Perceptions of Differences

--Chinese graduate students in US programs of social sciences, humanities, and education

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Lin Lin, Ph.D.

Department of Childhood and Early Childhood Education
School of Education
SUNY at Cortland
P.O.Box 2000
Cortland, NY 13045
linlin@cortland.edu

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Abstract

Based on a thematic analysis of semi-structured in-depth multi-phase interview transcripts of 10 participants, the study examines the incongruities perceived by Chinese graduate students in U.S. graduate programs of social sciences, humanities and education. Differences in general classroom characteristics, teacher's behavior, student's behavior, curriculum, instruction, and professor-student relationship are identified. Implications are discussed for both instructors in the American and Chinese schools. Learning strategies are also recommended for Chinese as well as other international students.

Introduction

On the campuses of most universities and colleges across the United States, one could easily come across international students, who add to the diverse campus culture in many different ways. These students come with different educational backgrounds that have been formed by different cultural, political, linguistic, and academic environments. The learning styles and educational backgrounds of these groups of students often conflict with the American academic practices in academic programs (Bennett, 1995). Since the 1980s, one of the largest groups of international students in the U.S. is Chinese. This influx of Chinese students has resulted in a large number of cross-cultural studies. One of the findings of studies on Chinese students at all levels shows that they are more likely to attribute academic success primarily to effort, rather than to both effort and ability as do Western students (Watkins & Biggs, 2001). Another finding is that Chinese learners identified both intrinsic and extrinsic motivation as desirable for academic achievements in a collectivist social and school environment (Biggs & Watkins, 1996).

While these studies researched Chinese students in public school settings in China, it is worth mentioning that most of the Chinese students who come to the U.S. universities are graduate students. When they come to the United States to pursue further studies, it takes substantial effort for them to make the transition from a culture of education that did not promote higher order thinking to the graduate programs that have such thinking skills at their very core (Fasheh, 1984). In today's information age, higher order thinking skills are viewed as crucial for educated persons in a rapidly changing world. Throughout history, educators and many others have been concerned with the art and science of thinking. Teaching students to become effective thinkers is increasingly recognized as an important goal of education in the United States (Cornbleth, 1985; Newmann, 1990a; Presseisen, 1986).

The differences between the Chinese and U.S. educational systems have an influence on their learning in the United States (Beaton et al., 1996a, 1996b; Stevenson & Stigler, 1992; Stevenson & Lee, 1996). At the center of Western misconceptions about Chinese learners, there are two major types. The first misconception is that students from China–the Confucian-heritage cultures--are taught in classroom conditions that in terms of Western standards cannot be conducive to learning: large classes, expository methods, relentless norm-referenced assessment, and harsh classroom climate (Watkins & Biggs, 2001). Yet students out-perform Western students, at least in mathematics and sciences and have deeper, meaning-oriented, approaches to learning. The second misconception is the

relationship between memorizing and understanding. Students from China are perceived as passive rote learners, yet show high levels of understanding (Watkins and Biggs, 2001, p.3). However, few studies have been conducted on Chinese learners to evaluate their level of understanding in social sciences. Chinese students in graduate programs of social science, humanities, and education were even more under-researched.

A variety of issues arise concerning Chinese graduate students' U.S. learning experiences. For example, how do Chinese graduate students adjust to the differences they perceive in their graduate programs? How does such a transition affect students' learning? How do they develop the required thinking skills, which they did not have opportunities to refine in their prior learning experiences, to meet the academic requirements of the graduate programs? This study investigates the process of how Chinese graduate students meet the academic requirements in social science, humanities, and education programs of the United States. It is hoped that it will contribute to a better understanding of how Chinese graduate students can prepare for and survive their graduate education experiences in the United States.

Purpose of the Study

The purposes of this study are to identify Chinese graduate students' perceptions of incongruities between social science, humanities, and education programs they experienced in China and those they encountered in the United States, and to examine how these students develop the higher order thinking skills to meet the academic requirements of these programs in the United States. The following research questions guide this study. There are two sets of questions in this study of Chinese graduate students: (1) What are Chinese graduate students' perceptions of incongruities between Chinese and U.S. graduate programs in social science, humanities, and education? How do such incongruities affect their learning? (2) How do Chinese graduate students develop higher order thinking skills to meet the academic requirements of those programs?

Theoretical Perspectives

The study of how Chinese graduate students in social science, humanities, and education programs of the United States develop the higher order thinking skills needed to meet the academic requirements can be examined from various perspectives. At the theoretical level, symbolic interactionism informs my study. Anderson's cross-cultural learning process model guides the study in terms of methodological design. At a middle-range theoretical level, Fred Newmann's seventeen indicators of classroom thoughtfulness provide a conceptual framework for the study.

Symbolic Interactionism

Symbolic interactionism (Blumer, 1969) guides the study to seek the meanings Chinese graduate students give to the process of how they meet the academic requirements and how they interpret their experiences. The perceptions of the Chinese graduate students are essential and constitutive to their learning experiences in the United States. The participants act upon symbols and signals in their new learning contexts while their prior learning experiences in Chinese social science, humanities, and education have impacts on them. They become interpreters and readers of such symbols, signals and prior experiences. At the same time, interpretation is not an autonomous act. Individuals interpret with the help of others–people from their past, and persons they meet in settings in which they study. A researcher coming from a symbolic interactionist perspective observes that if

