.

Zaed had a different strategy which relied more on his own skills:

> I read it to myself out loud and see [how] it sounds in my head. If it sounds right, I will keep going on it and sometimes if I am posting a big article in the discussion, I would sometimes ask somebody's help to take a look at it. For example, I go to the skill zone and the writing center to [find someone] to look at my posting.

Interestingly, the seven participants all used a similar writing process for posting on the LMS discussion boards:

1. Reading the weekly discussion prompt.

2. Using translation tools in order to better understand the weekly discussion prompt.

3. Reading the assigned material and/or viewing the appropriate video relating to the prompt.

4. Using language learning resources to look up unfamiliar words to better understand their meaning and purpose.

5. Reading and reviewing their peer's posts in the discussion boards to reflect upon and gain ideas in relation to the discussion prompt.

6. Composing appropriate and effective responses using word processing tools which allowed them to check for grammar and spelling mistakes.

The participants regularly relied on outside resources to help them develop their English language skills.

Additional Language Learning Tools

Participants reported other positive language learning outcomes when using online language tools to do their writing. Using these online tools helped the participants to learn new grammar, punctuation, spelling, and vocabulary, including context-specific vocabulary, transition words, and academic wording. Bander indicated that the use of online language sources, namely Grammarly, helped him to correct mistakes and learn when to use which punctuation when constructing responses. He said:

Usually when I do my homework, I use [the] Grammarly website, which is a tool to help with writing. It helps me with grammar, word choice, punctuation, and academic writing style.

As for Rajih, the online language tools helped him to increase his grammar knowledge by learning new grammar or revisiting a forgotten grammar rule. The tools also allowed him to find more academic words to explain his ideas. He mentioned that:

As second language speaker of English, I use the translator sometimes, whenever I face

difficulties in understanding some words or [I] even look for academic words to express

my idea. I sometimes look for the use of certain grammar to use in my post. For example,

I kind of forget how to use "if" in the sentence. So, I search online, read, and learn about

the topic and apply it in my post.

In addition to Bander's experience, Zaed learned the use of transition words to connect his

thoughts and to further discuss ideas both on the LMS discussion board and even orally in class.

He said:

I did not know how to use the transition word[s], but by now I am 100% confident in how

to use [them], and where to put [them], and what type of punctuation to use before and

after a sentence. Transition words help me, also, whenever I speak up in front of

classmates or have a job interview. Also, I learned a big chunk of academic word[s] that I

could use in my [speech].

Thus, using discussion boards for ELL students had another unintended benefit in terms of active

learning. It prompted the participants to take responsibility for their learning since they had to fill

gaps in their writing knowledge using online learning tools. By actively searching for and using

online learning tools, participants were able to fill in those gaps and gain confidence in their

writing skills as the course progressed. Using discussion boards gave the students an opportunity

to search for and use these resources, which may have not been available to them in a traditional

classroom setting.

Improved English Skills

All seven participants discussed the value they gained from using the LMS discussion

boards as a tool for learning. The participants felt that utilizing this tool in university courses had

a positive impact on the development of their English skills. According to responses to interview questions, the participants indicated that using the LMS discussion boards in their blended courses had played a large role in improving their English skills.

Common responses regarding their feelings towards discussion boards were shared by multiple participants throughout the interview process. For example, Ahmed explained:

I really like LMS discussion boards because it [*sic*] really helpful in improving my English. I feel like the four [language learning] skills are involved to respond to questions or to comment on classmates' posts.

Similarly, Naser stated:

Discussion boards make me work hard to write a perfect, good post. They make me do a lot of work like reading, searching, and understanding because everybody in class is going to read it.

Each of the participants noted improvements in their English skills from using the LMS discussion boards. Participants implied that these improvements occurred because they could employ their skills consciously every time as they answered a discussion board question. In addition, as discussed in previous sections, each participant followed the same meticulous process in reading and responding to discussion board questions through writing. Thus, by using characteristics of active learning, such as reading the assigned material, understanding new and unfamiliar words through online resources, and reflecting and responding to classmates' responses, the participants made sure they were able to understand material correctly before constructing responses.

By consulting additional resources to check their language use, not only did the students' reading and writing skills develop, but the participants also found opportunities to improve their

speaking and listening skills as well throughout the course. Maher reported that using the LMS discussion boards helped him to improve his writing. He goes on to explain:

> I mean, if I learned a new word, I can use it in other classes to write my papers. Also, when I discuss with classmates about our posts in class, I think I put my speaking skills in use [because] classroom interaction helps me [be better understood by my peers]. Also, reading and listening skills are involved. ...I have [to] first listen to the professor and my classmates' interaction in class as he explains the lesson. Then I go home to read the PowerPoint or the assigned article and make sure to understand them.

Also, Rajih shared his thoughts, he said:

> I am [the] kind of student [who does] not talk much in class. LMS discussion board[s are] where I practice my English by reading a lot and writing my ideas. I use the sources to make my posts clear to my peers and professor. Because of using LMS discussion board[s], I already know what to say and I already read what I wrote. So, discussion board[s] prepare me to participate in class.

Despite the largely positive feedback regarding discussion boards from participants in this study, two participants (Bander and Zaed) believed that only their reading and writing skills were affected by discussion boards lessons. They did not consider listening to online videos or the speaking and listening during in class discussions to be part of the process. For instance, Bander said that:

> [T]he writing skill is the most skill that improved. Second skill is reading because I have to read and understand the article or the questions then I have to response through writing. So, regarding the speaking skill, there is may some improvements, but it is not remarkable improving.

In the same way, Zaed felt that the LMS discussion board only impacted his reading and writing skills. He said:

> Well, the discussion board is based on reading and writing. You read whatever the
>
> question is being asked and read whatever classmates post and share your thoughts by
>
> writing. It helps to improve my reading and writing skills.

Despite the qualifications by two of the participants, the study shows evidence that using the discussion boards provided opportunities for students to improve the four language skills of reading, writing, speaking, and listening. In other words, how discussion boards are being used and by whom, in terms of experiences and individual perceptions, will have various effects on language development for students. For students who report positive experiences and perceptions regarding LMS discussion boards, they may walk away from a course feeling that their language skills have improved more than their peers who had more negative experiences and perceptions.

It is valuable to note from this study that LMS discussion boards required students to take responsibility for their own learning since they had to utilize various online resources to fill gaps in their writing knowledge. This meant one of the goals of active learning was achieved in this student-centered environment. Thus, writing may have improved for students regardless of their own individual perceptions and experiences with the discussion boards.

Skills Not Addressed by LMS Discussion Board Use

It is also interesting to address skills that participants felt were not improved through LMS discussion board use. Some of the participants expressed concerns that the LMS discussion boards hindered their language development in areas like handwriting, spelling, understanding others' posts, and longer compositional writing. Bander explained that, depending on the

computer, typing his responses allowed him to use autocorrect, leading to difficulties in memorizing the spelling of unfamiliar or new words. He said:

> Whenever I want to write something with a pen and paper, I find it difficult to get the spelling from the first time. I struggle with spelling even if it was [an] easy word to spell and I need to think about it because I used to type on the computer and the websites [would] help me to autocorrect the mistakes. Some words are familiar, but with [continued use of my] computer and these aids of language, when I go to use handwriting, I forget even some of the words that I [am] familiar with.

Also, Zaed expressed his concern in misunderstanding his classmates' posts and comments or being misunderstood himself since he was unable to observe tone and body language normally seen in face-to-face interactions. He explains:

> I [am] afraid not to be able to [be] clear in writing. [Facial] expressions help a lot for people whenever you talk in front of them. They help them to understand what you are aiming for and [whether you are] in the right side or dark side about [an] idea.

Maher mentioned that his skills did not improve in the area of longer, compositional writing. He stated:

> Discussion boards taught me to write short sentences or short paragraphs, which is, in other classes, not good. I mean, you need sometimes to write more to explain yourself. Because some classes ask to write papers that are like no less than 4 pages. Whenever I write a paper I think a lot and come with ideas to fill the pages alright. But in discussion boards I discuss only one idea with ten sentences maximum.

