INVESTIGATING CHINESE MASTER'S STUDENTS EXPERIENCES WITH ACTIVE LEARNING METHODS AT A U.S. PUBLIC RESEARCH UNIVERSITY

By

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ABSTRACT

INVESTIGATING CHINESE MASTER'S STUDENTS EXPERIENCES
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This study explored how students from China make sense of their experiences of active learning strategies in U.S. master's programs. There has been a significant increase over the past decade in the number of international students enrolled in U.S. higher education institutions. The influx of international students most recently has been led by a dramatic increase in the number of students from China. However, faculty perceptions of these students, reports of international student frustrations, and previous research on teaching and learning among students from China suggests that more research is needed to understand how these students make sense of their experiences in U.S. classrooms.

This qualitative study asked seven students from China enrolled in the Master of Business Administration, Master of Public Policy, and Master of Science in Environmental Engineering programs at a large research university to describe their experiences with the various teaching and learning strategies that they encountered in their programs. Phenomenological research methods were used to better understand the meaning that they attach to their experiences.

A distinctive finding was the combination of factors that seem to influence how these students develop preferences and expectations for particular teaching and learning methods. These students' educational cultures are influential in shaping how they make sense of their experiences in U.S. classrooms, but so are their expectations for the outcomes they associate with graduate level education and the effects of socialization within their master's programs.

The findings also challenge many prevailing views about Chinese students. The conclusions that some professors draw from their observations of Chinese students may be incomplete or altogether inaccurate. The students in this study revealed that *relationships* with their professors and classmates – including domestic, Chinese, and international classmates – are important to managing the learning activities in their master's programs; they are *self-directed* in regards to learning activities based upon their backgrounds and interests; they acknowledge that *culture* is a factor in how they view their experiences in U.S. classrooms; they value teaching and learning strategies that focus on *applying* course content to realistic problems; and they regularly encounter *barriers* to participation related to English language, different ways of thinking, and domestic classmates who dominate small group and class discussions.

For Erin, Ben, Ellory, and Jillian.

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CHAPTER ONE: INTRODUCTION

Purpose of the Study

In a scene that is common among graduate level courses, a professor dismisses class with instructions for the week ahead. She says, "We'll spend the next class session discussing the assigned readings. Be sure you complete all of the readings before you arrive to class. Also, I would like two or three of you to start the discussion by describing how the perspectives represented in the readings compare to your own experience." One student waves his hand and interrupts, "Will we need to write a summary of the readings or anything like that." The professor offers a hurried response. "No, but I'll bring a journal article to class next week and ask you to get into groups and debate the merits of the argument the author presents in comparison to the assigned readings." Another student, an international student from China, furiously scribbles the professor's directions in the margin of the syllabus. He's not quite sure what to make of this assignment. He thinks, "When will the professor have time to teach if students are talking for the whole class? And what will they possibly talk about for three hours?" This way of conducting class seemed different from what he had experienced in all of his years of education in China. He quietly observed his peers in the weeks that followed as he tried to make sense of this very different approach to education.

This vignette illustrates a conflict that arises often in U.S. higher education institutions (HEIs). That is, some students have a difficult time making sense of the teaching strategies and methods that professors are integrating into their courses. Many professors are shifting from some of the more traditional methods of instruction and assessment, like lecture and exams, to strategies and methods that focus attention upon each student's 'active' engagement with the course content. Class discussion, learning journals, case study assignments, and group projects

are just a few of the instructional methods that are replacing traditional forms of instruction. This shift is part of broader efforts to help enhance the quality of the formal educational experience by focusing on the ways in which students interact with course content.

Marton and Säljö's (1976) work has been particularly influential in focusing attention on the qualitatively different ways that people set about learning, and the qualitatively different levels of outcome. They introduced the concept of 'deep' and 'surface' learning as a way of distinguishing between students that direct their attention toward comprehending the material, and students that direct their attention toward learning to the test. The concept of 'deep' learning has evolved over time, resulting in more than a few definitions (e.g., Leveille, 2006; National Research Council, 2000; Ramsden, 2003; Tagg, 2003; Weimer, 2002). For instance, Hart (2001) describes the shift to qualitatively deeper levels of learning outcomes in terms of shifting from *information* to *transformation*. From this perspective, deep learning is more desirable and important because it "develops the capacity for ethical and intelligent choices and wise action" (p. 132). Fink (2003) uses the term 'significant' learning to describe outcomes that go beyond the cognitive domain to include, "learning how to learn, leadership and interpersonal skills, ethics, communication skills, character, tolerance, and the ability to adapt to change" (p. 29). The common theme here is a level of understanding that promotes perspective change among students, or, as Ramsden (2003) puts it, "a qualitative change in a person's view of reality" (p.7). Thus, teachers in colleges and universities are exploring how to teach in ways that result in deeper, more significant kinds of learning.

Master's programs provide opportunities for more narrowly focused, in-depth study, and, as such, they are ideal locations for achieving deeper learning outcomes. Still, many students struggle in the transition into graduate education. Some studies indicate that these students

struggle because they lack the academic skills (e.g., reading and writing, analyzing, working in groups, problem solving) that are foundational to graduate education. International students are a particular segment of students that seem to experience difficulties and frustrations in graduate education. The growing population of international graduate students is challenging educators to consider the opportunities and difficulties involved in using the methods that are intended to foster deep learning. Some faculty are concerned that many international students are not prepared to engage the learning activities that they employ. Many international students experience anxiety and frustration when they encounter those activities. However, evidence suggests that some international students don't struggle because they lack the prerequisite academic skills; rather, the difficulties are related to the cultural dimensions of teaching and learning (Li, 2002, 2003; Tweed & Lehman, 2002; Wang & Li, 2003). That is, international students might struggle in the transition into graduate education because they hold very different beliefs, values, and expectations about teaching and learning.

The purpose of this study is to better understand the cultural dimensions associated with the methods used to foster deep learning by examining international students' experiences in U.S. master's programs. Professors employ particular strategies and methods that they expect will foster deep learning among their students. Gaining insight into the experiences of international students with such strategies and methods offers an opportunity to learn how to better serve this growing population of students. In addition, it might reveal why some domestic students that demonstrate academic preparedness still struggle in the transition into graduate education. An ideal population for this study is graduate students from China. U.S. higher education institutions are experiencing dramatic enrollment growth among students from China, many of whom are enrolling in master's programs as a part of China's capacity building efforts.

Many students from China demonstrate that they do not lack the academic skills that are foundational to graduate education. Thus, examining the experiences of graduate students from China provides an opportunity to focus on the cultural dimensions associated with how deep learning is fostered.

Background of the Study

Building Capacity through Study Abroad. U.S. HEIs are enrolling students from abroad at record levels. There were 32% more international students enrolled in U.S. HEIs in 2010/11 than there were a decade ago (IIE, 2011a). The increase from 2009/10 to 2010/11 was led by a 23% increase in the number of students from China (IIE, 2011a). As evident in the case of China, many governments are encouraging and supporting students to complete master's and doctorate degrees at HEIs in more developed countries in order to help build domestic capacity (Collins & Rhoads, 2008; Dollar & Collier, 2001; Vincent-Lancrin, 2004; World Bank, 2002). Such education "provides not only the high-level skills necessary for every labor market but also the training essential for teachers, doctors, nurses, civil servants, engineers, humanists, entrepreneurs, scientists, social scientists, and myriad personnel" (World Bank, 2002).

In 1978 Deng Xiaoping, the Vice President of China, and Jiang Nanxiang, the Minister of Education, developed a plan to shore up the fields of science and technology in China by sending students to study in developed countries (Yang, 2008). Deng had determined that, in order to recover from the devastating effects of the decade-long Cultural Revolution, China needed to "modernize" in four strategic areas: agriculture, industry, science and technology, and national defense (Marti, 2002). Like many sectors of Chinese society, universities had suffered severe setbacks during the Cultural Revolution. Thus, building the capacity needed to quickly set China

on a new path required sending students to developed countries for advanced education. Before the end of that year an oral memorandum of understanding was established with a U.S. delegation that included sending 500-700 scholars and students from China to the U.S., and 50 students from the U.S. to China (Yang, 2008). By the 2000/01 academic year nearly 60,000 students from China were enrolled in U.S. HEIs (IIE, 2011d).

In 2006 Ji Zhou, the Chinese Minister of Education, himself a student sent to the U.S. for master's and doctorate degrees in the early 1980's, described plans to continue increasing support for students abroad. The rationale he provided, again, reflects the desire to continue building capacity in China in strategic areas: "To speed up the training of high-level education administrators, academic leaders, and creative talent, the development of key universities and academic programs, the raising of universities' knowledge-refreshing and research levels, and the cultivation of more talent for the western regions' [of China] bid to achieve quantum leaps in education, research, and industry…" (Ji, 2006, p. 255). As a result, China was the leading sending country of international students with over 157,000 students enrolled in U.S. HEIs in 2010/11 (IIE, 2011d).

Master's Programs as Locations for Developing Capacity. Master's programs in the U.S. in particular are designed in ways that accommodate the various goals associated with developing capacity. However, this hasn't always been the case. The degree has evolved over time through roughly four phases, and has recently emerged as the largest and fastest growing part of the graduate education enterprise (Allum, Bell, & Sowell, 2012; Council of Graduate Schools, 2009). It is through this process of evolution that the master's degree has expanded to meet the breadth of goals for capacity building. In the first phase the master's degree primarily provided the preparation and credential for teaching (Glazer-Raymo, 2005). The second phase

coincides with the rise of the Ph.D. in the U.S., which resulted in the characterization of the master's degree as the path to the Ph.D. or "consolation prize" for those who failed to advance to Ph.D. candidacy or completion (Conrad, Haworth, & Millar, 1993; Glazer-Raymo, 2005). A widely held view in the higher education literature was that the master's degree was "second class" or a "steppingstone" to the doctoral degree (Glazer, 1986; Green, 1987; Stewart & Spille, 1988). The third phase is characterized by criticism over the lack of standard requirements, the variable use of degree titles, and concern that institutions were propagating master's programs primarily "in their quest for financial stability as well as for national and international prominence" (Glazer-Raymo, 2005, p. 29). In his scathing review of the master's degree, Barak (1987) states, "If there is a skeleton in higher education's closet, surely it is the poor quality of master's degrees that have been consistently neglected over the years" (p. 32). That sort of criticism was certainly valid in some cases. However, as Conrad et al. (1993) suggest, part of the strong criticism in the 1970's through the 1990's resulted from misunderstandings about the evolution of the master's degree.

The master's degree in the U.S. was historically an *academic* degree, but evolved in response to critique and market forces. Some critics misunderstood the evolution beyond the singular academic focus as evidence of substandard rigor, purposes, and outcomes. Thus, the fourth phase is characterized by the evolution from an *academic* degree to one that might be primarily oriented as either *academic*, emphasizing highly specialized theoretical knowledge; *professional*, emphasizing theoretical and applied knowledge and skills; or *connected*, emphasizing specialized theoretical knowledge and applied knowledge and skills (Conrad et al., 1993). Glazer-Raymo (2005) explains the evolution of the degree, saying, "The master's degree is becoming fully professionalized as the professions themselves become more entrepreneurial,

competitive, and socially accountable… the master's degree will continue its inexorable path to professionalization and will predictably take its place as the academic degree of choice by students, employers, and the state" (p.111). As such, the master's degree serves the variety of goals for capacity building.

In addition, master's programs in the U.S. have been shifting from a focus on equipping graduates with knowledge that is specific to a particular context to a broader focus that includes some of the cognitive, interpersonal, and intrapersonal components that are applicable across contexts. This is especially important for students who go on to apply their educational experience to the capacity building efforts in a country that is very unlike the U.S. context. Different disciplines have been emphasizing the need for this expanded view of learning. For instance, the redesign of Master of Business Administration programs has been informed by research like the large qualitative study by Andrews and Tyson (2004). The shift toward fostering deeper learning is readily apparent in their recommendations: "Business schools must move beyond their current focus, equipping people with knowledge, and instead furnish them with skills and attributes, the means by which knowledge is acted upon… to nurture integrity, judgment, and intuition" (p. 3). They emphasized the need to develop attributes like integrity and self-confidence, and to cultivate the motivation and abilities needed for lifelong learning. Similarly, other studies have suggested the *need* to foster more significant learning experiences for students in master's programs related to adult and continuing education (Brookfield, 2000; Wilson & Hayes, 2000), management (Boyatzis & Saatcioglu, 2008), and history (Katz, 2005). Still, others have documented that deeper learning indeed takes place in a variety of master's programs (Conrad, Duren, & Haworth, 1998; Conrad et al., 1993; Haworth & Conrad, 1995; Kasworm & Hemmingsen, 2007). The emergence of master's programs that foster learning

beyond time-bound knowledge and context specific outcomes is especially important for meeting the capacity building goals of students from abroad.

Faculty Perceptions of International Students. Some faculty in the U.S. and other Western countries (that is, *culturally Western* English-speaking countries) that receive students from developing countries perceive that most international students struggle and underperform in relation to their domestic peers (Kingston & Forland, 2008; Watkins, Reghi, & Astilla, 1991). However, international students typically achieve academic success, measured by grades and graduation rates, at the same rate as their domestic peers (Kingston & Forland, 2008; Stevenson & Lee, 1996). Still, some faculty perceive that many international students are ill prepared to satisfactorily participate in the more active learning experiences that faculty expect will foster deeper and more meaningful learning outcomes.

First, some faculty are concerned that many international students have not developed the skills needed for autonomous study (Kingston & Forland, 2008). Faculty members in master's programs often see their role as a "guide" or the colleague of a practicing academic who is more independent. Some faculty believe that many international students are not able to participate in the activities that are designed to foster deeper learning outcomes because they prefer or require step-by-step directions (Wang & Li, 2011), explicit instruction, and do not possess the research skills needed to work independent of a faculty supervisor (Adrian-Taylor, Noels, & Tischler, 2007; Kingston & Forland, 2008; Strang, 2007). However, as Adrian-Taylor et al. (2007) suggest, there might be a self-serving attribution bias (Bernstein, Stephan, & Davis, 1979) involved in which faculty and students attribute problems to external factors in order to protect one's self esteem. That is, faculty and students might point to external sources that have little or nothing to do with the problems they encounter. Adrian-Taylor et al.'s study of conflict between

international graduate students and faculty supervisors revealed that supervisors and students most often pointed to an external source of conflict. This raises the question of whether there are other confounding factors (e.g., different beliefs about distinct roles and responsibilities) that are inaccurately attributed to underdeveloped academic skills.

Second, some faculty members perceive international students as unable to participate in collaborative learning experiences largely as a result of an inadequate level of English language proficiency (Andrade, 2010; Adrian-Taylor et al., 2007; Brown, 2007; Fallon & Brown, 1999, Kingston & Forland, 2008; Trice, 2003, 2005; Xu, 1991). Andrade (2010) studied faculty perspectives on the English language competence of international students for whom English is a second language. Her findings suggest that faculty members believe that international students possess language competency adequate enough for reading assignments and understanding class instructions, but an inadequate level of competency needed for meaningful participation in classroom discussion and comprehensible oral presentations. Faculty identified language difficulties more than any other challenges in Trice's (2003) study of faculty perceptions of graduate international students, and 87% of faculty respondents identified language capabilities as problematic in Fallon and Brown's (1999) study of faculty perceptions of "non-UK students in their lecture and seminar rooms" (p. 42). However, the results of studies like Fallon and Brown's (1999) and Goodwin and Nacht's (1983) also suggest that faculty members who speak a foreign language or have experience teaching abroad are much more likely to view international students as contributing positively to the academics of their programs. In addition, a significantly smaller percentage of international students report that English language is a source of conflict than their faculty supervisors report (Adrian-Taylor et al., 2007). Studies have demonstrated that language proficiency often masks other problems related to background, context, and culture (Gu &

Schweisfurth, 2006; Huang & Brown, 2009). This raises the question of whether language proficiency is the barrier to engaging in more active and collaborative learning experiences that some perceive it to be, or if it is merely the variable that is easiest to identify when problems arise.

Third, some academics believe that many international students are unable to satisfactorily participate in the kinds of active learning experiences that are designed to foster deeper learning outcomes because they rely upon surface approaches to learning. There are now more than 70 models that are designed to distinguish between "learning styles" and "approaches to learning" that result in *deep* or *surface* learning outcomes (Coffield, Moseley, Hall, & Ecclestone, 2004). Models like Entwistle's (1997) *Approaches and Study Skills Inventory for Students* categorize memorization as a component of a surface approach to learning. That is, rote learning for the purpose of reproducing information, without an understanding of the holistic structure of knowledge, is an approach that leads to limited, surface learning outcomes. Thus, students who consistently rely upon memorization in the process of learning are often regarded as incapable of achieving deeper learning outcomes (Beattie, Collins, & McInnes, 1997; Conrad & Dunek, 2012; Hart, 2001; Michael, 2007; Samuelowicz & Bain, 2001).

Many researchers and faculty members at institutions that receive students from developing countries perceive learners from Asian countries as heavily dependent upon memorization (Harris, 1995; Marton Dall' Alba, & Tse, 1996; Phillips, 1990; Samuelowicz, 1987). As an example, Harris (1995, p. 78) articulates a prevalent stereotype:

> One consequence of full-cost fees is that many overseas students now originate in Pacific Rim countries, whose educational cultures characteristically value a highly deferential approach to teachers and place considerable emphasis on rote learning. This approach, of course, promotes surface or reproductive learning, which is at variance not only with the more intellectually robust and egalitarian ambience of many arts and social science faculties in UK universities, but with officially encouraged teaching innovations which utilise participative methods and problem-solving strategies to ensure deep transformational learning.

Some of the assumptions expressed in a statement like this are true. Indeed, there are a number of educational cultures that are rooted in an emphasis on rote learning. In fact, the historical development of memorization as a key component for learning in China is well documented (Chang, 1923; Chen, 1974; Feng, 1994; Hu, 1984; Lee, 2000; Miyazaki, 1976; Soothill, 1910; Wang & Mao, 1996). However, the belief that students from China employ memorization as the primary component of a surface approach to learning is not always true. Many Western observers have characterized students from China and nearby countries as passive, surface learners who employ rote memorization for the purpose of reproducing uncontested knowledge on an examination (Ballard & Clanchy, 1984; Cosh, 2000; Hofstede, 1980; Shi, 2006; Watkins, Reghi, & Astilla, 1991). However, Confucius, a significant historical influence in Chinese culture, also promoted deep learning. Lee (1996) argues that a series of "Confucian confusions" among Western observers ignores the fact that, for Confucius, "the purpose of learning is to cultivate oneself as an intelligent, creative, independent, autonomous being" (p. 34). By holding in view the emphases on memorization, examination, *and* purposeful learning, Dahlin and Watkins' (2000) study of Chinese learners distinguished between memorization without meaning, and memorization as a part of a long process of understanding. Similar studies have supported their findings, suggesting distinctly different forms like "rote memorization," "memorizing as rehearsal," and "memorization with understanding" (Au & Entwistle, 2001; Entwistle & Entwistle, 2003; Kember, 1996; Marton, Wen, & Wong, 2005; Meyer, 2000; Tan,

2011). Thus, teachers in U.S. HEIs might initially identify international students' orientation toward memorization as a challenge to engaging them in the more active learning methods that are expected to foster deeper learning outcomes.

International Student Frustrations. Studies often report that international students are satisfied with their study abroad experiences (Campbell & Li, 2008; Harman, 2003; Montgomery & McDowell, 2009; Trice & Yoo, 2007; UKCOSA, 2004). Still, many international students experience frustrations related to the activities that faculty members expect will foster deep learning. Classroom discussion, in particular, is widely regarded as an instructional method that is effective for fostering deeper learning outcomes (Bonwell & Eison, 1991; Carini, Kuh, & Kleni, 2006; Chickering & Gamson 1987; Felder, Woods, Stice, & Rugarcia, 2000; Gupta, 2004; Kuh, Kinzie, Schuh, & Whitt, 2005; McKeachie, 1972; Wiggins & McTighe, 1998). However, some international students, especially students from Asian countries, report frustration and dissatisfaction with classroom discussion. Some students prefer more structured discussions in which the professor is more active (Pinheiro, 2001). For some, their hesitation and frustration is grounded in a norm in which the teacher teaches and the student listens (Campbell & Li, 2008). Other students prefer to distinguish between simple participation and *meaningful* participation (Tatar, 2005). As Pinheiro discovered, "participation was perceived by the students to be merely a matter of students reading articles and saying disconnected things in class" (2001, p. 7). Durkin's (2008) study of master's level students from Asian countries revealed frustration related to a seeming lack of manners and collegiality in classroom discussions. A more conciliatory approach was preferred over heated debate. Furthermore, some international students experience frustration because certain students dominate discussions (Tatar, 2005). Unfortunately, that frustration is present in many classrooms. For instance, Howard, Short, and

Clark (1996) observed 231 class sessions and found that 89 percent of the comments were made by 28 percent of the students. Nunn (1996) also found that only 25 percent of students in a given class participate in classroom discussion.

Classroom discussion is just one among a number of instructional methods that provoke stress and feelings of frustration among international students. International students often experience a high level of anxiety about the academic challenges they expect to encounter, and the stress they experience does not necessarily decrease over time (Brown & Holloway, 2008). However, domestic students also experience high levels of stress and frustration during the transition into graduate education (Griffiths, Winstanley, & Gabriel, 2005). Griffiths et al. suggest that such feelings result from being exposed to unfamiliar and diverse teaching strategies, especially the more active and collaborative teaching methods. Still, some research suggests that international students experience greater difficulties than their peers during the initial transition (Hechanova-Alampay, Beehr, Christiansen, & Van Horn, 2002). In particular, Ward and Masgoret (2004) report that students from Asian countries studying in New Zealand experience greater academic adjustment problems than their peers from Europe, South America, North America, and Australia. In Badur's study (2003), graduate students from East Asian countries reported difficulties in adjusting to the more active and student-centered approaches to teaching and learning. In addition, they indicated that they were initially confused and frustrated by the continuous and more holistic methods of assessment. Campbell and Li (2008) affirm these findings and, in agreement with Wong's findings (2004), further assert that students from Asian countries experience such difficulties because professors expect them to be familiar with academic conventions that are not explicitly taught in class.

What accounts for these difficulties? One explanation that might account for why international and domestic students struggle in the transition into graduate education is that they lack the academic skills that they should begin to develop in high school and further cultivate in college. The results of UCLA's national survey of first-time, full-time, first-year students at universities and four-year colleges in the U.S. suggest that an alarming number of high school seniors are disengaged from their academic work (Pryor, DeAngelo, Palucki Blake, Hurtado, & Tran, 2011). About 60% of first-year college students report that they spent less than 6 hours a week studying or doing homework in their last year of high school. At the same time, a very high percentage of students report that they graduated from high school with an 'A' average. This suggests that high school students are getting high grades with minimal effort. Thus, many students are not well equipped with the study habits and academic preparation needed to succeed in postsecondary education.

It stands to reason that colleges have a more difficult time cultivating the academic skills needed for a successful transition into graduate education when students are ill equipped for college. In addition, there is increasing concern that colleges must do more to increase the quality of the undergraduate experience. Bok (2006) describes American colleges and universities as "underachieving," and suggests a number of issues that institutional leaders must address in order to enhance the quality of college education. A number of empirical studies indicate that the quality of the undergraduate experience has diminished (Kuh & Hu, 2001; Kuh, 2003). Some point to the decreasing amount of time that students spend on their studies and the increasing amount of time spent on social and recreational activities (Babcock & Marks, 2010; Brint & Cantwell, 2010; Brint, Douglass, Thomson, & Chatman, 2010). Students might not have practiced writing, analyzing, or problem solving (Kuh, 2003). They might have survived college

without doing much of the required reading (Brint et al., 2010), relied upon peer group members to pull them through major projects (Kuh, 2003), have little experience with classroom participation (Brint & Cantwell, 2011), and faced low performance expectations that weren't challenging (Brint, Cantwell, & Hanneman, 2008). In the end, a lack of academic skill development in secondary and undergraduate education could account for some of the difficulties that domestic students experience as they transition into graduate education.

This argument, however, does not seem to be valid for many international students. The experiences of students from China, in particular, are not consistent with this account of secondary and undergraduate education. In fact, Compton's film, *2 Million Minutes: A Documentary Calculating the Educational Divide*, presents the striking contrast between American and Chinese high school experiences. The students from China were imaged as deeply engaged in their academic work, if not at an unhealthy level, compared to their American peers. Rigorous debate about the significance of the observed differences has ensued (Compton et al., 2009). Still, there is plenty of evidence to suggest that the lack of academic engagement and basic academic skill development is not a plausible explanation for why students from China might struggle in the transition to graduate education in the United States (Bakken, 2000; Bond, 1991; Chen & Stevenson, 1995; Ho, 1994; Rao, McHale, & Pearson, 2003; Salili, 2001; Stevenson & Lee, 1990).