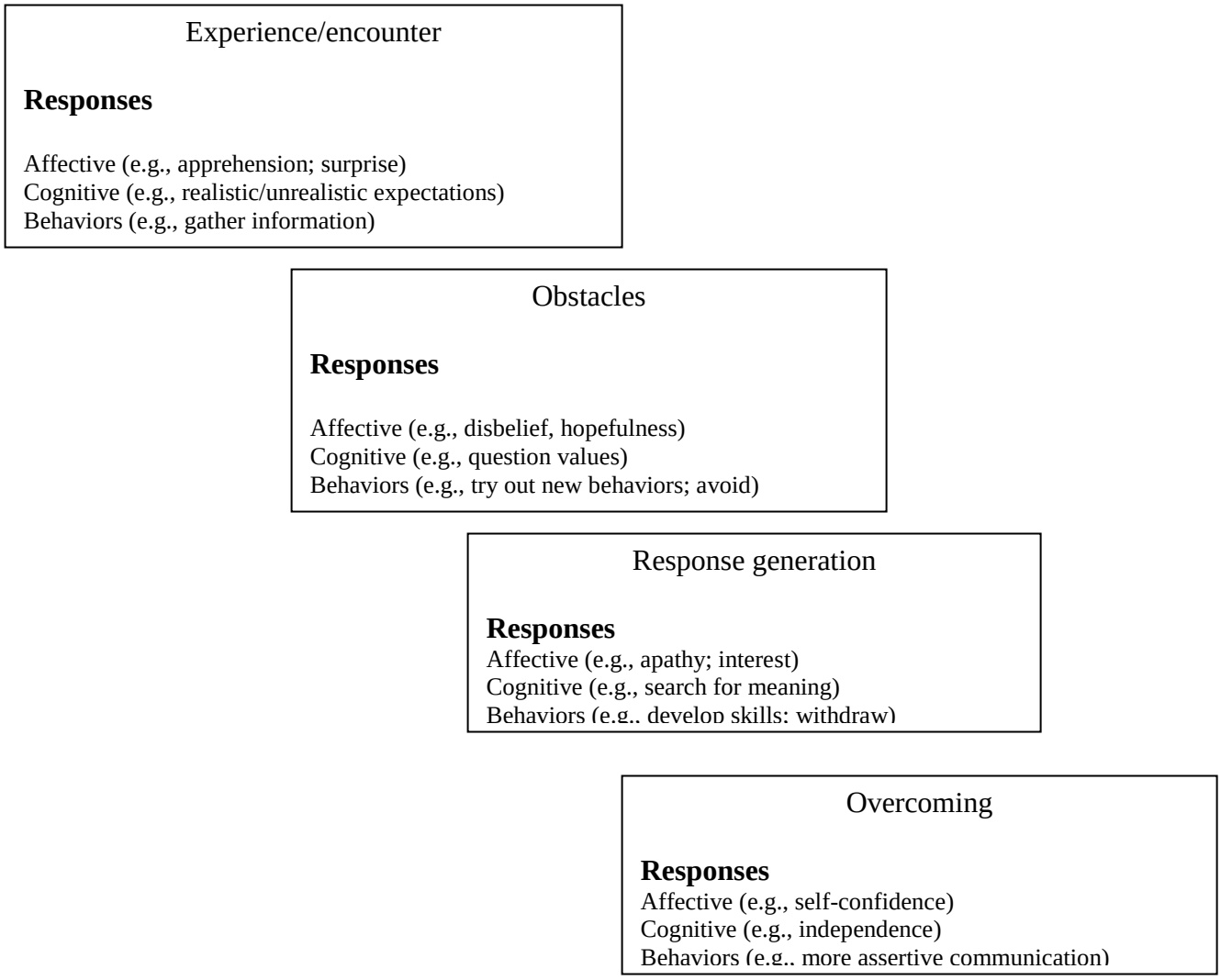
something unusual happens in a setting, people make a note of it and talk about it. Through interaction, individuals construct meaning. Chinese graduate students often develop common definitions–shared perspectives. The participants of the study share perspectives since they regularly interact and share experiences, problems, and backgrounds. While some take "shared definitions" to indicate "truth," meaning is always subject to negotiation. The participants' interpretation can only be understood by having the researcher enter into the defining process through such ethnographic methods as interview, participant observation, and document analysis.

Anderson's Cross Cultural Learning Process Model

Developing higher order thinking skills to meet academic requirements is a complex and interactive learning process that takes place between learners and the environment. The process requires the interaction of the learners and environment (Anderson, 1994). "Learning process" refers to the ways in which individual learners acquire knowledge, skills, and values within the academic context (Ramsay, Barker, & Jones, 1999). While studies on learning processes typically emphasize the cognitive responses of learners, learning is a process where emotions, moods, and feelings of the learners play an important role (Boekaerts, 1993). Anderson's model of cross-cultural learning process enables the researcher to include affective domains of the learners (Ramsay et al., 1999).

In his model (Figure 1), Anderson (1994) describes a process in which learning occurs when learners experience the interplay between emotions and cognition, followed by actions. The model has four key stages: cultural encounter, experiencing obstacles, response generation, and overcoming. In the first stage, the learner comes to a new environment to encounter cultural characteristics of the learning context. In the second stage, the learner recognizes and experiences various obstacles that are presented either by the environment or the self. The obstacles lead to various kinds of "response generation" in the third stage. In the fourth stage, adjustment is usually reached when the learner overcomes the obstacles. It is important to notice that affective, cognitive, and behavioral responses all occur within the model, but the focus is on cognitive responses.

Figure 1 Summary of Cross-cultural Learning Process Model (Anderson, 1994).



Fred Newmann's Classroom Thoughtfulness Framework

Research shows that an open, supportive, and thoughtful classroom climate is more likely to promote thinking and foster positive civic attitudes (Newmann, 1990b; 1991). As defined by Newmann (1990a), higher order thinking "challenges the student to interpret, analyze, or manipulate information, because a question to be answered or a problem to be solved cannot be resolved through the routine application of previously learned knowledge" (p.44).

Figure 2 shows the framework of classroom thoughtfulness.

General characteristics:

- There was sustained examination of a few topics rather than superficial coverage of many.
- The lesson displayed substantive coherence and continuity.
- Students were given an appropriate amount of time to think, that is, to prepare responses to questions.