> In terms of writing development, some of the participants perceived an increase in

learning English, but not all of them described improvements in their learning in the same way.

Based on individual experience, participants felt that not all language skills were adequately addressed through LMS discussion boards. These findings indicate that the use of LMS discussion boards may have a positive impact on students as active learners but may still fail to offer chances for students to improve other language skills such as longer compositional writing, interpersonal engagement, and spelling.

In addition, participants mentioned that LMS discussion boards did not have a built-in feature that employs the use of the speaking and listing skills. According to the participants such features would enhance the LMS discussion boards. One of the most popular suggestions made by participants was requesting to add in audio and video features. This would enable students to fully practice the four skills of English (reading, writing, speaking, and listening) in their online classrooms. Ahmed pointed out that adding a speaking and listening feature would encourage English language learners to not only practice their English with their native-speaker classmates, but to also discuss and brainstorm new ideas about the topic beyond writing alone. Bander agreed with Ahmed. He said:

> I think if there is a feature where students can share, communicate, or post audio and video messages, it would be much better than only typing. Because it will involve all the four skills especially listening skills.

According to the participants, the addition of the audio and video feature to the LMS platform would help English language learners to get over their shyness and speak up in front of their classmates more. Yaser said:

> If an EFL [student is] able to listen and speak to his or her native classmates outside the classroom, that will encourage him or her to speak in front of other classmates in classroom.

Additionally, most of the participants said that the professors primarily uploaded articles and questions as LMS discussion board topics. They suggested that audio or video links would also be helpful for visual learners and for English language learners to practice their listening skills. Rajih said:

> I think if there is a feature of video/audio, it would be better. Because some people are visual learners, so I mean the video calls maybe between the students or the instructor [can] post a video of himself explaining the lesson.

Another suggestion that Ahmed made was the benefit of adding a spelling and grammar check feature. He believed that it would save students time if they had some of the Grammarly website features built into the LMS discussion boards instead of needing to go back and forth between the two websites.

Chapter Summary

In this chapter, the researcher presented the findings of twenty-one in-person interviews collected from those interviewees. The findings were analyzed according to themes identified through the individual interview transcripts. The interviews were conducted three times during the semester, once in the beginning, once in the middle, and once at the end.

This chapter began with an overview of the participants' key demographic information. It was briefly summarized in Table 1: Participants' Demographic Information. This table depicted their gender, year in school, years of English training in Saudi Arabia, years of studying English in the U.S, and experience with using LMS discussion boards.

The data analysis consisted of the interview transcripts analysis. The qualitative analysis of the interviews transcripts yielded two main themes: 1) student-centered learning, and 2) writing development. The first theme, student-centered learning had five sub-themes: a)

promoted responsibility for learning, b) increased learner engagement, c) encouraged free expression, and d) encouraged learner collaboration and interaction. The second theme, writing development had five sub-themes: a) motivation to use language learning tools, b) impacts on participants' writing processes, c) additional language learning, d) improved English skills, and e) skills not addressed by LMS discussion boards use.

The next chapter will introduce discussion of the findings resulting from the current study. It also will present implications of the findings while providing research recommendations and suggestions for future research.

CHAPTER FIVE

DISCUSSION AND RECOMMENDATIONS

Research has shown that teacher-centered methods do not engage students in the learning process actively (Brown & Cocking, 2002; Weimer, 2002). Studies have recommended shifting teaching instruction from a teacher-centered to a student-centered approach in order to help students enhance their learning skills, actively engage in learning the course content, and to maximize retention of subject knowledge (Al-Ismaiel, 2013; Idris, 2016; Wright, 2011).

One good way to promote a student-centered approach through active learning is by employing LMS discussion boards. Recent research shows that LMS discussion boards can help students to comprehend the content of courses thoroughly as well as enhancing writing and language skills (Hariri, 2013). According to Biesenbach-Lucas (2003), LMS discussion boards help to "enhance learning for students in that they provide structured opportunities for students to engage with course material" (p. 25). Several other studies also argue for the potential benefits of using LMS discussion boards as a tool to promote student-centered learning. These studies argue that LMS discussion boards help students to engage actively in the learning of a course content as well as enhancing writing and language skills (Garcia & Molina, 2009; Ming & Bidmeshki, 2004; Yates & Delgado, 2008).

This qualitative case study aimed to investigate Saudi students' perceptions regarding the use of LMS discussion boards as a tool to promote active learning in a college classroom. The study also examined how Saudi students' writing developed over the course of a semester in which they used LMS discussion boards. The present study examined the research questions in relation to active learning using LMS discussion boards as follow:

Question1. What are Saudi students' perceptions of student-centered learning in an LMS

discussion board environment?

Question 2. How do Saudi students perceive LMS discussion board use impacting their

writing development?

This chapter provides discussion of the findings related to these research questions. In

addition, this chapter provides a section for the summary of the findings, the implications and

recommendations relating to the findings of the study, suggestions for further research, and a

final summary of the study.

Discussion of the Findings

The interpretations of the current study's findings were formulated through an analysis of

interviews with the participants. Over a course of 16-weeks semester, the interviews were

divided into three sections: preliminary, follow up, and final interviews.

By collecting firsthand experiences of undergraduate male Saudi English language

learners who used discussion boards in a college class, the researcher identified patterns in the

participants' interviews which corresponded to the two research questions under investigation. In

addition, the researcher was able to identify elements of the writing processes that participants

used in order to construct discussion posts which reflected practices related to active learning.

The data analysis shows that using the discussion boards led to student engagement in learning

the course content actively and developing their writing skills throughout the semester.

The findings of this data analysis were then used to offer suggestions to encourage using

student-centered approaches for teaching Saudi students. In addition, the study's findings can

help educators to better understand how LMS discussion boards can be integrated effectively

into classrooms to teach writing and language skills. The following section presents a discussion

of the research findings. The researcher interpreted the connections between the research questions and the major themes and sub themes through the lens of the relevant literature.

Research Question 1: Student-Centered Learning

The data analysis illuminates the relationship between the use of the LMS discussion boards as a tool to promote student-centered teaching approaches in the light of active learning theory. The researcher attributed the improvement of participants' learning and writing skills two factors: the use of a student-centered teaching approach in the courses and the extra time that using LMS discussion boards provides student writers.

The analysis of the data showed that most of the participants were using LMS discussion boards for the first time. Therefore, this study sought to record their first impressions about using the LMS discussion boards in a student-centered course. The researcher classified participants' firsthand experience based on five themes:

- Required adaptation over time

- Promoted responsibility for learning

- Increased learner engagement

- Encouraged free expression

- Encouraged learner collaboration and interaction

Finding One: Required Adaptation Over Time

The interview analysis of participants for this section revealed various experiences regarding LMS discussion board use. The participants reported a generally positive experience overall using LMS discussion boards; however, most participants agreed that they had to initially address feelings of intimidation and discomfort when utilizing discussion boards for the first time. These worries gradually disappeared over time. This worry and intimidation can be

attributed to two factors: lack of experience using LMS discussion boards and lack of experience being in student-centered classrooms.

Typically, participants who are from Saudi Arabia come from a teacher-centered educational environment, what Freire (1970) called the banking model of education. Under this model Saudi teachers typically provide information in a lecture format (Al-Awaid, 2018) and students are "passive" learners who are supposed to receive that information like deposits into a bank (Freire, 1970). In other words, in this traditional setting students do not take responsibility for their learning. Instead they remain passive learners. Since LMS discussion boards are a tool which promotes student-centered and active learning approaches, the Saudi study participants felt intimidated when asked to go outside of the comfort zone in these courses. This unfamiliarity with being actively engaged in the classroom led participants to report feelings of unease when first being introduced to the LMS discussion boards. This finding is supported by Neil (2011) who stated that "teachers in Saudi K-12 schools are most likely to teach by rote and memorization. Lecturing followed by testing is the status quo with little, if any, encouragement for problem-solving skills and critical thinking" (p.8). In that sense, the teacher's role in Saudi classrooms is constrained to information transporter with no opportunities for students to be engaged actively in the learning process. For this reason, most of the Saudi study's participants had no prior experience with being in a student-centered learning environment.