A more fitting explanation that has been advanced for why students from China struggle in their adjustment to U.S. higher education centers on the contrast between Confucian and Socratic cultures of learning. Scholars argue that Socrates' (469-399 BC) influence on academic learning in the United States is evident, and Confucius' (551-479 BC) influence on academic learning in China is equally evident (Jin & Cortazzi, 1998; Kim, 2003; Lee, 1996; Lloyd, 1996;

Marsella, DeVos, & Hsu, 1985; Scollon, 1999; Tweed & Lehman, 2002; 2003; Woo, 1993). That is, the influence of these two exemplars on academic learning is evident to the degree that their beliefs, values, and expectations about teaching and learning are reflected in modern beliefs and values that are more broadly shared in the respective cultures. Tweed and Lehman (2002; 2003) summarized each in terms of five categories of a framework. Socrates placed great emphasis on questioning his own and others' beliefs; evaluating others' knowledge through repeated questioning; individually finding truth rather than accepting prescribed or socially negotiated truth; doubting as an initial step in attaining knowledge; and searching for knowledge rather than holding right opinions without knowing the justifications for such beliefs. In contrast, Confucius placed great emphasis on putting forth best efforts; personal reform as a central goal of education; applying what has been learned to a career; acquiring foundational knowledge rather than articulating individual hypotheses; and submitting oneself to the authority of a collectively recognized exemplar. They summarize the differences, saying, "In the modern context, Confucian-oriented learning as defined within our framework involves effort-focused conceptions of learning, pragmatic orientations to learning, and acceptance of behavioral reform as an academic goal. Socratic-oriented learning as defined within our framework involves overt and private questioning, expression of personal hypotheses, and a desire for self-directed tasks" (Tweed & Lehman, 2002, p. 93).

Indeed, there is a stark contrast between these two approaches to learning. However, it is important to be cautious about what can be drawn from this. Students from Asia, East Asia, or even China are not a homogenous group. The differences between Chinese students approaches to learning, for instance, are sometimes greater than the similarities that might define them as a single group (Smith, 2001). Holliday (1999) cautions against imposing a "large culture" view

that exaggerates characteristics of a cultural group and misses the variations and variability within the group. Furthermore, Clark and Gieve (2006) argue that such explanations are overly dependent upon historical heritage. The cultural group is too easily locked into the past (Shi-xu, 1997), which deemphasizes or ignores contemporary developments in political, economic, and social spheres. In the case of China, much has changed in recent decades as a result of the forces of globalization (Venturino, 2000), the development of new information and communication technologies (Richards, 2004), and new realizations of old social policies like the one-child policy (Veeck, Flurry, & Jiang, 2003). Thus, culture is an important component to consider, but must be investigated at a more granular level.

Problem Statement and Research Question

The research literature in higher education assumes that students struggle in the transition into contexts that increasingly rely upon active and collaborative teaching methods because they are not academically prepared, or because they enact a 'passive' or 'surface' approach to learning. There are indications that teaching and learning in higher education is imbued with cultural assumptions. Cultural differences have been acknowledged in relation to language learning (e.g., Clark & Gieve, 2006), critical thinking (e.g., Egege & Kutieleh, 2004; Lloyd, 1996), and the like. Yet there is no framework for understanding the cultural dimensions associated with the strategies and active learning methods that are being used in U.S. graduate programs. This research study sought to better understand the cultural dimensions associated with the active learning methods used in graduate programs. The question guiding this study was: Within higher education classrooms in the United States, how do master's students from China make sense of their experiences of active learning strategies?

CHAPTER TWO: LITERATURE REVIEW

Introduction

The purpose of this literature review is to offer a conceptualization of the problem within the context of research and recent developments in U.S. higher education. First, the various strategies, methods, and activities that faculty employ are born out of particular orientations to learning (i.e., behaviorist, humanist, constructivist, etc.). An orientation to learning is not an independent construct, rather, the outworking of a particular view of reality. In this case, the particular views of reality are distinctly Western. An overview of prevalent orientations to learning and their underlying assumptions will provide necessary background for investigating the cultural assumptions associated with the methods used to foster learning. Second, it is important to highlight some of the factors that have supported increased access and enrollment in higher education. By challenging the 'universal' assumptions of prevalent theories of growth and development, scholars and practitioners have been transforming U.S. HEIs into more welcoming environments for women, people of color, and other constituents who were largely excluded in the past. This highlights the need for continuing the work of challenging cultural assumptions about teaching and learning that are increasingly evident as students from abroad are integrated into U.S. HEIs. Third, an understanding of the ways in which 'deep' learning is commonly conceptualized provides important background for investigating student experiences with the active learning methods that they encounter. Finally, the research problem is clarified through an overview and critique of common ways that the experiences of learners from China are investigated and described. This literature review supports the need for more studies that investigate the experiences of learners from China from the students' perspectives.

A Shift in Orientations to Learning

The behaviorist orientation to learning was prevalent in education for many years in America. It has its origin in John B. Watson's (1913) article, *Psychology as the Behaviorist Views It*. Behaviorism was developed through the work of people like Skinner (1953, 1958), Pavlov (1960), Thorndike (1913), Hull (1952), and Tolman (1932). In any school of thought there is a variety of perspectives over time, and within the particular school of thought at any given time. However, there are three foundational assumptions about the process of learning that frame the behaviorist orientation: 1) the focus of study is observable behavior rather than internal thought processes; 2) behavior is shaped by elements in the environment, not by the learner; 3) two essential principles of the learning process are contiguity (two events must occur in close temporal relationship) and reinforcement (Grippin & Peters, 1984). As Pratt and Nesbit (2000) say, "The tools to this approach were well specified… Through task analysis we could discover what skills, knowledge, and attitudes were needed; through instructional design we could translate that into learning objectives; and by matching outcomes with objectives we would know whether teaching was successful" (p. 119). In this context, students listen to the teacher lecture, copy the teacher's notes, and watch the teacher demonstrate the skills they should learn (Smerdon, Burkam, & Lee, 1999, p.7).

The roots of behaviorist assumptions are evident in the Western philosophical thought of realism. Putnam's definition of realism, the definition that philosophers generally agree upon (Alcoff, 1996), includes three components: "The world consists of some fixed totality of mind-independent objects. There is exactly one true and complete description of 'the way the world is.' Truth involves some sort of correspondence relation between words or thought-signs and external things and sets of things" (Putnam, 1981, p. 49). Braver (2007) adds "passive knower"

as one more important assumption of realism, saying, "The mind must be passive and in some sense featureless so as not to distort what comes into it" (p. 22). Thus, realist assumptions provide the foundation for a behaviorist orientation to learning as it asserts certainty about what can be known and the extent to which learning can be predicted and measured. The behaviorist orientation to learning places the teacher at the center as the one who identifies the content, arranges the conditions for learning, and assesses whether learning has taken place (Pratt & Nesbit, 2000).

Other orientations to learning that place emphasis on the learner rather than the teacher began to take hold in higher education in America in the 1980s (Pratt & Nesbit, 2000). For instance, the humanist, cognitive, social cognitive, and constructivist orientations to learning shift the attention from the teacher to the learner (Merriam, Caffarella, & Baumgartner, 2007). The contrast to behaviorism is clear with, as an example, the constructivist orientation to learning. The basic tenet of constructivism is that learning is a process of constructing meaning. Individuals create new understandings for themselves based upon the interaction of prior knowledge and the ideas or phenomena they encounter (Resnick, 1989; Steffe & Gale, 1995). The core commitments of a constructivist position assume that knowledge is not transmitted directly from a teacher to a learner. Rather, the learner actively builds up knowledge. The shift from an orientation like behaviorism to one like constructivism involves a shift from an emphasis on the teacher to an emphasis on the learner. This is often described in terms of a shift from a content or teacher-centered approach to a learner-centered approach to education.

The roots of constructivist assumptions are evident in the Western philosophical thought of anti-realism. In 1963 the British philosopher, Michael Dummett, first described as "anti-realist" (1978, p. ix) a number of philosophical positions that compete with realism, reaching

back to Kant's idealism. Kant was the source of the idea that ties together anti-realists: the mind actively organizes experience (Braver, 2007, 2012). Unlike realists, anti-realists assert that the world cannot exist independently of the mind. An anti-realist like Kant "does not necessarily hold that the natural and social worlds are unreal or nonexistent, but that there is… no direct understanding of the world. The world is always interpreted through mind" (Schwandt, 2007, p. 143). Anti-realist assumptions provide the foundation for orientations to learning like constructivism as they assert the active role of the learner in constructing knowledge of the world.

Constructivism is a common orientation to learning within higher education, and often serves as the foundation out of which active learning methods are conceptualized. The scholarly and practitioner-oriented literature on constructivism is enormous and growing rapidly, related to seemingly every aspect of education (e.g., Enonbun, 2010; Payne, 2009; Petraglia, 1998; Tobias & Duffy, 2009). Even though, as Phillips (1995) says, "constructivism has become something akin to a secular religion" (p. 5), it is by no means a unified theory of learning (Phillips, 1995, 2000; Richardson, 1997, 2003; Steffe & Gale, 1995). However, there are three general views of constructivism: social constructivism, psychological constructivism, and psychological constructivism with a social focus (Phillips, 1995, 2000; Richardson, 2003). The central assumption within all three is that knowledge is actively constructed in the human mind. Psychological constructivism focuses on the cognitive processes involved as individuals construct knowledge within their minds. Social constructivism focuses on the development of knowledge as social in nature. This is viewed as a "rational" process because "it proceeds deliberately according to methodological rules and criteria that are consciously held within a sociocultural group" (Phillips, 2000, p. 9). Finally, psychological constructivism with a social

focus attempts to account for "the individual contributions that are then negotiated among the group" (Richardson, 2003, p. 1625).

There are a few distinctions about constructivism that are important background for investigating students' experiences with constructivist teaching methods. First, constructivism is a theory of learning, not a theory of teaching. As a result, there is considerable controversy concerning the specific instructional practices derived from constructivism (e.g., Kirschner, Sweller, & Clark, 2006; Baviskar, Hartle, & Whitney, 2009; Mayer, 2009). The principles of contiguity and reinforcement provided relatively unambiguous direction for teaching methods for behaviorists. Constructivism, on the other hand, does not prescribe specific teaching methods (Kirschner et al., 2006; Mayer, 2004, 2008, 2009; Richardson, 2003). Instead, there are five characteristics of approaches to teaching that are grounded in a constructivist orientation to learning, according to Richardson (2003, p. 1626):

> 1. attention to the individual and respect for students' background and developing understandings of and beliefs about elements of the domain (this could also be described as student-centered);
> 2. facilitation of group dialogue that explores an element of the domain with the purpose of leading to the creation and shared understanding of a topic;
> 3. planned and often unplanned introduction of formal domain knowledge into the conversation through direct instruction, reference to text, exploration of a Web site, or some other means;
> 4. provision of opportunities for students to determine, challenge, change or add to existing beliefs and understandings through engagement in tasks that are structured for this purpose; and
> 5. development of students' metawareness of their own understandings and learning processes.

The elements of these five characteristics could play out quite differently in a classroom depending upon the characteristics of the students, the discipline, the social context, and teaching style. Notice that Richardson suggests that the lecture, "direct instruction," is a perfectly appropriate teaching method for the constructivist orientation to learning. She notes that, for

some, assembling a constructivist teaching theory has focused on admonitions, which usually include anything that could be considered didactic or transmission teaching. She argues that this has been one of the chief difficulties with developing constructivist teaching methods.

Mayer (2009) provides important reminders about the constructivist orientation to learning for researchers and practitioners who are developing constructivist teaching methods. He says, "According to constructivist theories of learning, active learning occurs when learners engage in appropriate cognitive processing during learning, resulting in the construction of cognitive representations" (Mayer, 2009, p. 185). He suggests that when cognitive and behavioral activity is taken together, there are four kinds of instructional methods (see Figure 1). As such, teaching from a constructivist orientation to learning might include practices in which students are behaviorally passive (e.g., lecture) or active (e.g., experimentation). A teaching method is consistent with the constructivist orientation to learning, according to Mayer, as long as learners are engaged in high cognitive activity (first and third quadrants).

Table 1 – Mayer's Matrix of Behavioral and Cognitive Activity

	High cognitive activity	**Low cognitive activity**
High behavioral activity	1. Guided discovery	2. Pure discovery
Low behavioral activity	3. Principled presentations	4. Unprincipled presentations

(Adapted from Figure 10.1 in Mayer, 2009, p. 186)

In summary, a major shift took place in America around the 1980s, from the behaviorist orientation to learning to other orientations that place the emphasis on the learner rather than the teacher. The assumptions associated with the behaviorist orientation to learning are evident in the

Western philosophical thought of realism. Constructivism, an orientation to learning that has become common within higher education in America, has assumptions that are evidently grounded in the Western philosophical thought of anti-realism. Unlike behaviorism, constructivism does not prescribe specific teaching methods, but the idea of keeping students cognitively active serves as a guiding principle. Still, these orientations to learning are distinctly Western, which is an important factor to consider in an investigation of the cultural assumptions associated with the methods that are used to foster learning.

Increased Access and Enrollment

Empirical research suggests that orientations to learning that place emphasis on the learner are particularly meaningful for students who have historically been marginalized in formal education, and has increased access to education. For instance, a historical perspective reveals that constructivist approaches have helped close the achievement gap for females, students of color, and economically disadvantaged students by affording them opportunities to explore new methods of problem solving that are typically more limited to them outside of the classroom (Au & Jordan, 1981; Belfiore, Auld, & Lee, 2005; Burkam, Lee, & Smerdon, 1997; Lee & Burkam, 1996; Oakes, 1990; Smerdon, Burkam, & Lee, 1999; Vaughan, 2002).

As reflected in reports from the National Center for Education Statistics (Snyder & Dillow, 2012), U.S. HEIs experienced dramatic growth in enrollment from 1985 to present among students from lower socioeconomic backgrounds, first generation college students, women, people of color, and people over 24 years old. Such growth has been supported by the willingness of HEIs to consider the unique needs and perspectives of these populations of students. For instance, in her book, *Beyond the Open Door: New Students to Higher Education*,

Cross (1971) argued that U.S. HEIs needed to prepare for an influx of new students, students that had not previously gone to college in representative numbers. In the 1980s, Gilligan (1982) and Josselson (1987) raised concerns that some issues that are important to women's lives were being treated as problematic to learning and development. They argued that the prevalent theories of growth and development based upon male experiences were inadequate guides for serving female students. Atkinson, Morten, and Sue (1979) investigated the same issue and suggested that such theories were also inadequate for American minorities. In addition, Cass (1979, 1984) and Evans and Wall (1991) raised concerns about how U.S. HEIs could serve gay, lesbian, and bisexual students amidst a heterosexual bias in the broader American culture. The work of these scholars initiated a transformation of U.S. HEIs into more welcoming environments for constituents that have historically been excluded.

As reflected in reports from the Institute of International Education (2011a), U.S. HEIs are experiencing dramatic growth in enrollment of students from abroad. Integrating more international students into U.S. higher education is also challenging researchers and practitioners to consider the cultural assumptions that are associated with what Americans believe about education. Richard Nisbett (2003) provides an excellent illustration of this in the introduction to his book, *The Geography of Thought: How Asians and Westerners Think Differently… and Why*. He describes an encounter with a student from China who commented on how people from China and people from the West think differently about life. The encounter prompted Nisbett to reconsider some of his assumptions. He says, "I had been a lifelong universalist concerning the nature of human thought. Marching in step with the long Western line, from British empiricist philosophers such as Hume, Locke, and Mill to modern-day cognitive scientists, I believed that all human groups perceive and reason in the same way" (Nisbett, 2003, p. xiv). His student's

"chance comment" launched him into a new line of research that now "allows us to answer many questions about social relations and thought that have long puzzled educators, historians, psychologists, and philosophers of science" (p. xviii). Others, including Sharan Merriam, have carried out similar work. She organized a symposium in 2005, *Challenging the Hegemony of Western Views of Learning*, out of which she edited a helpful book, *Non-Western Perspectives on Learning and Knowing* (Merriam & Associates, 2007).

Active Learning Methods Toward Deep Learning Outcomes

Investigating student experiences with active learning methods that are intended to foster deep learning requires an understanding of the ways in which deep learning is commonly conceptualized. An overview of three seemingly very different ways that deep learning is conceptualized demonstrates that many views rely heavily on an image of learning that focuses on the cognitive dimensions of a rational process, and that an expanded understanding of how deep learning is fostered is needed.

An overview of L. Dee Fink's (2003) model of deep, or his preferred term, "significant" learning is especially helpful for two reasons. First, he describes the need for educators to foster learning that goes beyond Bloom's (1956) cognitive taxonomy of knowledge, comprehension, application, analysis, synthesis, and evaluation. He draws upon the work of Dolence and Norris (1995), to argue that additional kinds of learning are needed as society transitions from the Industrial Age to the Information Age. Such learning, he suggests, includes "learning how to learn, leadership and interpersonal skills, ethics, communication skills, character, tolerance, and the ability to adapt to change" (Fink, 2003, p. 29). Like other prevalent models of deep learning, Fink describes learning outcomes that are cognitive, interpersonal, and intrapersonal. He

proposes a new taxonomy of learning with six categories: foundational knowledge, application, integration, human dimension, caring, and learning how to learn.

The second way that Fink's model is helpful for understanding how deep learning is commonly conceptualized is in his own description of this new model for learning. He argues that the transition to the Information Age creates "a need for *new kinds* of learning, kinds that go well beyond the cognitive domain of Bloom's taxonomy and even beyond cognitive learning itself" (p. 29). Yet, each of his six kinds of learning rely heavily upon the cognitive dimensions of learning. Learning in terms of *foundational knowledge* is the ability to understand and remember information; *application* includes engaging in critical, creative, or practical thinking and developing particular skills, like playing the guitar or communication; *integration* is identifying and understanding connections between ideas, realms of ideas, people, or realms of life; *human dimension* includes arriving at new conclusions about oneself or others; *caring* is the development of new feelings, values, or interests that results from some other learning experience; and *learning how to learn* is knowledge of the process of learning and acquiring skills that are essential for future learning, like the scientific method (Fink, 2003). Fink's taxonomy is distinctly different from Bloom's taxonomy because it is not hierarchical. Instead, Fink argues, the interactive nature of the taxonomy means that achieving learning in any one kind of learning can enhance student achievement in the other kinds of learning. Still, the model of deep, or 'significant' learning does not "go well beyond the cognitive domain… and even beyond cognitive learning itself." Fink's model assumes that learning is a function of cognition, and a rational process that is within the realm of the learner's awareness.

Transformative learning, a theory made popular by Jack Mezirow (1978, 1991; Mezirow & Associates, 2000), is very different from Fink's model of significant learning, but it relies

upon a similar image of the process of learning. This theory of transformative learning assumes that learning could be incremental or take place all at once like an avalanche. Transformative learning takes place when a learner arrives at a new mind-set or view of the world "by elaborating existing frames of reference, by learning new frames of reference, by transforming points of view, or by transforming habits of mind" (Mezirow & Associates, 2000, p. 19). The theory of learning is ultimately grounded in cognitive and developmental psychology, informed especially by the work of psychiatrist Roger Gould (1978). Reflection, critical reflection, and critical self-reflection are essential components in the process. Mezirow himself describes critical reflection (Dirkx, Mezirow, & Cranton, 2006), and others categorize his conceptualization of it "as a cognitive and rational process under full awareness and rationalizing the impact of emotions on the learning process" (van Woerkom, 2010, p. 339). Thus, like Fink, Mezirow conceptualizes deep forms of learning as those that proceed rationally and emphasize the cognitive dimensions of the process.

However, there are other ways that 'deep' learning is conceptualized that do not rely so heavily upon rational, analytical, cognitive processes. For instance, Yorks and Kasl (2006) conceptualize deep or "transformative" learning in terms of "a wholistic change in how a person both affectively experiences and conceptually frames his or her experience of the world" (p. 45). This view of learning acknowledges the role of rational, cognitive processes that are within an individual's awareness. Like Mezirow, they assert that deep forms of learning take place when learners bring into consciousness and critique assumptions that they had previously taken for granted. However, relying upon Heron (1992), they assert that this *propositional* way of knowing must be connected to *experiential* knowing through *expressive* ways of knowing. Here they understand experiential knowing as "prelinguistic and often subconscious in character… deriving

from precognitive encounters with phenomena" (p. 48). By expressive ways of knowing, they mean "those forms of expression that engage a learner's imaginal and intuitive processes" (p. 47). Expressive ways of knowing, in this view of learning, "are a powerful and, we would assert, critical dimension in these kinds of learning situations" (p. 59). Expressive ways of knowing are essential because they provide a bridge between knowing that is derived from precognitive encounters with phenomena and the rational, analytical cognitive processes of propositional knowing. Thus, 'deep' learning is sometimes conceptualized in ways that do not just rely upon the cognitive processes and experiences that are within the immediate awareness of the learner.

The methods that teachers might use to foster deep learning from this perspective include expressive activities, like music, art, poetry, guided visualization, or storytelling. In the same way that class discussion puzzled the learner in the opening vignette, starting every class session with a guided visualization might be equally puzzling. Learners might perceive such methods as a non-essential, "touchy-feely" preface to "real" learning (Yorks & Kasl, 2006, p.44).

The contrast between the ways that Fink and Mezirow conceptualize deep learning and the way that Yorks and Kasl conceptualize deep learning suggests that it is not a 'universal' precept. To echo Nisbett (2003), all human groups do not necessarily conceptualize and experience deep learning in the same way. It stands to reason that people from different cultural backgrounds might understand and experience deep learning differently. Thus, it is reasonable to expect that students from different backgrounds might not make sense of the strategies that teachers employ in the ways that they are intended.

In the end, the various orientations to learning, the ways of conceptualizing deep learning, and the teaching methods that follow are born out of a system of beliefs that are generally shared by a particular group of people at a certain point in time. They are cultural

phenomena. This is evident in the connection between the behaviorist orientation to learning and the realist assumptions of Western philosophy that undergird it, and the anti-realist assumptions of Western philosophy that undergird the constructivist orientation. However, they often seem to be taken as 'universal' (a la Nisbett). Thus, when learners struggle, the focus is typically on the ways in which the learner is deficient (e.g., he's a surface learner). Instead, it is possible that an elaborated understanding of how deep learning is fostered is needed. Gaining insight into how learners from other cultures make sense of learning activities that are intended to foster deep learning is an important step in that direction.

Investigating Experiences of Learners from China

Learners from China, described by many as 'the Chinese learner,' are often characterized using a "large culture" approach (Holliday, 1999) that relies upon dichotomous categories that emerge from the study of education in Western contexts. The Confucian heritage culture is regularly offered as an explanation for why students from Asian countries consistently struggle in Western education contexts (e.g., Harris, 1995). Some researchers have combined this large culture view with categorizations from Western research (e.g., student-centered versus teacher-centered) to describe 'the Chinese learner' as a passive learner who lacks critical thinking, depends upon the authority figure, and relies upon inadequate strategies for learning (Atkinson, 1997; Ballard & Clanchy, 1991; Carson, 1992; Flowerdew, 1998; Fox, 1994; Hammond & Gao, 2002; Liu, 1998). However, research suggests that Western educational observers may not adequately understand the impact of Confucianism on learners in China and other Asian countries (Biggs, 1996; Cheng, 2000). An emerging line of research offers a different view of

learners from such backgrounds as open-minded and actively engaged in learning and reflective thinking (Cheng, 2002; Clark & Gieve, 2006; Lee, 1996; Watkins & Biggs, 2001).

Edward Saïd's seminal work, *Orientalism* (1978) offers a critical perspective on approaches to studying 'the Chinese Learner.' Saïd, the founding figure of the critical theory of post-colonialism, was heavily influenced by anti-realist philosophers like the poststructuralist philosopher Michel Foucault and postmodernist Jacques Derrida. Saïd's seminal work is a critique of the ways in which authors, artists, and politicians in the West (the Occident) constructed an image of people in the East (the Orient). He says, "The relationship between Occident and Orient is a relationship of power, of domination, of varying degrees of a complex hegemony" (1979, p. 5). He goes on to say, "I myself believe that Orientalism is more particularly valuable as a sign of European-Atlantic power over the Orient than it is as a veridic discourse about the Orient (which is what, in its academic or scholarly form, it claims to be)" (p. 6). Saïd's argument is that Western descriptions of people in the East did not necessarily correspond with, in realist terms, 'the way the world is' in the East. Rather, Orientalism was just one among many ways to organize experiences, but was particularly organized through a lens of power relations that perpetuate Western domination of the East.