Teacher behavior:

- The teacher asked challenging questions and/or structured challenging tasks (given the ability level and preparation of the students).
- The teacher carefully considered explanations and reasons for conclusions.
- The teacher pressed individual students to justify or to clarify their assertions in a Socratic manner.
- The teacher encouraged students to generate original and unconventional ideas, explanations, or solutions to problems.
- The teacher showed an awareness that not all assertions emanating from authoritative sources are absolute or certain.
- Students' personal experience (where relevant) was integrated into the lesson.
- The teacher was a model of thoughtfulness.

Student behavior:

- Students offered explanations and reasons for their conclusions.
- Students generated original and unconventional ideas, explanations, hypotheses or solutions to problems.
- Students assumed the roles of questioner and critic.
- Student contributions were articulate, germane to the topic and connected to prior discussion.
- What proportion of students participated verbally in the lesson?
- What proportion of time did students spend engaged in thoughtful discourse with one another?
- What proportion of students showed genuine involvement in the topics discussed?

Note. Adapted from "Higher order thinking in teaching social studies: a rationale for the assessment of classroom thoughtfulness," by F. Newmann, 1990a, *Journal of Curriculum Studies, 22(1), 41-56.*

This framework is relevant to this study in three ways. First of all, Newmann's seventeen indicators in the framework provide for a comprehensive tool for the researcher and participants to reflect upon and evaluate the classroom thoughtfulness in courses required by the U.S. social science, humanities, and education programs. When Chinese graduate students enter the U.S. social science, humanities, and education programs, they experience different classroom cultures in graduate programs when they are required to finish coursework before they undertake dissertation research. Using this framework, the study examines students' reflections on their observations and evaluation of classroom instructions. The indicators enable the researcher to organize the incongruities between Chinese ways and American ways of teaching social science, humanities, and education in graduate programs. Second, the framework provides a scheme for data collection for this study. To best answer the research questions, interviews of graduate students and document collection were selected as the major data sources for this study. Third, the framework also provides a scheme for data analysis and representation. The three major aspects and the seventeen indicators of the framework can be used to categorize themes and sub-themes from the data. The framework also sheds light on how findings could be effectively represented.

Literature Review

The review of literature revealed several findings important to this study. First, language proficiency was identified as the major source of stress and resulted in much frustration (Chen, 1996; Lin, 1998; Parker, 1999; Pinheiro, 2001; Sun & Chen, 1997; Wan, 2001). Four types of difficulties were noted in this aspect. They were: (a) difficulties of following discussions and participating in fast paced graduate seminars, (b) difficulties of speaking and writing in English, (c) difficulties of keeping up with readings and being critical, and (d) difficulties of writing academic papers to the accepted standard. The last two difficulties point to the lack of higher order thinking skills. Even the first two difficulties are related to the thinking process of these students. Interactive classroom discussion is one of the major features of most U.S. graduate courses. This approach to teaching requires a high level of language proficiency, application of thinking skills needed to address challenging questions posed by instructors and students, strong ability to ask challenging questions based on reading, clear justification of one's argument, and an ability to clarify one's assertions and reasoning. Routine repetitive recall of information does not help a learner be an active participant in the classroom discussion.

Second, the findings of the academic adjustment research pointed to other incongruities between Chinese and the U.S. educational settings. Such incongruities pose another set of four difficulties. The challenges Chinese and other international students identified are more likely to be relating to reasoning skills, questioning skills, problem-solving skills, and creative thinking skills required for writing academic and scholarly articles and critical analyzing abilities. All these skills and abilities are integral parts of the higher order thinking skills defined and conceptualized by Newmann and many other researchers.

Several research gaps emerged in this review of literature. First, there is little research conducted with a focus on what differences exist between the graduate level instruction and curricula of social science, humanities, and education programs in mainland China and the United States. Second, few studies examined how such differences affect the learning experiences of Chinese graduate students in social science, humanities, and education programs in the United States. Additionally, the learning experiences of international students in academic programs has been predominantly biased toward research characterizing learners' psychological transformation as the focus of learning (Bettencourt et al., 1999; Beyers & Goossens, 2002; Boulter, 2002; Leong & Bonz, 1997; Strage & Brandt, 1999). The perspectives of learners have been largely overlooked. There is a

need for research on how such learners make the successful transition from their previous educational and work experiences to the U.S. graduate programs that require higher order thinking skills.

Research Design

A qualitative open-ended in-depth semi-structured interview study of 10 participants was chosen as the major method for this study (Bogdan & Biklen, 1992; Denzin & Lincoln, 1994; Creswell, 1998; Charmaz, 2002). Document analysis was a secondary data source for the study. All participants were recruited on a voluntary basis from graduate programs of social sciences, humanities and education in a large Southern public university. To ensure internal validity, the researcher used triangulation, member checks, long-term on-site stay, peer examination, dissertation committee members' advice and bracketing interviews to better understand and articulate subjectivities. To ensure *r*eliability, the researcher reflected on the research process and made a subjectivity statement. Triangulation, and audit trail also helped with reliability. To ensure external validity, the researcher used rich and thick description. When presenting data, the researcher was more concerned with the typicality or modal categories. The two-phase interview design of multiple participants also helped establish external validity.

Data Analysis

Participants' perceptions of incongruities between their Chinese and U.S. graduate programs are presented through four major themes: general characteristics of the graduate programs, general classroom characteristics, teachers' behaviors, and students' behaviors. Selected direct quotes from participants' interview transcripts are presented to support the statements.

<u>General Charactersitics of the Graduate Programs</u>

Participants stated that the American educational system is more conducive to human development and learning. The U.S. system is more reasonable than the Chinese educational system because it is more focused on promoting human thinking. U.S. graduate programs make efforts in four ways to achieve this goal. First, U.S. graduate programs establish a structure of curriculum that encompasses key concepts and theories in each discipline. Second, they build thoughtful classrooms and require higher order thinking skills. Third, they provide students with research training opportunities via seminars, readings, presentations, and papers. Fourth, they familiarize students with both quantitative and qualitative research methods through course and research projects. The following paragraphs present these characteristics in more details.