Juhary (2010) also discusses how the traditional lecture model stifles "independent thought, creativity and deeper learning processes" among students (p. 454). Under a teacher-centered approach, students' learning skills are limited to memorizing information with no room to develop or practice high-order thinking skills such as analyzing, applying, reflecting, and participating (Alam, 2013; Freire, 1970). Since the study participants were not given an

opportunity in their prior courses in Saudi Arabia to acquire these skills, most felt intimidated when they had to employ these skills for the first time while using LMS discussion boards.

One important aspect of a student-centered course that uses LMS discussion boards is for students to collaboratively construct knowledge through reading and responding to each other's posts. This presented a challenge for the study participants. The participants all expressed concerns about gaps in their language and writing abilities which would be observed by the native English-speaking classmates who read their discussion posts. The participants were keenly aware of their audience and the gaps in their English language skills compared to their native English-speaking classmates.

In traditional teacher-centered classrooms students are not encouraged to interact with their classmates which allows those gaps in learning to remain hidden from their peers. In the teacher-centered classrooms where the Saudi participants come from, the teacher is the only person who can ask and interact with the students in the classroom. The students do not talk to each other. They mostly stay silent while the teacher talks and only speak if the teacher asks them a question. Thus, students are sometimes unaware of the gaps in their language knowledge and writing abilities since they are not given opportunities to interact with their peers in a teacher-centered classroom.

This study's participants stated that they were used to having teachers read and respond to their writing, but they were not used to sharing their writing with an entire class of students like they were asked to do on the LMS discussion boards. This activity caused the participants some discomfort because they perceived inadequacies in their writing skills when reading and responding to their classmates' posts. This finding is supported by Buckley et al., (2005) who pointed out that students "may fear criticism, or even ridicule, by their classmates for their

contribution" (p. 32) when their skill sets are not on the same level as their peers. This means students with less confidence in their writing and language skills may be more reluctant to participate in LMS discussion boards. English language learners may feel a level of anxiety not felt by the native English speakers who are often more familiar with peer interactions about their writing.

Another reason the participants said they were somewhat intimidated was because of their lack experience of using LMS discussion boards. Consequently, some participants said they wished they would have been given an introduction on how to use the LMS systems. They felt this would have been very helpful for students with no prior LMS experience. According to the participants, they felt that such an introductory step might have reduced some of their initial stress when trying to learn how to use the discussion boards.

Additionally, the participants' lack of familiarity with LMS discussion boards and related technical issues may have caused some unease and frustration. The participants mentioned that they felt stressed out whenever they face technical difficulties. Therefore, they suggested having resources in place where students could go for help or to troubleshoot when using the discussion boards. For example, having a classmate or professor to provide feedback when problems arose when constructing responses or responding directly to the discussion boards could be helpful for new users. For some students, encountering difficulties when logging on or figuring out how to submit posts for the first time can lead to anxiety for students unfamiliar with discussion boards. While participants indicated a generally positive experience overall with using the LMS discussion boards, they felt that additional improvements to the system could potentially increase the overall benefits to students of using this technology.

As the semester passed, the participants adapted to being in a student-centered classroom and learned how to use the LMS discussion boards effectively. One of the characteristics of active learning is creating chances to students to read, listen, talk, and write about a course topic (Meyers & Jones, 1993). The LMS discussion boards offered students many opportunities to read and write. In the analysis of the participants' interviews, they mentioned that LMS discussion boards offered them flexible access to the course in terms of time and place (Barbour & Reeves, 2009). This aligns with Kirk & Orr (2003) who note that extra time LMS discussion boards provide to students to makes posts, promotes a student-centered approach by allowing students to be active learners.

The participants mentioned that the feature of time flexibility allowed them "to complete their learning on their own space and time within the frame set by the professor" (Jose & Abidin, 2016, p. 84). Using the LMS discussion boards also let students contribute with no classroom pressure while increasing their interactions with classmates (Oztok et al., 2012). This means the participants engaged in the learning process actively as they read relevant material and resources thoroughly, learned more about the topics being discussed, analyzed what they had read, synthesized their thoughts, and wrote reflections about what they had learned (Bonnell, & Eison, 1991; Smith, 2015; & Rusbult, 2007).

In that sense, the discussion boards appeared to motivate students to engage in online discussions more actively due to their ease of accessibility in terms of time and place. The LMS discussion boards reduced classroom pressure while increasing student interaction by allowing students opportunities to communicate in an environment in which they are not confined by time or space (Ajayi, 2010a; Jose & Abidin, 2016; Oxford University Press ELT, 2015; Oztok et al., 2012; Warschauer et al., 2000). The participants said that using the discussion boards provided

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them with extra time in order to read, analyze, synthesis, evaluate, and then post. This finding

corresponds with Oztok et al. (2012) and Cavana (2009) who believe that discussion board

interactions offer students the opportunity for extra reflection. Allocating more time to the task

will allow students to contribute more effectively to an online discussion (Oztok et al., 2012;

Cavana, 2009). In other words, using LMS discussion boards allow students to engage actively

in constructing knowledge and actively applying their own principles and values at their

convenience through giving them a chance to reflect and edit about their input before engaging

in discussion (Biesenbach-Lucas, 2003; Ortega, 1997). This enables students' understanding of

course content to "grow and evolve" (Zalpaska, Bugaj, Falnegin, & Rudd, 2004, p. 2).

Finding Two: Promotes Learner Responsibility

One goal of a student-centered approach is to promote students' self-learning skills. In

other words, students acquire new learning skills as they feel the responsibility for their learning

and thus, engage actively in the learning process (Alshahrani, 2013). When using the LMS

discussion boards the participants went through steps of constructing knowledge by searching,

reading, analyzing, synthesizing, evaluating, and sharing their ideas in online posts. The students

were using an active learning process when they participated on the discussion boards.

Traditionally in a teacher-centered classroom, participants remain passive and take on the

role of information receiver since the teacher is the primary source of knowledge (Alam, 2013;

Cheong, 2010; Qutoshi, & Poudel, 2014). In that sense, teachers are "expected to teach, and the

students believe that it is the responsibility of the teacher to pass on the knowledge to the target

learners" (Khan, 2011, p. 116). In other words, learning is one way since students depended on

the teacher in order to learn and gain knowledge. In the LMS discussion board environment

students took on a new role of being active learners. The participants became responsible for their own learning and became actively involved in the learning process.

This coincides with Hannafin and Hannafin (2010) who explain that students should be part of the learning process by inquiring, applying and learning from others through various and frequent interactions with teacher and peers. This can result in students becoming more effective participants and becoming responsible for knowledge construction instead of being passive receivers of information (Idris, 2016). The participants in this study indicated that the LMS discussion boards encouraged them to develop autonomy not only in terms of writing and language learning, but also in terms of course content.

Finding Three: Increased Learner Engagement

The participants indicated that using the LMS discussion boards motivated them to participate more actively in the online portion of the class than they did in the traditional face-to-face class. In traditional classroom interactions, the participants felt pressure and intimidation due to gaps in their language knowledge. This caused them to be unmotivated to respond to their professor's or classmates' questions directly. Traditional classrooms, where discussion occurred through face-to-face interactions, require students to immediately respond to questions which gives them little time to reflect and respond effectively to questions.

Based on participant feedback, many said they believed they needed more time to organize their thoughts given their awareness of their gaps in knowledge of the English language. Moreover, the participants lacked trust in their English-speaking skills to feel comfortable enough to respond appropriately in a traditional setting. On the discussion boards, the participants were able to take more time responding to questions. Even if they believed they had correct responses to questions being posed, they still took additional time to make sure they

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were saying them with "proper" English in order to communicate their thoughts effectively. Having adequate time to compose their thoughts was very important to these participants and was reflected in their responses to the interview questions.