Saïd makes an important point about how such constructions are made. He says, "To the Westerner, however, the Oriental was always *like* some aspect of the West; to some of the German Romantics, for example, Indian religion was essentially an Oriental version of Germano-Christian pantheism" (1979, p. 67). His point is well taken when considered alongside descriptions of 'the Chinese learner.' For instance, students from China and surrounding Asian countries have been considered to be passive learners who employ rote memorization for the purpose of reproducing uncontested knowledge on an examination (Ballard & Clanchy, 1984;

Cosh, 2000; Hofstede, 1980; Shi, 2006; Watkins, Reghi, & Astilla, 1991). However, they consistently outperform their peers in cross-national studies (Mullis, Martin, Gonzales, & Chrostowski, 2004; Mullis, Martin, Kennedy, & Foy, 2007). The combination of these two facts caused Western observers to pursue a line of inquiry known as the "paradox of the Chinese learner" (see Watkins & Biggs, 1996). That is, they questioned how students could be so successful when they employed strategies for learning that Western educators consider ineffective. One result was that extensive research demonstrated that memorization could be an essential component to a long process of understanding (Au & Entwistle, 2001; Entwistle & Entwistle, 2003; Kember, 1996; Marton, Wen, & Wong, 2005; Tan, 2011). This illustrates Saïd's point. Western education researchers typically investigate Chinese learners according to the degree that they are *like* some aspect of learning in the West. In this case, Western observers initially determined that learners from China were *like* the underachieving students in the West. Other researchers have sought to describe learners from China in terms of effort versus ability, intrinsically versus extrinsically motivated, inquiry-based versus rote learning, student-centered and learning oriented versus teacher-centered and content oriented. These dichotomous categories seem to make sense in the Western context of education, but, Saïd might argue, they are not fitting for learners from China. It is worth noting again that Western observers most often describe 'the Chinese learner' in terms of the less desirable characteristics (e.g., extrinsically motivated rote learner from a teacher-centered and content-oriented background).

Learning Experiences and Theories of Learning

Theorizing about learning starts with the collection of information and descriptions of lived experiences that are grounded in the practice of teaching and learning (Merriam, Caffarella,

& Baumgartner, 2007). Examining such information and descriptions often gives way to frameworks for understanding what is going on and why. When further tested and investigated, some frameworks give way to theories that explain some aspect of learning by describing the interrelationships in ways that account for the complex dynamics involved.

In the history of higher education in America, theories that dominated the field were sometimes found wanting. For example, the growth and development theories that were based upon the experiences of male students were found to be inadequate in the 1980s for serving female students (Gilligan, 1982; Josselson, 1987). Thus, collecting information and descriptions of the lived experiences of female students was an important starting point for developing theories that explain the interrelationships and complex dynamics of learning among women within U.S. higher education contexts. Similarly, theorizing about learning among international students in U.S. higher education contexts must begin with the foundational labor of generating and collecting information and descriptions of the lived experiences of international students.

Summary

The perspectives described in this review of the literature are important to conceptualizing this current study because aspects of each helps to understand some of the underlying assumptions about how learning is best fostered, and to understand some of the ways that Chinese students' experiences in U.S. HEIs have been studied. This research study offers an excellent opportunity to better understand the cultural dimensions associated with the active learning methods that are increasingly relied upon to foster 'deeper' learning outcomes. The study sought to address the following question: Within higher education classrooms in the

United States, how do master's students from China make sense of their experiences of active learning strategies?

CHAPTER THREE: RESEARCH DESIGN

Introduction

The goal of this study was to better understand the cultural dimensions associated with the active learning strategies that teachers often use by examining international students' experiences in U.S. master's programs. The research question guiding this study was: Within higher education classrooms in the United States, how do master's students from China make sense of their experiences of active learning strategies? Gaining insight into international students' experiences with the strategies, methods, and activities that professors employ offers an opportunity to learn how to better serve this growing population of students. In addition, it might reveal why some domestic students struggle in the transition into graduate education.

As Creswell (2009) suggests, the nature of this research problem and the associated research questions called for a qualitative research design. That is, this study explored student experiences from the students' perspectives in order to "build an understanding based on what is heard" (Creswell, 2009, p. 26). A qualitative approach is fitting because the intent was to consider the 'messiness' of students' experiences, acknowledging the multiple dimensions and layers of complexity (Leedy & Ormrod, 2005), which couldn't be easily accomplished using any other approach. A qualitative approach is especially appropriate in educational settings when 'how' and 'why' questions are the basis of the study; the focus is to understand an educational phenomenon and not to predict the future; multiple sources of evidence are included; and when the aim is to understand processes rather than ends. (Creswell, 2009; Denzin & Lincoln, 2007; Glesne, 2011). Each of these descriptors accurately represents this study.

The focus was not on the methods that professors employ, but on how students construe their experiences with the active learning methods that they encounter in their programs. Thus,

using a qualitative research design informed by phenomenological methods was fitting (Moustakas, 1994). Phenomenological research methods focus on human consciousness and seek to understand the meaning that individuals attach to their experiences. Studying the experiences of a small number of participants using phenomenological methods of in-depth engagement provides the opportunity to describe the patterns and relationships of meaning (Moustakas, 1994).

Site and Participant Selection

The population of interest was students from China who were enrolled in master's programs in the United States. In particular, this study focused on students who completed their undergraduate education in China. These students have the ability to compare and contrast their experiences in a U.S. HEI with their experiences in a HEI in China. Most international students are hosted by just 7% of U.S. HEIs, the majority of which are doctorate-granting universities (IIE, 2011c). I selected Michigan State University (MSU) as the research site because it is among the top ten host institutions (IIE, 2011a). Students from China represent 36% of the international graduate student population enrolled at MSU in the fall semester of 2012, which made it an ideal site for this study.

The focus of this study was to understand how students make sense of the active learning methods that are often relied upon to foster learning that goes beyond acquiring knowledge of facts and figures. Research suggests that such strategies are implemented most often in disciplines in which there is low consensus about the knowledge and methods in the field (Laird, Shoup, Kuh, & Schwarz, 2008). Based upon Biglan's (1973) disciplinary categorization, fields like business and education have a low degree of consensus, while fields like engineering, math,

and most of the sciences have a high degree of consensus. Engineering programs particularly have the reputation of being dominated by passive teaching and learning methods. As Felder and Brent (2005) note, "A single approach has dominated engineering education since its inception: the professor lectures and the students attempt to absorb the lecture content and reproduce it in examinations. That particular size fits almost nobody: it violates virtually every principle of effective instruction established by modern cognitive science and educational psychology" (p. 57). However, educators in many of the high consensus fields, including engineering, have been intentional about integrating active learning methods into their programs. For example, a review of the 2002 conference proceedings of the *American Society for Engineering Education* (ASEE) yielded 395 papers that included a discussion of "active learning." Research and discussion continues regarding best practices and guidelines, as reflected in the 2013 ASEE proceedings. Paper topics ranged from forms of active learning that show the most promise in engineering education to the use of active learning to address program accreditation learning objectives. This suggests that students in engineering programs are likely encountering active learning methods more often.

Students from China most often enroll in U.S. programs in business/management, engineering, math/computer science, physical/life sciences, social sciences, fine/applied arts, intensive English, education, and health professions (IIE, 2012a). Thus, students were recruited into this study from business/management and social sciences programs because they are the highest enrolling "low consensus" programs. Again, research suggests that students in these programs are more likely to encounter active learning methods. In addition, students were recruited into this study from engineering because it is the second highest enrolling area, and

developments in the field of engineering education suggest that students are increasingly encountering active learning methods.

Participant selection was based upon the availability of students enrolled in business/management, engineering, and social sciences master's programs. Recruiting participants started with an identification of programs that fit two criteria: 1) a large enough population of students from China that would provide an adequate number of research participants, and 2) in which at least one professor had been acknowledged by his or her peers for excellence in teaching (e.g., Distinguished Faculty Award, Teacher-Scholar Award). This second criterion was intended to provide some assurance that students are experiencing professors who use active learning methods, which has become equated with teaching excellence. The MSU website provided valuable leads to a qualified professor in the Master of Business Administration (MBA), the Master of Public Policy (MPP), and the Master of Science in Environmental Engineering (MSEE) programs. The two professors in the MBA and MSEE programs were responsive to emails and phone calls and subsequently recommended students in their courses who were prospective participants in the study. The professor in the MPP was not available, but the MPP program website at MSU features profiles of students, which include educational background and a valid email address. Students in the MPP program were asked to participate directly via email.

The researcher asked for a 5-10 minute initial meeting with prospective participants in order to explain the research project, verify qualifications for participation in the study, present and explain the informed consent form, ask for copies of syllabi for current courses, and collect preliminary participant information (presented in Appendix A). Study participants were selected purposefully, which is consistent with qualitative research studies like this one (Patton, 2002).

Participants included Chinese citizens who completed undergraduate education in China and were currently enrolled in the respective master's program. Three other criteria guided participant selection in order to gain insight across a relatively diverse set of experiences. The researcher selected participants based upon gender, seeking equal representation in the group. Respondents that had not completed at least one full semester of coursework in the master's program were excluded from the study, in order to ensure that participants had an adequate level of experience with teaching and learning methods at a U.S. HEI. Finally, the researcher selected students who graduated from different colleges and universities in China. Many of the students who have completed higher education in the U.S. have returned to China to assume positions of leadership (Mohrman, 2010). Many of those that have returned to teaching and administrative positions in HEIs have implemented the insights they gained from their studies abroad. Thus, some higher education experiences in China are very similar to higher education experiences in America. Selecting students from a variety of institutions in China helps to account for this aspect.

There does not seem to be an agreed upon number for a sample size for this type of study (Smith, Flowers, & Larkin, 2009). However, some qualitative researchers suggest that novice researchers should interview three to six individuals (Corbin & Strauss, 2009; Creswell, 2007). With a smaller sample size the researcher can seek a deep and rich description of experiences from multiple perspectives without producing an overwhelming amount of data. Ten students were initially recruited into the study. One student had an unexpectedly busy schedule that ultimately did not allow him to meet for the first full interview. A second student asked to discontinue participation in the study because he wanted to devote more time to his studies. A third student was excluded from this study because the interviews did not produce quality data. A

combination of inexperience on the part of the researcher related to interviewing international students, and an abundance of nervousness on the part of the participant are likely to blame. The initial aim was to recruit ten to fifteen students with the expectation that some participants might drop out before the final interview, and that some interviews might not produce the rich descriptions that are essential to the study. In the end, seven student participants were used for this study.

Data Collection

The methods of data collection included in-depth interviews, classroom observations and document collection. For the MBA and MSEE student participants, the researcher observed multiple classroom experiences and conducted a 60-90 minute interview with the professor of one of their courses. Each student participant was then engaged in an initial 60-90 minute, one-on-one, semi-structured interview. Following a review of the first interview and a second classroom observation, the researcher conducted a follow-up 60-90 minute, one-on-one, semi-structured interview. The classroom observations were helpful in focusing the interview questions, supporting and challenging interview data, adding thick description, and increasing the trustworthiness of the study (Glesne, 2011). The classroom experiences also provided common reference points for the researcher to pose questions, and for participants to describe their experiences with reference to specific events (e.g., "You remember last week when the professor asked us to…"). The follow-up interview provided the opportunity for the researcher to seek clarity about what participants said in the initial interview and what was observed in class. In addition, the period between the first and second interviews provided participants the

opportunity to think further about their experiences. Participants seemed to be able to more clearly describe their experiences after a period of reflection.

The methods of data collection for the MPP students were the same, with the exception of the classroom observations and interview with a professor. Instead, the researcher relied upon the vast amount of information available on MSU's website regarding the MPP program. For instance, a syllabus was available for nearly every course in the program. The researcher used the syllabi as a way of gaining familiarity with the courses and finding a starting point in the initial interviews with student participants. In addition, more questions were integrated into the first interview, such as, "Please describe to me what I would see if I was a visitor sitting in the back of that class."

Interview protocols guided the first in-depth interview (presented in Appendix B) and the follow-up in-depth interview (presented in Appendix C). A semi-structured observation protocol guided the classroom observations (presented in Appendix D). As Glesne (2011) suggests, the researcher made notations throughout the observational period and then reviewed, clarified, and expanded them to add reflective thoughts and ideas immediately following the class sessions. The development of all three protocols was informed by Creswell (2009) and by Moustakas' (1994) helpful book on phenomenological research methods, especially chapter 6: *Methods and Procedures for Conducting Human Science Research*. In addition, the interview protocols were used in a small pilot study and then revised for this research study. The content of the questions in the observation and interview protocols was informed by the research literature on teaching methods that was presented in the literature review. For example, the researcher categorized the distinct teaching methods and activities according to Mayer's (2009) matrix of high/low cognitive activity and high/low behavioral activity.

The second interviews with student participants produced the richest set of data for this study. In many ways, the initial meeting and first interview were simply setting up the second interview. Students provided access to syllabi and course descriptions in the initial meeting, which were used as a primary starting point in the first interview. Students were asked to describe their classroom experiences in the first interview, with particular attention given to questions about the teaching and learning methods they had encountered. The researcher then compiled a list of teaching and learning methods for each student, such as lecture, small group discussions, class discussion, research papers, projects, and presentations. In the second interview, each student was asked to categorize each method using a card sort system. Students assigned each teaching and learning method to one of three categories: 1) methods that work well in helping me to learn, 2) methods that work moderately well in helping me to learn, 3) methods that have limited effectiveness in helping me to learn. Surprisingly, very few methods were assigned to the third category. However, the actual category assignment was not the most relevant aspect for this study. Instead, it was the rationale that students provided for their assignment. For example, one student assigned "lecture with PowerPoint" to the second category. He was subsequently asked two questions: 1) Why is it only moderately helpful? 2) What would have to be different in order for you to assign it to the first or third categories? His answers to these questions revealed insights into how he made sense of the teaching and learning methods he encountered in his program at MSU.

Each interview was conducted in English, which was a potentially limiting factor for the study. Participants might have been able to more accurately and clearly express their perceptions in their first language. However, each student demonstrated a relatively high degree of English language proficiency in the initial meeting, and by virtue of admission to an English instruction

program. Conducting two interviews with a period of reflection between them was intended to provide the opportunity for participants to formulate their thoughts and anticipate the request to express those thoughts in English. Each interview was audio recorded and transcribed verbatim as soon as possible after the conclusion of the interview. The researcher included notations of pauses, hesitations, and non-verbal expressions. In addition, the researcher recorded notes immediately following each interview, reflecting on the interview and noting observations such as visual cues that might be missed in the audio recording. Finally, the researcher collected documents as needed in the process of the study. Documents included syllabi, handouts, and program marketing materials.

Data Analysis

The data were analyzed using an iterative process that included gaining familiarity with each participants' perspective, identifying significant statements, clustering statements into units of meaning, crafting textural descriptions, identifying themes, and crafting a composite textural description (Creswell, 2007; Moustakas, 1994). A visual presentation of this iterative process is provided in Figure 2. To begin, the transcribed interviews, classroom observations, documentary evidence, and notes for each participant were read in their entirety before reading succeeding transcripts. The intent was to reduce the possibility of confusing participants' thoughts with one another. The researcher listened to the audio recordings simultaneously when initially reading a transcript in its entirety, and refrained from pausing or taking notes.

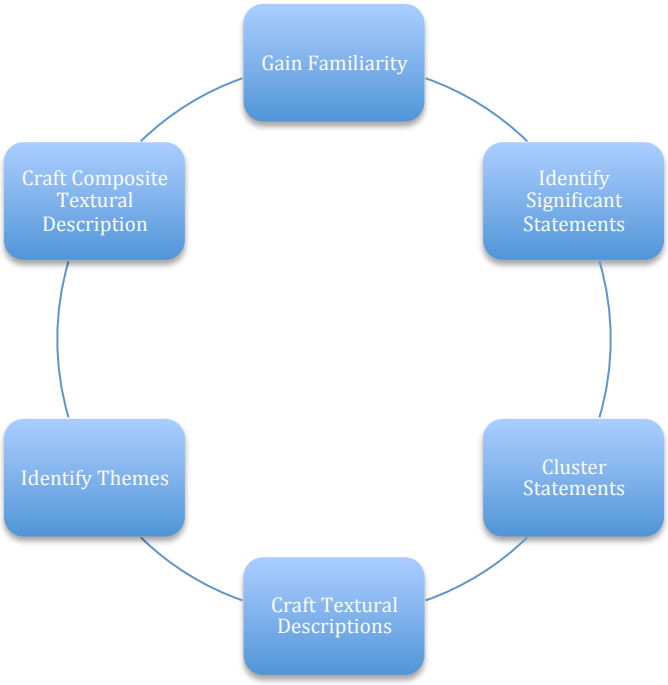

Figure 1 – Iterative Process of Data Analysis

In subsequent readings the researcher recorded thoughts, reflections, and questions and identified statements that are significant to the research questions. Using the process of 'horizonalization,' all statements that participants made were carefully considered individually (Moustakas, 1994). The researcher used the MAXQDA computer software designed for qualitative research projects to manage the process of coding each statement, commenting, and grouping them into clusters of related meanings. For instance, statements like, "It makes me feel nervous," and "Because I like that feeling just talk about and discuss and have some new idea," were coded as "feelings." The process of identifying units of related meaning required multiple iterations of re-coding and re-clustering. As Moustakas suggests, each theme was validated against the complete transcripts, classroom observation notes, and documentary evidence to be certain that it was compatible or explicitly addressed by participants.

In the next phase the researcher wrote an "individual textural description" for each participant (Moustakas, 1994, p. 121). Each description provided an idea of what participants experienced, including their beliefs, emotions, and examples (Creswell, 2007). As often as possible, participants' exact words were used. The textural descriptions were then validated by comparison to the transcripts, classroom observation notes, and documentary evidence.

The researcher analyzed the validated individual textural descriptions to identify overlapping themes that represented broader meaning categories. The meaning units from all participants were compared to each other and consolidated into broader categories of themes that accurately represent each participant's experience. For example, the theme of "self-directed" resulted from combining units of meaning that were initially clustered separately as "personal responsibility" and "internal motivation." The themes were again validated by comparison to the transcripts, classroom observations, and documentary evidence and then used to inform the crafting of a "composite textural description." The individual textural descriptions were integrated into a single description of "*the meanings and essences of the experience*" that represents the group as a whole (Moustakas, 1994).

Limitations

As a qualitative study informed by phenomenological methods, this research was designed to gain insight into the essences and meanings that some learners attach to the teaching methods that they encounter in the classroom. There are a few factors that limit the study. First, the study is heavily dependent upon the researcher. Specifically, the study is limited to the degree that the researcher is unable to set aside his own beliefs and judgments about the experiences themselves, and focus on what participants reveal about how they make sense of

their experiences. As Moustakas suggests, “I can intend an open and fresh approach to my knowledge of something but the problem of language and habit still exist; my own rooted ways of perceiving and knowing still enter in” (1994, p. 61). Second, conducting the in-depth interviews in English is a limiting factor. Participants demonstrated a level of English language proficiency that is deemed necessary for admission to a master’s program in a U.S. HEI. However, that level of proficiency may not have included the language that is needed to fully and clearly express the ways in which they construe their experiences.

A third limiting factor is related to the perceived social pressures involved in instances where individuals are asked to reveal their thoughts and perspectives about themselves and others. As an example, a participant may have consciously or unconsciously withheld a description of how he or she actually makes sense of a teaching method in an effort to respect the teacher or avoid a negative appearance to the researcher. Finally, the results of this research project are the product of studying fewer than seven people’s experiences. It is reasonable to expect that a study of seven other students might produce different results.

CHAPTER FOUR: RESEARCH FINDINGS

Review of Goal and Research Question

The goal of this study was to better understand the cultural dimensions associated with the active learning strategies that teachers often use. The research question guiding this study was: Within higher education classrooms in the United States, how do master's students from China make sense of their experiences of active learning strategies? I examined the experiences of seven students from China enrolled at a U.S. public research university in three different master's programs: Master of Business Administration, Master of Public Policy, and Master of Science in Environmental Engineering.

Organization of Chapter Four

The primary findings of this study will be presented in five main sections. The first section presents and discusses a general description of the teaching and learning contexts for each of the three programs represented in the study. The second section provides individual profiles for of each of the student participants. In the third section, the five themes that resulted from clustering the themes across the group will be presented in detail. The overarching themes for the group will be presented in the fourth section, which resulted from analysis of the five recurrent themes together. Finally, a look across the themes, including the various nuances of each, provides a view of three ways that the students in this study seemed to develop preferences for particular teaching and learning methods. That is, the final section provides a view of the influences that seemed to orient these students toward or away from active learning strategies.

Teaching and Learning Contexts

This section will provide a thumbnail sketch of each of the three programs represented in this study in order to better understand the academic context in which the students are engaged. The significance of some of the details of the programs will become increasingly apparent in the description of the clustered themes and the discussion of the research findings. For instance, the bifurcation of *foundational* and *advanced* courses is evident in the way that each of the programs seem to be designed, which is also reflected in the ways that students describe their experiences. Also, the emphasis on developing expert practitioners and the amount of freedom that each program affords students to choose their academic path are significant in regards to how students seem to make sense of their experiences in their programs.

Master of Business Administration. Part of the research for this study included a review of the online and print program information and marketing materials, a 90-minute interview with the professor of a course in the core curriculum, multiple classroom observations in his course, and a review of the syllabus. The 60-credit Master of Business Administration (MBA) program is advertised as a program that "equips you with a holistic understanding of the fast-paced, multicultural world of business and instills the roll-up-your-sleeves work ethic sought by top employers" (Michigan State University, 2013b). The core curriculum accounts for half of the coursework, which the College of Business refers to as "foundational learning." A quarter of the coursework is intended to help students gain subject matter expertise in one of four particular concentrations, and a quarter of the program allows students to select courses in other areas of business that they want to pursue.

A review of the program reveals that experiential learning is heavily emphasized, which is explicit and evident in the extra-curricular activities. One type of extra-curricular activity, case

competitions, seems to be highly valued by students. First-year students compete in four-person teams within the college. Students can also choose to apply to represent Michigan State University at a case competition against MBA programs from eleven peer institutions. Also, students can choose to compete in a business plan competition. The thrust of the MBA program is apparent in these extra-curricular opportunities, as is evident in this description of the business plan competition: "This competition is designed to foster creativity, leadership and learning through the process of creating new innovative business ventures. The competition is constructed to help you to turn an innovative idea into a business proposal, and to prepare you for successful business creation, business development and to fund your business" (Michigan State University, 2013c). In a second type of extra-curricular activities students are given access to three industry-level laboratory settings. These labs allow students to practice applying their knowledge and skills in a simulated environment. The emphasis, again, is giving students opportunities to apply what they are learning to real-world situations in preparation for a career in business.

Experiential learning also seems to occupy a central role in the curriculum. The course in which I interviewed the professor and observed classes is not the template for all courses in the MBA program. Still, it provides insight into a pedagogical approach that students encounter in the College of Business, and a description of a specific course that all students encounter in the MBA program. For this professor, nearly every class session follows the same format: a 10-minute, 10-question quiz over the reading at the start of class; two teams of students present a case analysis for the two case studies assigned the previous week; a period of open question and answer; and a 20-minute lecture by the professor as a preview of the reading and cases assigned for the following week. Students who are not presenting that week are required to submit a one-page summary of their analysis of one of the cases. The professor (PR1) describes this format as

grounded in active learning theory. He says, "I try to be as experiential as is feasible, and that's kind of what drove me to do cases… They learn how to interact with other people in decision-making problem-solving, which is an accurate presentation of what probably 80% of them are going to be doing when they graduate" (PR1: 2). Later in the interview the professor described some of the recent and upcoming upgrades to classrooms in the College of Business that, as he says, are "pitched rooms from the '60s and '70s," which limit faculty to "straight lecturing" (PR1: 20). He suggests that these upgrades are evidence that the MBA program, and the College of Business in general, is embracing an active learning approach by providing students with venues and opportunities to attach the knowledge they are gaining in the reading and lectures to real-world scenarios. Of course, student participants in this study report that they sometimes encounter the "straight lecture" course in which they can manage the demands of the course by simply regurgitating information from lectures and reading assignments on a mid-term or final exam.

Master of Public Policy. The 39-credit Master of Public Policy (MPP) program is jointly administered by the Department of Economics and the Department of Political Science. The program requires 24 credits of core coursework, six credits in an area of concentration, and nine credits of coursework in areas of public policy that students choose to pursue. In addition to interviews with two students in the program, part of the research for this study included a review of eleven syllabi, the web pages related to the program, and documents related to extra-curricular activities that are offered to MPP students.

The students in this study described each course in the program as belonging to one of two possible categories. In the first category are the courses that are "basic" and "number driven" (P7.1: 147). That is, they say that there isn't much to do in the course other than read, listen to

the professor explain when and how to use certain calculations, practice using the calculations on homework assignments, and demonstrate competence on relatively straightforward exams. The format for courses like these, as reflected in the review of syllabi described in Figure 3, primarily consists of lecture, some lab work, and the occasional seminar approach or limited class discussion. One of the student participants argued that the Public Finance course was administered in this way, but that the format was not fitting for the content.

The second category of courses the students described is characterized by the complex nature of the content. In this category of courses, students cannot simply commit a set of calculations to memory along with a basic description of when each calculation should be used. Rather, professors introduce students to the multi-layered and intersecting problems that practitioners in public policy have to address. The following excerpt from one of the syllabi represents the type of complexity that characterizes this category of courses.

> A finance-related economic crisis like the one that erupted in 2008 had not been seen in the United States since the Great Depression. From significant excess borrowing in the run-up to the crisis to significant loss of household wealth that constrains economic recovery, this crisis puts in stark relief the centrality of the financial system and financial policymaking to the economy. The debt and banking crisis in Europe that threatens the U.S. and global recovery makes this point even more starkly. The objective of this course is to introduce students to the economics and public policy of finance in the United States and in the world. The course will include several specific topics regarding financial crisis, including causes, trends, and possible policy interventions. Simultaneously, the course will develop methodological and analytical tools that are helpful for understanding the intersection of finance and public policy more generally. In addition to exposure to policy issues and their related data, a goal of the course is to build and apply technical skills that will be useful in public-policy analysis, generally (Finance & Public Policy, p. 1).