U.S. Graduate Programs Having Curriculum That Encompasses Key Concepts and Multiple Theories

Participants recalled that Marxism, as the sole ideology, dominated the curriculum structure in their educational experiences in China. All other theories were excluded or overlooked. Even when Marxism was studied, it was researched with a narrow focus on political economy and the political aspects of the theory. Few participants had experienced an in-depth study of the theory. When participants studied Marxism in their political education courses in China, they considered it a great burden and failed to see any relevance between theory and practice. Participants reported that, in their U.S. graduate courses on social theories, they never dared to acknowledge that they learned Marxism

in China. They did learn about the theory, but they could not understand the theory well enough to critique and compare it with other theories. Zoe shared that,

> In the field of economics, we attached too much importance to political economics. When we talked about political economics, we only focused on Marxist political economics. We seldom discussed the Western economics. We knew so little about Marxism even if we were supposed to understand much about it since we were made to study it so much in China. (Zoe)

U.S. Graduate Programs Building Thoughtful Classrooms and Requiring Higher Order Thinking Skills

Most courses taken and described by the participants have characteristics that match the indicators identified by Newmann (1990) in his framework of thoughtful classrooms. Both interview and document analyses support the view that graduate courses focused on a few topics rather than the superficial coverage of many. Instructors designed each course to display substantive coherence and continuity. In the graduate courses, students had ample time to read, think and reflect on the readings, and prepare responses to the questions put forward either by the instructors or the readings themselves. In such courses, teachers often take a participant role and require that students lead and carry on the discussion of the seminar. For example, Jason shared, "*each student will at least have one turn to host the discussion in a semester. The student read the materials, put forward questions, and led the discussion. Teacher would remain only as one of the participants.*" This theme will be further illustrated in terms of participants' perceptions of differences in general classroom characteristics in the following section.

The courses at the graduate level in the U.S. focus more on promoting abilities beyond comprehension and recall. Yan told me, "*each course we take here required a variety of higher order thinking. One could tell by examining the evaluation rubrics in the course syllabus."* With abilities limited to memorizing and understanding things, one would never be able to meet the requirements of such courses here. This perception seemed to be shared by other participants.

> Instructors assigned papers that require skills of synthesizing. For example, I took a course that required a weekly review essay on the reading assignments of the week. One can't simply just sum up the main ideas of one article or two. One has to synthesize and evaluate. Students' ideas and comments should be added to it. (Heather)

> Higher order thinking skills, to me, refer to skills to make generalizations and induction based on some materials. In China, instruction centered too much on memorization. Students left schools with some basic knowledge. But students' creativity might be left untapped. Here in the United States, graduate programs focus on training students to develop their independent thinking. Students' ideas are always valued and encouraged. Instructors do not care how much you could remember, but they do care how much you could understand and be able to put into practice. (Renee)

An analysis of the 30 course syllabi collected from the participants supports the view that the instructors of all courses required higher order thinking skills. Assignments on the collected syllabi included such tasks as reviewing research articles, critiquing books or book chapters, synthesizing research articles, designing research projects, and conducting a variety of research projects. In order to more carefully examine these syllabi, I analyzed the terminology instructors used to describe assignments (see Table 1). Sorting these assignments into six levels of thinking skills defined by

Bloom's Taxonomy (Anderson & Krathwohl, 2001), I calculated the frequency of such terms across all 30 syllabi.

Table 1 Higher Order Thinking Skills Required by Graduate Course Syllabi (N=30)

Bloom's Taxonomy	Sample Phrases from Course Assignments	Percentage of the 30 Syllabi that Require This Level of Bloom's Taxonomy					
		Knowledge	Comprehen-sion	Application	Analysis	Synthesis	Evaluation
Knowledge	To memorize the concepts; to recall definitions;	10					
Comprehension	To summarize; to understand; to explain; to discuss; to develop an understanding and knowledge of …;		40				
Application	To investigate; to use; to apply knowledge to facilitate practice; to implement; to practice; to conduct a questionnaire;			50			
Analysis	To describe relationship between; to compare and contrast; to review books; to review research articles; to collect and analyze; to critically interpret;				60		
Synthesis	To evaluate; to compare and contrast; to assess; to critique; to reflect on practices;					66	
Evaluation	To develop research projects; to write papers; to synthesize; to design; to create a chart; to put together a list of; to complete; to write a report;						90

As we could see from Table 1, the development of higher order thinking skills is a shared goal of all graduate-level courses. Having taken these courses, participants in this study perceived that the U.S. graduate programs made conscious efforts to enhance the development of such skills by providing students with research opportunities via seminars, readings, presentations, and academic papers.

U.S. Graduate Programs Providing Research Opportunities through Graduate-level Seminars, Readings, Presentations, and Papers

A key difference of doing research in China and in the United States is that here students are more likely encouraged to conduct a research related to their own interests. Participants' experiences of doing research in both countries show that without interests or passion, one would not devote much time or energy into the research. As an example of conducing research close to the researcher's heart, one participant shared with me one of his latest experiences of conducting a survey research project in his U.S. program. In this aspect, Harry had a lot to share,

> This summer I took a course and learned to design a survey study, which I vaguely heard about, but never ever had the opportunity to do an actual survey. The course required us to structure the survey, find relevant items in existing literature, brainstorm ideas with classmates, and design the survey. With the teacher's helpful guidance, I decided to conduct survey research to examine the main reasons why adult learners use the Internet, which means different things for different people. The purpose is to see how many different models of Internet surfing were there among adult learners. I would also like to see how my own way of using the Internet differed from the ways of others. (Harry)

Conducting such a successful survey as a project for that course, Harry got acquainted with the whole process of conducting survey research. He not only discovered his own interests, but also he learned the research method.