The LMS discussion boards created a low stress-free environment which motivated the students to participate more given that they had additional time to respond. According to Alghamdi (2013) using discussion boards "breaks down barriers for shy students who are not accustomed to participating in classroom discussion" (p. 75). This study's participants reported similar effects. While typically shy and not active in a classroom setting with native speakers, the LMS discussion boards allowed the participants the chance to take their time crafting a response they were comfortable sharing. Even more interesting, many participants reported they became more comfortable participating in face-to-face classroom sessions after using the discussion boards. This is supported by Bakar, Latiff, and Hamat (2013) who state that LMS discussion boards provide students "with a non-threatening environment that reduces their anxiety and concerns about being embarrassed if they were to speak face-to-face in front of the public" (p. 225).

Finding Four: Encouraged Learner Free Expression

This study's participants also indicated feeling more confidant in sharing their ideas with peers because they did not need to be concerned about whether they could pronounce words correctly. Instead, they were able to focus their attention on gaining a profounder comprehension of the material and creating posts which used proper grammar, vocabulary, and sentence construction where they could freely express ideas. The lower stress environment of a discussion board allowed them the time to do this. The findings of the current study are also consistent with Al-Ghamdi's (2012) study in which she concluded that:

students showed interest in reading and engaging in the discussion boards because it gave

them the opportunity to express their ideas, to discuss challenging concepts that they had

read in the textbooks before class, and to reflect on points mentioned in the classroom.

Some of the issues raised on the discussion boards were controversial in nature and,

although it was difficult for some students to participate in the discussion of these topics

in the classroom, they were able to fully engage with them in the discussion boards (p.

74).

Similarly, Jose and Abidin, (2016) highlighted the role of discussion boards to

"encourage the learners to express their ideas more comfortably than a face-to-face learning

situation" (p. 84). According to Alghamdi (2013), participating through discussion boards raised

students' "self-esteem and made them more capable of discussing all issues related to the class

without feeling embarrassed" (p. 74). In this sense, discussion boards help English language

learners to outdo linguistic limitations and articulate thoughts freely in their own words in

English (Biesenbach-Lucas, 2003). This means, English language learners who may be hesitant

to talk in traditional face-to-face classrooms have a better opportunity to interact in online class

discussions through discussion boards (Birch, & Volkov, 2007).

The participants of this study reported similar boosts in self-esteem, saying they felt more

comfortable to express themselves on the LMS discussion boards and in class because they felt

better prepared in terms of both language and course content. Since they often had already

received feedback from the professor and peers on their ideas in the discussion board, they felt

more capable of giving a response with confidence when sitting in the classroom during an in-

class discussion.

Finding Five: Encouraged Learner Collaboration and Interaction

The fifth finding the researcher inferred from analysis of the participants' interviews was that using the discussion boards encouraged student collaboration and interaction. One characteristic of active learning is to engage students socially within a learning context (Vygotsky, 1978) to construct knowledge actively (Bransford et al., 1999; Pardjono, 2016). In that sense, the LMS discussion boards are a virtual environment which creates a social context wherein students can engage actively with peers while constructing knowledge. ElDin (2014) and Santos et al. (2016) argue that a key part of active learning theory is having students actively engage in critical or creative thinking by interacting with peers to express ideas through writing (ElDin, 2014; Santos et al., 2016). The interviews with the participants showed that the LMS discussion boards transformed them from being "passive" learners who only "assimilate and accommodate" knowledge to being "active" learners who "adopt" and construct new meaning based on prior knowledge (Freire, 1970; Hannafin & Hannafin, 2010; Piaget, 1952). This happened as the students learned more about the course content by reading classmates' posts and responding to them. The finding is also supported by Dangler (2008), who pointed out that discussion boards are not only an effective aid to deliver content but are also a form of active learning. Blackmon also noted that learning is active when students take part in discussion boards because the students are interacting with each other while they are discussing and sharing what they have learned as they post (Blackmon, 2012).

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Research Question 2: Writing Development

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The data analysis for this research question revealed that most of the participants followed a writing processes which included using language learning tools, such as Grammarly, in order to check on grammar, vocabulary, and content. The use of this writing process helped

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them to develop their writing skills and their other English language skills as well. While in general most participants stated an optimistic experience with using the LMS discussion boards, the downside of using them are also highlighted.

Finding One: Motivation to Use Language Learning Tools

The consistent use of the LMS discussion boards presented opportunities for the participants to utilize language learning resources which helped them to craft appropriate written posts. The students said that because they were posting in a public environment and that their writing would be read by their peers, both native and non-native English speakers, and their teacher, the students wanted to push their writing to meet their sense of standard English. This led the students to search for language learning tools to help improve their writing.

The participants mentioned that using these resources helped them to write clearly while utilizing academic level English to try to clearly communicate their ideas. Examples of such resources included Grammarly, Google Translate, Dictionary.com and various word processing tools. In other words, while the discussion board provided a means for the students to engage in the learning process actively, it did not provide the participants with all the tools and resources they believed they needed to write and communicate effectively with classmates. Therefore, they turned to websites like Grammarly and Google Translate to help them craft more grammatically correct and linguistically varied posts. Bianchi (2017) recommends that students use online language resources such as Grammarly to check grammar and spelling. This finding is supported by Trinder (2017) who states that "online grammars and language learning sites" (p. 404) are helpful for students to develop their writing skills.

Thus, using the discussion boards had another unintended benefit for the participants, it encouraged the students to take responsibility for their own learning since they decided to fill in

gaps in their writing knowledge by using a variety of language learning tools. In a student-centered learning environment, the participants became active learners. They searched for and then used different language tools. Idris (2016) has argued that when teachers take a student-centered approach, students gain confidence in their writing skills as the course progresses.

Using the discussion boards gave the students an opportunity to search for and use resources which would not have been available to them in a traditional classroom setting. This finding is supported by Cole and Feng (2015) and Warschauer et al. (2000), who highlighted how using LMS discussion boards in language classes was a way to help students become active learners in college classrooms. Using LMS discussion boards as a tool to promote active engagements aligns with Freire's theories (1970). Freire argued that teachers should help students become active learners. He believed students should take responsibility for knowledge construction and be actively engaged in learning tasks rather than being turned into passive learners by one lecture after another.

Finding Two: Impacts on Participants' Writing Processes

Writing is a recursive process which generally includes reading and searching, writing and editing, and sharing (Bean, 1996). The participants indicated that their use of the LMS discussion boards altered their writing process as they began employing the previously mentioned language learning tools.

The students said they altered their writing processes because they wanted to respond to the LMS discussion board questions in what they viewed as the correct manner. They also said they felt they needed to spend additional time on their writing with the intention to have it better measure up to the quality of the writing they saw by their peers. Writing in this student-centered

environment motivated the students to expand aspects of their writing processes because they wanted to make their writing product meet a higher standard.

Interestingly, all the participants described using a very similar process when writing papers to post on the LMS discussion boards. The writing process they described was essentially the following process:

1. Reading the weekly discussion prompt.

2. Using translation tools in order to better understand the weekly discussion prompt.

3. Reading the assigned material and/or viewing the appropriate video relating to the prompt.

4. Using language learning resources to look up unfamiliar words to better understand their meaning and purpose.

5. Reading and reviewing their peer's posts in the discussion boards to reflect upon and gain ideas in relation to the discussion prompt.

6. Composing appropriate and effective responses using word processing tools which allowed them to check for grammar and spelling mistakes.

These steps helped them to enhance their writing skills. This finding is supported by Jose and Abidin (2016) who found that discussion board use assisted the participants of their study with their writing skills in terms of "brainstorming ideas, organization, carefulness, spelling, correction, grammar, and the authenticity/originality of the writing" (p. 95). This also aligns with Sholihah's (2017) study, which describes several steps that facilitate active engagement of students using the discussion boards and impacts development of the students' writing skills. Sholihah stated:

students can learn how to write and browse the internet too. Students can post some

comments on discussion board or answer the questions based on the topic or respond to comments from their friends. After that, the teacher gives some feedback for students' comments. By doing these steps, their writing skills may be improved (p. 39).

Rainsbury and Malcolm (2003) shared similar research findings stating that students go through multiple steps before posting on discussion boards. These steps allow the students to be more active in their learning. These steps require students to read, research, analyze course content, think about their peers' posts, and then "generate new ideas and opinions" (p. 58). In the present study, the participants used a variety of steps in order to write a meaningful post.

