Abstract
For Chinese doctoral students, English is the most essential subject when studying in U.S. universities and living life in the U.S. Using English not only promotes academic success, but also helps them to pursue better job opportunities and a better life in the U.S. The purpose of this study was to explore Chinese doctoral students’ English use, perceptions of academic achievement in relation to their academic motivation and identity investment. Chinese doctoral student interviews, questionnaires, classroom observations, and journal entries were used in this qualitative case study. The findings of the study show that Chinese doctoral students’ English use and perception of academic achievement had impacts on their academic motivation. Moreover, Chinese doctoral students’ identities were also reflected in the investment of academic achievement.
Keywords: Investment, Identity, Motivation
1. INTRODUCTION

In the last 5 years, there has been a significant growth in the number of international students attending U.S. colleges and universities. According to the Bureau of Educational and Cultural Affairs’ Open Doors Report (2010), during the 2009-2010 academic year, new international student enrollment increased 1.3% from the 2008-2009 academic year. In the mean time, total international student enrollment in U.S. higher education also increased 3% during the 2009-2010 academic year. The top five countries of origin of international students were India, China, South Korea, Canada, and Japan, and the top five U.S. states hosting these international students were California, New York, Texas, Massachusetts, and Illinois. Despite the international students’ country of origin and the school he or she attended in the U.S. college or university, English was the essential tool for international students to study in U.S. institutions.

As indicated earlier, Chinese international student population is the second largest international student population in the U.S. institutions. Moreover, the Council of Graduate School (2010) reports that Chinese graduate student enrollment has increased to 23%. Chines graduate students study in U.S. institutions in order to reach the goal of academic achievement. Moreover, their opportunities of finding better employment are increased after they graduate. As International graduate students go to U.S. universities, they not only encounter the issues of using English properly in academia but are also trying to make senses of the new culture (Perrucci & Hu, 1995). Surely, school is the most important environment for them to succeed in regard to individual goals.

In Huang’s (2012) study, Chinese graduate student experienced the difficulties to in American classroom cultures and learning styles. For Chinese graduate student, they are used to teacher centered instruction in Chinese education (Huang, 2012). However, American Graduate program emphasizes more on developing students’ critical thinking skill, individual academic responsibility, professional preparation in future career and student-centered instruction. (Huang, 2012; Perrucci & Hu, 1995). As Huang (2012) points out there is a lack of understanding of teaching Chinese graduate student population in American higher education as well as learning unfamiliar American academic cultures for Chinese graduate student.

Although some of international students from India and Canada are fluent in English or even speak English as their first language, the majority of international students do not speak English as their first language. More often, these international students speak English as their second language. They go to school in order to study subjects, learn American classroom culture, make new friends, and to help adapt to a new life there. More importantly, they use English to engage in these activities.

Second language acquisition research emphasizes the relationship of language learners and their social environments (Lantolf, 2000; Leather & Van Dam, 2003; Peirce, 1995). Second language learning is not merely a case of an individual learner mastering the target language through their innate ability, but more likely a case of that individual
learner making a connection with his or her social world via the process of learning the target language (K. Johnson, 2001; McKay & Wong, 1996; Peirce, 1995).

TOEFL (Test of English as a Foreign Language) scores indicate to universities and professors the level of international students’ English language proficiency to help plan adequate curriculum. Several studies (Hwang & Dizney, 1970; Seelen, 2002; Sharon, 1972; Stoyyoff, 1997) have shown TOEFL scores to be unsuitable assessments for measuring international students’ English language proficiency. Namely, a higher TOEFL score does not guarantee that these international students will succeed academically. The main reason for this discrepancy is that the traditional TOEFL assessment focuses on writing and reading rather than the listening and speaking skills they need in the classroom. Therefore, when international students are in a real classroom situation, they immediately encounter difficulty with listening and speaking (Troike, 1984; Zhang & Mi, 2010). Although the Educational Testing Service (2005) has changed the TOEFL assessment and pays more attention to assessing students’ listening and speaking skills, TOEFL preparation is still not adequate for these international students to succeed in an academic learning environment.

Several studies (P. Johnson, 1988; Light, Xu, & Mossop, 1987) have found that English language proficiency did play an important role in international students’ academic achievement. During the process of accomplishing academic achievement in the American university, using English is no longer a single-minded behavior for the individual, but rather a tool used to construct a connection between the international students, their social environment (sociocultural context of schooling), and the culture of the target language community (Bashir-Ali, 2006; Hsieh, 2006; K. Johnson, 2001; Koehne, 2006; McKay & Wong, 1996). Needless to say, English becomes the key that unlocks opportunities for the international student to achieve academic success.

1.1 Purpose of the Study

The purpose of this study was to explore Chinese doctoral students’ perceptions of academic achievement with regard to their academic motivation and identity investment when using English in the American university. Research indicates that learning motivation and English proficiency are contributing factors in international students’ academic achievement (Abel, 2002; Mathews, 2007; Troike, 1984). In order to gain a deeper understanding of how international students are motivated to achieve academic success, international students’ identity investment must be revealed. According to Peirce (1995), the investment in language learning involves the continuous construction of identity. Therefore, identity is multiple, dynamic, and negotiated through the process of international students’ perceptions of academic achievement when using English in the American classroom.
2. LITERATURE REVIEW

2.1 Framing the study

Many researchers (Lee, 2007; Peirce, 1995) have argued that second language acquisition lacks the consideration of taking individual external factors into account in the language learning context. One of the main external factors is the individual language learner’s social effect.

Several studies found that individual language learner’s social environment not only affects how individual language learners learn the target language, but also impacts their identity of being a language learner in the target language speaking context (Hsieh, 2006, 2007; Koehne, 2006; Macpherson, 2005; Morita, 2004). The study aims to investigate how international students’ perceptions of academic success affect their language learning and identity. It is important for the study to draw attention to how these international students’ identities change during interaction with their language learning and social environment.