U.S. Graduate Programs Familiarizing Students with Various Research Methods through Projects

Except for the few participants who had comparatively more research experiences in China, most reported that they had little exposure to research methods. For those who had more extensive experiences, they learned mainly about the quantitative research methods in China. Harry shared the following about his research experiences in China.

> I participated in a few research projects. I conducted the quantitative measurement for those projects….researchers did not pay attention to using such [quantitative] methods to solve particular problems. They were too preoccupied with manipulating the data using specific methods. Very few people would study a certain topic with enthusiasm. They designed studies for the convenience of data collection. (Harry)

In addition, when statistical courses were offered in Chinese graduate schools, participants recalled that those courses were limited and did not use practical examples to help students understand the relevance of such research methods to solving practical research problems.

> I learned about statistics in China. Now I'm still learning statistics here. I prefer the way it is taught here. Here we learn statistics in different stages. But back in China, undergraduate and graduate programs offered statistics using the same textbook for

> years. In China, statistical courses seldom cited practical examples to help solve problems in reality. (Harry)

Participants in other graduate programs of social sciences and education reported that they learned the majority of what they understand about research methods here in the U.S. Reflecting on her experiences back in China, one participant in the department of anthropology reported that she welcomed her training here in statistical methods.

> I think statistics is widely used here in social science research. But in China, archaeology is pure humanities. We used very little statistics methods in research. Even when we did, we used only the very basic methods, nothing at this advanced and pervasive level here. Here, I also learned many statistics methods used in geography. My advisor suggested that I take a few courses in geography, which has research methods that could be adopted in our field. These methods are very specific and could be used to research problems in our field. I had never had such experiences in China. I would like to adopt all of what I learned here in my future research. (Xing)

Perceptions of Incongruities in General Characteristics of Classrooms

Chinese undergraduate classrooms have long been characterized as lecture-oriented with little students' participation. Yan, who graduated from a Chinese language institute, described his undergraduate classes as ones dominated by "*imitation, repetition, recall, and memorization as major modes of learning."* Other participants who were language majors had similar experiences. It is reasonable that language learning requires rote learning and memorizing skills. Basically, in those classrooms, teachers lectured while students listened attentively and quietly took notes.

Harry, who was not a language major in China, reported similar experience in his undergraduate classrooms "*in class, we took notes, trying to remember the notes at exams*." Another participant echoed, "*in class, teachers dominate the instruction. Students are passive listeners*."

In China as in the United States, while most undergraduate courses did not focus on research, Heather had some research experiences with one course called "Introduction to Linguistics." The instructor, who had obtained a doctoral degree from a U.S. graduate program, shared many research methods and required a term paper from the students. But Heather's research experiences were limited to this single assignment in one undergraduate class.

Harry's learning experiences in undergraduate years in China were typical of many college students in China.

> During my undergraduate years, in class I took notes and tried to memorize these notes for exams. Teachers were not strict with us at that time. They did not assign much homework. The courses I took in social sciences and humanities did not assign any homework. We just took notes at lectures, put them in good shape after class, and memorized the notes to pass exams. It was painful when exams were approaching, but we didn't work under much pressure on a regular basis. In retrospect, we only learned the framework of the subject. We did not retain much knowledge that we obtained by rote learning. (Harry)

Harry thought that most instructors he had in his undergraduate years only used monotonous teaching techniques.

> [In China], good teachers would be those who could present their lectures in a well-organized way. Their lecture notes would be clearly written with titles, subtitles, major

> points and supporting details. It would be easier for us students to arrange our notes in a systemic way as well. However, not all teachers could have done that. Basically, what we had learned in social sciences and humanities was through rote memorization. As soon as we were done with the courses, we returned everything we learned to the instructors. Since I came to the United States, I reflected on those teaching techniques and concluded that they were too outdated. (Harry)

Participants commented that in China most of what they learned was indirect knowledge, which means that they obtained knowledge mainly from books. While they are here in the U.S. programs, they learned both indirect and direct knowledge, which means that they obtained knowledge through fieldwork and hands-on activities beyond books. One participant described these experiences.

> In China, social sciences focused on indirect knowledge, which came mainly from books. Instructors lectured and assigned books for you to read and read again. After you understood what you read, you wrote about your reflections. This is learning. In the United States, learning could also take this form, but it is more than that. Besides indirect knowledge, we also learned direct knowledge. It requires one to lay his or her hands on. It requires one to practice. For example, if you want to come to a conclusion, this conclusion should not just come from books or your own ideas. It should also come from practical fieldwork in the form of questionnaires, survey, and observation. (Jason)

Perceptions of Incongruities in Instructors' Behaviors

In terms of instructors' behaviors, participants identified three characteristics. First, in U.S. graduate programs, instructors prepared a detailed syllabus to communicate with students the course requirements, goals, and methods of assessment. Second, instructors facilitated, rather than dominated, the instruction in classrooms through a variety of learning activities. Third, instructors' attitudes towards students were different from those of Chinese instructors. Instructors provided academic assistance and support to graduate students and treated them as colleagues.

Course Syllabi

Participants commented that their Chinese instructors didn't usually have a syllabus for students, who were not considered an active part in the learning process. For participants who had syllabi from their instructors in China, they recalled that the syllabi were different in nature. Heather shared,

> Even if they had a syllabus, it wouldn't be as detailed as it is here. For example, here the syllabus tells you when to finish what assignments, and when the papers are due. (Heather)

Being provided with a more detailed and specific syllabus, Heather, though feeling quite intimidated and overwhelmed at the beginning, knew what to expect out of the course. Yan agreed as well that providing students with a detailed syllabus at the very beginning of each course was very helpful. He had never had a teacher in China who did this.