All the participants mentioned reading their peers' responses as a model for writing their own responses. Reading their peers' responses helped them to better understand the material being presented and discussed, and it also allowed them to learn new vocabulary and sentence structures. This is supported by Bikowski and Kessler (2002) who reported that non-native speakers of English find discussion boards a useful tool because they help them to reflect on what they have learned in the face-to-face classroom. This also provides them with opportunities to examine native speakers' posts which allows them to learn from their peer's writing. The participants in the present study stated that their classmates' posts provided them with a new resource of writing knowledge such as "ideas on organization, word choice, paraphrasing, and use" (p. 27). Thus, discussion boards can be a useful means to enhance writing skills for English language learners when they are given opportunities to interact with native English speakers (Biesenbach-Lucas, 2003; Blackmon, 2012; Dengler, 2008).

Finding Three: Additional Language Learning

The participants reported other benefits from using the LMS discussion boards. Using the discussion boards led to additional language learning for the participants. In their interviews, the

participants talked about learning new grammar, punctuation, spelling, and vocabulary. The participants also talked about learning new vocabulary, which included context-specific words, transitional phrases, and academic discourse. Other studies have shown that students who use discussion boards tend to enhance these types of language learning (Bikowski & Kessler, 2002; Jose & Abidin, 2016).

Finding Four: Improved English Skills

Based on data from the interviews, the participants in the study reported a mostly positive experience with using the LMS discussion boards. The participants said they believed utilizing this technology had a positive impact on the development of their English skills. According to their responses, the participants indicated that they believed using the LMS discussion boards in their blended courses had played a large role in improving their English skills. This finding is supported by a study of Zalpaska et al., (2004) which highlights the capability of discussion boards for enhancing students' language skills, writing skills, and social skills, as well as contributing to the students' abilities to interpret information. Similarly, Biesenbach-Lucas's (2003) study demonstrated that discussion boards gave English language learners a chance to practice vocabulary from their field and develop flexibility in their language development in a non-invasive, constructive learning environment (Biesenbach-Lucas, 2003).

Finding Five: Skills not Addressed by LMS Discussion Board Use

While the participants generally saw LMS discussion boards as positively impacting their learning, they did describe some drawbacks to using the LMS discussion boards based on their personal experiences. The literature also discusses these primary drawbacks, which include technical difficulties (Buckley et al., 2005; Northover, 2002), first time use of LMS discussion boards (Buckley et al., 2005), time consumption (Clark, 2003; Sapnas, et al., 2002), and audience

awareness (Buckley et al., 2005). The participants in the present study raised additional potential

drawbacks to LMS use which had not been previously discussed in the literature.

In the interviews, the participants stated that not all language skills were adequately

practiced by using the LMS discussion boards. Some participants expressed concern that using

the LMS discussion boards was hindering their development in areas like handwriting, spelling,

understanding peers' posts, and learning to do longer compositional writing. The participants

said that writing on the computer prevented them from practicing quality handwriting. The

participants also said they believed tools like spelling autocorrect were interfering with the

development of their personal knowledge of spelling. Similarly, tools like Grammarly helped the

students to write more standardized English, but the students worried that the digital tools were

not improving their own personal knowledge of grammar. Students also said they missed having

facial expressions and other body feedback when trying to understand their peers' posts in the

online LMS environment. The students said that although they found the LMS assignments to be

helpful, the assignments were generally very short, one or two paragraphs in length and the

students felt they did not get as much practice writing longer compositions as they needed.

In addition, the participants mentioned that they worried that using the LMS discussion

boards might hinder the development of their speaking and listening skills. In their interviews,

some participants said they were not able to practice their speaking and listening skill when they

participated on the LMS discussion boards. The participants said they felt it was a necessity to

add video and audio elements to the LMS in order to increase practice with language skills

beyond reading and writing.

Overall these findings indicate that using LMS discussion boards positively impacted

students' writing development. Nevertheless, there were some problems and limitations to the

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LMS as a learning environment. This means that a hybrid course, such as the ones the students were in which used both face-to-face classrooms and an LMS, may be the best way to address the broadest range of student learning needs.

Summary of the Findings

There are a number of interesting findings based on the data analysis of the interview questions. The first research question focused on Saudi students' perceptions of student-centered learning in an LMS discussion board environment. Most of the participants expressed positive perceptions regarding the use of the LMS discussion boards in student-centered environment. However, one of the participants, Maher, had a different opinion. He expressed very negative attitudes toward using the LMS discussion boards. He said he felt jaded as he waited for people to post so he could interact with them. Also, he felt he was very repetitive every time he responded to his classmates. Maher's negative perceptions may have been caused by a number of factors. First, his previous experience using LMS discussion boards was in an Arabic medium class in one of the elite high schools in Saudi Arabia. This means he interacted with his classmates in Arabic on the discussion boards. Perhaps writing in English on the discussion boards was less interesting to Maher than writing in Arabic. Also, the type of discussion boards activities assigned by the teacher may contributed to Maher's negative perceptions. It's possible that the teacher asked for students to recite information rather than use higher order mental skills such as comprehending, evaluating, analyzing, synthesizing and reflecting. In addition, the asynchronous nature of the LMS discussion boards may not have worked well for Maher. Perhaps he preferred interactions that were synchronous as in a regular classroom. As Maher waited for someone to respond to his post, he may have lost track of his thoughts and ideas. Therefore, Maher may have preferred to be in a face-to-face classroom where discussion is

instant and continuous. Finally, perhaps the novelty of using the LMS discussion boards simply wore off. Perhaps Maher enjoyed this technology when he was first exposed to it, but then over time he lost his interest as the novelty wore off.

In contrast, the other six participants showed positive perceptions of using the LMS discussion boards as mentioned earlier. The participants saw as positive some elements of LMS discussion board use which participants had viewed negatively in several previous studies. For instance, the merit of time flexibility aided the students not only to become familiar with using the LMS discussion boards use, but also to interact actively with their peers. This extra time was positive for the study participants and was in contrast with previous studies where participants indicated that using LMS discussion boards was overly time consuming (Clark, 2003; Buckley et al., 2005; Sapnas et al., 2002). Clark (2003) believes that because students' responses on discussion boards are more elaborate and include "evidence of research and support for arguments," these posts are likely very time consuming for students to make (p. 23). Clark feared the high time investment required to use discussion boards would make students view them negatively, but in the current study the Saudi students greatly valued having extra time to spend on this work so they could enhance the quality of their writing. The participants perceived this extra time as an opportunity for them to prepare better responses through constructing the knowledge, negotiating meaning, and composing well-written posts. The participants preferred having extra time to spend time in preparing their responses versus the pressure of being in a face-to-face classroom setting. The participants reported that language inadequacy worked as barrier and prevented them from actively engaging in face-to-face classroom discussions, but they did not experience this problem in the online LMS discussions.

Secondly, other studies reported that audience awareness sometimes prevented students from actively participating on LMS discussion boards. Buckley et al., (2005) point out that students "may fear criticism, or even ridicule, by their classmates for their contributions" (p. 32). In contrast, the participants of the present study reported interesting perceptions related to audience awareness. Even though most of the participants typically came from teacher-centered classrooms, wherein they did not share their responses with their peers and instead only submitted work to the teacher, the students in the present study said they nevertheless preferred to use the LMS discussion boards which was student-centered. The participants reported that interaction on the LMS discussion boards made them feel more responsible for trying to write clear posts and to be understood by their classmates. This appears to indicate that the participants adapted to the fact that their posts could be read by the whole class. Therefore, they become more aware about what to write and how to write it as they participated on the LMS discussion boards.

As for the second research question, which was about the Saudi students' perceptions of LMS discussion board use impacting their writing development, the interview analysis revealed interesting data. All the participants, including Maher, reported how they actively engaged on the LMS discussion boards. This active engagement impacted their writing process to the extent that they began to employ online language tools such as Grammarly, Google translate, dictionary.com, and Google search in their writing process. These tools helped them in comprehending the discussion boards questions and in learning how to respond effectively. Interestingly, all the participants used a very similar writing process for posting on the LMS discussion boards. The participants clarified that using these online tools become part of their learning practices and became major steps of their writing process not only for posting on the

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LMS discussion boards or to answer their peers' inquiries, but also in writing papers for their other classes. These processes were mentioned explicitly in chapter four, under the subtitle: Finding Two: Impacts on Participants' Writing Processes.