The student participants in this study describe, and the syllabi reflect, the format for courses in this category as primarily consisting of discussion-oriented lecture or seminar along with a major project or paper, and sometimes a series a small papers or student presentations.

Table 2 – Content and Format of MPP Courses as Reflected in Syllabi

Content	Format
Quantitative Methods 1	Lecture, Seminar, Lab work
Quantitative Methods 2	Lecture, Lab
Quantitative Methods 3**	Lecture, Lab
Microeconomic Theory	Lecture
Policy Evaluation	Lecture, Seminar, Major Project
Public Policy	Seminar, Major Research Paper
Public Finance	Lecture w/ class discussion
Policy Analysis Workshop	Independent Study, Major Project
Finance and Public Policy	Lecture w/ class discussion, Major Research Paper
Education Policy Public Policy	Seminar, Major Project
Issues in Public Policy	Seminar, Major Project

**Elective course

Master of Science in Environmental Engineering. The stated purpose of the 30-credit Master of Science in Environmental Engineering (MSEE) program is to "to train students for professional practice as environmental engineers in consulting firms, corporations, and governmental organizations… and in organizations with broader missions such as international development, technology development, policy, public health and business" (Graduate Handbook, p. 1). Students are required to complete the 19-credit core curriculum, at least 7 credits of coursework of their choosing, and either a thesis or a capstone project.

The emphasis within the program is explicitly on training practitioners who can manage new problems that arise over the span of a career. In fact, the Graduate Student Handbook for the Environmental Engineering Program, which is a guiding document for the program, begins with a defining quote from the Association of Environmental Engineering and Science Professors: "Environmental engineering is the application of scientific and engineering principles to assess, manage and design sustainable environmental systems for the protection of human and ecological health" (Graduate Handbook, p. 1). Thus, the program is intended to equip students

with the knowledge and skills to address real-world problems that they will encounter in their professions.

In addition to coursework, students are strongly encouraged to get involved in two types of extra-curricular activities. First, students are encouraged to get involved in research projects with their professors or upper-level graduate students. As one student participant in this study explained, these opportunities help newer students gain an understanding of the possibilities that they could pursue for their own projects. They also give newer students an understanding of how some of the "fundamental" knowledge and skills embedded within the entry-level courses are needed for addressing complex problems. Students are also encouraged to get involved in a second type of extra-curricular activity, professional organizations. In the context of professional organizations, students work on projects (e.g., concrete canoe, steel bridge projects) that allow them to apply what they have been learning in the classroom. In addition, the student organizations are avenues to participating in community projects that are relevant to their field, visiting related sites (e.g., power plants, wind energy farms, wastewater treatment facilities), and engaging guest speakers who are accomplished engineers.

The emphasis on applying theoretical knowledge to solve difficult problems is evident in the way that some professors carry out the curriculum. Part of the research for this study included a review of the online and print program information and marketing materials, a 90-minute interview with the professor of a course in the core curriculum, classroom observations in his course, and a review of the syllabus. The professor (PR2) explained that the overarching goal of the program is to teach students "how to learn new things when you need to know those things" (PR2: 2). He carries this out practically in the research-oriented course that he teaches in the MSEE core curriculum by aiming to help students learn how to 1) identify a problem, 2)

develop rationale for solving it, 3) identify a method for solving the problem, and 4) evaluate and adjust the approach in the process of implementing the method. The professor further described the emphasis within the broader program as seeking to engage MSEE students in experiments and projects as a means to developing them as expert practitioners in environmental engineering.

Summary of Program Contexts. Each of the three programs shares a few characteristics. The curriculum is roughly divided into introductory or foundational courses and advanced courses. The introductory courses include relatively straightforward presentations (e.g., lecture) of essential knowledge and skills with relatively simple and straightforward means of evaluating competency (e.g., mid-term and final exams). The more advanced courses introduce students to the complexities of the content through a variety of means (e.g., seminar, laboratories) with realistic projects or assignments that simultaneously serve as learning exercises and evaluations of learning progress.

Participant Profiles

This section will, first, provide an overview of the student participants and individual profiles that reflect demographic information gathered from participants. An important starting point in understanding how the students make sense of their experiences in U.S. classrooms is to get a better grasp on how they think about learning in general. Thus, the profiles include an overview description of their beliefs about learning. In particular, each student participant was asked, "What does it mean to learn something? How do you know when you have learned something?" The individual themes that emerged from analysis of the transcripts will follow and a summative description is provided for each of the unique themes. The recurrent themes will be

discussed in depth in the following section of this chapter. Synopses of the statements from the interviews that substantiate each theme are provided in the Appendices.

This study purposefully included a small number of participants so that their experiences could be investigated in greater depth. Still, the group represents a relatively well-rounded representation of master's students from China enrolled at Michigan State University at the time of the study. The sample of participants spans three different schools: Business, Social Science, and Engineering. Both genders are well represented, although unevenly given the odd number of participants. The sample includes a relative range of grade point averages, ages, and hometown provinces. Wei and Cheng had completed three semesters in their programs at the time of our interviews. All of the other participants had completed just one semester. A graphic summary of the participants' self-reported demographic information by is provided in Figure 4.

Table 3 – Demographics of Participants

	Pseudonym	Gender	Age	Hometown Province	Undergrad GPA	Current GPA	School
P1	Hugo	Male	24	Inner Mongolia AR	3.6	3.9	Engineering
P2	Wei	Male	24	Henan	3.3	3.9	Engineering
P3	Chun	Female	21	Jiangxi	NR	4.0	Engineering
P4	Mei	Female	35	Guangdong	3.7	3.33	Business
P5	Huan	Female	29	Hunan	3.1	3.72	Business
P6	Min	Female	24	Guangdong	3.58	3.3	Social Science
P7	Cheng	Male	23	Beijing Municipality	NR	3.5	Social Science

Participant one. Hugo was a 24-year-old male student in the Master of Science in Environmental Engineering program. He graduated from a high school in his hometown, Hohhot, Inner Mongolia Autonomous Region. He subsequently completed an undergraduate degree in Environmental Engineering at Dalian University of Technology in China, having

achieved a 3.6 cumulative grade point average. At the time of our interviews he was completing his second semester at Michigan State University, having achieved a 3.9 grade point average in his first semester.

Hugo made a distinction within the interviews regarding the difference between memorizing content for an exam in contrast to learning the content so that "you can remember them and speak out with your own way" (P1.2: 377). He believes that memorizing content for an exam can help students to achieve high scores, but that he prefers, by contrast, to "really understand it, not just remember the words" (P1.2: 383). For Hugo, learning that is more useful and durable starts by grasping the "basic knowledge," which he refers to throughout the second interview as the "basement" for advanced ideas and concepts (P1.2: 70; 164; 626). It is through a grasp on the "basement," or foundational concepts, that a person is then able to learn in a way that includes understanding. He explains, "It's just the basic knowledge underneath. If you know that, you will understand why people can choose this way not that way, or why-, or the basic logic lie behind that. It will help you to understand further. Probably you cannot understand the name of the different segments, but you will understand why they do this, why they do that" (P1.2: 385).

Throughout the interviews Hugo made it very clear that he is fully responsible for his learning in the master's program. That is, he chooses his courses, project topics, and level of participation in course activities. In addition, he is responsible for monitoring his level of comprehension and competency and determines what he needs in order to advance. He seems to describe a transition from high school, in which the teacher directed his learning, to greater independence in college and being more fully independent and responsible in the master's program. For example, in describing his first year of college he says, "I don't know how to learn

in a college because it's not the same thing, because in college you have to learn by yourself. In high school most of the things the teacher will tell you how to do it, but in college… you have to learn all by yourself" (1.1: 256). This sense of being self-directed contributed to how he made sense of the learning activities in his master's program.

After analyzing 137 potentially significant segments of 1,380 lines of transcript and an accompanying 348 initial codes, I discovered six themes regarding how Hugo makes sense of the teaching and learning strategies that he encounters in his master's program: 1) self-directed 2) relationship management is important, 3) confronts barriers, 4) activities are integrative, 5) creates or produces something, 6) cultural differences are a factor. The fifth theme, "create," was somewhat evident among the other participants, but certainly not to the degree that it was for Hugo. He seemed to believe that creating or producing something is an important aspect of effective learning methods at the master's level. He made it very clear that writing is an essential way that he participates in each of his courses. He writes notes while the teacher lectures, which seems to be very important to him. However, writing notes is simply a starting point for "creating." That is, he re-creates the teacher's lecture in his notes so that he can review and remember the content. In the end, he does this so that he can create in three different ways. He creates a personalized understanding of the content, typically demonstrated on an exam: "I like to see that you can remember them and speak them out with your own way" (P1.2: 375). For papers, he does not simply compile information; rather, he expects that he should synthesize what he finds in order to "create some new ideas" (P1.2: 425). In the second interview he demonstrated this value when contrasting research papers that did not require him to "put too much my own ideas or new ideas on that" (P1.2: 413) to papers that require more of him. "I think if you write a paper you have to create some new ideas" (P1.2: 425). Hugo assigned high

value to projects and assignments that allowed or required him to produce something. With projects, he takes a considerable amount of personal responsibility for his work, combining *personalized understanding* with *creating new ideas* in order to produce, as he says, "the core knowledge for your research or for your project" (P1.2: 489).

Participant two. Wei was a 24-year-old male student in the College of Engineering. He graduated from a high school in his hometown, Zhengzhou, Henan Province. He subsequently completed an undergraduate degree in Environmental Engineering at Southeast University in China, having achieved a 3.4 cumulative grade point average. At the time of our interviews he was completing his fourth and final semester at Michigan State University, having achieved a 3.9 grade point average in his first three semesters.

Wei responded to questions about what it means to learn something by emphasizing the importance of using the knowledge or skill. "Well, I only know that I've learned something when I use that, when I have a chance to use it. Before that, I don't know actually I've learned it or no, or not" (P2.1: 336). He went on to say that there is plenty of other "learning" that takes place, such as learning that comes from reading a journal article or the news, but that it never gets put to the test. "In other case I may not know if I learn it or not. For me to use it, it's more important." Interestingly, he later reported that getting positive feedback that confirms that he has successfully learned something is rewarding and motivates him to apply himself toward further learning.

The recurring comments in the interviews with Wei seem to suggest that he believes that the primary purpose of the master's program is to be equipped to function independently, work collaboratively, and apply sophisticated solutions to real problems. He relies upon teachers to expertly design learning activities that engage students in ways that integrate the course content

toward applying "academic knowledge" (P2.2: 266) to realistic situations. Although Wei reports a variety of difficulties that he encounters when attempting to participate in teaching and learning strategies, he demonstrates a high level of persistence and responsibility for his learning progress.

After analyzing 126 potentially significant segments of 1,430 lines of transcript and an accompanying 364 initial codes, I discovered six themes regarding how Wei makes sense of the teaching and learning strategies that he encounters in his master's program: 1) activities are oriented toward application 2) encounters barriers, 3) culture is a factor, 4) activities are integrative, 5) relationships, and 6) self-directed. The fourth theme, "integrate," was relatively unique to Hugo and Wei. The theme was evident throughout the interviews with the other participants, but Hugo and Wei seemed to place great emphasis on it. That is, they demonstrated a belief that "deeper" learning takes place in activities that are intentionally designed to integrate the concepts, ideas, and skills that are explored throughout a course. Wei made three clear distinctions about projects, presentations, and class discussions as active learning methods that are integrative. First, he believes that projects and presentations are opportunities to "dig into a topic" and "collaborate all information we need and present it" (P2.1: 139). That is, Wei believes that such activities prompt students to review and make connections across the content of the course. Second, he makes a distinction between "academic knowledge" and "practical applications" (P2.2: 266). In particular, he seems to believe that active learning methods are necessary in order to help students make sense of their learning in ways that are practical and useful. Third, he describes such active learning methods as being intentionally designed by professors in ways that encapsulate the course content as students "solve" the project "based on own understanding of, of how the topics he has given" (P2.1: 164). These strategies require more

from students than simple recall: “we need to think of what kind of knowledge we need to use” (P2.1: 199). It is important to note that Wei believes that these methods are particularly important for helping students to learn more advanced concepts and content.

Participant three. Chun was a 21-year-old female student in the College of Engineering. She graduated from a high school in her home province, Jiangxi Province. She subsequently completed an undergraduate degree in Environmental Engineering at Beijing Forestry University in China. She did not report her final grade point average. At the time of our interviews she was completing her second semester at Michigan State University, having achieved a 4.0 grade point average in her first semester.

Chun’s response to questions about what it means to learn and how she knows that she has learned something seem to be similar to Wei’s emphasis on “using it.” Chun said, “I have to know some knowledge about these systems so that I can apply those knowledge into, like, certain kind of case study in the reality. And if you have, you know nothing about it, I think you cannot, like, solve those problems in the reality” (P3.1: 380). In a broad sense, she defined learning as “to improve myself” and “to improve the environment” (P3.1: 376).

In the interviews, Chun indicated that the program at Michigan State University is not what she initially expected. Thus, she had to adjust her expectations, and she had to adjust to a different set of demands. In addition, her transition from high school and college into a master’s program seemed to include refocusing on practical usefulness. In the end, she expresses appreciation for the active learning strategies in her master’s program for the demand that it places on students to “not just take it here and substitute some numbers in it – we have to think about it and solve it” (P3.1: 146).

After analyzing 100 potentially significant segments of 834 lines of transcript and an accompanying 300 initial codes, I discovered five themes regarding how Chun makes sense of the teaching and learning strategies that she encounters in her master's program: 1) required to adjust to new learning situation 2) high value on application, 3) relationships, 4) self-directed, and 5) preparation required. Two of the themes, "adjustment" and "prepare," were unique to Chun.

The adjustment theme emerged from repeated descriptions of the ways in which she believed that she needed to adjust to the learning methods that she encounters in her master's program. Chun described two categories of adjustments that were required of her as she transitioned into her master's program. First, she had to adjust her expectations about the nature and level of interaction with her professors. Prior to starting the program she seemed to believe that she would engage her professors on a more regular and individual basis. She also indicates that she had to adjust to a greater demand for student autonomy and less teacher direction. For example, she says, "Actually we have those kind of lab things in undergraduate studies, but this course is kind of different from the other courses because for this course, *we* have to choose some topics *we* really interested in and then and design the experiment *ourselves*" [emphasis hers] (P3.1: 56). Second, Chun describes ways in which she had to adjust to the more active role that is required of her in some of her courses at Michigan State University. This more active role includes behavioral activity, such as longer student presentations and participating in class discussion. The more active role also includes being more active in constructing her understanding of the course content. For instance, she says, "Um, I don't know, maybe it's also because of the Asian. They are not really used to this kind of active things. And they prefer to just receive those knowledges from the teachers" (P3.2: 403-405). She describes a period of

adjustment for courses that require students to go beyond passive reception, to "not simply recite those things. You have to understand how it works or some general ideas or-, but you have to like write your own idea about certain questions" (P3.1: 362). An aspect of the greater demand for more cognitively active engagement is, for Chun, being mindful of how concepts and ideas might be useful in the future.

The other theme that was unique to Chun, prepare, resulted from statements that suggest that she focuses on being well prepared to participate in active and collaborative learning methods. She seems to believe that she cannot and should not participate in such activities if she has not adequately prepared. She seemed to demonstrate a belief that she must have a high degree of certainty about what the teacher is discussing before posing questions or responding to discussion prompts. Her transcripts suggest that she would observe silently if she determines that 1) she does not understand the topic or content, 2) she isn't certain that she knows the answer to a discussion-prompting question, 3) she does not believe she has prepared well for class, or 4) she has not already tried "to first figure it out yourself" (P3.2: 186). She says, "If you were, you were not sure about what the teacher is talking about, how can you get a question about it and how can you discuss it with it" (P3.2: 496).

Participant four. Mei was a 35-year-old female student in the College of Business. She graduated from high school in her hometown, Guangzhou, Guangdong Province. She subsequently completed undergraduate and master's degrees in Biology at Sun Yat-sen University in China, having achieved 3.7 and 3.9 cumulative grade point averages, respectively. At the time of our interviews she was completing her second semester at Michigan State University, having achieved a 3.33 grade point average in her first semester.

Mei is different from the other participants in this study because she completed her undergraduate degree and a master's degree in China. Similar to some of the other participants, she was employed in a career track position prior to starting her program at Michigan State University. This may be helpful in understanding her orientation toward her coursework. That is, Mei's transcripts reveal that she is less concerned with the details of the course content and more concerned with grasping a general sense of each area, developing leadership qualities, and expanding her professional network. She seems to evaluate the relationships with her peers, various teaching and learning activities, and the value of a course according to how well it functions in "creating a leader" (P4.1: 347).

In fact, Mei described being formed as a leader as the primary way of defining what it means to learn in the MBA program. She said, "Well, maybe for MBA program you don't really know every detail for every subject. It's a program for creating a leader in the future" (P4.1: 347) When asked how she knows that she has learned something in the MBA program, Mei says that she decides whether or not she has learned something based upon whether or not she can do the assignment with confidence. She explains, "But usually that's how I understand, you know, if I can do the assignment by my own and very confidently. So that means I understand that" (P4.1: 326). It became apparent to me as I read her transcripts that she assumes that projects and assignments are carefully and intentionally designed in ways that require students to have learned. Still, she describes three levels of learning. The first level of learning is "shallow," which she describes as quickly forgotten (P4.1: 398). The second level learning is more durable, but that durability is dependent upon whether or not "you have a chance to apply or not" (P4.1: 402). Mei describes riding a bike and driving as examples of the third level of learning. That is, the third level is defined as learning that lasts forever. She goes on to clarify, "So, like, MBA

program or most of the school classes, education-, I think is second level. It really depends-, and, sometimes it's the first level. It just know it, and then you forget it if you don't use it" (P4.1: 402). Thus, "using it" is an important aspect to more durable learning in the MBA program.

After analyzing 111 potentially significant segments of 1,568 lines of transcript and an accompanying 328 initial codes, I discovered five themes regarding how Mei makes sense of the teaching and learning strategies that she encounters in her master's program: 1) encountered barriers, 2) learning activities clarify and solidify content, 3) relationships, 4) self-directed, and 5) cultural differences. The second theme, "clarify-solidify," was unique to Mei. Her transcripts revealed that she believes that effective learning activities clarify areas of the curriculum in which she has misunderstandings, and solidifies the competency or disposition in lasting ways. Throughout the interviews, Mei expressed a belief that her understanding of a topic is clarified and solidified when she engages teaching and learning activities that require her to use the course content in meaningful ways. She contrasts this to memorizing content for an exam, which is quickly forgotten. Activities in which she discusses, debates, and compares her view of a topic are ways, she believes, that she can evaluate her own work and level of understanding. The internship, in particular, is a way of increasing her depth of knowledge in the field, and determining her level of interest in the specific areas. In the end, Mei's transcripts suggest that she views active learning methods as complimentary and essential components to "internalized" learning. As she says, "I think that knowledge is internalized, that means I will use them naturally… In order to do that I think, you need, I think, I need more time and then I need more practice… I can do more exercise or something" (P4.1: 194).

Participant five. Huan was a 29-year-old female student in the College of Business. She graduated from a high school in her hometown, Dong'an, Hunan Province. She subsequently

completed an undergraduate degree in Chemistry at the University of Science and Technology of China, having achieved a 3.1 cumulative grade point average. At the time of our interviews she was completing her second semester at Michigan State University, having achieved a 3.72 grade point average in her first semester.

Huan's comments about learning suggest a very sophisticated way of thinking about what it means to learn. Her transcripts suggest that she sees active learning methods, in particular, as opportunities to develop cognitive, interpersonal, and intrapersonal skills and abilities. Active learning methods such as case study analyses and presentations develop ways of thinking and the ability to critically evaluate proposals. As an example, she says, "So comparing your solution to other people's solution is definitely a good thing to help you to, in the future when you evaluate a business opportunity or business case, it can, uh, help you to build up, uh, we call it a well-rounded, uh, skill sets or the mind, mindset" (P5.1: 669). Similar methods also develop interpersonal skills: how to resolve conflicts, build consensus, respond to other people's demands, build a cohesive and productive team, and communicate effectively with others. Huan also views such methods as opportunities to develop intrapersonal skills: acknowledging and managing one's own feelings in high-pressure work contexts, and imagining a problem or situation from a different point of view. She described this aspect poignantly by recalling a time when a professor divided students into groups that represented competing interests in the workplace. "I think I learned a lot from that because you, you just position yourself as uh, uh, uh, person in that case and then you, you argue and debating with other people and then you get, get the first hand idea about, 'Oh, that's how they really feel when other people attack me;" (P5.2: 435).

Being self-directed in the master's program is important to Huan. She demonstrates a belief that students have to "want to learn" (P5.1: 463). In addition, students are responsible for managing their learning progress, which is often facilitated through active learning strategies. Like many of the other participants in this study, Huan reports cultural differences that she encounters in the program, places value on learning activities that are "application" oriented, and places emphasis on relationships with her teachers and fellow students. In addition, Huan seems to be very focused on how the master's program will serve her in her future vocation.

After analyzing 106 potentially significant segments of 1,594 lines of transcript and an accompanying 260 initial codes, I discovered five themes regarding how Huan makes sense of the teaching and learning strategies that she encounters in her master's program: 1) high value on application, 2) relationships, 3) cultural differences, 4) self-directed, and 5) future oriented. "Future oriented" is a theme that was unique to Huan. There was evidence of this theme for the other participants, but it was not strong enough to emerge as an individual theme for them. Huan's focus on her vocational aspirations seemed to frame the way in which she determines what types of learning activities are most helpful. She seems to think about active learning methods through the lens of future applicability. That is, she evaluates active learning methods according to the degree that they equip her for potential vocational demands in her future. For instance, the primary function of group presentation assignments is not to reinforce content knowledge that will be tested on a final exam. She believes, instead, that the primary function is to develop "well-rounded skill sets or mindset" (P5.1: 569). She often described learning activities in relation to whether or not she believes that they equip her for the challenges and demands in her future. Huan nuanced her discussion of the usefulness of various learning methods with statements such as, "because, uh, for, especially for business world" (P5.1: 559);

“in the future when you evaluate a business opportunity or business case” (P5.1: 569)“like a boardroom setting” (P5.2:162); “It can help because in the future we will go back to the workplace” (P5.2: 194); “is kind of like a simulation about how in the future we work with other colleagues” (P5.2: 196); and “presenting is important i-if you are a manager” (P5.2: 717).

Participant six. Min was a 24-year-old female student in the College of Social Science. She graduated from a high school in her hometown, Guangzhou, Guangdong Province. She subsequently completed an undergraduate degree in Administration Management at the Zhuhai College of Jilin University in China, having achieved a 3.58 cumulative grade point average. At the time of our interviews she was completing her second semester at Michigan State University, having achieved a 3.3 grade point average in her first semester.

In regards to what it means to “learn something,” Min made two points. First, she describes the transition from not knowing to knowing, saying, “it doesn’t belong to you and, turn that things into, just change that thing into your own” (P6.1: 370). That is, learning is about gaining the command of a foreign idea or concept. She elaborates by saying that people can encounter or be familiar with something without learning it, or as she said, making it their own. Second, similar to others in this study, she says that she knows that she has learned something in her program when she can use it: “If you can use it to solve a problem in the homework, then that’s when you feel like, ‘Okay, I’ve learned something.’” (P6.1: 363).

Throughout the interviews Min demonstrates that she is very serious about her coursework in her master’s program. She compares the feelings she experiences in the master’s program with the feelings of anxiety that she experienced in high school. However, she views the master’s program differently. That is, she expects that her coursework will help her to understand topics and ideas more deeply. Although her comments are more explicit, she is similar to the

other research participants in reporting that small group and whole class discussions are foreign to her previous experience *and* can be beneficial to her learning. Min's comments about working with domestic students and confronting cultural differences add more perspective to how students from China might be making sense of their experiences of active learning strategies in U.S. classrooms.

After analyzing 86 potentially significant segments of 1,064 lines of transcript and an accompanying 218 initial codes, I discovered five themes regarding how Min makes sense of the teaching and learning strategies that she encounters in her master's program: 1) cultural differences, 2) self-directed, 3) feelings, 4) relationships, and 5) activities clarify and solidify content. The third theme, "feelings," was unique to Min. In the interviews she demonstrated an awareness of the feelings that she experiences at Michigan State University. She reports feeling a high level of stress in the master's program, which she compares to the high level of anxiety that she felt in high school. Although college was "very easy" (P6.1: 107), she anticipated that the master's program would be stressful. She describes her view of the difference between undergraduate and graduate study, saying, "The level is lower, and all the things you learn it just under, shallow than… And, but when you coming to the graduate, uh, even you learn the similar to, similar subjects and, and you feeled very different and thinks very, very deeper" (P6.1: 113). The demands of her master's program make her feel stress, but she feels good about the coursework on the whole, especially in comparison to her undergraduate experience. The majority of the feelings that she describes, however, relate to large and small group discussions. She reports that she feels more comfortable in a small group discussion, but that she feels nervous and has trouble speaking in a large group context. Having a productive discussion with her classmates makes her feel good. For instance, she says, "When we exchange and share our

ideas and turns out some new ideas maybe that connections makes me feel, make feel good. Because I like that feeling just talk about and discuss and have some new idea" (P6.1: 354). Min seems to define a productive discussion in terms of being valued by the group for her contributions to their understanding, and benefiting from what her peers contribute to her understanding of a topic or concept. Interestingly, she demonstrates an awareness and concern for how her peers are feeling about the class discussion experience.