> The instructor here would share with students the first thing in class his requirements and ways to evaluate performance. Everything was shared with students openly. This is very different from the situation in China, where instructors wouldn't mention about midterm exams or finals until later into the semester. Here in the United States, the

> instructors lay everything on the table as early as possible. For example, you will understand that your class performance might consist of participation in discussion, presentation, and paper. (Yan)

Instructors as Facilitators

In China, participants experienced teacher-centered and content-oriented instruction (Kember, 1997). The undergraduate classes they had taken were large in size, lecture-oriented, and examination-dominated. All participants shared similar descriptions provided by Renee and Harry.

> As far as I could recall, teachers did most of the talking in my undergraduate classes. It would not have been necessary for us to go to the classes. However, we invariably went and didn't care much to listen. Teachers talked throughout the whole class period. They did not assign much homework after class….there would be a mid-term and a final exam. The content of the examination was in the textbook. What we needed to do was to memorize them. (Renee)

> My college life could be summarized as taking notes, and learning the notes by heart to pass exams. Instructors were not strict with us. They did not assign much homework for courses in social sciences and humanities….teachers used monotonous teaching strategies. Most of the teachers lectured most of the time in classroom. Good teachers would lecture and provide students with an organized outline so that it would be easier for students to take notes. (Harry)

By comparison, participants described their instructors in U.S. graduate programs as facilitators. Their facilitating roles were characterized in two ways. First, they facilitated teaching and learning through a variety of techniques including lectures, big-group and small-group discussions based on reading assignments, question and answer opportunities, group projects, and many other activities. Second, they facilitated classroom instruction by asking challenging questions, inspiring students to think independently, encouraging different opinions, structuring challenging tasks, and modeling thoughtfulness.

Participants described that most instructors here as employing a variety of teaching techniques in classroom instruction. Lecture no longer dominated instruction. Zoe was obviously not satisfied with her instructors in China. She was quite impressed by the instructors here who used a variety of teaching techniques.

> Instructors pay great attention to motivate and inspire students to study as active learners. They do not cram students. I was not saying with a sweeping conclusion that all Chinese teachers crammed their students. In my graduate years, instructors did not cram too much. But their teaching strategies were monotonous. But here instructors use a variety of teaching techniques. (Zoe)

Instructors Treating Students as Colleagues

While participants agreed that their instructors encouraged independent thinking in courses and research projects, they commented on instructors' attitudes towards students. In most graduate courses, instructors were participants in class. They talked in the discussion and learned new things with students on an equal basis. Participants reported that their instructors treated them as colleagues. The

relaxed relationship between teachers and students was conducive to learning. Xing had instructors who participated in classroom discussion just like students.

> My instructor in class became a participant. He participated in discussions on an equal basis with students. In addition, I don't think instructors are like teachers in my Chinese mindset. They just sit together with students and chat. There is this casual but friendly relationship between instructors and students. Most instructors are very humorous. They do not put on airs. They can make the classroom atmosphere relax. (Xing)

Perceptions of Incongruities in Students' Behaviors

Reflecting on their learning experiences in China, participants concluded that they were passive learners. Their passivity was promoted in three ways. First, students were not given many choices about taking courses and their learning process. For example, most of them had to take courses regulated by the curriculum in their Chinese programs. Even electives were required and limited to a few options in China. Second, students were not encouraged to be critical learners. Critical thinking and other higher order thinking skills were not the focus in the Chinese curriculum of social sciences, humanities, and education. As participants recalled, students took notes in class and seldom challenged either the textbooks or the instructors. Third, they depended too much on instructors in the learning process. They seldom got involved in challenging tasks.

By comparison, participants preferred U.S. graduate programs that encouraged independent self-directed learning. Participants perceived American classmates as active learners. First of all, in the classroom, students offered explanations and reasons for their conclusions in class. Second, students generated original and unconventional ideas, explanations, hypotheses or solutions to problems. Third, students assumed the roles of questioners and critics. Fourth, students made germane contributions to the topic and made connections to prior discussions. Evidence for such claims could be found in participants' remarks as follows.

> In China, teachers proposed topics for graduate students. You read papers, express your opinions, collect simple data, and write it up. (Zoe)

> [Here in the United States], teachers are supportive of students. They provide you with a general direction. They do not care too much about whether you are following the direction or not. Taken at face value, teachers do not seem to be responsible. But they aim at cultivating students' independent thinking and learning. (Jason)

> Each course of the semester assigned students a huge pile of readings for students to read and digest. Once you read them, you come to class and participate in discussion. The benefit of having such a large amount of reading assignments is that you get acquainted with many aspects of the course. You learn so much through reading. No matter how knowledgeable the instructor is, what he could lecture and share with students is limited. He reads what interests him. It is impossible that he gets to read everything in the field. But if students could start reading many articles in the field, they could think from different perspectives. (Harry)

Discussion

The Western academic heritage is based upon an epistemological belief that values objectivity over subjectivity and logic over intuition (Shute, 2002). Participants in this study, who came from a

non-western culture where social sciences research is very much underdeveloped, felt challenged as they entered the research-oriented programs in the United States. The quantitative and qualitative paradigms of research revealed to them new ways of knowing the world and enriching the experience of conducting research. With these new learning experiences, participants perceived incongruities in curriculum, instruction, and research between Chinese and U.S. graduate programs.

In China participants experienced a rigid curriculum, which had Marxism embedded as a dominant ideology. With an academic community that only featured one ideology and did not allow much freedom, students tended to have negative experiences with learning. Participants perceived that everything came from a political perspective and political orientation was of utmost importance. Such a political culture greatly influenced the educational culture in schools. Before China introduced the concept of a market economy, social theories were not extensively studied as they had been in other countries. Students who did not have access to such a variety of theories in China reported having difficulties learning about such theories in U.S. graduate programs.