Second language acquisition research has emphasized the relationship between language learners and their social environment (Lantolf, 2000; Leather & Van Dam, 2003; Peirce, 1995).

Second language learning is not merely a case of how an individual learner masters the target language through innate ability, but more likely a case of an individual learner making a connection with his or her social world via the process of learning the target language (McKay & Wong, 1996; Miller, 2000; Peirce, 1995). During the process, language learning is no longer a single-minded behavior for an individual learner, but rather a tool of constructing a connection among an individual learner, his or her social environment (specific social context), and the culture of the target language community. Needless to say, language learning becomes the key that could open up opportunities for an individual learner in order to integrate into the desired community.

2.2 Community of Practice

According to Fulton and Riel (2001), the term community centered is broadly defined as the learning community in which learners share similar interests, goals, or experiences in a specific setting. Their concerns of the term community centered focus on how students gain assistance from the use of online technology resources, such as online learning and teaching.

A similar idea that was adopted in community-centered second language acquisition is Lave and Wenger’s (1998) community of practice. The term community of practice is defined as a group of people who share the same interests or profession, learn from each other, and develop skills they need in the social context (Lave & Wenger, 1998). When applying this idea to second language acquisition, one sees that international students in U.S. universities need to develop certain levels of English proficiency in order to deal
with daily-life tasks or academic needs (Zhang & Mi, 2010). In this sense, community of practice (attending university, for example) provides opportunities (working with native speaking peers, for example) for individuals to develop membership in the community through the process of learning the target language in a specific social context.

2.3 Academic Success

Researchers (Case & Richardson, 1990; Kim & Sedlacek, 1995) addressed the issue of defining academic success, saying it could be categorized as purely academic success or social success (for example, being a medical doctor) and may also vary by gender and race. However, in my research design, I not only defined academic success as derived from the literature, but I had participants define academic success. By doing this, the research considers participants individually, which also helps them to recognize the meaning of academic success through their own perceptions. On the other hand, the definition of academic success for international students in the existing literature is mostly classified into two main categories for the most part: (a) completed at least a college degree, and (b) being a professional (Mathews, 2007). It is noteworthy that being a professional for international students not only means academic success, but it also indicates their employability in the U.S. job market.

The literature also examined what academic success means to these international students. As indicated earlier, academic success could make these international students more competitive in the job market. Furthermore, these students hope that academic success will help them to build a better life in the future. The meaning of academic success carries various goals for these international students (Li, Chen, & Duanmu, 2010; Mathews, 2007). Moreover, an individual constructs the meaning of academic success and acts in order to complete the degree or become a professional. Besides these international students’ devotion to constructing meaningful academic success, the next section discusses how their perceptions of academic success impacts their identities in a language learning context.

Although having advanced English language proficiency seems to be an essential prerequisite for these international students remaining in the U.S., this will surely affect their identities. According to university admissions in the United States, meeting TOEFL requirements is necessary for these international students before being admitted into U.S. universities. After these international students are accepted into the universities, these students may or may not feel prepared for the English language proficiency level needed to thrive in U.S. classrooms. In the meantime, researchers (Hwang & Dizney, 1970; Seelen, 2002; Sharon, 1972; Stoyloff, 1997) have indicated that the TOEFL score did not accurately measure international students’ English language proficiency. If this is true, there are international students in U.S. universities who passed the TOEFL exams but are not actually proficient in the English language.

As mentioned earlier, an international student wants to achieve academic success because he or she wants to have better future in terms of completing the degree and becoming a
professional. However, if the TOEFL score fails to indicate these international students’ actual English language proficiency in an academic setting, developing English language proficiency for academic purposes is the first thing that the international students need before they can achieve academic success (Akazaki, 2010; Johnson, 1988; Li et al., 2010; Zhang & Mi, 2010).

Mathews’ (2007) study of international students supports the idea that higher English proficiency relates positively to student academic success. However, the process of English language learning influences these students’ identities as they achieve academic success. Even international students who are proficient in the English language for academic purposes would probably want to also be proficient in the English language outside of academic contexts (Ying, 2003). For example, if these international students intend to stay in the United States and work as professionals in the U.S. job market, the perception of academic success may change their motivation for proficiency in English beyond the academic context. Furthermore, individuals create their own meaning of academic success through the understanding of how and why they should be proficient in the English language and the construction of developing professional skills (Ramsay, Barker, & Jones, 1999).

2.4 Motivation

Before discussing motivation in the second language acquisition field, it is important to understand what motivation is and what perspectives are about motivation in teaching and learning. Initially, motivation can be rooted in human behavior to satisfy specific basic needs. For example, the motivation for people to eat food (eat equals behavior) because of hunger (hunger equals basic need). Motivation is viewed as stimulating action and behavior in order to achieve people’s needs and goals. There are three theoretical views about what motivation is: (a) the behavioral view, (b) the cognitive view, and (c) the humanistic view (Snowman & Biehler, 2011). In the behavioral perspective, reward and reinforcement are the two main points. Reward refers to people receiving incentives when they do something good. For example, a child receives a toy when he/she behaves in public. Therefore, the motivation for performing good behavior in public results in the child receiving a toy from the parents. On the other hand, reinforcement (Skinner, 1983) focuses on the repetition of a specific behavior in order to produce motivation in learning. For example, the teacher has students memorize the article for a test, and the test format actually asks students to write down the memorized article. In so doing, every student who has memorized the article will receive a good grade and this will stimulate them to use those skills in a similar learning situation.