Participant seven. Cheng was a 23-year-old male student in the College of Social Science. He graduated from a high school in his hometown, Beijing, Beijing Municipality. He subsequently completed an undergraduate degree in English and English Literature at Beijing International Studies University. He did not report his final grade point average. At the time of our interviews he was completing his fourth and final semester at Michigan State University, having achieved a 3.5 grade point average in his first three semesters.

Cheng seems to think about learning in two categories. In the first category is learning that is incomplete and lacks comprehensive understanding. As he says, "You can learn something, but you still don't understand it" (P7.1: 404). When asked to describe an example of the first category of learning, Cheng said that he understood "some of the back-up story of why this is happening," but he couldn't fully explain the concepts or ideas on his own. By contrast, he says that the second category of learning, which includes understanding, requires a student "to have the courage to be not ashamed to ask questions or make mistakes so that you can learn from that" (P7.1: 409). At another point in the interview Cheng described questioning as an essential component to achieving this second category of learning. He explains, "So I think, uh, actual learning, I think it requires, uh, it requires you to make some mistakes and really ask some questions" (P7.1: 404). It isn't entirely clear from his statements about "questioning" whether or

not he has interaction with the teacher and others in mind, or if he is possibly talking about questioning the validity of the content. Either way, Cheng seems to believe that opportunities to question and apply what he believes he knows – to "try to figure out" (P7.1: 407) – are essential to "actual learning."

It was obvious that Cheng intends to make the most of his experience in the master's program. It requires him to sometimes confront and overcome barriers, to gauge his level of understanding, and to engage learning activities that will help him to advance. Similar to the other participants in this study, Cheng seems to be very attuned to the relationships he has with his teachers and fellow students.

After analyzing 82 potentially significant segments of 759 lines of transcript and an accompanying 245 initial codes, I discovered five themes regarding how Cheng makes sense of the teaching and learning strategies that he encounters in his master's program: 1) relationships, 2) encounters barriers, 3) cultural differences, 4) self-directed, and 5) application. Each of the five themes that emerged for Cheng were recurrent throughout the study. Thus, each of them will be discussed in full in the next section.

Still, a dominant theme in Cheng's interviews was the importance of relationships with his classmates and professors. With his classmates, he relies upon them when working through a large volume and/or really challenging content. However, he notes that sharing the workload in the context of a group assignment can result in "kind of limited opportunity for you to dig deeper into this topic" (P7.2: 60). Also, Cheng values discussing course topics and ideas with his professors and classmates, but he seems to express frustration with the high degree to which such discussions are "based on some of the American events or culture" (P7.2: 158). He believes that such discussions limit the potential benefit to him and other international students because "I

don't know the full picture" (P7.2: 168). He seems to suggest that some American students have an unwelcoming attitude toward international students, which is evident in the way they sometimes conduct themselves in discussion groups. For example, he says, "Most of the American students will take even more control. International students basically have no say because they don't know the full situation we're talking about" (P7.2: 206). He acknowledges the difficulty that would result from full rejection by American students, but he reports that the American students in his program are welcoming: "I don't know about the other program or things like that, but I'm very glad that my classmates, especially American classmates in this program, is really supportive" (P7.2: 273).

Cheng reports that he was initially unsure about how he should conduct himself in the relationships with his classmates and professors. In regards to his relationship with his professors, he is cognizant of the different cultural expectations regarding how students relate to professors (P7.1: 440), which he defines as "highly professional" in China versus relaxed in America. Still, he demonstrates respect for his professors by not interrupting them in class: "I would just do like him going on, because I really appreciate the efforts" (P7.2: 198). In the end, he seems to be very attuned to the relationship with his peers and professors. He seems to monitor the degree to which his peers are welcoming and inclusive, and the degree to which his professors demonstrate their care for him.

Clustered Themes

A long and iterative process was used to reduce and organize the data into a logical and comprehensible form. The data were analyzed collectively using the themes that were identified for each participant individually in order to identify similarities, differences, and recurrent

themes. Figure 5 provides a graphic display of the recurrence of individual themes. Out of the twelve themes identified across the seven participants, I identified five recurrent themes: 1) relationships, 2) self-directed, 3) culture, 4) application, and 5) barrier. In order to be considered recurrent, a theme had to be identified in more than half of the participants *and* traces of that theme had to be present throughout the interviews with all of the other participants. That is, culture, application, and barrier were identified as themes in at least half of the participants, *and* there were traces of those concepts throughout the interviews with the other participants – even though that evidence was not strong enough to emerge as themes for them individually. There is a limit to what participants could say in two interviews. I expect that, given more time to describe their experiences, the concepts would likely develop into themes for all of the individual participants. Each of the five themes will be presented and discussed in detail in this section.

Table 4 – Recurrence of Individual Themes

	P1: Hugo	P2: Wei	P3: Chun	P4: Mei	P5: Huan	P6: Min	P7: Cheng
Relationships	✓	✓	✓	✓	✓	✓	✓
Self-Directed	✓	✓	✓	✓	✓	✓	✓
Culture	✓	✓		✓	✓	✓	✓
Application		✓	✓		✓		✓
Barrier	✓	✓		✓			✓
Clarify-Solidify				✓		✓	
Integrate	✓	✓					
Create	✓						
Adjustment			✓				
Prepare			✓				
Future Oriented					✓		
Feelings						✓	

Relationships. Analysis of the transcripts revealed that relationships with teachers and classmates are important to each of the participants as they manage the learning activities in their master's programs. There seems to be four main components to the importance of relationships: reliability, discussion, careful management, and developing skills and networks for the future. Each component will be discussed in turn in order to clearly define what it means for participants to place value on relationships in the context of their master's programs.

First, the participants in this study seem to think about their relationships with fellow classmates in terms of reliability. That is, participants report that they need to rely upon their classmates when working through a large volume and/or especially challenging content, and expect that their classmates should be able to rely upon them. Some classmates, however, are not always reliable. For instance, Wei says that he regularly experiences learning activities in which at least one of his classmates is "lazy" (P2.1: 260). Having a group member who doesn't contribute to the project is typical and somewhat frustrating, but he has come to expect it and plans around the people who don't work. Participants seem to believe that group projects and presentations are not helpful to their learning if, on the one hand, they cannot rely upon their classmates to complete the work. On the other hand, the project or presentation is equally unhelpful to their learning if one person dominates the group. Dividing the work of a major project or presentation can be more efficient. However, as Cheng notes, sharing the workload in the context of a group assignment can sometimes result in "kind of limited opportunity for you to dig deeper into this topic" (P7.2: 60). Many of the participants described this tension between needing to rely upon fellow classmates in order to complete a project or assignment, and missing the opportunity to gain a more comprehensive understanding of the topic or content because the work is divided across the group.

Each of the participants also described their relationships with professors in terms of reliability. They rely upon their professors for guidance and support, and expect that their professors can rely upon them to do their part first. A statement by Chun succinctly illustrates one aspect of what it means for a student to do his or her part before seeking assistance from a professor: "But sometimes I will like ask for um classmates for help and if even they cannot explain it, I would just go direct to the teacher and ask about it" (P3.1: 292). Thus, the professor is not the first point of contact for the participants when they encounter difficulties. The transcripts further reveal a general belief that professors should be able to rely upon students to be adequately prepared before seeking assistance. Hugo describes this aspect in terms of "knowing something" as a precursor to asking questions: "Because, you know when I talk to professors or my tutors, I probably have to be well prepared on that. Because you have to ask questions. If you really want to ask something, you have to know something" (P1.1: 64). The general sense that I get from the participants is that they do not approach their professors on a whim. They seek assistance from classmates before going to the professor; they ask questions after they are confident that they have a base of knowledge or understanding to pose a question; and they perceive that there is a potential risk to the relationship if they do not demonstrate the characteristics of what they believe to be a "good" student. In a conversation after the formal interview, Chun indicated how important it is to her to have good relationships with her professors. She described her envy of domestic students who have good relationships with their professors, saying, "In the class discussion they share their opinions. They communicate so good with the professor. They have good relationship with the professor and I am very jealous" (P3.2: Interview Notes).

Second, each participant seemed to place high value on relationships with classmates for the opportunities they afford to discuss course content and ideas. Hugo talks about the value of discussions with classmates in which they negotiate the different ways of thinking about a topic. Wei places value on "listening to other people" and learning "how they think" because it helps him to think differently (P2.1: 148). Chun says, "And the good thing is if you have something which is you can't, you don't have a clue. You can just discuss it in groups and that is good" (P3.1: 346). Throughout the interviews she demonstrated a belief that discussions with classmates are essential when she encounters difficulties with new content. Mei places value on discussions in which each student has to argue for and defend his or her view of the topic, which is a way of extending her learning. Similarly, Huan says that comparing ideas with classmates is "another way to help you to, uh, increase the understanding" (P5.1: 471). For Min, there is an emphasis on having positive and productive discussions with her classmates, which are important to her educational experience because "they can lead me to have a new… understanding" (P6.2: 166). Finally, Cheng places high value on student-led class discussions because "students know better about their classmates" (P7.2: 168). That is, he believes that students can discern which aspects of a topic are more difficult for the broader group to grasp. In each case, participants in this study place high value on discussion with peers as a way of grasping course content and navigating course requirements.

Third, a main component to "relationships" for the participants in this study relates to *managing* relationships with professors and/or fellow classmates. This was especially true for Hugo. He reports that managing the relationships with argumentative classmates in the context of a group project or discussion is an indicator of "whether you can negotiate well, whether somebody can be a leader and can just help everyone can move it further" (P1.2: 272). Managing

others' perceptions of him also plays an important role in how he engages learning activities. He prepares and participates in learning activities with concern for avoiding embarrassment and the appearance of lacking competence. Mei expressed similar concern, saying, "I don't want to ask some stupid questions that, you know, maybe, um, feel shame about myself to, to ask that questions" (P4.2: 145). Wei demonstrated attention to managing the relationships with her classmates in the context of group assignments so that the group can be productive at solving problems. Interestingly, Cheng and Min express degrees of uncertainty about how they should manage the relationships with their professors and fellow classmates. Cheng says, "when I first come here, again just is I don't know how professor will react. You also don't know how your classmates will react, especially the, the, you have classmates from America, from all over the country" (P7.2: 283). Min seems to describe difficulty in knowing how to manage the relationships with domestic students who are less willing to integrate international students into group discussions and projects. This category of students, according to Min, seems to marginalize international students: "And if the people they are, they don't like the international student, they insist that they are, their ideas, and they maybe that kind of student, if you talk with them you will have a very few chance to talk" (P6.2: 118).

Finally, the participants in this study seem to think about their relationships with peers and professors as important for developing social skills and networks that will aid them in their future vocations. That is, they value learning activities that require them to practice social skills that are essential in their fields, and that serve as opportunities to build or broaden a professional network. The MBA students, in particular, demonstrate a belief that a major focus in their program is on helping students to develop the ability to conduct themselves appropriately in the business context. Mei explicitly describes her belief that many learning activities in the MBA

program are less focused on grasping specific course content and more focused on participating on a team, building consensus, and developing social skills and professional networks. She says, "you get to involve a lot of teamwork and which is very useful for your career" (P4.1: 130). Later she says, "So you learn more people, learn professor, or learn employer. You know, you kind of build up a network. That's, I think, that's mostly the major purpose for MBA" (P4.1: 351).

Self-Directed. Throughout the interviews the participants revealed a belief that they should choose their path and level of participation in learning activities according to their interests, background, and experience. They exhibit a high level of personal responsibility for their learning, and a belief that teachers and classmates are resources for guidance and support when they determine that they need assistance. There are commonalities across all seven participants in regards to what it means to be "self-directed." In addition, it seems to be nuanced differently for some students.

A large part of what it means to be "self-directed," for all seven students, is to choose to participate – or not participate – in learning activities based upon their level of interest and prior knowledge and experience. This means that students often choose their courses based upon the goals they have for the program; they choose project topics based upon their individual interests; courses are determined to be more or less helpful for their learning based upon the degree to which the content matches their interests; and they see a direct correlation between the effectiveness of a learning activity and the degree to which it builds upon their prior knowledge and experience. Huan makes a striking statement that reflects this sense of the interplay of student with content: "Right, it's kinda like everything interaction with you, and it's uh, a process. You're building up your learning experience pre-, building up your, uh, knowledge"

(P5.2: 643). Thus, students see themselves at the center of the educational experience, and active in directing their levels of participation in learning activities.

Another primary component of being "self-directed" is taking responsibility for monitoring one's own progress and level of proficiency or competency. For instance, Mei reports that learning activities such as case study competitions, student presentations, class discussions, and team assignments are opportunities for her to assess her learning progress. Min even speaks about exams in terms of their usefulness for evaluating her own learning progress. She doesn't talk about exams in terms of demonstrating her learning to the professor, or the professor evaluating her learning progress. Cheng acknowledges that there is an immense amount of freedom in his program to determine what he believes is most important or helpful for grasping course content. He suggests that this freedom requires students to monitor progress toward their individual goals. He goes further to say that taking such initiative includes having "the courage to be not ashamed to ask questions or make mistakes" (P7.1: 409).

Similar to the freedom that Cheng describes, the three Engineering students explicitly describe a shift from a more teacher-directed and exam-based experience in high school to greater independence and responsibility in college, and even more independence and responsibility in the master's program. Hugo describes the shift, saying, "In high school most of the things the teachers will tell you how to do it, but in college, years, you have to learn all by yourself" (P1.1: 256). Chun notes that the higher degree of responsibility takes shape practically in requiring that students consider "every steps by yourself not just following the teachers" (P3.2: 203). The Engineering program is heavily driven by projects and experiments. These three students report that being "self-directed" includes taking responsibility for the project or

experiment design, rationale, execution, trouble-shooting, and consequences for making mistakes.

The MBA students seem to believe that the program in general, and many learning activities in particular, are designed in ways that foster independence and personal responsibility. Mei believes that the end goal of the MBA program is to be formed as a leader and not necessarily to master the details of the content. In addition, there is not enough time to master all of the content, so she chooses which areas to pursue more fully based upon her background and interests. Huan joins study groups when she deems it necessary; structures her approach to assignments based upon what she believes is helpful and necessary; and uses the learning activities that she encounters in the MBA program as opportunities to advance her learning, rather than regarding them as ways for professors to assess progress toward predefined outcomes. Returning to Mei, she revealed that her initial beliefs about how she should approach her coursework were very different. As she was talking about the large amount of work involved in the program, she said, "I mean for the first semester is, you know, the impression is too many reading, and then I tried to read them all but later on my supervisor, I mean my GA supervisor told me, 'No one ever really read them all.' (Laughing)" (P4.1: 118). The result seems to be that she began to determine her level of engagement with content and activities according to the goals she has for completing the program.

Of course, a fair criticism is that this might be a romantic interpretation of what the students describe. That is, my interpretation is that the students are being strategic in choosing their level of engagement with content and activities according to their backgrounds and plans for the future. However, some might argue that these students are simply being opportunistic. So, for example, they may be choosing their level of engagement based upon the minimal

requirements for course and program completion. In addition, while the participants demonstrate a belief that their success in the master's program is directly attributable to their own self-directedness, they acknowledge that professors can inspire or dampen student interest and participation based upon whether or not the learning activities are designed well. For instance, Cheng describes a course in which a professor presents a brief lecture and then appoints students to be prepared to lead the class and small group discussions. Cheng believes that the resulting discussions are more inviting "because students know better about their classmates. Like, they know, like, what kind of discussion question will be most effective to unite a discussion among classmates" (P7.2: 168). The participants suggest that courses in their programs may or may not be helpful depending upon how well the professor designs the learning activities.

It is important to note that the interviews with student participants revealed that some of the learning activities that they believe help them to learn do not arise out of a sense of "self-directedness," and they might reasonably be more closely associated with the passive learning activities of a behaviorist approach (Grippin & Peters, 1984) to education. As an example, Min describes lecture as almost always helpful for her learning. Lecture that is accompanied by a PowerPoint presentation is especially helpful because it is used later as a resource for "digesting" the content of the previous class, and as a resource for preparing for the next class. When asked to clarify, Min said that professors in some of the earlier courses in the Public Policy program make the PowerPoint presentations available electronically. She uses the presentations to prepare for the next class, specifically because there are regular quizzes. Min reports that the amount of content along with the projects and homework assignments in some classes can feel overwhelming. However, the weekly quizzes help her to focus her efforts. She says, "Yeah, so actually the quizzes just can help you to more concentrate…" (P6.2: 570). Thus, it is the teacher

who is directing the students' focus and effort by using a learning activity that encourages students to extend their effort beyond their interests and familiarity.

This idea is further evidenced in the MBA program. I interviewed a professor from the MBA program who had been recognized by his peers for excellence in teaching (e.g., Distinguished Faculty Award), and I subsequently observed his classroom. The format the professor used for the course that I observed included a 10-question, 10-minute quiz at the start of every class period. In the first interview with one of his students, Mei, she described a sense of being overwhelmed by the amount of work that each course required of her. She says, "And as an international student you know, reading is not fast, is not fast at all. And I take too many time, you know, too long time in reading and sometimes I just don't know, don't understand what I'm reading, just go through-, okay-. Nothing left in my mind" (P4.1: 150). However, the regular quizzes focused her effort and time management. She explains, "Mm, to be honest, I read every chapter in Dr. [Professor's] class because we will have a quiz every week. So then I have to. So, um, I mean for [Professor's] class-. Because I foresee that every week we will have a quiz…" (P4.1: 140).

Culture. A theme that emerged from the interviews of six of the seven participants is that culture is a factor in how they make sense of their experiences at Michigan State University. The theme, "culture," took shape in the analysis by collapsing three sub-themes: different approaches to education in China and the U.S., cultural references, and class discussion. Each participant described differences between the approaches to teaching and learning that they experienced in China and their experiences at Michigan State University. Although they were not asked directly about it, most of the participants took time in the interviews to briefly describe the National College Entrance Exam, the *Gaokao*, and the central role it plays, especially in the high school

years. Huan describes how important the exam is, saying, “the last or final exam will decide your destiny” (P5.1: 101). Wei argues that the exam-based approach to education is most certainly embedded within Chinese culture. He says that it is “the kind of education that go to, goes to every, through the blood of every people” (P2.1: 567). Participants further characterize the approaches to education that they experienced in China as teacher-directed, grade focused, where lecture is dominant, and the emphasis for students is on listening rather than speaking. They contrast these characteristics with approaches to teaching and learning that they have experienced in U.S. classrooms, which include class and small group discussions, team projects, and in-class activities. Min describes the contrast in striking terms: “We will not have-, we will have fewer chance to discuss in the classes because Chinese classes totally not like American” (P6.1: 57). She goes on to describe what she believes to be the differences in outcomes, saying, “Maybe the, the basic knowledge for us, be very, maybe we’re stronger than American students just like the math and that kind of thing. But we will, lack of the creativity that kind of skills because, uh, just like our rushing prepare for exam” (P6.1: 63). Cheng characterizes the differences between Chinese and American approaches to education in terms of “discipline driven” and “creativity of the students themselves” (P7.1: 101). That is, Cheng believes that American approaches to education emphasize fostering creativity and helping students to develop the capacities needed for managing real problems and situations.

The second sub-theme that contributes to “culture” as a theme has to do with the use of cultural references and idioms. Sometimes a culturally grounded word, phrase, or idiom can obscure something as benign as a humorous comment, or as important as an entire unit. Huan explains the dilemma strikingly:

> Sometimes there are some context, we have no idea what is that and, uh, and it's very crucial for you to understand the situation or understand the problem. But, uh, since the majority of my class they are domestic students, sometimes, sometimes professors won't stop and explain the details. And sometimes I can catch up with that because I, I can search them online at the same time, but sometimes I don't even know how to spell them so which, which makes me, uh, which makes it impossible to search online to see what are the things (P5.1: 576).

Cheng adds to this, saying that seminar courses and class discussions often rely upon examples that are specific to American culture and society. "So, even if professor asks some question based on what we are talking about, we cannot really participate" (P7.2: 96). He explains that many international students are sent to the U.S. by their local governments and will return to work in their country. Thus, they do not feel compelled to get a nuanced understanding of the American context just to be able to participate in some of the learning activities.

The third aspect to "culture" relates to class discussion. Participants report that they did not experience much in-class discussion in their educational journey in China. There are two primary aspects to how participants seem to make sense of their experiences with class discussion at Michigan State University. First, being a regular participant in class discussions would require them to violate a Chinese cultural norm. Hugo describes the problem and potential social implications for saying too much:

> You know, I am a Chinese guy. We share the same culture on that. If I talk too much or share too much things during the class I will be just shrink a little while for my talking. That I shouldn't be so strange with my Chinese classmates. They-, they all-, we all think that-. We know that results. But we just don't like to see. If I say a lot on that, I will be-, uh, appear so different. I don't want to be so different. You know, it's kind of weird things. When people just handout. They say, "Hey, you, you are not, our group. You are such a different guy." "You are a fake. You are a freak or something." I don't want like to be that (P1.2: 332).

In addition, participants suggest that the emphasis in China – even in the context of a small group or class discussion – is on listening to others and limiting one's own speaking. Huan describes

the way that students participate in class discussion in China as following a "standard procedure" that everyone knows and understands (P5.2: 397).

At times throughout the interviews some of the participants seemed to express frustration with how aggressive American students are when they participate in group and class discussions. This seems to further discourage their participation. For instance, Cheng says, "American students take control. We just sit back, say, okay, all right" (P7.2: 194). They describe the behavior that they observe of their domestic classmates as inappropriate, impolite, disrespectful, and impulsive. Instead, Min suggests, Chinese students prefer to have "comprehensive ideas" before participating in discussion, to "think deeper" about it first (P6.2: 650).

Interestingly, the students in this study seemed to think about the experiences at MSU in "large culture" terms. For example, they used broad terms to refer to themselves individually, their Chinese peers, their domestic peers, and their peers from other countries (See Figure 6: References to students). Cheng's references were simplest, referring to himself and students from China and other countries as "international students." Cheng referred to all of his other peers as "American students." Most notably, Wei avoided using any categories to refer to himself and his classmates, with the minor exception of referring to working with "people from other countries" (P2.1: 392; 394; 402). Chun sometimes referred to herself and her peers from China as "Chinese students," and sometimes as "Asian students." Mei used interchangeably "domestic" and "American," and "Chinese" and "international." She sometimes used "international" to describe her peers from countries other than the U.S. and China. The broad terms used by these students suggests that, for instance, they see American educational culture as monolithic and largely distinct from other cultures. Thus, Min says, "…sometimes I would find out, ah, the ideas I think is very different from the American students" (P6.2: 80). And Cheng says, "I think the reason for

that, for international students especially, is because when the professor trying to organize the class as a discussion… most of time we don't know what is going on" (P7.2: 94). Min noticeably doesn't describe her ideas as being different from the students from MSU, Mid-Michigan, Michigan, or the Midwestern United States – just the broad category of "American students." Although it does not seem to occur to her, it is quite possible that she would not find her ideas to be "very different" from her domestic peers at a university along the West Coast of the United States.

Table 5 – References to Students

		Domestic	American	International	Chinese	Asian
P1	Hugo	X		X	X	X
P2	Wei					
P3	Chun				X	X
P4	Mei	X	X	X	X	
P5	Huan	X		X		X
P6	Min		X	X	X	
P7	Cheng		X	X		

Application. "Application" emerged from the research analysis as a theme for four of the participants in this study: Wei, Chun, Huan, and Cheng. There were traces of this theme throughout the interviews with the other three participants. However, that evidence was not strong enough for "application" to be identified as a theme for them individually. The four participants represent both genders and span all three of the academic areas represented in this study: (P2) male in Engineering, (P3) female in Engineering, (P5) female in Business, and (P7) male in Social Science. Taken together, part of how they seem to make sense of their experiences in their master's programs relates to the degree to which they have opportunities to apply course content and ideas to realistic problems and situations. This type of learning activity, they believe,

is helpful to their learning by bringing the content out of the declarative or factual realm and into the experiential realm. Also, these students expect that they can measure their own level of competency through "application" oriented learning activities, and they often evaluate the effectiveness of professors and courses in relation to the design and use of such learning activities. Each of these three components of "application" will be discussed in turn: realistic problems, factual to experiential, and standard of assessment.