Differences in instruction in China and U.S. programs affected participants' experiences. Chinese graduate students' perceptions of learning are best explained by research that has shown that students act upon demands made by the learning environment (Biggs, 1987; Gow & Kember, 1990). When there is a lack of choice over content and methods of study, and when the assessment system requires the memorization of information, participants are more likely to perceive learning as a means towards some end, such as obtaining a satisfactory grade. Participants in such learning environments focus more on concrete and literal aspects of the learning task and fail to see the relations between the components in the learning task or the relationship with other learning tasks. In such environments, participants are less likely to develop their higher order thinking skills. In terms of affective outcomes, participants avoid having personal involvement in the learning tasks.

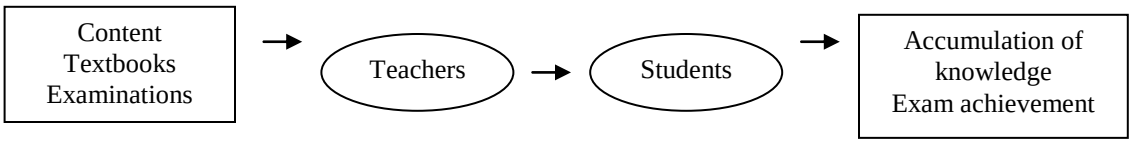
When learning environments require the enhancement of skills to analyze, apply, and synthesize information and allow learners ample time for contemplation and discussion with other learners (Biggs, 1987), they are more likely to develop an interest in their own research field. It is in such learning environments that participants have positive experiences with the examination system, which probe for the understanding of methods and theories rather than the reproduction of facts and procedures (Biggs, 1987). In this learning environment participants enjoy their personal involvement in the learning tasks. They read widely, discuss with others, theorize about the subject, and relate what is learned to other areas of interests and other applications. As for affective outcomes, the participants feel challenged but engaged (Biggs, 1987).

In this study, participants' perceptions of incongruities between Chinese and U.S. graduate programs brought about a new understanding of the concept of teaching. In U.S. graduate programs, teaching involves providing an environment for knowledge construction, not knowledge transmission. From the participants' perspectives, learning involves knowledge construction rather than knowledge reception. Chinese graduate students' perceptions of U.S. programs indicated that concepts such as self-directed learning (Schunk & Zimmermann, 1994) and constructivist activities (Chan, Burtis, Bereiter & Scardamalia, 1992) have long been accepted as theoretical notions in the western academic community. These notions emphasized that students should play active roles in their own knowledge construction. For Chinese students who have not been trained in such learning environments, encountering such notions caused challenges and frustration. However, Chinese graduate students were found to respond well to such constructive learning approaches. Though they are culturally predisposed to passive or rote learning (Dahlin & Watkins, 2000), this study provided evidence that Chinese graduate students welcome independent self-directed learning approaches.

Figure 3, which is adapted from Gao and Watkins' original model, illustrates the participants' perceptions of the different learning experiences in Chinese and U.S. graduate programs. The model

shows that the Chinese professors' major role was perceived by participants to be mainly a transmitter of the content from textbooks via lecture. The only way to evaluate students' acquisition of this content is the exam. There is very little interaction between teacher and student, let alone interaction among students.

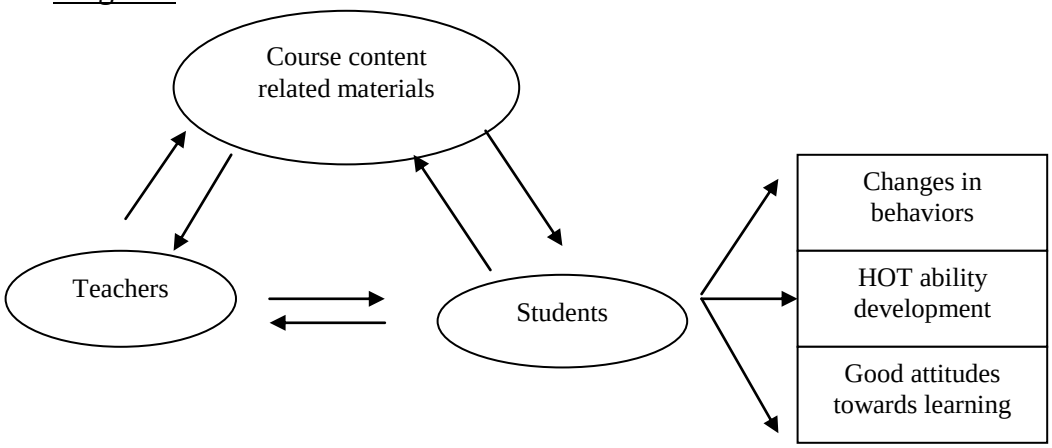
Figure 3 A Model of Participants' Perceptions of Learning Experiences in China*



*(Adapted from Gao & Watkins (2001)' conceptual models of teaching, p.35.)

Figure 4 is an adaptation of Gao and Watkins' Ability Development Conception of Teaching that shows how my participants viewed their U.S. graduate school learning experiences. It illustrates an increasing amount of interaction between teacher and students about the course content and the related materials. The major difference between the two models illustrated in Figure 3 and 4 is the change in students' learning behaviors as the outcomes in the model change from simple knowledge acquisition to higher order thinking skill development. According to my participants, this model also aids students in the development of good attitudes toward learning.

Figure 4 A Model of Participants' Perceptions of Learning Experiences in the U.S. Graduate Programs *



*(Adapted from Gao & Watkins (2001)' conceptual models of teaching, p.36.)

In conclusion, participants in this study adapted well in learning environments where higher order thinking skills are required. While participants developed skills in memorization and understanding the materials in China where instruction depended on lecture-oriented teaching and rote learning, their development of higher order thinking skills mainly took place in U.S. graduate programs. Through readings, discussions, and involvement in research projects, participants developed independent thinking skills and met the requirements of those graduate programs.