Moreover, rewarding is an extrinsic motivation that moves people to do something to get an external reward (e.g., the child gets a toy); and reinforcement is more likely to be an intrinsic motivation such that people do something to achieve the goal (memorization in order to develop reading and writing skills). In sum, the behavioral views of motivation emphasize an individual’s behavior regarding their needs in the physical environment.
From the cognitive point of view, motivation is constructed from people’s beliefs about themselves and the environment. According to Snowman and Biehler (2011), the cognitive view of motivation is highly associated with the learner’s need for achievement. The need for achievement is proposed by Atkinson (1964), who found that the different degrees of need for achievement result in different achievement behaviors in developing the required skills or competence. For example, the motivation for developing communicative competence for the international student serves the need for achieving success in an American university. On the other hand, there will be a different motivation for developing communicative competence for the international student if the international student’s need for academic achievement is to be able to use English fluently for social purposes. Comparing the two examples, the motivation for achieving communicative competence is different regarding their differentiated needs for achievement. Therefore, the learning behavior of achieving communicative competence for the international student who desires to be successful in an American university is more likely to focus on classroom language usage; and another international student’s learning behavior of achieving academic competence is more likely to emphasize social language usage. Overall, the cognitive view of motivation shows how people motivate themselves through developing the required skills or competence in order to satisfy their goals (Akazaki, 2010; Mathews, 2007).

The behavioral and cognitive views are that motivation is basically an activation of goal-driven behavior, and the behavior is involved to satisfy people’s needs and desires. From the humanistic perspectives, the motivation of people’s needs has a more detailed description. The most important needs theory is presented by Maslow’s hierarchy of needs (Maslow, 1987). There are five levels of needs in this hierarchical model: (a) physiological, (b) safety, (c) belongingness, (d) esteem, and (e) self-actualization. Maslow believed that people only attain minimum satisfaction of the lower levels of need in order to go to the higher levels. For example, people have to take care of their basic physical needs (e.g., food, oxygen) first and then they will make money (because they will have a healthy body) in order to afford housing for safety. The first four levels of needs (physiological, safety, belongingness, and esteem) are referred to as deficiency needs that motivate people to act on their unmet needs. Self-actualization refers to a growth need that motivates people to achieve self-fulfillment (Snowman & Biehler, 2011).

Generally speaking, the humanistic view of motivation is combined with the behavioral and cognitive view of motivation that stresses on both individual basic physical need and self- cognitive development in the environment.

2.5 Motivation and Second Language Acquisition

As pointed out earlier, motivation is always involved with achievement, especially in the educational arena. The most inspired motivation theory in second language learning is from Gardner (Gardner & Lambert, 1959). A psychologist, he conducted research
investigating the relationship between second language achievement and five attitude/motivation variables. From his socioeducational model, the five attitude/motivation variables were the followings: (a) integrativeness, (b) attitudes toward the learning situation, (c) integrative orientation, (d) motivation, and (e) instrument orientation (Gardner & Lambert, 1959). Gardner’s (Gardner & Lambert, 1959; Gardner, Gliksman, & Smythe, 1982; Gardner & Masgoret, 2003) studies have showed that motivation is the major variable impacting second language achievement in comparison with the other four variables. Motivation in his studies referred to goal-directed behavior where individuals show different levels of feelings, behaviors, and cognitions in order to achieve a goal. On the other hand, the other four variables do not seem to impact second language learning as significantly as motivation when examining individuals’ attitudes toward learning and teaching and their perception of the language community.

Gardner’s motivation theory has been prevalent in examining the relationship between motivation and second language achievement. However, Dornyei (1994) argued that Gardner’s motivational theory emphasizes the individual’s language learning motivation in order to satisfy individual needs and desires, rather than pay attention to the individual as a social being in the environment. From Dornyei’s (1994) perspective, motivation for second language learning not only connects with the learner’s own needs/wants at a personal level, but it also is associated with identity (re)construction in the social environment. He further suggested that motivation research in language learning should always take into account “who learns what language where” in a sociocultural aspect.

3. PARTICIPANTS

The student-centered research institution selected for the study is located in the southeastern United States. According to The University Office of Institutional Research and Assessment (2010), the total student enrollment was approximately 30,009 in the 2009-2010 academic year, which included both undergraduate and graduate students. The University Factbook also indicated that there were 815 international students attending the institution in the 2009-2010 academic year. The international student population was an estimated 4.2% of the total student population for the same academic year. In comparison, in 2008-2009 the international student population was an estimated 3.9% of the total student population. Because of the increasing number of international students at the institution, the institution should address international students’ needs in order to provide them a better learning experience.

Five Chinese doctoral student participants were selected by purposeful sampling strategies from international students who attended International Student Orientation. Creswell (2007) asserted that selected research participants “can purposefully inform an understanding of the research problem and central phenomenon in the study” (p. 125). There were general research criteria for selecting participants, and 5 Chinese doctoral students agreed to participate in the study. The criteria for selecting participants were following: They had to be (a) an international student, (b) enrolled full-time on the main
campus of the university, (c) a graduate student who met the TOEFL and GRE requirement of the university, and (d) have lived in the United States for at least 2 years.

After the 5 Chinese doctoral student participants were selected for the study, the Chinese doctoral student participants chose one of their courses for classroom observation. Each of the 5 Chinese doctoral student participants’ educational backgrounds were illustrated as following:

3.1 Participant 1: Matt
Matt (pseudonym) was a Chinese, male, international graduate student who had been at the university for 2 years. He earned his bachelor’s degree in Applied Mathematics in Shan Tou University, China and decided to go to graduate school in the United States. When he arrived at the university, he started out studying in the English Language Institute because he did not meet the TOEFL requirements. At the time of the research, he studied in the doctoral program of Applied Mathematics in the College of Arts and Sciences at the university where this research took place.

3.2 Participant 2: Ryan
Ryan (pseudonym) was a Chinese, male, international graduate student who had studied at the University for 3 years. He obtained his bachelor’s degree in English in China and had a master’s degree in TESOL at the university. He studied for his doctoral degree in English as a Second Language in the College of Education at the U.S. university where this research took place.