The participants in this study were explicit about the value that they place on learning activities that allow them to apply course content and ideas to "real" problems and situations. They use language such as: practical cases, real information, real data, real world, real system, and real cases (P2); reality problems, reality, real project, application of this course in reality, case study in the reality, practical examples, practical things, and real problem (P3); real companies, how they really feel, and real life (P5); and actual data, put us into the reality, and in the real life (P7). Cheng gave an example of a professor who required students to prepare and present a professional proposal rather than a typical research paper: "He just say, 'Okay, you're proposing some kind of policy idea. Just suppose I'm the mayor and you propose.' When [the professor] criticize you, we just shocked. The first person just don't know what the hell is going on… But when you think about it and when you get through that process, you came to understand that we really learn much more from that process" (P7.2: 269). Although the direct and sharp criticism of the professor – acting as mayor – was startling at first, Cheng said that he valued that activity and others like it because they gave him opportunities to apply knowledge and skills that will be useful in his career. Similarly, Huan expressed value for realistic exercises that allow her to practice applying theories and ideas in a safe and controlled environment. She used a clever analogy to describe the power of this type of learning activity. She said that reading

from the book is like grasping a two-dimensional model. Learning activities that are oriented toward application "help you to volume it" into a three-dimensional form "so that you really know how to apply those… concepts in the real life" (P5.2: 787).

Participants seem to believe that "application" within the context of a course is helpful for their learning because it clarifies and solidifies factual knowledge by building a base of experience. They can make sense of facts, theories, concepts, and "logical stuff" (P7.2: 148) in ways that are meaningful and durable when they practice applying them to real situations. Cheng describes the value, saying, "you really have to use it and really think about it. Until that time, you can't fully just grasp, grasp the meaning behind that" (P7.2: 148). Huan specifically values learning activities that emphasize the application of course content because they help her to develop a certain skill set that she believes will be essential for success in her vocation. That skill set includes decision-making, problem solving, navigating cross-cultural interactions, and managing interpersonal conflict. Huan also believes that the purpose of many of the learning activities that she encounters in the MBA program is to connect new content with past experience and to develop the ability to apply it in the future. In the end, the participants seem to value application-oriented learning activities because they provide a way to conceptualize seemingly disparate "facts." In summarizing the value of application-oriented learning activities, Wei says, "So, if this home-, homework just designed for certain concepts – just kind of for practice of the equations – it's not that helpful. But if, if it's involving the real case, it's the type of project, uh, I talked before – it's helpful" (P2.1: 320). In this statement he alludes to the value that each of the participants expressed for such activities: they can conceptualize seemingly disparate sets of facts by working with them in an integrated and realistic experience.

Participants report that building this base of experience through application-oriented learning activities places a greater demand on them than simply memorizing facts for an exam. However, such activities serve as a means of assessment, helping them to recognize areas in which they lack understanding. Cheng describes this idea well:

> But when I actually get into that practice, actually do that, like, you can, you can, the first time I encounter that practice, I kind of feel like my head just went black. I can't remember anything about that, so I have to, it's a really hard experience… Again, it's like what I told you about the learning process, you think you know something, but when you actually do it, like, uh, a lot of stuff that is just, just, uh, missing from your head and that process really, uh, just, uh, combine all of the knowledge I know, uh, into my head, you know, in a very strong way (P7.2: 146).

The learning process he describes seems to include a cycle of 1) knowing, 2) applying, 3) not knowing, 4) applying, and 5) knowing. The first "knowing" is naïve and unknowingly incomplete. The first opportunity to apply such knowledge reveals inadequacies, which results in an awareness of "not knowing." The second opportunity to apply content helps to solidify the content in a more comprehensive and lasting way. Chun adds to this, saying that she knows that she has learned something from a course when she can "apply those, those knowledge into like certain kind of case study in the reality" (P3.1: 375).

Additionally, these four participants often assess the effectiveness of professors and courses based upon the design and implementation of application-oriented learning activities. Thus, professors are deemed effective at fostering student learning when they use activities that challenge students to select which calculation applies to a particular situation, rather than just requiring students to execute a calculation. Courses are deemed effective if students are regularly challenged to put the "academic stuff" or "fundamental knowledge" to use at the right time and in the right order. So, as Wei explains, a class discussion is not well-designed if the "information that we can have from a book-, it's just academic stuff. If it's just like, to discuss why 1+1=2. It

doesn't help" (P2.2: 681). This thinking seems to reveal that participants think about their learning in three parts. First, they become familiar with the "academic," "fundamental," or "theoretical knowledge." Second, they are challenged to apply that knowledge in a realistic situation. This leads to the third part, which is to become aware of misunderstandings and develop a more refined understanding of the content.

The value that these students place on learning activities that are application oriented is further nuanced by the distinction that five student participants made between "fundamental" and advanced concepts, ideas, and courses. Again, all three programs of study and both genders are represented in this group of students, which includes Hugo, Wei, Chun, Mei, and Huan. Hugo's description of this distinction is striking in his choice of words. In particular, he seems to use the word "basement" where others used words like "fundamental" and "basic things." He notes that a student must have a certain "basement" of knowledge before asking the teacher a question; that supplemental readings and textbooks are "the basement" for grasping new concepts; and that students choose courses that are oriented toward "the final destination for students" because "that will be a basement for them to learning" (P1.2: 622). Wei described the difference between "fundamental" and "high level" courses in terms of those courses which require a lot of reading, homework, quizzes, and exams in contrast to those which require application oriented projects. He and Huan described their high school and much of their undergraduate experiences in terms of gaining "fundamental" knowledge, which was dominated by reading, homework, and exams. Huan says that her undergraduate institution is distinguished for emphasizing a breadth of "fundamental subjects" as a "solid foundation" for students, "so that in the future you can go further, uh, higher education. That's, uh, how this university is known for" (P5.1: 126). Chun and Mei used the term "theoretical" knowledge as a way of describing the "basic things" (P3.2: 243)

and “basic laws” (P3.2: 251) that a person must know in order to be able to apply their content area to real life situations. For all five of these students, extensive lectures, reading, basic homework, simple quizzes, and exams are characteristic of “fundamental” courses in contrast to the experiments, projects, presentations, real life case studies, and other application oriented learning activities that characterize the more advanced courses in their graduate programs.

Implicit within this distinction is the belief that a certain foundation of knowledge is necessary as a prerequisite to learning that is more lasting and useful. So, these students seem to expect that they will encounter the more passive or surface approaches to fostering learning when engaging the “foundational” or “fundamental” level in their areas of study. Furthermore, they seem to embrace these opportunities to build a solid foundation. The fundamentals are, after all, a foundation for something greater. However, they are sometimes puzzled when teachers and their domestic peers embrace teaching and learning methods that don’t correspond with the level of learning. For example, students in the Master of Public Policy program perceive the Public Finance course to be a more advanced course. As illustrated in Figure 3, the course is presented in the syllabus as an advanced course in the program that relies upon lecture and class discussion. However, the students in this study report that the course relied heavily on lecture, as well as reading, homework, quizzes, and exams. They were puzzled that the professor relied heavily on lecture and other more passive approaches to fostering learning in an advanced course. Cheng describes the gap that this causes in regards to “really understanding” the content, saying, “But if you ask me, ‘So if you understand, can you just give me a full explanation?’ When I did that, I tried, uhh-. During the process of thinking about it more, I kind of encounter a lot of problems, and hiatus between those series that, uh-, I found out that actually still don’t understand” (P7.1: 432). Similarly, some of the students in this study are puzzled when their

teachers and domestic peers embrace more active learning methods when working through "fundamental" content. This concept will be discussed further in the next chapter.

Barriers. Participants in this study regularly mentioned barriers that they encounter in their master's programs. This theme, "barriers," was prevalent in the transcripts of four research participants: Hugo – male in Engineering, Wei – male in Engineering, Mei – female in Business, and Cheng – male in Social Science. Each of them described barriers related to English language, different ways of thinking, and classmates who dominate discussions.

All seven participants acknowledged that language is "the first biggest problem" (P2.1: 378) for most international students. Many of them describe a period of adjustment to long lectures in English, how fast professors speak during class, and putting their thoughts into English language in time to participate in a discussion. However, English language *competency* is not the primary issue that students report after the initial period of adjustment. Rather, they sometimes adjust their approach or withdraw from learning activities because they lack *confidence* in their ability to speak English well. For instance, Mei describes a course in which she is required to give professional presentations. She knows that she should speak in a relaxed, conversational manner. However, she adjusts her approach to the presentations because she lacks confidence in her ability to speak English. She says, "I'm still not very confident about my English speaking skills. So I usually, um, write what I'm saying, you know, very detail and then I just, um, from beginning I will memorize all I have" (P4.2: 952). Thus, what might appear to some to be a preference for memorization is actually a way of coping with confidence in the ability to speak a second language.

When talking about whole class discussion, Hugo reports that it is a teaching and learning method that has "limited effectiveness" in helping him to learn. When asked to elaborate, he said

that there is a practical limit to the number of people who can participate in class discussion. He believes that it is an effective learning method for the limited number of people who participate. As he says, "If you want to involved in that, you will get something. But if you don't, like, it's totally a waste of time for you… more than fifty percent students will be just to sit there, say nothing" (P1.2: 302). When asked to elaborate further, Hugo reports another reason that "some Chinese students" are not active participants in whole class discussion: "Some students are not so confident to speak out their English. Even though, I mean, my English is not so well. I know. But I think as much, the more I speak the better I will improve on that. So-. But some of them they are not so confident to speak out even though they know the knowledge" (P1.2: 321). Later in the interview, Hugo says that students from China usually choose to participate in work groups with other Chinese students because "we can communicate with Chinese" (P1.2: 514). However, he suggests that students from China who choose to join a work group that includes domestic students have achieved a certain level of language confidence: "because they are comfortable, they are confident to speak English" (P1.2: 516). Thus, it is *confidence*, rather than just English language competence, that can be a barrier to participation.

The issue of English language confidence is also evident among other students in this study. Wei addresses the issue of English language confidence, saying that he is inspired to continue extending himself when he gets various forms of feedback that affirm his progress. He says, "it's also helpful, it's also rewarding because I know I have a little success that, to help me to step further" (P2.1: 449). On the other hand, Min reports that she prefers to share her ideas in small groups instead of whole class discussion because she feels less "comfortable" in the larger context. She explains that sometimes it is difficult to translate her ideas into English: "I don't know which words to, to precisely to express my ideas" (P6.1: 193). She adds that there is an

element of confidence or nervousness that serves as a barrier to participation in large group discussions. “Maybe that will, in the littlest group will not feel so nervous and you can-, because-, but every time I feel nervous and I cannot just… it’s hard for me to say” (P6.1: 203).

In addition, the students in this study demonstrate – in the process of the interviews – that they lack confidence in having the ability to effectively communicate their ideas in English. It was evident with, for example, the oft repeated phrase “how to say.” A lexical search of the transcripts surfaced a total of twenty instances from Wei, Chun, Mei, Huan, and Min. Sometimes the phrase was part of a rhetorical question directed toward me: “For these presentation things it’s kind of, um, how to say that? Like, words, it depends more on words…” (P3.2: 355). Or, as Mei said, “…think of what you get from your, um, you know-. How to say? So it’s basically ask for-. How to say? For donation?” (P4.2: 25). Other times it appeared to be a phrase that was used out of habit: “And I think that’s, uh, self-reflection really helped me to, uh, improve myself, um, or, how to say, master the skills…” (P5.1: 685). Still, there were other instances in which the lack of confidence was evident in instances when English language proficiency was equally evident. One exchange with Min illustrates this point well:

> Min: They love to talk.
> Interviewer: Okay.
> Min: That’s-. Which word you will use?
> Interviewer: Uh, I-. That’s what I would use. They like to talk. Yes.
> Min: Yes, they like to talk. They, they enjoy because they want to say something.
> Interviewer: Okay. Okay.
> Min: Because I cannot find, uh, appropriate English word.
> Interviewer: No, that seems like the appropriate English words.
> (6.2: 272-279)

Not surprisingly, Cheng did not demonstrate instances of lacking confidence, and he did not discuss the issue of confidence in English language proficiency. Cheng majored in English and

English literature in his undergraduate program, and he was completing the final semester of his program at MSU at the time of our interviews.

The participants in this study further report that the different ways of thinking among their peers can sometimes serve as a barrier to maximizing learning activities. That is, their classmates sometimes approach a topic from a very different angle, which makes it difficult to work through a case study or project. Participants assign value to understanding a topic from a different point of view. However, that value is lost when a particular way of thinking about the topic is too different to comprehend. Min describes the dilemma:

> Maybe some, for example in the Policy Evaluations sometimes we talk about an example how to use some-, how to use some model to address the problems, and when we thinking about that kind of things we will-, the angle is total difference. And at that time I will just, uh, think the small group discussion just, uh, helps me a little bit. Because their ideas, the thought process are so different (P6.2: 82).

Wei attributes at least some of the differences in how students think about the same topic to culture and familiarity, saying:

> And, uh, because we think differently and we have a different culture. And we need to figure out how to speak to people from specific countries and how, what, sometimes for me still the challenging to, to meet with new people, because they are talking with something that I am not familiar with. The culture difference. So, it's always challenging. I'm still trying to be more, trying to learn more from other cultures (P2.1: 402).

Again, Wei was in his fourth semester in the Engineering program at the time of our interviews, and he previously explained that his educational experience is enhanced because he gets to interact with people from other cultures and backgrounds. Thus, it is the issues that arise out of interactions with people from different cultures who think differently and have different depths and realms of familiarity that are sometimes barriers to engaging or maximizing on some learning activities.

The third component to "barriers" as a theme for all seven participants relates to their perception that American students often dominate small group and class discussions. The fact that the participants in this study took issue with domestic students who are argumentative and/or dominate discussion isn't surprising based upon earlier research findings (Howard, Short, & Clark, 1996; Nunn, 1996; Tatar, 2005). Cheng describes the barrier to active participation in small group discussions in a striking way. "Because you can imagine that, uh, especially those class discussions where American students really take control, because they know more about their county apparently, and that will be much more severe when the small groups discussion happens" (P7.2: 206). As discussed in the context of the "culture" theme, there seems to be a difference in cultural assumptions regarding participation in classroom and small group discussions.

Overarching Themes

The five recurrent themes were explored and analyzed together in order to further reduce the data, and to integrate the individual themes into a set of themes for the group. As a result, I identified three overarching themes: 1) overall differences in approaches to teaching and learning, 2) primacy of the individual, and 3) dependence upon others. All seven participants described an overall difference between their educational experiences in the U.S. and China. They also seemed to place themselves – the individual – at the center of the endeavor. That is, the individual's interests, preferences, background, and plans for the future guide the educational experience. In addition, the individual is responsible for monitoring his or her progress and adjusting accordingly. Finally, depending upon and being depended upon by others characterizes the educational experience in general, and their participation in learning activities in particular.

Synopsis of overarching themes. Further analysis reveals that a theme across all seven participants is differences between their experiences in the U.S. and China. Hugo describes his experience in China as more teacher-directed and including less student discussion. Wei contrasts the more active learning methods he experiences in the U.S. with a grade-driven and exam-based approach that is embedded within the Chinese culture: "the kind of education that go to, goes to every, through the blood of every people" (P2.1: 567). Chun describes her experience in China as more teacher-directed and having less freedom or responsibility on the student. Mei describes her experience in China as more lecture-oriented with less student interaction compared to the group discussion and projects that are emphasized in her master's program. Huan also describes a lecture-oriented and exam-based approach compared to a variety of teaching methods and learning activities in her master's program. Min defines her experience in China in terms of teacher-directed and exam-based with a more moderated approach to discussion and class participation. Finally, Cheng speaks about the differences in terms of discipline-driven in China compared to an emphasis on "creativity of the students themselves" (P7.1: 102).

A second theme that spans across all seven participants is the primacy of the individual student. This theme consists of three categories. First, each of the participants seem to think about the learning activities that they encounter in terms of how effective the activity might be in preparing them for their particular future careers. Second, each participant demonstrated a belief that students choose their path and level of participation in teaching and learning activities based upon their interests, backgrounds, and determination of what is useful. Third, all seven participants demonstrated a belief that many active learning strategies are useful for monitoring

their own learning. That is, part of the primacy of the individual student is the responsibility that each student has to gauge his or her level of progress.

The third theme that results from further analysis is dependence upon others. There are two sides to this theme. On the one hand, each participant seemed to assume that students must depend upon the teacher for guidance and support, and rely upon each other. Relying upon fellow students includes working through a large volume and/or difficult content, being exposed to new ways of understanding topics and ideas through discussion, completing projects, and developing interpersonal skills that will be useful in a future professional context. On the other hand, each participant described multiple ways in which they are regularly unable to depend upon their teachers or peers. Language is sometimes a barrier to working with others; some students are unreliable; projects and discussions are oftentimes dominated by a domestic student; some topics and discussions are difficult to understand or engage because they are culturally imbued; group projects often include dividing the work, which limits the ability to get a more comprehensive view; and some active learning strategies are not designed in ways that invite or inspire participation.

The Effects of Educational Culture, Educational Level, and Socialization

After analyzing the seven participants' experiences individually and collectively, I identified three different ways that these students seem to have been influenced in regards to their preferences and expectations for certain teaching and learning methods: educational culture, educational level, and socialization. These findings add to the broader field of research on students from China, which most often considers separately the effect of educational culture (e.g., Tweed & Lehman, 2002) *or* socialization (e.g., Li & Collins, 2014). Such literature does

not, arguably, give fair consideration to other variables that may be associated with student preferences for particular teaching and learning methods. Still, the following discussion must be prefaced with a word of caution. Attributing causality to individuals' beliefs and preferences is not an exact science. As evidenced in the following discussion, there are tensions among and overlap between the three categories. In the end, readers are encouraged to regard these findings as a starting point for future studies.

Educational Culture. Analysis of the interviews suggests that these students' "educational cultures" initially orient them toward, or aid them in developing preferences and expectations for certain teaching and learning methods. The educational culture literature on students from China is dominated by the contrast between Confucian and Socratic cultures of learning (e.g., Tweed & Lehman, 2002). However, the idea of an educational culture was considered at a more granular level in the analysis of the data from this study. Furthermore, I relied upon the students to define the characteristics of their educational cultures. So, for example, Min describes an aspect that she seems to believe is characteristic of her educational culture when she describes her preference for a teacher-directed approach to learning. She says, "It depends upon the student thinking because actually for us, I'm not sure other international student, because for our Chinese student we like the things just, um, maybe we get used to the teaching style, the Chinese teaching style because the teacher will directly to tell you what will you see in the exams… we like something very straightforward" (P6.1: 296). Chun describes a similar belief, saying, "Um, I don't know, maybe it's also because of the Asian. They are not really used to this kind of active things. And they prefer to just receive those knowledges from the teachers" (P3.2: 403-405).

Three students seem to demonstrate that their educational cultures foster the expectation that some teaching and learning methods are more like public performances. In particular, Chun, Cheng, and Hugo seem to expect that asking the teacher a question or answering a teacher's discussion prompting question includes an aspect of publicly demonstrating what he or she knows. Thus, Chun believes that she must be certain about the topic or content before responding to a teacher's question, or posing a question of her own. Cheng, who was completing his final semester in his program at the time of our interviews, described his belief that maximizing on the learning opportunities that are presented at MSU requires him "to have the courage to be not ashamed to ask questions or make mistakes so that you can learn from that" (P7.1: 409). This striking statement and the surrounding context suggests to me that his educational culture prepared him to expect that he should not ask questions, and go to great lengths to avoid making mistakes. Similarly, Hugo describes a belief that making the most of his experience at MUS requires questioning, but that "knowing something" is an essential precursor to asking questions. He says, "Because, you know when I talk to professors or my tutors, I probably have to be well prepared on that. Because you have to ask questions. If you really want to ask something, you have to know something" (P1.1: 64). Technically speaking, a performance is typically an event in which the players have rehearsed their presentations. The interviews with these three students suggests to me that they expect that posing and responding to questions in the classroom context are events that require adequate preparation for public performance.

A third and very revealing example of the influence of educational culture centers on the beliefs and expectations that all seven students demonstrate related to their experiences with in-class discussions at MSU. There seems to be four aspects to how they think about and conduct themselves in such discussions. First, all seven students reported that in-class discussions were

not a regular part of their educational journeys in China. Mei, who completed undergraduate and master's degrees in China, very strikingly explains her limited experience in China with "interactive opportunities" like these:

> So sometimes we have small groups, you know, small class. Maybe we, uh, maybe 30 or 40 person in class, but sometimes where we have big classes like here, about 100 people. You know, but most of it is lecture. And, actually, the interactive opportunities is little with the professor. Usually the professor gives the speecher, give the speech, uh, the lecture, and then, yeah, that's about it. And then the students just show up and listen. (P4.1: 52)

Min's report regarding her undergraduate experience is very similar: "The bachelor's degree-, the courses, the teacher almost the whole class is the 45 minutes, an hours, the teacher's just talking. He just seldomly asked student questions, so you will seldomly have a chance to raise your hand to answer questions" (P6.2: 634).

Second, the students in this study reveal a belief that their Chinese peers at MSU share the expectation that students should not, as Hugo says, "talk too much or share too much things during the class" (P1.2: 332). So for example, even though participating in a class discussion is foreign to his experience in China, *and* he sees himself as exceptionally outgoing, Hugo demonstrates that he is cognizant that he appears to his Chinese peers to be violating a cultural norm. He says, "We share the same culture on that. If I talk too much or share too much things during the class I will be just shrink a little while for my talking. That I shouldn't be so strange with my Chinese classmates (P1.2: 332).

Related to this is a third aspect, which seems to be a set of expectations for how students should participate in class discussion. That is, the students did not experience very much in-class discussion during their education in China. However, the relatively few in-class discussions that they experienced were governed by a particular set of expectations, which they brought with

them to their experiences at MSU. Huan explains her beliefs about the expectations for how students participate in class discussion in China, saying,

> As I recall when I study in, in China, professors will, uh, ask the question and then like, it's kinda like have a standard procedure. "Who understand these questions?" Ok. Then students will think about it short time and then raise your hand, and then professor will say, "You can ask this question." The student will stand up or just sit there, but, uh, speak out. That's kinda like a procedure. So, but here it's kinda like what-, after professor ask question the students just speak out or sometimes they will raise their hand, uh, even during the lecture. (P5.2: 397)

Thus, Huan's "educational culture" oriented her toward certain expectations for how students should conduct themselves during in-class discussions.

Finally, a fourth aspect of the influence of educational culture is evident in Huan's description of the "standard procedure" for in-class discussion: "Then students will think about it short time… (P5.2: 397). That is, based upon their previous experiences in China, the students in this study seem to expect that participating in class discussion first requires preparation. Again, if viewed as a type of performance, in-class discussion requires some level of rehearsal. Min's description of the contrast between her expectations and the reality she encounters at MSU is remarkable:

> So then, and the peoples, I guess, aren't very respect. And h-, the American student, seems like once they have some ideas they immediately to say. And the Chinese student, they would not. They would prefer to-. If they have a topic, they would think. They would think deeper, deeper. And until they have a comprehensive ideas, they will talk. (P6.2: 650)

The potential implications of the distinction these students are making here will be discussed in greater detail in the following chapter.

Educational Level. Analysis of the interviews suggests that these seven students adjust their approaches to learning according to their expectations for the particular level of learning. That is, the transcripts reveal that these students have clear distinctions in mind related to expected outcomes for high school, undergraduate, and graduate levels of study, and the

particular types of teaching and learning methods that correspond with each level. Interestingly, a theme was evident among the Engineering students, and a second theme was evident among the MBA students.

The Engineering students, Hugo, Wei, and Chun, seem to think about the differences between high school, college, and graduate study as a progression from dependence upon the teacher to increasing independence as a learner. So, for instance, Hugo says, "In high school most of the things the teacher will tell you how to do it, but in college… you have to learn all by yourself" (1.1: 256). Similar to Wei and Chun, Hugo goes on to say that students have to take on more responsibility as graduate students. Chun describes how this independence and responsibility takes shape practically with comments on the differences between laboratory experiments and projects on the undergraduate and graduate levels: "Actually we have those kind of lab things in undergraduate studies, but this course is kind of different from the other courses because for this course, *we* have to choose some topics *we* really interested in and then and design the experiment *ourselves*" [emphasis hers] (P3.1: 56).

The MBA students, Mei and Huan, seem to think about the purpose of undergraduate studies as preparation for further study, in contrast to their thinking about graduate studies as preparation for life as a professional. Huan describes her undergraduate experience as unique because the university she attended is known for preparing students for further study. She says, "The university, they kinda emphasize, uh, very solid knowledge they can teach, uh, university undergraduates. So they spend a lot of time to teach some very general, uh, subjects. Which the-, had a good intention that can give you a very solid foundation so that you, in the future, you can go further, uh, higher education" (P5.1: 122). Mei also described her experience as unique because she completed undergraduate and master's degrees in China before enrolling in the

MBA program at MSU. However, her expectation about the purpose of her undergraduate program is the same as Huan's. That is, she believes that her undergraduate study of biology provided the knowledge needed to develop as a biological researcher in her first master's program. In the end, both students believe that the purpose of the MBA program is to be prepared as a business leader. Mei describes this, saying, "Maybe for MBA program it don't really, you don't really know very detail for every subject. It's a program for creating a leader in the future" (P4.1: 347). Huan echoes this, saying, "So, so, for MBA, I think we are not here for researching. We are here to learn how to interact with other people. We are learn, uh, learning how, uh, what are the subjects. So it's a combination, not-, so I call it applied subjects" (P5.2: 568).