In general, the findings show overall positive perceptions from most of the participants in terms of using LMS discussion boards to promote students-centered learning. The findings also show that the participants believed that using the LMS discussion boards positively impacted their writing development. There are several elements which seem to have contributed to this.

The first element is the novelty of the classroom context, wherein LMS discussion boards was used. This technology exposed the participants to direct interactions with their peers. This experience was considered new to them. The participants were unfamiliar of using this technology. This caused them to worry at the beginning of the semester. However, once the participants mastered the use of LMS discussion boards, they became more motivated and interacted actively with their peers. Most of the participants reported a preference for using LMS discussion boards to interact with their peers and to express themselves.

The second element which contributed to the participants' active engagement in the classroom was being in a student-centered learning environment. Since most of the participants come from a teacher-centered environment, the participants were prepared to memorize the lesson and dictate what they memorized onto the exam. Being in a classroom where LMS discussion boards was used as a form of student-centered learning encouraged the participants to use other learning skills such as comprehending, analyzing, synthesizing, and reflecting. The novelty of being in a student-centered environment made the participants responsible of their learning. In other words, the participants learned to take an active role in their learning. This can

be seen in the participants' decisions to use of online language tools to help them with their course work.

The third element was the participants' serious attitudes about participating in the LMS discussion boards. Even though participating in the LMS discussion boards only counted as 10% of the students' whole class grade, all the participants stated that they were very serious about posting and responding to their peers. The participants had to go back and forth from the LMS platform to other online language tools' web sites every time they posted. This means they tried hard not only to make sure they understood the discussion boards questions correctly, but that they were writing responses which could be understood clearly by their peers. This indicated the students' dedication to participating in the LMS discussion boards. While U.S. students may view LMS discussion board participation as a low stakes activity, the Saudi students clearly viewed it as more high stakes and important. So, the Saudi students worked very hard to be able to write posts using what they believed was high quality English language.

Recommendations for Best Practices With LMS Discussion Boards

As mentioned earlier, there are plenty of tools which could help to promote student-centered learning in classrooms. One form could be LMS discussion boards. LMS discussion boards can be effective for some students but may not be for others. This depends on how LMS discussion boards are used and by whom.

In the present study the researcher examined the impact on seven undergraduate male Saudi students in university courses using LMS discussion boards which utilized a student-centered approach. Overall, the participants believed that using the LMS discussion boards enhanced their learning experiences while helping them to improve their English language skills and their writing skills. The findings of this study are based on analysis of individual interviews.

The findings lead to a few implications and recommendations for use of LMS discussion boards in the future.

First, classrooms utilizing LMS discussion boards should provide an opportunity at the beginning of the course to allow students to familiarize themselves with the LMS discussion boards in terms of use and expectations for posting. This could be done during the first few class sessions where an instructor could model for the students in person the expectations for posting, such as: What does an acceptable or unacceptable post look like? How should a post be constructed in terms of format or layout? What are the expectations for frequency of posting? How will students be assessed on their posts? In addition, the instructor should use that class time to show students how to use the LMS discussion board in terms of how to post, what tools or resources are embedded in the LMS board, how to use those tools or resources, and how to troubleshoot problems which may arise. Instructors may also want to consider including this information as well into the course syllabus as a reference for students to look back on as they construct posts.

Second, instructors utilizing LMS discussion boards should try to gain some familiarity with the background experiences and knowledge of the students enrolling in a course where LMS discussion boards will be used as a tool for active learning. In the case for courses where students are enrolled who are identified as ELL learners, instructors may want to consider offering additional tools or resources within the LMS discussion board to assist with language barriers or issues students may have. For example, including language resource tools within the LMS discussion board may make these tools more readily accessible to those students to use throughout the course. These might be links to online dictionaries and grammar websites. In

addition, instructors may want to consider providing extra time for students with language or learning barriers who may need additional time for reflection when posting.

Third, instructors should be aware of what factors may motivate students to participate more freely in LMS discussion boards in a student-centered learning environment. For example, students may be more likely to express ideas and voice opinions when the content matter of the posts is relevant and interesting to the students. This connects with instructors being aware of their students' backgrounds and experiences. The participants in this study, Maher in particular, stated that they were more willing and motivated to construct adequate responses when they were given material that was interesting to them. Thus, for LMS discussion boards to be an effective tool of an active learning environment, instructors need to consider the context of how and what they post in order to motivate students to engage in the learning process.

Lastly, instructors should consider varying the ways in which students may post to the LMS discussion boards given that over time students may become less interested as observed in interviews with Maher. Since over tie students may feel that the practice of posting to LMS discussion boards becomes a burden or a repetitive skill, instructors may want to provide other opportunities for students to collaborate with each other within an active learning environment. For example, instead of always providing a written response, students could video record responses which classmates could be required to view and respond to in writing or through video themselves. For participants in this study, this would address their stated desire to be able to practice the language using skills other than writing alone.

Implications for ELL Learners With LMS Discussion Boards

This study demonstrated that participants expressed a great appreciation for how the LMS discussion boards enabled them to be active learners who were responsible for their own

learning. Using LMS discussion boards creates an authentic environment where English language learners can interact with classmates who are native English speakers. This interaction, in the light of active learning theory, helps the English language learners to develop and adopt practices that improved their writing skills and other English skills. Since this study found that students responded positively to using the LMS discussion boards and benefited from using them, I argue that more courses should begin adopting this methodology, particularly to help English language learners improve their writing and other language skills.

Incorporating LMS discussion boards into courses provides students with time to search and read, time to brainstorm and construct, and time to review and comment and discuss responses. Thus, in classrooms which include a large population of English language learners, LMS discussion boards when used effectively as a tool of active learning can encourage more participation and interaction from students who may feel intimidated in more traditional classroom settings.

Implications for Saudi Classrooms

I also believe that incorporating LMS discussion boards in Saudi Arabia, which has used a more traditional teacher-centered approach, is a necessary step towards moving to a more student-centered approach. There is a large push in Saudi Arabia to incorporate more technology, LMS discussion boards may be a natural progression towards active learning given the ease of accessibility in using and setting them up in classrooms (Khan, & Adams, 2016). For Saudi instructors who want to move to a more student-centered approach, LMS discussion boards may be the first step in making that transition a more fluid process. In addition, since LMS discussion boards based on participant feedback, provides opportunity for reflection and practice with the language, it may give Saudi students more opportunities to practice English. This may make

them more willing to use English in an everyday setting given more opportunities to practice the language, which has been a problem in Saudi Arabia in the past. Typically, Saudi students are not using English other than English classes and English medium courses even though English is the language of the business and teaching world. Thus, LMS discussion boards may create an environment where English is the medium of communication where students can practice and improve their skills with the language.

Based on participant responses, LMS discussion boards gives them the time they need to effectively reflect and construct knowledge. Thus, incorporating LMS discussion boards into Saudi classrooms may promote more collaboration and student engagement through active learning instead of traditional approaches to instruction where students remain passive learners. This may influence teachers in Saudi Arabia to use LMS discussion boards as a tool for learning given that it motivates students to collaborate when traditional methods may have failed to promote learning.

Suggestions for Future Research

This participants in this study reported positive responses to being in a student-centered course and to using LMS discussion boards to improve their writing skills. All of the students were from Saudi Arabia, which on the whole, has an educational system built around a teacher-centered lecture model. This meant that students in this study had to adapt to being in a student-centered learning environment and to using online LMS discussion boards. Given the success of this study with Saudi students in a U.S. context, it would seem natural to suggest that future studies should explore perceptions of students when using LMS discussion boards to promote active learning in their home country of Saudi Arabia. This would allow researchers to study how students respond to using LMS discussion boards in courses where all the students are

English language learners. Thus, one future study could replicate the current study by exploring student experiences in Saudi Arabia using LMS discussion boards rather than in an US university. Focusing on Saudi Arabian university students' perceptions of using LMS discussion boards could help demonstrated further benefits of using LMS discussion boards to promote active, student-centered learning.