3.3 Participant 3: Helen
Helen (pseudonym) was a Chinese, female, international graduate student who had attended the university for 2 1/2 years. She earned her undergraduate degree in Finance in Kung Ming University, China. She first studied at the English Language Institute at the university until she passed her TOEFL. She studied in the doctoral program of Human Resource at the College of Commerce at the U.S. university where this research took place.

3.4 Participant 4: Grace
Grace (pseudonym) was a Chinese, female, international graduate student who had studied at the university for 2 years. She obtained her bachelor’s degree in Environmental Engineering in China and was perusing her Ph.D. in Environmental Engineering at the College of Engineering at the university where this research took place.

3.5 Participant 5: Anne
Anne (pseudonym) was a Chinese, female, international graduate student who had attended the university for 2 years. She earned her bachelor’s degree in English and her master’s degree in Ancient Chinese History in Cheng Du normal university, China. After
coming to the United States she majored in the History doctoral program at the College of Arts and Sciences at the university.

4. QUALITATIVE INSTRUMENTS

4.1 Questionnaire
The international student questionnaire contained questions about the Chinese doctoral student participants’ demographic information and their attitudes about studying in the American university (Koehne, 2006; Tanaka & Ellis, 2003).

4.2 Interview protocol
Based on studies on international students’ learning, academic achievement, and identity investment in American universities (Hsieh, 2006; Linnenbrink & Pintrich, 2002; McKay & Wong, 1996; Morita, 2004; Omar, 2007; Schunk, 1991; Tremblay & Gardner, 1995), the researcher designed an interview protocol for Chinese doctoral students. The international student interview protocol asked Chinese doctoral student participants about educational background, learning experience, and perception of academic success at the American university.

4.3 Classroom Observation
Classroom observation was used to examine the international student participants’ learning situations as well as the college professor participants’ interaction with the Chinese doctoral student participant in the classroom. Merriam (1998) noted that observation assists investigators in observing the subjects first hand as well as provides them with instant feedback about the observed subjects. The classroom observation rubric was adapted from the Staffordshire University “Guidelines for the Observation of Teaching” (The University of Minnesota, 2004) in order to draw detailed pictures of both college professor participants’ and Chinese doctoral student participants’ interactions in the classroom.

4.4 Journal Topic Entries
Based on recent studies (Abel, 2002; Macpherson, 2005; McKay & Wong, 1996; Peirce, 1995; Schmitt et al., 2003; Troike, 1984), the journal topics were created to ask about Chinese doctoral students’ perception of using English in the American university and their identity investment. Journal topics were used to gain information and apply reflexivity in the research process, but they also helped the international student participants to raise self-awareness of their identities during the process of using English in their academic and even social environments.
5. DATA COLLECTION

5.1 Procedure

Once IRB approval was given, we began the data collection process. Case study (Strauss, 1987) was the qualitative methods that was used, which included collecting data by means of questionnaires, interviews, classroom observations, and journals topic entries.

**Questionnaire.** The international student questionnaire contained questions about the Chinese doctoral student participants’ demographic information and their attitudes about studying in the American university. The one-time questionnaire took about 10 minutes. The international student questionnaires was conducted at Week 1.

**Interviews.** The one-time international student interviews were conducted in the school library. The international student interview protocol asked Chinese doctoral student participants about educational background, learning experience, and perception of academic success in the American university. The estimated interview time was 30–40 minutes. The interviews were collected from Week 2 through Week 8. There were five interviews in total.

**Classroom observation.** Classroom observations were used to examine the Chinese doctoral student participants’ learning situation. As Merriam (1998) noted, observation assists the investigator in observing the things firsthand as well as provides instant feedback about the observed subjects. The classroom observation rubric was adapted from the Staffordshire University “Guidelines for the Observation of Teaching” (2004) in order to draw detailed pictures of international student participants’ interactions in the classroom.

The study mainly focused on the Chinese doctoral student participants’ use of English, perceptions of academic success and identity investment in the American university; therefore, the classroom professors’ instruction and interaction with other students were not included in the classroom observation. The classroom selection was decided by the participant when the IRB gave permission to start the research. Once the classroom was selected by each participant, the researcher verbally asked each professor’s permission to conduct classroom observations. The permission request form for conducting classroom observation was given to each professor at the beginning of the classroom observation. The five permission requests for conducting classroom observation were collected and stored in a sealed envelope. The classroom observation time was one hour and 15 minutes every other week. The classroom observations were visited at Weeks 1, 3, 5, 7, 9, and 11. There were 30 classroom observations in total.

**Journal entries.** The journal topics were created for asking about Chinese doctoral students’ perceptions of using English in the American university and their identity investment. Journal topics were used to gain information and apply reflexivity to the research process, but they also assisted the Chinese doctoral student participants in raising self-awareness of their identities during the process of using English in their academic
and even social environments. Each journal entry was about 20-30 minutes long. One journal topic was given to Chinese doctoral student participants weekly from Week 3 through Week 11. There were a total of 45 journals from all the international student participants.

5.2 Data Analysis
The case study (Strauss, 1987) was used to investigate how Chinese doctoral students’ perceptions of academic success affected their identities in the process of studying at the American university. Marshall and Rossman (2006) suggested six steps for analyzing research data: organizing, coding, immersion in the data, generating themes, revisiting original coding, initial analysis, and, finally, interpretation of data. Initially, the research data were collected from questionnaires of Chinese doctoral students, interviews of Chinese doctoral students, classroom observations, and weekly journals of international students. Questionnaires, interviews, classroom observation field notes, and weekly journals were transcribed. The transcriptions were verbatim in order to accurately represent the participants’ responses and thoughts. After completing all of the data transcriptions, the next step was to generate the emergent themes. Coding was used to analyze the emergent themes in the study. Following the overall data transcriptions, the researcher reported the research results.