A theme did not emerge from the two students in the master of public policy program. However, Cheng described a clear distinction between high school and college. For high school he said that the teaching and content is "very straightforward" (P7.1: 16; 20), and that teachers closely follow textbooks and prepare students for exams. For undergraduate studies, Cheng said that there is more "flexibility" (P7.1: 51), which he clarified as requiring students to take more personal responsibility for their learning. He says, "But in college you have the same amount of class. But professors know that you've already grown up. So it's your responsibility, now we won't push you that hard. So it's all about how you're going to organize yourself in the best way you can to learn the things you want to learn" (P7.1: 66). Unfortunately, Cheng never got to the point of describing the distinctions that he makes regarding studying at the graduate level. Instead, he spoke in broad terms regarding education in China being "discipline driven" in comparison to education in the U.S. being "more about the creativity of the students themselves" (P7.1: 102).

Min, the other student from the master of public policy program, made a striking statement about the distinction she makes between undergraduate and graduate studies. She says, "The level is lower, and all the things you learn it just under, shallow than… And, but when you coming to the graduate, uh, even you learn the similar to, similar subjects and, and you feeled very different and thinks very, very deeper" (P6.1: 113). She goes on to say that graduate programs allow students to "get deeper in that major" (P6.1: 117) by requiring them to integrate course content through comprehensive projects and assignments. For instance, she describes one project as requiring students to choose a policy topic, defend the choice, determine which methodologies to use, and evaluate the effectiveness. "It's very, take a lot of time… you start to evaluate a lot of things, you learn during the whole semester, you are use in these projects" (P6.1: 259).

Socialization in Program. The students in this study seemed to exhibit and describe a process of developing preferences for new or different expectations and learning methods by way of the cues from their classmates, professors, and others' descriptions of the process and purposes of their programs at MSU. Mei provides an easy example of being socialized toward a new approach to reading assignments. She says, "I mean for the first semester is, you know the impression is too many reading, and then I tried to read them all. But later on my supervisor, I mean my GA supervisor, told me, 'No one ever really read them all'" (P4.1: 118). Mei goes on to explain how she quickly became selective on the type and degree to which she chose to engage certain learning methods and assignments.

A comprehensive review of the transcripts and other research materials reveals an apparent relationship between potentially socializing forces and student expectations and preferences regarding two categories of coursework. The program descriptions and syllabi are

obvious tools for socialization. Thus, it isn't surprising to observe a relationship between program descriptions as including "foundational learning" (Michigan State University, 2013d) and "core courses" (Michigan State University, 2013a; 2013e), and students' expectations that some learning is, as Cheng says, "basic" and "number driven" (P7.1: 147) while other coursework is "more complicated." Chun explains the distinction, saying, "I think basically it's just lectures and courses, but I think because that course is one of the fundamental courses required here before you learn other subjects. So you have to understand those basic things before you move on to those more complicated things" (P3.2: 243). As discussed earlier, students in this study seemed to distinguish between two categories of courses: (1) basic courses that are relatively straightforward, and (2) courses that are characterized by the complex nature of the content. As a result, students seem to expect that the first category of courses in their programs at MSU will include relatively passive teaching and assessment methods (e.g., lecture and exam), while the second category of courses will include more active and rigorous teaching and assessment methods (e.g., seminar and independent major project).

A second apparent relationship between potentially socializing forces and student expectations relates to the expected outcomes for the academic programs. Again, there are tensions and overlaps between the three categories of influence that are offered here. Thus, the MBA students expect that the program at MSU will equip them as professionals, which might be an expectation that is influenced by their perceptions of the outcomes that are associated with a graduate level program. In addition, the socializing forces of program descriptions and course syllabi may influence their expectations regarding program outcomes. So, for instance, the MBA program is advertised online as one in which students develop "the roll-up-your-sleeves work ethic sought by top employers" and as strengthening students' "ability to solve global business

challenges" (Michigan State University, 2013b). Similarly, students within the Public Policy program demonstrate a belief that the program equips students with knowledge and abilities that are, as Min says, "very useful and more specific and more practical" (P6.1: 270). Cheng describes an incident in which one of the professors in his program seems to socialize him toward this expectation: ""He just say, 'Okay, you're proposing some kind of policy idea. Just suppose I'm the mayor and you propose.' When [the professor] criticize you, we just shocked. The first person just don't know what the hell is going on… But when you think about it and when you get through that process, you came to understand that we really learn much more from that process" (P7.2: 269).

Finally, a third apparent relationship between potentially socializing forces and student expectations relates to the freedom and responsibility that students have to choose their academic path. On the one hand, the syllabi and program descriptions are replete with references to this flexibility: "Our flexible program lets students select a concentration and craft their own plan of study" (Michigan State University, 2013d); "the student is expected to work with their advisor to develop a Program Plan that meets the academic needs and interests of the student" (Michigan State University, 2013e); and "we will meet to (individually) to cover the requirements of the course and to discuss your ideas for the policy analysis project… You are to choose a committee of three to oversee and review your project" (Policy Analysis Workshop Syllabus, p. 1). On the other hand, students demonstrate a belief and expectation that their programs at MSU provide them the freedom and flexibility to choose their individual paths. As discussed earlier in relation to the "self-directed" theme, participants revealed a believe that they should choose their path and level of participation in courses and learning activities according to their interests, background and experience, and aspirations for the future. Hugo describes this perfectly:

> The final destination for the students is the personal goal, personal goal or their target, whether they just want to get a diploma and want to get a job here, they want to further the study for the master students-, for the study as a doctor or PhD students. The course, which course they should choose is helpful for them… This just probably based on their experience… One thing is if you employee already, which course you think you will be so helpful for you in the future career path. That will be so helpful for them to be decided for the future" (P1.2: 622).

Thus, it seems that the students have potentially developed preferences and expectations based upon cues from their classmates, professors, and descriptions of their programs at MSU.

Summary of Findings

Analysis of the interviews with the seven student participants revealed five themes regarding how they make sense of the learning activities they experience in their programs. 1) *Relationships* with teachers and classmates are essential to their ability to manage the learning activities in their courses. Participants expect that they should be reliable and able to rely upon their classmates and teachers; discussion is an important component in the relationship with classmates; the relationships with teachers and classmates require careful management; and relationships with professors and peers are opportunities to develop the social network and social skills that are needed for success in their future vocations. 2) Participants revealed beliefs that indicate a sense of *self-directedness* in how they approach the learning activities they encounter. They choose when and to what degree they will participate in learning activities with an eye toward how well they are developing proficiency in the areas that they believe are important. In this way, they take personal responsibility for their learning, and access teachers and classmates for guidance and assistance along the way. 3) *Culture* is a factor in how participants make sense of the learning experiences in their programs. They describe particular differences between Chinese and American educational cultures; difficulties that result when professors use and rely

upon culturally imbued words, phrases, and examples; and the need to navigate cultural differences in learning activities such as class and small group discussion. 4) Opportunities to *apply* course content to realistic scenarios provide a base of experience for grasping the content in meaningful and durable ways; provide a means of measuring learning progress; and serve as an indicator of a well-designed and well-implemented course. Finally, 5) participants sometimes encounter *barriers* in learning activities in regards to speaking English; working with classmates who have points of view that are vastly different from their own; and participating in class and small group discussions when domestic students are aggressive and dominate the conversation.

I identified three overarching themes through further analysis of the five recurrent themes. A major aspect of how the participants in this study make sense of the learning activities they encounter in their master's programs is an acknowledgement and awareness that there are overall differences between how they approach teaching and learning compared to their professors and domestic peers. The second and third overarching themes complement each other well. On the one hand, the participants describe and demonstrate a highly individualistic approach to the way they engage the learning activities in their programs. That is, their individual interests, preferences, background, and vocational aspirations are the basis for how they approach the educational context. On the other hand, they heavily rely upon the relationships with their professors and peers in order to accomplish this highly individualistic pursuit.

Further analysis revealed that the students in this study seem to be influenced in at least three ways in regards to their preferences and expectations for certain teaching and learning methods: educational culture, educational level, and socialization. While the norms associated with their previous educational experiences are influential in shaping how they make sense of the

active teaching and learning methods they encounter in U.S. classrooms, so too are their expectations for the outcomes of a graduate level education and the cues from their classmates, professors, and others' descriptions of the process and purposes of their graduate programs.

CHAPTER FIVE: DISCUSSION OF RESEARCH FINDINGS

Review of Goal, Research Question, and Data Analysis

The goal of this study was to better understand the cultural dimensions associated with the active learning methods that teachers often use by examining international students' experiences in U.S. master's programs. The guiding question for this study was: Within higher education classrooms in the United States, how do master's students from China make sense of their experiences of active learning methods?

As explained in Chapter Three, the data were analyzed using phenomenological methods. I conducted one preliminary interview (5-15 minutes) and two 60 to 90-minute in-depth interviews for each student participant asking them to describe their experiences with the teaching and learning activities that they had encountered in their master's programs. Analysis of their responses was an iterative and lengthy process, which included transcribing interviews verbatim, reading and commenting, coding and commenting using MAXQDA computer software, clustering individual themes, drafting individual textural descriptions, clustering the themes across the group, and drafting a composite textural description. The textural descriptions were validated by comparison to the transcripts, interview notes, classroom observation notes, and documentary evidence (see Chapter Three for a complete description of how the data were analyzed).

Organization of Chapter Five

The purpose of Chapter Five is to discuss the research findings in relation to the relevant literature, existing theory, practical implications, and how they might inform future research. The chapter is organized into five major sections. An overview of the research findings will be

presented in the first section. A discussion of how the findings align with, contrast, or challenge the relevant literature will be presented in the second section. In the third section, the findings will be interpreted through existing theory. Practical implications will be presented in the fourth section in regards to welcoming international students to U.S. classrooms, maximizing on the range of activities that foster active learning, indicators of an internationalized educational experience, and the complex dynamics involved in integrating international students. The concluding section will offer a perspective on the potential usefulness of the research findings, and suggest areas for future research.

Overview of Findings

This study investigated the experiences of seven students from China enrolled in three different master's programs at a U.S. public research university: Master of Business Administration, Master of Public Policy, Master of Science in Environmental Engineering. Analysis of the interviews with the student participants revealed five themes relating to how they make sense of the teaching and learning methods that they experience in U.S. classrooms: *relationships* with teachers and classmates are important to each of the participants as they manage the learning activities in their master's programs; they are *self-directed* in choosing their path and level of participation in learning activities according to their interests, background, and experience; *culture* is a factor in how they make sense of their experiences in U.S. classrooms; they value opportunities to *apply* course content and ideas to realistic problems and situations; and they encounter *barriers* related to English language, different ways of thinking, and classmates who dominate discussions.

The five recurrent themes were further analyzed, using the iterative process described earlier, which resulted in three overarching themes regarding how participants make sense of the learning activities that they encounter in their master's programs: they acknowledge differences between their educational experiences in the U.S. and China; they describe and demonstrate a very individualistic approach to how they engage various learning activities in their programs; and the relationships with their professors and peers are essential to success in their programs. Further analysis suggests that these students' preferences and expectations for certain teaching and learning methods were influenced in three different ways: educational culture, educational level, and socialization.

Findings in Relation to the Literature

The purpose of this section is to discuss how the findings from this study align with, contrast, or challenge the relevant literature. The discussion will draw upon aspects of each of the themes and how they relate to 1) faculty perceptions regarding international students' preparation to satisfactorily participate in learning activities that are expected to foster deeper learning outcomes, 2) previous accounts of problems resulting from a lack of English language proficiency, 3) the level of continuity between how participants make sense of their experiences and constructivist orientations to learning, and 4) beliefs about the preferences for learning that students from China possess. The discussion in this section will serve as a basis for discussing the findings in relation to theory in the next section.

Deeper Learning Outcomes in Master's Programs. The literature suggests that master's programs are ideal locations for achieving the goals associated with capacity building (World Bank, 2002) because they provide opportunities for more narrowly focused and in-depth study in

particular fields (Conrad et al., 1993; Glazer-Raymo, 2005). In addition, the literature suggests that master's programs are being redesigned in efforts to foster deeper learning outcomes that include cognitive, interpersonal, and intrapersonal components that are relevant across a variety of professional contexts (Andrews & Tyson, 2004; Boyatzis & Saatcioglu, 2008; Brookfield, 2000; Katz, 2005; Conrad, Duren, & Haworth, 1998; Kasworm & Hemmingsen, 2007; Wilson & Hayes, 2000). The results of this study affirm that this transformation is taking place. The participants in this study acknowledge and express appreciation for the learning activities in their master's programs that simultaneously require and develop presentation and interpersonal communication skills (Hugo, Wei, Chun, Huan), self-reflection (Huan), creativity (Wei, Min, Cheng), an attitude toward lifelong learning (Wei, Min), ability to work with people from different backgrounds (Hugo, Wei, Mei), and confidence (Mei, Huan).

All of the participants seemed to be especially attuned to gaining the interpersonal and intrapersonal skills that are transferrable to a variety of contexts. They readily acknowledged that these were not emphasized in their previous educational experiences. Each of the participants implied or overtly said that, for instance, presentation and communication skills are essential to success in their vocations, but that they had very limited previous experience with developing those skills. Thus, an initial interpretation of these findings challenges faculty perceptions that international students are not capable of participating in learning activities that are designed to achieve a broader set of outcomes because they have not developed the skills needed for autonomous study (Kingston & Forland, 2008), they prefer or require step-by-step directions (Wang & Li, 2011), explicit instruction, and do not possess the research skills needed to work independent of a faculty supervisor (Adrian-Taylor et al., 2007; Kingston & Forland, 2008; Strang, 2008). Instead, the participants in this study demonstrate an eagerness to engage the

learning activities that develop interpersonal and intrapersonal skills, being aware that such skills were not emphasized earlier in their education.

English Language. One of the most striking findings is in regards to how the students in this study seem to make sense of English language proficiency as a barrier to participating in learning activities, especially compared to the perceptions of some professors. Some professors perceive that international students are not capable of participating in active and collaborative learning methods because they do not possess an adequate level of English language proficiency (Andrade, 2010; Adrian-Taylor et al., 2007; Brown, 2007; Fallon & Brown, 1999, Kingston & Forland, 2008; Trice, 2003, 2005; Xu, 1991). Students in this study report that this is typically true when they first begin the program. As Wei explains, it is "the first biggest problem" (P2.1: 378) for most international students. However, by the second semester, English language proficiency is not necessarily the barrier to participation that it is believed to be. Instead, some students in this study report that *confidence* in one's ability to speak English is sometimes a barrier. In addition, sometimes their domestic peers are not willing to accommodate second-language speakers. As Min says, "because you still have language problems and so during the talking you still have some problems, so maybe that kind of people they will not, um, they will not, so-, so-, they would not love to talk with you maybe, yeah" (P6.2: 104). As the literature suggests, native speakers of a host language sometimes have difficulty comprehending perfectly intelligible language that is accented if they do not allocate sufficient effort or processing time (Derwing, Rossiter, & Munro, 2002). Still, the research findings suggest that there may be more at play than just technical aspects of speech.

Constructivist Orientation to Learning. The literature suggests that although constructivism does not prescribe specific teaching methods (Kirschner et al., 2006; Mayer,

2004, 2008, 2009; Richardson, 2003), there are five characteristics to teaching methods that are grounded in a constructivist orientation to learning: 1) attention to individual student backgrounds; 2) group dialogue; 3) introduction of domain knowledge through a variety of instructional methods; 4) tasks that allow students to challenge, change, or enhance their understanding; and 5) develop students' awareness of their own understanding (Richardson, 2003). A correlation can be seen between these five characteristics and the values that the participants in this study express in regards to how they make sense of the learning activities that they encounter in their master's programs. That is, many of the preferences that the participants in this study describe seem to resonate with a constructivist orientation to learning.

One of the primary components of "self-directed" as a theme is that the participants see a direct link between the effectiveness of a learning activity and the degree to which it builds upon their prior knowledge and experience. This correlates with Richardson's first characteristic of teaching according to a constructivist orientation to learning: devoting adequate "attention to the individual and respect for students' background" (Richardson, 2003, p. 1626). There seems to be a correlation between the second characteristic, group dialogue, and elements of the theme "relationships." Participants in this study place value on learning activities that provide opportunities for them to discuss course content and ideas with their peers. Such opportunities, they say, help them to gain different perspectives, to, as Chun says, "have a clue" when they encounter difficulties (P3.1: 346), and to refine their understanding by arguing for and defending their view of a topic. The theme from this study associated with the third characteristic of teaching according to a constructivist orientation to learning, introduction of domain knowledge through a variety of instructional methods, is "application." In particular, participants in this study acknowledge the value of instruction from the professor and supporting materials, such as

textbook and journal article readings. In addition, they place high value on learning activities that allow them to activate that domain knowledge through practical, application-oriented projects and assignments.

Richardson's fourth characteristic, engaging students in tasks that allow them to challenge, change or enhance their understanding, seems to correlate with aspects of the "relationships" and "application" themes. For example, Min placed high value on having positive and productive discussions with her classmates because she believes "they can lead me to have a new… understanding" (P6.2: 166). Also, the cycle of 1) knowing, 2) applying, 3) not knowing, 4) applying, and 5) knowing that Cheng describes, discussed in the "application" theme, illustrates the value that he places on activities that challenge, change, or enhance his understanding of a topic – especially in that first opportunity to apply what he believes he knows. Finally, Richardson's fifth characteristic, "development of students' metawareness of their own understanding and learning process" (2003, p. 1626) seems to correlate with the assumptions that participants in this study demonstrate related to their own self-directedness. That is, a primary component of being "self-directed" is taking responsibility for one's own level of competency and monitoring progress toward proficiency. In addition, the students in this study value application-oriented learning activities because they serve as ways to measure their own level of proficiency. In fact, in response to the interview question, "How do you know when you have learned something?" most participants responded by saying that using the course content appropriately for a project, case analysis, or experiment is their preferred way of monitoring their learning progress.

When considering the educational backgrounds of this study's participants, this correlation might seem odd – the correlation between the values that the participants in this study

express and the five characteristics of teaching methods that are grounded in a constructivist orientation to learning. Each of the participants describes educational backgrounds that do not seem to be consistent with constructivism. A prevailing stereotype suggests that students from certain educational backgrounds are limited in their ability to maximize on more progressive approaches to teaching and learning. Again, Harris (1995, p. 78) articulates the stereotype, saying:

> One consequence of full-cost fees is that many overseas students now originate in Pacific Rim countries, whose educational cultures characteristically value a highly deferential approach to teachers and place considerable emphasis on rote learning. This approach, of course, promotes surface or reproductive learning, which is at variance not only with the more intellectually robust and egalitarian ambience of many arts and social science faculties in UK universities, but with officially encouraged teaching innovations which utilise participative methods and problem-solving strategies to ensure deep transformational learning.

Objections to Harris's stereotype notwithstanding, it raises the question of the relative impact of a student's "educational culture" on how he or she approaches a new educational context. An initial interpretation of the results of this study is that educational backgrounds play a role, but so, too, does educational level and the power of socialization.

In regards to educational level, each of the participants seemed to think of high school, undergraduate study, and graduate study as fulfilling three different functions. For high school, the primary goal is to score well on the National College Entrance Exam in order to get admitted into a highly ranked university. The primary function of a bachelor's degree, for some students, relates to being trained for a particular vocation. However, for each of the participants in this study, the purpose of their undergraduate education was to gain the foundational knowledge needed for further study. The primary function of a master's program is to develop expertise and leadership qualities in a particular field. Thus, they are flexible in choosing approaches to learning that suit the associated goals. So, for instance, Hugo describes the approach to high

school as emphasizing memorization of standard content and practicing for the exam. He says, "A lot of quizzes. It's, kind of, just the practice, the same thing when you, when you get in the, uh, classroom, take the College Ent-Entrance Examination. That's totally the same. It's just, uh, imitate the status and do it" (P1.1: 222). Although their college experiences were quite different from high school, the experience of gaining the foundational knowledge for further study seems to be characterized as highly teacher-directed and exam-based. However, there seems to be a significant shift in the ways the participants approach their master's programs based upon the particular goal of developing the ability to manage real-world situations. For example, Mei says that she is not concerned about knowing every detail for every subject, unlike in high school, because the MBA is "a program for creating a leader" (P4.1: 347). Similarly, Wei says that the MSEE equips him with knowledge and skills that he "can apply to real world, which increase my job capabilities" (P2.2: 826). These expectations about the function of a master's degree arguably orient the ways that students approach their coursework, with emphasis on monitoring their learning progress and engaging learning activities that they believe will help them to develop as professionals in their fields.

In addition to the influence of a student's educational background and expectations for a particular level of education, socialization into a program seems to partly explain why the participants in this study approach the educational context in the ways that they do. For example, Mei explained that she felt overwhelmed by the amount of assigned reading in her first semester in the MBA program, but then, she says, "my GA supervisor told me, 'No one ever really read them all'" (P4.1: 118). She goes on to explain that there is a lot of teamwork in the program, which is very different from her experiences in her bachelor and master's degree programs in China. She says, "But here is, you know, you need to have a lot of team projects… So this is the

biggest difference but which I like. I mean teamwork I like because this is one of the selling point of this program maybe" (P4.1: 128). Indeed, the MBA at Michigan State University is marketed as such: "Our team of dedicated faculty challenges students to develop creative solutions to today's business realities in a team-focused learning environment at one of the world's top universities" (Michigan State University, 2013b). In addition, teamwork is clearly emphasized throughout the curriculum with regularly assigned team projects and presentations. It seems feasible that students with very different educational backgrounds develop preferences for new approaches to teaching and learning by way of the cues from their classmates, professors, and others' descriptions of the process and purposes of their programs.

Preferences for Passive Learning. The findings from this study suggest that the conclusions that some professors are drawing from their observations of students from China may be incomplete or altogether inaccurate. They might conclude that students from China prefer passive teaching methods and approaches to learning when they observe some students relying upon memorization, being especially attuned to or preferring lecture, and withdrawing from class and small group discussions. As discussed earlier, many researchers and faculty members at institutions that receive students from developing countries perceive learners from Asian countries as heavily dependent upon memorization (Harris, 1995; Marton Dall' Alba, & Tse, 1996; Phillips, 1990; Samuelowicz, 1987). Indeed, participants in this study report that they relied upon memorization for success in high school, but less so in their undergraduate programs, and even less in their master's programs. They report that they use memorization in their master's programs when they knowingly lack understanding, when the content is "foundational," when a factor such as lack of confidence is at play, or when a course is designed in a way that fosters the use of memorization for success. Analysis of the interviews for this study shows that

these instances are the exception and not the rule. That is, the students in this study reveal that they prefer more active teaching and learning methods, which they believe are more effective in helping them to develop expertise in their fields. Hugo, an Engineering student, makes a striking statement that adequately represents his peers in this study:

> For some courses it's more dependent upon the memory. That's something I don't like so much. It's kind of-, you spend one or two days before the exam, you reading it and try to memorize them. You will get a really high score on that. But if you try to understand them and don't remember all of them-. It's-, you will still get a reasonable score, but not so high as those just-, that just remember them. So, it's probably not so well for me. Because I like to see that you can remember them and speak them out with your own way" (P1.2: 337).

He goes on to explain that he prefers, as a contrast to memorization, to "really understand it," which requires him to "dig it deeper" (P1.2: 383).

Similar to memorization, some professors might assume that students from China prefer passive approaches to learning as opposed to more active and collaborative learning methods when they see students withdraw from class and small group discussions (e.g., Bartlett & Fischer, 2011; Xueqin, 2011). Participants in this study sometimes withdraw from class and small group discussions when they don't believe they will get a chance to participate because one or more classmates dominate the discussion, and when they do not feel confident that they have the requisite familiarity for meaningful participation. This concept of needing to achieve a certain level of competency or understanding before participating in class discussion is an important one that will be discussed further in the next section. Participants also acknowledge that they did not previously experience class discussion very much, and that there might be social risks associated with being too active in class discussion. However, they value discussion for the opportunities it provides to encounter different ways of thinking, to overcome difficulties with new content, to increase their understanding of a topic, and to monitor their learning progress. As

Min says, “Every time I felt I learned a lot is because, uh-. Because I can successfully to, to discuss the problem with our little group” (P6.1: 334). An oft-repeated phrase in the interviews was, “it’s always a complicated story.” In this case, it may be over simplistic to assume - based upon observations of withdrawing from class and small group discussions - that students are opposed to active and collaborative learning methods and favor more passive approaches. The story is always complicated.