In addition, since Maher, was the only participant who reported not finding the LMS discussion boards interesting given his prior experience with LMS discussion boards in Saudi Arabia, a suggestion for future study is to reexamine the perceptions of these participants regarding LMS discussion boards in future courses. In other words, does the novelty of using these online discussion boards wear off as they gain experience and familiarity with them? Given the feedback from Maher in his interviews, it is important that future studies examine how prior experiences with LMS discussion boards may impact student perceptions on the usefulness of this tool in a student-centered classroom.

A further suggestion for future studies could involve exploration of teachers' perceptions of using LMS discussion boards in Saudi Arabia to promote active learning. This would allow for a gaining a better understanding of LMS discussion board learning outcomes from a teaching standpoint. Such a study might help create a more purposeful expansion and discussion of LMS discussion boards as a tool to shift traditional classrooms to more student-centered classrooms in Saudi Arabia in the future.

Chapter Summary

This study found that LMS discussion boards may be an effective way to help Saudi students become acclimated to student-centered learning environments. Using the LMS discussion boards helped the students to become active learners who took responsibility for

finding ways to improve their writing. This study found most students perceived the LMS

discussion boards to be positive and that they believed using the LMS discussion boards

improved their writing.

Teaching with LMS discussion boards can increase students' interest, motivation, and

confidence not only in writing but in other English skills. Interestingly, students' awareness of a

'real' audience with discussion board posts being viewed and read by the whole class encouraged

them to screen their own writing more carefully. Having this real audience caused the students to

take more responsibility and ownership of their learning. Having posts on the LMS discussion

boards read and commented on by their classmates confirmed to the participants that they had a

real audience for their writing. As noted earlier, the participants described their writing strategies

such as understanding the prompt, reading the materials, reflecting their thoughts, drafting their

responses, checking the linguistic accuracy, and conveying the intended meaning. Despite

mistakes and errors in posting, the participants believed their writing did convey their intended

meaning. The participants wrote complex sentences and expressed well developed ideas and

opinions

To conclude, the findings of this study highlight the significance of using LMS

discussion boards to promote active learning as well as to facilitate developing writing skills

given the positive overall experience of the participants. This means classrooms with large

populations of English language learners may benefit from having LMS discussion boards as a

tool for active learning. Using LMS discussion boards can provide English language learners

with time to reflect and construct meaning effectively while engaging in active interactions and

discussions with classmates in a way which reduces anxiety and feelings of intimidation. Given

this information, teachers should be aware of best practices to use with LMS discussion board

technology in order to effectively promote active learning in student-centered classrooms. These findings also indicate the need to expand research in the future to better understand how LMS discussion boards may influence learning and writing and language development for students in native settings. In addition, considerations should be made in how LMS discussion boards may potentially be used effectively in places, like Saudi Arabia, where a more teacher-centered approach has been used in the past.

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Appendix A

Permission Letter of IRB

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

February 23, 2018

Dear Naife Subahi:

Thank you for submitting your research site approval from IUP-Office of International Education for your proposed research project "A Case Study Examining Students' Perceptions of LMS Discussion Board Use as a Tool to Promote Student-Centered Learning," (Log No. 17-224). On behalf of the IRB, I have approved your project. In accordance with 45CFR46.101 and IUP Policy, your project is exempt from continuing review. This approval does not supersede or obviate compliance with any other University requirements, including, but not limited to, enrollment, degree completion deadlines, topic approval, and conduct of university-affiliated activities.

As you know, data can only be collected and analyzed from sites with official research site approval on file. You must submit the approvals and receive a formal letter of IRB approval for each site before you initiate data collection. To submit additional research site approval letters, please log into IRB Manager, open your study, click Start x Form and choose "submit research site approval letter". Follow the directions to electronically submit your letter to expedite the review process.

You should read all of this letter, as it contains important information about conducting your study.

Now that your project has been approved by the IRB, there are elements of the Federal Regulations to which you must attend. IUP adheres to these regulations strictly:

1. You must conduct your study exactly as it was approved by the IRB.
2. Any additions or changes in procedures must be approved by the IRB before they are implemented.
3. You must notify the IRB promptly of any events that affect the safety or well-being of subjects.

4. You must notify the IRB promptly of any modifications of your study or other responses that are necessitated by any events reported in items 2 or 3.

The IRB may review or audit your project at random or for cause. In accordance with IUP Policy and Federal Regulation (45CFR46.113), the Board may suspend or terminate your project if your project has not been conducted as approved or if other difficulties are detected.

Although your human subjects review process is complete, the School of Graduate Studies and Research requires submission and approval of a Research Topic Approval Form (RTAF) before you can begin your research. If you have not yet submitted your RTAF, the form can be found at http://www.iup.edu/page.aspx?id=91683 .

While not under the purview of the IRB, researchers are responsible for adhering to US copyright law when using existing scales, survey items, or other works in the conduct of research. Information regarding copyright law and compliance at IUP, including links to sample permission request letters, can be found at http://www.iup.edu/page.aspx?id=165526.

I wish you success as you pursue this important endeavor.

Sincerely,

Timothy Runge, Ph.D.
Interim Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Educational and School Psychology

TJR:bkj Cc: Dr. Gian Pagnucci, Faculty Advisor

Indiana University of Pennsylvania
www.iup.edu

Department of English   P 724-357-2261
Humanities and Social Sciences Building, Room 506A   F 724-357-2265
981 Grant Street
Indiana, PA 15705
www.iup.edu/english

Informed Consent Form

Study Title: A Case Study Examining Students' Perceptions of LMS Discussion Board Use as a

Tool to Promote Student-Centered Learning

Principal Investigator: Naife Subahi and Dr. Gian Pagnucci.

You are invited to participate in a research study being conducted at the Indiana University of Pennsylvania by a doctoral student enrolled at the university who is not a member of your class. The following information has been provided to help you to make an informed decision about whether or not you would like to participate in this research study. If you have any questions about this study or any details regarding your voluntary participation, please do not hesitate to contact the principal investigators. You have been selected to voluntarily participate in this study because:

1. You are undergraduate student currently enrolled at Indiana University of Pennsylvania (IUP).
2. You are enrolled in at least one blended college class at Indiana University of Pennsylvania (IUP) as an English Language Learner (ELL) Saudi student or domestic student.

Purpose:

The purpose of this study is as follows:

1. Investigate ELL students' perception regarding the use of LMS discussion boards as a tool to promote students' active learning in college classroom,
2. And to explore how ELL students perceive their writing development through using discussion boards in a college classroom.

By collecting firsthand experiences of ELL Saudi students who use discussion boards as a participation method in student-centered classroom, the principal investigators can identify specific learning behaviors and writing practices ELL Saudi students may use before posting. These practices have a direct influence in their learning skills and writing skills development. The results of this study can then be used to provide suggestions for best practices in teaching through student-centered learning approach in both of course content and language classes. In addition, the study's findings can help English language educators to better understand how Learning Management System (LMS) platform features of discussion boards can be integrated into classrooms to promote student-centered learning and writing instructions.

Procedures:

Participation in this study will require approximately 90-180 minutes of your time broken down into three scheduled individual interviews. The initial interview will occur at the beginning of the fall semester and its purpose is to gain background information about you. The second interview will occur in the middle of the semester to gain understanding about your individual experiences using discussion boards in your blended college class. The third and final interview will occur at the end of the semester and will be used to clarify any questions which may arise during the study and to ask any follow-up questions.

Audio Recording:

Your interviews will be audio recorded and stored to insure accurate analysis. The researcher will use a Sony audio recorder after obtaining consent from each participant prior to the start of each interview.