5.3 Trustworthiness of Data
The study used triangulation of interviews, questionnaires, classroom observations, and weekly journals in order to ensure the data’s trustworthiness. Also, “member checking” (Lincoln & Guba, 1985) was used to ensure that coded data of the research findings were matched with the emergent themes. During the process, the researcher and two other graduate students were enlisted in order to check the coherence of coded data and emergent themes.

The interviews, questionnaire, journal entries and classroom observation data were coded first in order to describe the international students’ perceptions of academic achievement and academic motivation in the American university. From these analyzed data, there were five themes emerged that represented their perceptions: (a) educational background, (b) different classroom culture experiences, (c) perceptions on professors’ instruction, (d) perceptions on academic achievement, and (e) motivation toward academic achievement.

6. DATA ANALYSIS AND FINDINGS
6.1 Educational Background
From the data of questionnaire and interviews, the five Chinese doctoral student participants described their educational backgrounds. The 5 participants had earned their bachelor’s degrees in their native country, China. They had studied for doctoral degrees in various educational programs in the American university where this research took
place. They all spoke Mandarin as their native (first) language and English as their second language. The participants started to learn English when they were sixth graders in China. Taking English courses was mandatory until senior high school. If students attended colleges in China, English became an elective foreign language course, and students had the choice of taking English or a different foreign language. Two of the 5 participants, Ryan and Anne, whose undergraduate major was English, had more English learning experience than the other 3 participants. Overall, the 5 participants had at least 7 years experiences of learning English. Regardless of their English learning experiences, all the participants had met the TOEFL and GRE requirements for admitting at the American University.

6.2 Different Classroom Culture Experiences: China Versus United States

For the 5 participants, the major purpose of coming to the United States was to study at the university. Classrooms became the environment where they spent most of their time to engage in learning. In this study, all the participants came from China and shared similar Chinese classroom cultural experiences. According to interviews and journal entries data, they all experienced the difficulties of getting used to the American classroom culture their first few months at the university. For example, there was no set arrangement of where students should sit in the classroom at the American university. Some classrooms had traditional rows of desks, and others had long tables and chairs around the classrooms. Matt said,

I felt like the university in the U.S.A. had more freedom. For example, the chairs and desks were not that organized in the classroom, you can sit wherever you like and the teacher does not really care. Not like in China, we still had to sit in a row style classroom in the college.

Despite the difference in the physical environment in the classroom, the participants all agreed that the major difference was the numbers of students in the classrooms. They all noticed that the American classes had fewer students than the classrooms in China did. Helen mentioned this when the researcher asked about her learning experience in the American university. She said, “In here, classroom only had 10-12 students. But in China, some of the classes had 40 or 50 students. And the classes were both for undergraduate and graduate students.”

For Helen, she felt that the smaller classroom would facilitate her learning more, because the professor would have more time to help each individual in the classroom. On the other hand, Anne also seemed to agree that the smaller classroom did provide a better learning opportunity. Anne had smaller classes this semester than other participants in the study. She really enjoyed the smaller classrooms at the American university. She said,

I used to be very shy and quiet in the classroom. In China, we had more than 30 students in every course I took, and professors did not even have time to talk to their students in the class or ask questions. But here, one of my classes had only
six students in the classroom, and the professor would always pause her lecture and ask if we had any questions. We had to do discussion and debate for the class. At first, I was shy and did not talk too much, but the class was too small and I tried to speak a little more than I usually do. My professor and classmates were really nice even though sometimes I did not pronounce correctly. I really felt like that I had more opportunities to learn and use English in this smaller classroom that I did not have in China.

Helen and Anne expressed the importance of how smaller classrooms provide more learning opportunities in the American university. Another participant, Grace, had taken advantage of the small classroom as well. She described her classroom by saying the following:

I had a class with only three students in the classroom, and that was very efficient. Because we had a few people, the teacher would kind of do one-on-one teaching, and if we had questions, the teacher would have time to answer it. But, if it was a big classroom, a lot of students, then the teacher was not able to cover each of student’s need. In that case, the teacher was less efficient in the classroom.

Comparing the classroom learning experiences in China and the U.S., the participants found that learning provided many possibilities. For the participants, the new classroom culture experiences in the American university brought them new perspectives on what the classroom was in another culture.

6.3 Perceptions of Professors’ Instruction

From the data of interviews, questionnaire, classroom observation and journal entries, all participants described their observations on general classroom culture differences in China and the U.S. However, without the teachers (professors), learning would not take place in the classrooms. The participants all mentioned that the professors’ instruction made an impact on their learning.

In general, the instruction referred to the professors’ teaching style in the classroom. The instruction varied in relation to the participants’ majors and courses. For Grace and Matt, whose majors were environment engineering and applied mathematics, most of their courses were designed as teacher-centered instruction, such as lecture.

Grace’s class was mainly lecture and contained two design projects. In her class, each student had 30 minutes to present a project throughout the semester. During the classroom observation, Grace had a few opportunities to participate in class discussion with her classmates. However, when the researcher asked her about teachers’ instruction in China and the U.S., she viewed that both Chinese and American teachers relied heavily on lecture. Personally, Grace preferred the lecture instruction. She said,

The lecture would be useful for me if the teacher went through all the materials in specific details and told us where to find the regulations and the procedures of
how to design the system. If the teacher did not go through the task and I would feel like that I did not learn much for that type of the (wasted water) system. So I would prefer that the teacher gives us as much as details through lectures or handouts.

The course Matt took was mathematical theory and he was the only graduate student in the class. During the classroom observation, the majority of class instruction was lecture. Matt and other students were busy taking notes the whole time and did not really have an opportunity to participate in the class. Matt stated,

The lecture style was about the same, but American teachers had more interaction with students. The American teacher would lecture and gave us time to see if we had questions or let us having discussion. I felt it was good for this kind of instruction.