In terms of research, participants experienced differences in the following aspects. First, the academic goal of most graduate programs in social science, humanities, and education in this southeastern public university is to train researchers. Similar graduate programs in other research-oriented universities share these goals. Graduate students in these programs are expected to conduct

individual and cooperative research projects and publish in the academic journals in their respective fields. Therefore, it is not surprising to note that most of the graduate-level courses have a heavy focus on research. A second difference was that participants perceived that the research environment here is much sounder than that in China. A most compelling example of the differences in the research environment in China and the U.S. is library resources. Participants reported having positive experiences with the available resources provided by this research environment. In China, participants had to search for resources while they wrote their thesis or other journal articles and they reported having a hard time finding what they needed. The participants were impressed with the availability of online electronic resources, without which their research experiences could have been very different here. A third difference is that the U.S. academic community in each research field has established a sound structure and mechanism to promote and encourage more research by providing funding and grant opportunities, convening annual conferences for researchers to exchange information, hosting workshops for young researchers to learn from experienced researchers, and publishing academic journals. Participants in this study, who are in doctoral programs had the experience of attending national or regional conferences. They reported having benefited a great deal from such opportunities.

Implications

The international participants in Beykonte and Daiute's study (2002) reported having positive experiences when instructors guided discussions and showed interest in international students' experiences. In this study, participants reported that they enjoyed discussion when all students came prepared to discuss readings and shared reflections of personal experiences. They volunteered to participate in discussion if the topics were related to their previous experiences or to China. To the participants in this study, the most important thing is that instructors strike a balance between lecture-oriented instruction and discussion-oriented activities in the classroom. It was important for instructors to be aware of the challenges Chinese graduate students usually had in their first year in U.S. graduate programs. While participants would not expect U.S. instructors to lower academic requirements, they certainly appreciated instructors who were sensitive to their learning challenges. When participants reported having a large amount of reading assignments, instructors helped them by spending more time analyzing the reading assignments in class during discussions. Earlier guidance to encourage Chinese graduate students to critically read journal articles in their individual field will prove to be an effective strategy.

Consistent with the findings of other studies in which international participants identified writing as a major challenge (Angelova & Riazantseva, 1999; Chen, 1996; Fu & Townsend, 1998; Yang, 1999), this study shows that students perceived writing as the most challenging task. In this regard, instructors should provide more specific assistance when they review the written course assignments of Chinese graduate students. Based on an analysis of the written assignments, I noticed that most instructors did not make extra efforts to help Chinese graduate students to learn to write up to the academic standards expected. Participants obtained good grades despite the quality of their written assignments. However, participants who were writing dissertation prospectus or writing journal articles reported that they were shocked when major professors started to do "real" editing of their papers after the participants had obtained A's in most of their coursework. For most participants, writing in a professional way, which adheres to all the standards of research articles is a real challenge. Instructors should start providing assistance or at least encourage students to seek writing assistance as soon as Chinese students come into the program. Though editorial assistance provided to the students at the dissertation prospectus stage was appreciated, such assistance could have been more effective if provided throughout their coursework rather than in the last stage of graduate work.

It is very important that American instructors make it explicit earlier on in their courses that they appreciate different cultural values and welcome different patterns of classroom discourse and thinking styles (Beykont & Daiute, 2002). This not only helps Chinese and other international students, but it helps native speakers to feel more comfortable with foreign students' discourse styles and helps them understand that "silence does not mean lack of interest or engagement and different communication and thinking styles do not necessarily hinder learning" (Beykont & Daiute, 2002, p. 39). Most Chinese students prefer saving questions until after class or lecture to avoid interrupting the lecture or fear of embarrassing the professor, American instructors could plan to leave extra time for questions at the end of a lecture or class period.

Given that teachers always teach better when they understand students' prior knowledge and preconceptions, American instructors could ask Chinese students about their prior experience with active learning, rather than assuming it is entirely new to them. Instructors could encourage and assist in the adaptation to active learning strategies in American classrooms. A highly thoughtful classroom might appear intimidating to Chinese graduate students who have never been in one before. Instructors will need to talk to such students about their previous classroom experiences and they might find it helpful to provide support if necessary. Research suggests foreign students find it intimidating to participate in free flowing class discussion (Beykont & Daiute, 2002). Therefore professors could orchestrate class discussion in which everyone, including Chinese graduate students, has a chance to speak.

This study recommends that students begin to read as early as possible assigned articles related to a future research topic or topics that might be expanded into a term paper or dissertation. The earlier students anchor themselves in a specific field of study, the clearer they are about where to go in the program. Students should read journal articles that help clarify what other scholars are doing in their field of interest. Attending faculty seminars and graduate-level seminars and academic conferences helps students develop research ideas. Passively waiting for ideas to pop into their heads without actively engaging themselves in reading research not only is a waste of time, but also makes students more frustrated as they move further into the program of study. If their individual and group research projects are connected in some way or another, this may help students compose personal research agendas. Course projects that are discrete and serve only one purpose do not maximally contribute to student success.

The study suggests that students consciously learn to develop critical reading and thinking skills because these skills are so important for graduate students. Critical reading involves evaluating what you read with regard to its logic, truth or accuracy, the merit of the ideas and the usefulness of the ideas. In the past, students focused too much on memorizing facts. They may not have been challenged to question others' opinions and views on certain issues. Because weekly reading assignments at the graduate level are quite large and must be completed for class discussion of relevant topics, simply reading for main ideas would not be sufficient when students are expected to demonstrate and improve higher-order thinking skills. In the United States reading involves distinguishing statements of fact from statements of opinion, finding evidence for statements of opinion, making inferences, finding support for your inferences, identifying the author's style, tone, and mood, drawing conclusions, and finding errors in author's reasoning.

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