To maintain your privacy, all records and transcripts of this study will be kept confidential. The researcher will not use any information which will make it possible to identify you by replacing any identifiers will randomly assign codes. In addition, any mention of specific participants within the study will use pseudonyms to prevent identification of any individual participant. The information in these recordings will remain confidential, as the participants' information will not be revealed (i.e., the participants' names, contact information, etc.). The recordings will also remain secured and will be stored for a period of three years after the conclusion of this study. Only the researcher will be able to gain access to these recordings during and after the study. The recordings will only be used for this study; however, participants can obtain transcripts of their individual interviews at any time from the principal investigators.

Your participation in this study is entirely voluntary. While you will not be receiving any direct benefits, other than providing information to help inform best practices through your participation in this study.

Since your participation is voluntary, you are free to decide not to participate in this study or you may choose to withdraw at any time during the study without adversely affecting your relationship with the investigators or IUP. Your decision will not result in any loss of benefits to which you are otherwise entitled. If you choose not to participate, you may withdraw at any time by emailing the researcher or Project Director. Upon your request to withdraw, all information

pertaining to you within this study will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your academic standing or services you may receive from the University. Your response will be considered only in combination with those from other participants. The information obtained in the study may be published in scientific journals or presented at scientific meetings; however, your identity will be kept strictly confidential.

If you are willing to participate in this study, please sign the statement below and return it. Take the extra unsigned copy with you for your own records. If you choose not to participate, please return the unsigned form.

Project Director: Dr. Gian Pagnucci.

Position: Head chair of TESOL and Composition

Department Affiliation

Campus Address: English Department
                Humanities and Social Sciences Building
                Fifth Floor
                Indiana, PA 15705-1094
Phone: 724.357.2266

Email address: gian.pagnucci@iup.edu

Contact Information:

The researcher: Naife Subahi
Email: drmt@iup.edu
If you have any questions or concerns about this research at any time throughout the study, you may contact Naife Subahi (drmt@iup.edu) or my advisor Dr. Gian Pagnucci (gian.pagnucci@iup.edu; 724-357-5629).

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE 724.357.7730).

Informed Consent Form

VOLUNTARY CONSENT FORM:

I have read and understand the information on the form, and I consent to volunteer to be a subject in this study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this Informed Consent Form to keep in my possession.

Name:

Signature:

Date:

Phone number or location where you can be reached:

Best days and times to reach you:

Appendix C

E-mail Invitation

Greetings,

My name is Naife Subahi and I am a graduate student at the TESOL & Composition Program through Indiana University of Pennsylvania. I am currently doing my dissertation to examine students' perceptions of using LMS discussion board as a tool to promote student-centered learning and I need volunteers to conduct my study. Please be aware that participation is entirely voluntary, and all information gained in this study will be used for research purposes only. You may also choose to remove yourself from this study at any time without penalty.

If you chose to do this study, you will need to commit to participating in three scheduled individual interviews throughout the fall semester which will last 30-60 minutes each.

Attached in this e-mail is an informed consent form which provides a detailed explanation of the purpose and procedures for this study. You may also feel free to contact me, the researcher, at any time through e-mail at drmt@iup.edu. In addition, you may also contact my project director Dr. Gian Pagnucci, through his email at gian.pagnucci@iup.edu at any time if you have any questions or concerns about the study.

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (724.357.7730).

Sincerely,
Naife Subahi

Appendix D

Interview Questions

Interview Questions number 1:

PART 1: Participant Biographical Questions:

Would you please take a few moments and introduce yourself, and why you chose to

study abroad?

PART 2: Participants' educational background, internet skills, computer literacy, and e-learning

experience:

1. Would you please take a few moments to tell me a little about your English ability as a

writer, as a reader?

2. How many years have you been studied English in Saudi Arabia? Do you think it was

sufficient enough to improve your English skills?

3. Were you able to enroll at bachelor program right away or you were needed to attend

English language learning centers?

4. Do you think attending English language learning centers improve your English skills?

5. Have you took any of the English language test such as TOFEL or ITLES as a

requirement to enroll to the university? What was your experience?

6. How long have you studied English? How much of your experience with English has

been as an EFL student studying abroad?

7. How long have you studied English? How much of your experience with English has

been as an EFL student studying abroad?

8. Some classes is a face to face class that include online components such as online

discussion that take place outside of regular class time. These are called blended classes.

a. Have you taken a blended class(es) before? If so, what was it like? How did you do?

b. Was there online discussion?

c. What was it like to participate in this online discussion? Describe your experience?

d. What challenges did you face?

9. Do you know what Learning Management System (LMS) is? Can you explain to me how it is used as a tool for the learning?

a. Have you ever used one of the common LMS platforms such as Moodle, D2L, or Blackboards? If so, what was it?

b. Have you ever used LMS discussion boards in any course before? How were the LMS discussion boards utilized in any of your courses?

PART 3: Participants' feelings, difficulty and challenges, language improvement, and technical problems:

10. How much did you know about LMS discussion boards before you started using the LMS platforms? How has this changed since using the LMS discussion boards in your classes?

11. How were introduced to the LMS platform by the teacher? Were you given instructions on how you would go through using LMS discussion boards?

Interview Questions number 2:

1. As you gained experience with the LMS discussion board during your participation in any course that you took, did you find yourself feeling stressed or intimidated by the process at any point in time? If so, could you elaborate and explain to me what may have contributed to those feelings? How did you resolve or overcome any stresses or challenges you faced in using the LMS discussion board?

    a. Based on you experience, how do you feel about using LMS discussion boards in general? What parts of it do you particularly like? Dislike? Why? What did/do you enjoy about it in terms of helping your language development?

2. Where there any specific issues that you encountered while you were using LMS discussion boards? What were they and how did you address those issues?

3. Was there anyone in class, a professor or another classmate, that you could have sought out for help with specific problems with the LMS discussion board?

4. What language resources did you use when making posts to the LMS discussion boards? Which ones were especially helpful? Which ones would you use again, and why?

5. What was especially satisfying to you about the process of using LMS discussion boards in terms of writing development?

6. Are there any aspects of the LMS discussion board that you find frustrating? Were there any elements that made it difficult for you to improve your language and writing skills?

7. What skill(s) do you think that is developed as using LMS discussion boards?

8. Were interactions on the LMS discussion board mostly formal (graded responses) or informal (message boards, chat, etc.)? Who did you interact with most frequently throughout the course, instructors, other students, or both?

   a. How would you describe your interactions and participation with others (peer related and instructor related) through the LMS discussion boards?

9. How effective do you think an LMS is for student to learn?

10. Can you explain the process you used to respond to posts being made on the discussion board?

   a. Can you explain how you conveyed ideas and responded to other students' ideas within the discussion boards?

   b. Did you find reading postings from peers to be informative? Why or why not?

2. How did the use of discussion boards affect your overall opinion of learning English language writing? How did this opinion change from your initial idea of using discussion boards in learning English?

   a. How has your writing evolved over the duration of in any course that you took? In what ways, has your writing been influenced by your participation on the LMS discussion board?

   b. How has your confidence changed in using English, both in formal and informal settings, in terms of writing and other forms of communication, been influenced by your interactions with the LMS discussion board?

   c. Describe your thoughts about how using online discussion boards in this class changed your English learning skills as Saudi student(s)?

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Interview Questions number 3:

PART 4: Participants' overall experience:

1. Could you please explain your overall experience with the discussion boards?

a. How would you rate your overall educational experience, from 1 to 10, in terms of language development and writing while taking this course? (1- no benefit, 10 – extremely beneficial) Why this rating?

2. How did the use of discussion boards affect your overall opinion of learning English language writing? How did this opinion change from your initial idea of using discussion boards in learning English?

a. How has your writing evolved over the duration of in any course that you took? In what ways, has your writing been influenced by your participation on the LMS discussion board?

b. How has your confidence changed in using English, both in formal and informal settings, in terms of writing and other forms of communication, been influenced by your interactions with the LMS discussion board?

c. Describe your thoughts about how using online discussion boards in this class changed your English learning skills as Saudi student(s)?

3. If LMS discussion boards were to become a part of all courses for EFL students, what changes/improvements would you recommend be made to make them more effective in terms of language and writing development?

3. Are there any other points or recommendations regarding LMS discussion boards that you may have, that may have not been addressed today?