Grace and Matt reflected that their teachers’ instruction emphasized lecture, but the other 3 participants, Ryan, Helen, and Anne, held different perceptions of their teachers’ instruction.

Unlike Grace and Matt’s courses, which were focused on lecture, Ryan, Helen, and Anne’s courses tended to have various types of instruction, such as discussion, classroom activities, and student presentations. The 3 participants agreed that a variety of instructional methods did promote their learning more than lecture only.

Moreover, they felt that student-centered instruction provided them opportunities to learn actively. They viewed lecture as a one-way path to knowledge learning as opposed to actively providing input and exchanging information with the professor and classmates in the classroom. For example, Helen compared her professors’ instruction in China and the U.S.:

The teachers in China just teach us the knowledge from the book and we must handle the knowledge by ourselves. But here (American university), professors will use different kinds of instruction, like books, handouts, power points and movies… Chinese teachers only focus on our scores, but here, teachers more focus on the experiences during the process of learning knowledge.

Ryan also voiced the following:

For me, reading an abstract article by yourself is a single way of understanding. But in the class, you discuss the article with classmates and they might have different opinions than mine and I gain different knowledge. I think the way (classroom discussion) is more effective and positive for me to learn.
Examining Helen and Ryan’s experiences, student-centered instruction not only offered students more choices for learning, but also promoted learning interactions among professors, individual students, and other classmates in the classroom.

Although the 5 participants had quite different experiences with teachers’ instruction, they all shared one very important experience, which was interaction in the classroom. All participants admitted that lecture instruction was the most prevailing mainstream instruction in China through all levels of education. Besides, teachers were viewed as authority figures in schools, and students were not taught to question their teachers in the classroom. Therefore, all participants in the study were not used to having student-centered instruction and had not had the opportunity to interact with teachers. According to Grace,

In China, we didn’t have so much interaction academically or personally with professors while we were studying. Especially we only had the professor doing the lecture and didn’t have much discussion, like in the United States….it is kind of like interaction between students and professors; I think it is very good.

In conclusion, all participants had very positive attitudes toward the learning opportunities that were provided through classroom interaction such as discussion. They felt that they learned more actively by immersing themselves in the American classroom type of instruction. Certainly, the teacher’s instruction had influenced the way the participants viewed learning. As the participants experienced a different type of instruction than they were used to, they appeared to develop different learning attitudes and ideas about what it takes to be successful in the American university.

6.4 Perceptions of Academic Achievement

The questionnaire, interviews and journal entries indicated that the participants all agreed on the importance of achieving academic success and were strongly confident that they would achieve it. Interestingly, the participants did not view GPA as the measure of their academic achievement. They did recognize that the GPA was important for university records and that they had to achieve a certain GPA in their studies. Matt said “if you can study in a PhD program, a GPA should not be a problem.” The participants viewed academic achievement as a means of preparing themselves for their future careers. Three of the 5 participants wanted to go back to China after graduating from the university, and the other 2 participants wanted to stay in the U.S. after they completed their programs.

For participants, academic achievement was not only measured by individual academic performance but also related to the individual’s profession in the future. First, the participants defined academic achievement as individual academic performance, such as attending academic conferences, having publications, and participating in class. For example, Ryan said,

If it is academic achievement, it definitely relates to professional development, such as publication and conference…. Classroom performance and the quality of
writing are also important. To myself, I think it is to speak in the class and being aggressive in participating in the class.

Grace also described her perspective on academic achievement:

Academic success for me would be that you have your own ideas of major that you are studying and you know the general trend in the development of your research area. You know what kind of people do the work and you can collaborate with them. And you can publish your own paper and go to the conference to present them. You have your own ideas about your own work.

Like other participants, Helen also perceived that academic achievement was in relation to individual academic performance in her field. However, she expressed her frustration by saying,

I will try to do my best in my course. Sometimes it is hard, because my study of finance in China is different than the finance in the U.S.A. So I need to put a lot of time and energy to learn that and I still cannot do very good sometimes….

Also, academic achievement is important to me. I want to get some opportunities to write some articles to publish, but I don’t find a lot of opportunities.

Second, the participants also defined academic achievement as individual profession. All the 5 participants showed strong desires to succeed. When the participants worked hard to accomplish their academic goals through achieving individual academic performances first, they also prepared themselves for their future professions as well. They saw that individual academic accomplishment would lead them to achieve an individual profession. Individual professions for the participants included being a college professor or tenured in a company. For example, Anne talked about her perception of individual profession.

Academic achievement should be important because it is what you are pursuing for your career. But I think academic achievement meant for me, especially for a history graduate student is how I adjust myself in the new academic environment. You have to understand how this American historical academic circle is doing, how does this coordinate and you should pay attention to make you look more professional. When you adjust yourself in the new environment, you also find a new role. I think the most important thing to me is…academic achievement also helps you to be professional in your field. How you handle your situations in the field. How you can contribute to this field. How you can make links among different scholars.

From the participants’ perceptions of academic achievement, the participants not only expected to surpass professional academic performance, but they also would be required to be well prepared in future professions. In this section, the participants defined their views of what academic achievement was to them, and the next section described the participants’ motivation to accomplish academic achievement.
6.5 Motivation Toward Academic Achievement

From the interviews and journal entries, the 5 participants’ eagerness to be successful in academia played a major role in learning. Four out of the 5 participants, Ryan, Matt, Anne, and Grace, all indicated that their interest in research was the major motivator for them to attain academic achievement. Through their class preparation of reading assigned materials and doing homework, they learned what they liked or disliked about the class content in relation to their research interests. Grace said, “I think I should relate to my research interest (motivation). I think it should be something that serves as my research.” The participants’ liking of the class content seemed to impact their motivation to learn. Matt voiced, “If I am interested in the class and the class fits into my research area, I will be more motivated. In some situations, I am not that motivated in some required courses.” Also, Ryan, responded with a similar thought:

It depends on the topic. Like last week, we talked about language and dialects. I took a similar course before so I was very interested in it and studied a lot and talked a lot in the class. This semester, I am taking a doctoral core course and I am not that interested in this course. I focus more on my study that relates to the program.

On the other hand, Helen had a different perception of what motivated her to achieve academic success:

The biggest one is to learn more about my major. To learn something different than in my country and also to deal with different problems. If the class has some discussion session or movie/video to see, I would think it is interesting and would be more motivated to search for more knowledge about this class.

6.6 Identity Investment Regarding Academic Achievement

The emerged theme from classroom observation and journal entries revealed that academic achievement would prepare all the Chinese doctoral student participants for future professions. The 5 participants had studied in doctoral programs for 2 years in the American university and hoped to develop skills they needed for their professions. During the process of achieving academic success for the participants, not only did they motivate themselves to accomplish academic achievement, but they also invested themselves to achieve academic success. In her study, Peirce (1995) explained that “the notion of investment... attempts to capture the relationship of the language learner to the changing social world. It conceives of the language learner as having a complex social identity and multiple desires” (pp. 17-18).

For the participants in this study, achieving academic success involved different levels of identity investments in the classroom, such as adjusting to the American classroom culture, learning to interact with professors and classmates, and change from passive learning to active learning. For example, Anne said, “Through discussion with classmates and professors, my spoken English has improved a little bit.”
Ryan described his identity investment experiences:

I know that learning a new language would change the way you think. I might be more active and participatory in class now than I was. I have also made friends with my classmates by using English. This also helped me further my language learning. I also have become more culturally sensitive on things, because I am able to differentiate similarities and differences between Chinese and English.

From the participants’ learning experience in relation to English, motivation, and academic achievement, identity investment not only helped the participants to practice professional skills they needed but also (re)constructed identity for each of the participants.

7. DISCUSSION

7.1 Social Factors on Classroom Learning

The traditional view purports that learning a language depends on individual effort or individual internal factors. Although the theory of second language acquisition helped language learners to understand how people learned a language other than their first language, researchers like Peirce (1995) and Lee (2007) argued that second language acquisition lacks the consideration of taking individual external factors into account in the language learning context, such as the language learner’s social effect. Studies (Koehne, 2006; Macpherson, 2005; Morita, 2004) found that language learners’ social environment did affect how language learners learn the target language. Moreover, the first research question of this study was consistent in predicting that social environment impacts their learning context (Koehne, 2006; Morita, 2004).

The participants’ responses indicate that the experiences of cross-culture classrooms brought them new perspectives of what learning is. First, they felt like that they were liberated from the organized style of the Chinese classroom. The participants liked that they actually had the freedom to choose their own seat in the American classroom. This liberation also made them take control of their learning. Second, the participants favored the small class size in the American university. They all indicated that Chinese classrooms had at least 30 students, but in the American university they had an estimated 10 students in their classes. Although all the participants in the study had either lecture instruction or seminar instruction in their classrooms, they all gave positive responses to the small class size. The reason that they all had positive responses was that they had more learning opportunities because of access to their professors and classmates. The participants experienced that professors did have more time to interact with their students than Chinese professors did in the class, because it was easier for professors to interact with the smaller classes.

Third, although these participants perceived that there was opportunity to facilitate their learning, they also pointed out that opportunity was limited sometimes by the teachers’ method of instruction. Teachers’ instruction refereed to lecture (teacher-centered) or
seminar/discussion (student centered) in the classes in this study. For Matt and Grace, their classes were lecture- based instruction, and they experienced very limited interaction in the classes. Therefore, they sensed the lack of opportunity to enhance the (speaking) skills they needed for academic achievement.

The other 3 participants too advantage of the opportunity to interact with professors and classmates in their student-centered classrooms. They did feel that they learned better and were benefited by the student-centered instruction.

Overall, the findings from the study do indicate that Chinese doctoral students’ learning was affected by social factors, such as classroom setting, classroom size, and teacher instruction.

7.2 Chinese Doctoral Students’ Definition of Academic Achievement

Research studies have shown that academic achievement can be categorized as academic success or social success (Case & Richardson, 1990; Kim & Sedlacek, 1995). In their studies, these researchers viewed earning higher GPA as reflecting academic success in school; on the other hand, they viewed being a professional as representing social success. In 2007, Mathews found similar definitions of academic success and classified them as (a) completed at least a college degree, and (b) being a professional. In the study, however, all 5 participants defined academic achievement as being a professional.

It was interesting to find that the 5 participants cared less about GPA as a measure of success. They perceived GPA as important for passing the courses, but it was not the measure they utilized to evaluate their academic achievement. Moreover, they emphasized more the process of achieving academic success, which was to develop skills they needed for their future professions (Abel, 2002).

Only one participant wanted to work at a company after she completed the program. The other participants wanted to be professors after they graduated. For them, skills like conducting research, attending conferences, writing publications, and classroom participation were essential to prepare them not only to become professionals, but also to attain academic achievement (Li et al., 2010).

Therefore, the findings of this study reported that Chinese doctoral student participants’ definition of academic achievement was being a professional by developing professional skills through the doctoral program in an American university.

7.3 The Relationship Between Motivation and Academic Achievement

The 5 participants believed that academic achievement was important to them in the sense of being a professional in their fields. The motivation to achieve academic success was their research interests in relation to their studies. From the participants’ responses, they seemed to agree that motivation was a goal-oriented factor needed to accomplish academic success (Gardner & Masgoret, 2003). However, Gardner’s motivational theory was criticized because it did not consider the individual learner’s social relationship
(Dornyei, 1994). In this study, the participants were more motivated if the course was related to their research interests. Otherwise, they expressed less motivation for preparing for or participating in the class.

Overall, the participants’ perception of academic achievement did have an impact on academic motivation. In order to achieve academic success, the participants had to have a professional level of academic performance that reflected their definition of academic achievement in the study. However, the participants showed inconsistent motivation regarding their personal beliefs about what (research interest) was important to learn and what (course unrelated to research interest) was not important to learn in the classroom (Tanaka & Ellis, 2003).

7.4 Identity Investment

From the participants’ responses on identity reflections, the participants’ identities had changed based on their perceptions of English language proficiency, academic achievement, and cross-cultural classroom experiences. In this section, the international student participants’ identity investment was revealed in relation to their reflections: (a) adjustment to American classroom culture, (b) limited opportunity to use English, (c) the need to improve English language proficiency, and (d) the desire for academic achievement, (e) the use of English, academic achievement, academic motivation, and identity investment.

Adjustment to American classroom culture. It was obvious that the Chinese doctoral student participants experienced “identity as changing over time” (Peirce, 1995) in adapting to the American classroom culture, such as the teacher’s instruction style and individual learning experiences. First, the participants were not used to the class discussion method of instruction in the classroom, because they had limited or no experience with class discussion in classes in China. However, they began to learn to participate in discussion. For Grace’s example, she described herself as a shy student who did not speak much in class; however, the class she had this semester consisted of only five students, and this forced her to talk in class. She tried to express her ideas more in the class and realized that the professor and classmates were fine with her pronunciation.

One unanticipated finding was that the layout of classrooms influenced the Chinese doctoral student participants’ perception of what would help them learn better. It appeared to the participants that the freedom of choosing their own seats and having fewer students in the classroom liberated them, and they went from being passive learners to active learners. The sense of freedom the participants developed helped them realize that the power of learning had shifted from the professor to the student (Baron, 1975). A possible explanation for this might be that small classrooms did provide more time for the professor to have discussions. For the international student participants, they were experiencing that knowledge was shared by both the professor and the student via discussion in the American university as opposed to their previous experience, which was
depending on the professor to deliver the knowledge through lecture (Heggins & Jackson, 2003).

**Limited opportunity to use English.** Although the participants perceived that class discussion would open the door for them to practice English in the classroom and facilitate their learning, the actual opportunity was limited in the classroom. The results of the study present the Chinese doctoral student participants’ “identity as a site of struggle” (Peirce, 1995). Helen showed her struggle of wanting to answer the questions in the classroom; however, her speaking was not fast enough so that her American classmates had already answered the questions. She explained this situation to me as having to think in Chinese first and then translate into English before she was able to reply in class. Her identity was negotiated with the process of knowing the answer but being unable to interact in English. And she felt that if she did not have good speaking skills, it would influence her academic achievement.

Two of the 5 participants also struggled with the limited opportunity to use English. The reason for this was because instructors used the lecture method of instruction in their classes.

They took notes in the classes, and the professors only paused for seconds to check if the students had questions. For the 2 participants, they not only struggled to practice English, but also struggled to even have the opportunity to speak English in class.

**The desire for academic achievement.** Finally, the Chinese doctoral student participants’ perceptions of academic achievement played an important role in academic motivation and identity investment. Peirce (1995) stressed “identity as multiple” in language learning, and this is supported by our earlier observations, which showed that international student participants had multiple identities in the American university. Their identities were as graduate students, Chinese international students, and English language learners.

With this in mind, the international student participants invested in English language proficiency and did so with the understanding that they would attain academic achievement or professional skills. During the process of investment, the international student participants’ identities changed through self-reflection of how these identities negotiated different situations and coexisted with each other. It is important to understand the international student participants’ identity investment of being a professional that defines academic achievement and this also leads to participants’ academic motivation in learning (identity as a graduate student) and the need to improve English language proficiency (identity as a English language learner).

**7.5 Use of English, academic achievement, academic motivation, and identity investment.** In summary, the 5 Chinese doctoral student participants’ use of English played an essential role in relation to their academic achievement, academic motivation and identity investment. For the Chinese doctoral student participants, They had to use
English in order to engaging in academic activities in American classrooms; moreover, they perceived that developing higher English language proficiency was required in relation to achieve academic success. According to the Chinese doctoral student participants, their perceptions of academic achievement impacted their academic motivation. Also, the 5 Chinese doctoral student participants reflected their identities in the processes of accomplish academic achievement and how the perceptions of academic achievement affected their academic motivation when using English in the American university. Furthermore, the Chinese doctoral student participants’ identity reflections illustrated their identity investment of adjustment to American classroom culture, the limited opportunity to use English, improvement of English language proficiency, and the desire for academic achievement.

7.6 Implications

There are several implications for university professors, the graduate school, and the university international office. First, the study does report that method of instruction and small class size influence international students’ learning. For university professors, providing “learning time” (Carroll, 1963) helps international students to be familiar with course schedule, course instruction, course content and course activities. In doing so, international students learn what to expect in American classrooms and how they should prepare for American classrooms.

Second, the study does support that the university admission’s English language requirement does not necessarily reflect the international student participants’ English language proficiency in actual classroom practice. For example, the participants had a difficult time understanding the professor due to the speed with which he spoke. Therefore, the graduate school needs to use various English language assessment to identify what language skill international students needs in order to provide adequate assistance. Several English language assessments are suggested to identify international students’ language skills other than using TOEFL as the only indication, such as International English Language Testing System (1992) and Canadian Academic English Language Assessment (2013).

Third, the study does illustrate the international student participants’ identity (re)construction through their perceptions of academic achievement, academic motivation, and identity investment. It is important for university professors, the graduate school, and the university international office to understand what the international students experienced in learning and also to be able to provide assistance for international students. For example, the graduate school can provide American higher education seminars to help international students to understand the American classroom culture. Moreover, university professors can try to understand international students’ previous educational experiences and learning styles. Finally, the graduate school, university
professors and international office can collaborate together in order to offer academic workshops such as writing and presenting for academic purpose to international students.

References