Analysis of the interviews for this study suggests that the story about lecture is also complicated. The participants in this study reveal that they place high value on teacher lecture, which might lead some professors to assume that students from China have difficulty engaging more active and collaborative learning methods. The lecture, along with demonstrations by the teacher, is a staple of the *behaviorist* orientation to learning that was prevalent for many years in American education (Smerdon, Burkam, & Lee, 1999, p.7). As Richardson (2003) suggests, efforts at assembling a *constructivist* teaching theory has primarily resulted in a ‘do not’ list, which is topped by lecture and other methods that could be considered as transmission teaching. Min, a student in the MPP program, describes the preference for lecture that she and her Chinese peers might have, which she attributes to educational heritage:

> It depends on the student thinking because actually for us-. I’m not sure other international student because for our Chinese student we like the things just, um, maybe we get used to the teaching style, the Chinese teaching style because the teacher will directly to tell you what will, what will you see in the exams and so sometimes we will, we, we like the teacher to spend too much time on that kind of information even though we would know the information is maybe interesting or maybe related with our the thing we learned, but we like something very straightforward (P6.1: 296).

Although she admits that she has developed a preference for lecture, she later demonstrates and acknowledges that lecture is most effective in the foundational courses in which “I totally not familiar with that topic” (P6.2: 174), and least effective in the advanced courses – namely, the

Public Finance course. Like her peers in this study, she prefers realistic projects in the advanced courses as a way of integrating and solidifying the content. She says, "So it just like, to put all the things you learned in the whole semester together. By your own self" (P6.2: 212).

The story on lecture is further complicated by the beliefs that the participants in this study demonstrate and describe regarding the conditions for lecture to be helpful. On the one hand, they describe lectures that are not helpful as consisting of an overwhelming number of PowerPoint slides that are packed with information that the teacher reads, which are typically distributed after class. For this type of lecture, as Wei says, "what's the point of listening? I can read it" (P2.2: 234). On the other hand, lecture is helpful when there are cues in the PowerPoint presentation about the relative importance of certain information, and the teacher fills in the gaps with explanations and examples. This form of lecture, participants report, requires them to pay attention and typically helps them to grasp the material being presented. A curious finding is the tension that Hugo describes regarding taking notes during lectures. He says that note taking helps him to remember and review the information. However, he says that taking notes distracts him from thinking about the information during the lecture. He says, "I think is contradictory… I cannot do it well, I cannot think well when I am writing. It's most of things I am writing and I stop it. I think a little while and keep writing" (P1.2: 221). Each of these points indicates that these participants are not approaching lecture in a "passive" way. That is, they might be behaviorally inactive, but they seem to be cognitively engaged in making sense of the content. This is another important point that will be discussed further in the next section.

Findings in Relation to Theory

This qualitative exploration into how seven students from China make sense of their experiences with the teaching methods they encounter in U.S. master's programs has provided insight into the complexities of the contexts they encounter. In the following section, these perspectives will be interpreted through existing theory, including theories of deep learning, constructivism as a theory of learning, theories of educational culture, and theories of power.

Deep Learning. The students in this study were asked, "What does it mean to learn something? How do you know when you have learned something?" Their responses, along with other comments throughout the interviews, reveal a few distinct ways in which they conceptualize learning. Wei, Chun, Mei, and Min explicitly say that they know they have learned something when they get a chance to use it. Importantly, they each distinguish between a surface level of learning, and a deeper and more durable level of learning. For Wei, learning may result from reading a journal article or the news, but it is not necessarily deeper and more durable until it has been put to the test by "using it." Mei actually distinguishes between a "shallow" level of learning that is quickly forgotten, a deeper level that is more durable because of a chance to apply it, and a third level of learning that lasts forever – like riding a bike or driving a car. For Min, a person can be familiar with something without really learning it. Instead, she knows she has learned something when she is able to use it successfully, which is a process of making it her own.

Hugo, Mei, and Cheng express a second way of conceptualizing learning. They contrast rote learning with learning that results in the ability to confidently articulate the concepts or ideas in their own words. Hugo explains what it practically means to experience deep learning, saying, "It's just the basic knowledge underneath. If you know that, you will understand why people can

choose this way not that way, or why-, or the basic logic lie behind that. It will help you to understand further. Probably you cannot understand the name of the different segments, but you will understand why they do this, why they do that" (P1.2: 385). For Cheng, a person can "learn" something without really understanding it. He believes that deeper learning, which includes understanding, is evident when he can fully explain the concepts or ideas in his own words.

Mei and Huan, the two students in the MBA program, express a third way of conceptualizing learning. For Mei, deeper learning in the context of the MBA program is a process of being formed as a leader – not just gaining textbook knowledge of technical terms, formulas, and calculations. Huan defines this deeper level of learning as involving cognitive, interpersonal, and intrapersonal development. That is, she expects that learning within the context of the MBA program will result in field-specific knowledge; the ability to resolve conflicts, respond to other people's demands, build a cohesive and productive team, and communicate effectively with others; and the ability to acknowledge and manage her own feelings in a high-pressure professional context, and to imagine a problem from a different point of view.

The views of learning that these students describe go beyond the stereotypical ideas of learning as memorization. There appear to be more sophisticated and more mature understandings of what it means to learn, even in comparison to some of the perspectives that domestic students may espouse. As described earlier in the literature review, various orientations to learning, the ways that deeper, more meaningful, and more durable learning are conceptualized, and the teaching and learning strategies that follow are born out of systems of belief that are generally shared by particular groups of people at certain points in time. They are cultural phenomena. However, as illustrated by Nisbett (2003), they are often regarded as

'universal.' As a result, when learners struggle, the focus is typically on the ways in which the learner is deficient (e.g., she's a surface learner).

When viewed through the lens of theories of deep learning, these students appear to be oriented toward views of 'deep' learning that emphasize the cognitive dimensions of a rational process. That is, they conceptualize deep forms of learning as rational processes that depend upon the interaction of experience and cognition, which is characteristic of, for example, Fink's (2003) model of "significant" learning and Mezirow's (1978, 1991; Mezirow & Associates, 2000) model of "transformative" learning. So, the results of this study do not necessarily reveal a new or different way of understanding deep learning. Instead, the results of this study raise the question of what types of teaching and learning methods more closely align with how these students conceive of deep learning. From a theoretical perspective, the way of thinking about deep learning *and* the teaching and learning methods that correspond are culturally imbued. Thus, the information and descriptions of the lived experiences of these students provides a starting point for developing a framework for understanding the complexities involved in fostering deeper, more meaningful, and more durable learning across cultures.

Constructivism and Educational Culture. Participants in this study acknowledge the value of class and small group discussions, but were sometimes puzzled by how and when such discussions were conducted. When speaking about a seminar-style course, Min describes her puzzlement with how eager her domestic peers were to participate in class discussion without the benefit of a more comprehensive understanding of the topic:

> The American student, seems like once they have some ideas they immediately to say. And the Chinese student, they would not. They would prefer to-, if they have a topic, they would think. They would think deeper, deeper. And until they have a comprehensive idea, they will talk. Yeah, they don't-, this point they don't like [aren't like] American students. Americans have just little bit idea, and he will immediate to tell you, "Oh, I

have this thing, I think this maybe." Yeah (P6.2: 650).

Similarly, Cheng describes the importance of gaining a base of familiarity from the reading before participating in small group discussion about it: "So you have to read. If you don't read, you have no idea what's going on. You cannot participate" (P7.1: 356). In addition, the idea of problematizing or articulating a hypothesis about the topic is puzzling without first having a certain level of understanding. As Chun says, "Because you have to pay more attention to the teachers so you can understand certain part and then you, you can have your question about it. If you were, you were not sure about what the teacher is talking about, how can you get a question about it and how can you discuss it…" (P3.2: 411). Participants in this study seem to believe that domestic students prefer to discuss a topic *as* they are developing an understanding of it. By contrast, the participants prefer to engage in discussion *after* they have a relatively solid grasp of the topic. It seems puzzling to them to engage in class or small group discussion without first achieving a certain level of competency.

From a theoretical perspective, this challenges common assumptions about how constructivism as a theory of learning can be effectively translated into constructivist-oriented teaching methods. Mayer (2009) argues that constructivism is a useful learning theory, but that it is often regarded as a prescription for instruction. As a theory of learning, constructivism assumes that knowledge is actively constructed in the human mind. Mayer says, "It is tempting to also view constructivism as a prescription for instruction in which learners must be behaviorally active during learning (2009, p. 184). Mayer (2004) labels this the "constructivist teaching fallacy," which is the assumption that educators must foster behavioral activity in order to produce active learning. He proposes, instead, that educators recognize the power of behaviorally passive instructional methods for stimulating productive cognitive activity among

students who are being introduced to new content. He argues that instructional methods that foster behavioral activity can be ineffective at promoting active learning, especially when students lack a foundational level of understanding. He offers a matrix of high/low cognitive and high/low behavioral activity, as illustrated in Figure 1, as a guide for assessing the potential that an instructional method will promote active learning.

From a cultural perspective, it makes sense that the students from China might initially prefer passive instructional methods, like reading and lecture, when their American peers prefer active instructional methods, particularly discussion that includes debate and hypothesizing. The contrast between Socratic and Confucian cultures of learning is at the center of one explanation that has been offered for this possibility. That is, Socrates' ideas have influenced modern beliefs, values, and expectations about teaching and learning in America, and Confucius' ideas have influenced the educational culture in China (Jin & Cortazzi, 1998; Kim, 2003; Lee, 1996; Lloyd, 1996; Marsella, DeVos, & Hsu, 1985; Scollon, 1999; Tweed & Lehman, 2002; 2003; Woo, 1993). Chief among Socrates' influence is the emphasis on challenging widely accepted knowledge, encouraging students to question each other's beliefs, and on developing and articulating their own hypotheses (Tweed & Lehman, 2002). Thus, American students may be oriented toward learning methods that include animated discussions. By contrast, Confucius' emphasized acquiring foundational knowledge rather than articulating individual hypotheses, and submitting oneself to the authority of a collectively recognized exemplar (Tweed & Lehman, 2002). Students from China, then, may be oriented toward more passive learning methods.

Of course, a certain amount of caution is in order when attempting to make sense of student preferences through a cultural lens. As Holliday (1999) suggests, the temptation to impose a "large culture" view might exaggerate characteristics of a cultural group, which could

diminish the variations and variability within the group. However, each of the participants in this study make sense of some of the challenges they encounter in their master's programs in terms of differences between Chinese and American educational cultures, which seem to align with some aspects of theories of Socratic and Confucian cultures of learning.

Still, the participants in this study were sometimes puzzled by how and when class discussion was conducted, but they were not *opposed* to it. In fact, as previously discussed, the transcripts reveal that they prefer small group discussions and the benefits of class discussions. The timing of that discussion, however, seems to be the distinguishing factor. That is, the participants seem to prefer to have a certain level of competency prior to discussion. In terms of the furniture analogy that is often used in educational debates, they seem to prefer to get all of the furniture in the room before arranging it. By contrast, they describe domestic students as preferring to arrange the furniture as they move it into the room. Thus, the participants were puzzled that class discussion would take place so early in the process of learning. As Min says, "Americans have just little bit idea, and he will immediate to tell you, 'Oh, I have this thing, I think this maybe.' Yeah" (P6.2: 650). In the learning cycle that Cheng describes, the first "knowing" is naïve and incomplete. However, it is the basis for the first opportunity to "apply," which could take place in the context of a small group or class discussion. In regards to theories of learning, this raises questions about whether learning among graduate level students is best understood as a process of *constructing* or *reconstructing* knowledge. Or, in terms of the furniture analogy, *rearranging* content knowledge that has already been grasped at a minimal level may increase the ability for students to internalize that experience in lasting ways.

Power. As demonstrated in Mayer's (2004) argument about the prevalence of the "constructivist teaching fallacy," many professors in U.S. classrooms are still discerning which

methods are effective at fostering active learning among their students. At the same time, their classrooms are becoming increasingly multicultural as the percentage of students from abroad increases. Thus, for professors in U.S. classrooms, there is a cross-cultural dimension to evaluating the effectiveness of the active learning methods they employ, which adds a layer of complexity. In particular, the findings from this study suggest that a power dynamic may be skewing interpretations of Chinese students' experiences with active learning methods.

As an example, the participants in this study don't seem to see English language proficiency as the barrier to participation in active learning methods that some scholars and practitioners perceive it to be. Two points from Saïd's seminal work, *Orientalism*, could provide a helpful explanation for this occurrence. First, people often make sense of "raw reality" by placing it into familiar categories. Making sense of 'others' often involves describing them in terms of how they are *like* something that is known, which can be misleading or incomplete. The quest to make sense of why Chinese students aren't participating in class discussion could be more easily resolved by labeling them with familiar categories (e.g., they have an enduring preference for passive learning, they can't understand or speak the language).

Second, Saïd argues that Western descriptions of people in the East were particularly organized through a lens of power that perpetuated Western domination of the East. His point may be applicable to the experiences that the participants in this study describe. The issue of language, again, is potent in regards to revealing the power dynamic that might be involved. I was reminded of this on my way to an interview during the research for this study when I encountered a sign at the entrance to a classroom. It was printed on a quarter-sheet of paper in bold font: "Speak English!" (see Appendix AP). I was puzzled by the blank sheet of paper affixed below the sign, and tried to imagine that maybe it was a poorly named club for people

interested in practicing their English language skills. In the end, an administrator at the university English Language Center was adamant in saying that it was most certainly not related to any university sponsored English-speaking club or activity.

Bourdieu's (1991) assertion that language is an instrument of *action* and *power* helps to explain the "Speak English!" sign and, at least in part, the lack of confidence that participants in this study describe. In addition, it may explain why some domestic students, as Min says, "they would not love to talk with you maybe" (P6.2: 104). Language is not simply a tool for transmitting information, but, as Bourdieu argues, also serves to reinforce perceived power structures. It is possible that some domestic students reinforce a perceived hierarchical position over the foreign 'other' by pointing to language proficiency and equating it to social status. Also, some international students may be hesitant to speak because they sense a connection between their accented speech and a lower notch in the social hierarchy. As Bourdieu explains, "To speak is to appropriate one or other of the expressive styles already constituted in and through usage and objectively marked by their position in a hierarchy of styles which expresses the hierarchy of corresponding social groups" (1991, p. 54). In plain terms, a master's student from China with heavily accented speech and a relatively limited repertoire of English grammar may be equated – in language proficiency *and* social status – to a grade-school aged domestic student.

In the end, the data from this study seem to support many of the characterizations of how students learn in China. For example, memorization, lecture, and testing are primary components. However, there seems to be an accompanying belief that students from China have enduring preferences that preclude their ability to thrive in an educational context that is characterized differently. Instead, the findings from this study suggest that students are more flexible and adaptive to the demands of their educational environments, and to the goals

associated with the particular level of education. So, for instance, Hugo says that he became an expert at memorizing course content in order to achieve high scores during high school and undergraduate studies, but that he prefers at MSU to "really understand it, not just remember the words" (P1.2: 383) and to "create some new ideas" (P1.2: 425). Wei says that class presentations were not typical during his studies in China, but he believes that such assignments at MSU are opportunities to "dig into a topic" and "collaborate all the information we need and present it" (P2.1: 139). Chun expressed a particular preference that she believes is typical of students from Asian countries: "to just receive those knowledges from the teacher" (P3.2: 405). But she adjusted to the expectation in her courses at MSU to "not simply recite those things. You have to understand how it works or some general ideas or-, but you have to like write your own idea about certain questions" (P3.1: 362). Mei says that small group and class discussions were not really a part of her educational experience in China, but she prefers to discuss, debate, and compare her view of a topic at MSU as a way of evaluating her level of understanding. Huan describes her undergraduate experience as "kind of similar situation like what I did in, uh, in high school. It's basically professors they were lecturing and they will give you problem set and you to go back and do some practice" (P5.1: 108). But she demonstrates a different, more independent orientation to her learning in her program at MSU by choosing to join a study group when she deems it necessary, and by structuring her approach to assignments based upon what she believes will help her to advance as a professional. Min characterizes her education in China as primarily teacher directed, but she appreciates the more active and collaborative methods she experiences at MSU because she believes they help her to develop in areas that are important for future success. She reflects on the differences, saying, "maybe we're stronger than American students just like the math and that kind of things. But we will, lack of the creativity that kind of

skills because, uh, just like our rushing prepare for exam… maybe this kind of education just can help me to have a very, very strong and good base, basic for our future learning, but, uh, we will, we will lost a lot of chance to thinking… especially critical thinking" (P6.1: 63). Finally, Cheng describes his experience in China, especially in high school, as very exam oriented. He says, "But, uh, to tell the truth, it's actually 90% of them is about the examination… it's a real focused highly on the examinations" (P7.1: 37). However, he prefers the freedom within his graduate program to determine what he believes is most helpful for grasping course content. Some of the prevalent descriptions of how teaching and learning takes place in China may be true. However, the data from this study suggest that students from China are very capable of adopting new preferences and adjusting to a new set of demands in U.S. classrooms.

Practical Implications

The findings from this research support the notion that individual students bring with them particular orientations to teaching and learning. Some learning methods are more or less familiar to them, and they may exhibit distinct preferences. However, the findings also suggest that these orientations to learning are not static. Participation in a higher level of education and a new educational context can aid them in developing familiarity and preferences for different teaching and learning methods. Professors should seek to maximize their ability to socialize students into new or different teaching and learning methods, especially when welcoming students from abroad. In addition, students' expectations about the function of a course or program may also serve to reorient their preferences for learning.

The literature suggests that although "active learning," as conceptualized through constructivist theories of learning, is broadly embraced among U.S. educators (Phillips, 1995),

the instructional methods that foster such learning are not clearly defined or understood. The findings from this research underscore the potential potency of behaviorally passive teaching methods for fostering active learning. As Mayer's (2004) "constructivist teaching fallacy" suggests, behaviorally active instructional methods are often selected when a behaviorally passive method might be more effective. Thus, the students in this study would prefer that some behaviorally active learning methods, such as small group and class discussion, take place after they engage more behaviorally passive learning methods. This is not an unfamiliar approach in some U.S. classrooms. The class discussion requirements for some online courses serve as a good example. That is, online courses often have an asynchronous discussion component, which affords students the ability to participate in discussion after a period of deliberation. Some teachers leverage this possibility by requiring students to support their arguments with references to the course materials. The implication is that students take a more measured approach to participation rather than, as Min says, "once they have some ideas they immediately to say" (P6.2: 650). Or, as Pinheiro discovered, "participation was perceived by the students to be merely a matter of students reading articles and saying disconnected things in class" (2001, p. 7). Class and small group discussions may be more effective in master's level courses in U.S. classrooms if students first engage and deliberate on the course content through more behaviorally passive methods.

Prior research indicates that orientations to teaching and learning that place emphasis on the learner are particularly meaningful for students who have historically been excluded from formal education. The constructivist orientation to learning, in particular, has been credited for helping to reduce the achievement gap for those students by providing opportunities to build their base of experiences as a context for more meaningful and durable learning (Au & Jordan,

1981; Belfiore, Auld, & Lee, 2005; Burkam, Lee, & Smerdon, 1997; Lee & Burkam, 1996; Oakes, 1990; Smerdon, Burkam, & Lee, 1999; Vaughan, 2002). This study further illustrates that active learning methods that rely upon "real life" projects and examples may be especially meaningful to international students. The students in this study explain that such opportunities are helpful when they lack the context for making sense of particular content knowledge.

A popular thread in the current discourse about higher education is the "internationalization" of higher education (Altbach & Knight, 2007), and more specifically *internationalization at home*, which refers to internationally related activities – excluding sending students and faculty abroad (Nilsson, 2003). This discourse acknowledges that the percentage of students from abroad has increased within well-developed HEIs in step with the increasing rate of globalization. One advantage to *internationalization at home* is that domestic students can develop skills and perspectives (e.g., cross-cultural understanding) that are valued in a globalized context without a passport or plane ticket.

The findings from this study raise questions about the experience of the internationalization of U.S. higher education for the students from abroad. In particular, international students report that they value the multicultural experience they gain from their interactions with American students and students from other parts of the world. However, the curriculum, they say, is largely mono-cultural. A sentence from one of the syllabi that was reviewed for this study illustrates this point: "The course assumes a familiarity with American government and the institutions of policymaking at the federal, state, and local levels" (PPL807). Furthermore, participants in this study reveal that they regularly encounter culturally grounded examples, words, phrases, and idioms that are confusing. The curriculum need not be *acultural*.

Rather, the current challenge for those who are in faculty roles is to develop ways to more fully leverage the presence of international students toward a *multicultural* educational experience.

The results of this study contribute to an awareness of the complex dynamics involved in integrating international students into U.S. classrooms. Some domestic students may demonstrate xenophobic behaviors, which could discourage international students from participating in learning activities. Furthermore, the process of evaluating – across cultures – the effectiveness of teaching and learning methods is power-laden. Saïd's (1979) caution is appropriate here. That is, attempts at representing other people's experiences often results in perpetuating false and oppressive claims. Again, it is worth noting that Western observers most often describe 'the Chinese learner' in terms of the less desirable characteristics (e.g., extrinsically motivated rote learner from a teacher-centered and content-oriented background). Using categories, trends, and statistics in an attempt to make sense of how to effectively integrate international students can easily result in an image of a dehumanized 'other.' The challenge to those who are in faculty roles is to appropriately balance an understanding of the categories, trends, and statistics with the shared and lived experiences with the intelligent students in their classes.

Addressing this challenge may begin by more fully understanding what it means to be an international student in a U.S. classroom. The experiences of the participants in this study suggest that an exercise as simple as responding to a professor's discussion-prompting question is anything but simple. The series of cognitive actions seems to be much more complex for the international student. That is, after hearing the question the Chinese student likely translates it into her first language, attempts to make sense of culturally grounded references, then she thinks about the question, forms a response, and then translates her response into English. At the same time, she evaluates the situation in order to determine how she should interact with the teacher in

a way that maximizes on the learning opportunity, *and* in a way that is appropriately respectful. Should she speak out, raise her hand, or just wait for the professor to choose a student? In addition, she likely considers how her Chinese peers view her participation in the discussion. Will she appear to be, as Hugo says, a "freak or something" (P1.2: 332)? By the time the student resolves these issues, the domestic students have likely already dominated the discussion.

Conclusion

The nature of the research problem and the associated research question for this study called for a qualitative research design (Creswell, 2009). The study explored the experiences of students from China - from the students' perspectives - in an effort to form an understanding based upon their descriptions. The approach was fitting because it provided the latitude needed to consider the 'messiness' of the students' experiences.

Although this study achieved the goal of identifying common characteristics among the seven participants regarding how they make sense of their experiences of active learning methods in U.S. classrooms, more research is necessary to determine if these findings are consistent with a larger number of students. To what degree are these characteristics similar to other master's students from China, and from other master's programs? Also, there may be other groups of students who make sense of their experiences with active learning methods in the same ways. The results of a similar study with a different group of students (e.g., first generation students, students from a Latin American country), or a comparative study of domestic and international students could further reveal the cultural dimensions associated with active learning methods that students encounter in U.S. classrooms. In addition, this study included students from professional master's programs. Future research should investigate programs with different

characteristics. For instance, would similar themes arise among a group of Chinese students in music or fine arts programs? The results of such research will potentially reveal the effectiveness of certain methods for diverse groups of students, and add to the ways that instructional methods that are used in the name of active learning are understood and implemented.

The results of this study suggest that issues of power and students perceptions of social hierarchies interfere with the ways and extent to which some international students engage active learning methods. Future research should further investigate when and in what ways the power structures that are reproduced in classrooms result in a sense of privilege or disadvantage for students from abroad. What are the similarities and differences between the power structures that domestic and international students perceive in U.S. classrooms? In what ways do domestic and international students monitor and adjust their participation in teaching and learning activities based upon the power structures that they perceive? The results from studies like these should inform the development of ways to more effectively foster active learning among a diverse group of students.

This study relied on international students' own accounts of their learning experiences in U.S. classrooms. This research could be complemented with studies that investigate the international students' accounts alongside their professors' and domestic classmates' interpretations of their learning behaviors. A carefully designed study could reveal the unique and intersecting dynamics that professors, domestic students, and students from abroad manage. Also, it became apparent, from the Chinese students' perspectives, that domestic students are often unsure of how to engage their international classmates. Future research should investigate the ways that domestic students make sense of their experiences with international students. What do they believe to be the advantages and disadvantages of, for example, being paired with

international students for group projects and assignments? Studies that pursue this line of inquiry should inform faculty members in regards to how they can help domestic students learn how to better understand and work with their international peers, and to help students develop the skills and perspectives (e.g., cross-cultural understanding) that are valued in a globalized context.

This study reveals that a framework is needed for understanding the cultural dimensions associated with the active learning methods that students increasingly encounter in U.S. classrooms. This study suggests that such a framework should, first, account for the interpersonal dynamics that are involved. That is, the framework should account for interactions between the international student and domestic student, the international student and his international peer, and the international student and teacher, with a particular understanding that such interactions are power-laden. Second, the framework should account for the intrapersonal dynamics that are involved. In particular, the framework should account for the narratives that teachers, international students, and domestic students follow in the design, use, and participation in active learning methods. As an example, a common thread of narrative among teachers in U.S. classrooms includes, "keep them moving" and "foster lively debate and discussion." Common threads among the narratives that the students in this study seem to follow include lack of confidence in understanding the normative expectations in the U.S. context, sensitivity to demonstrating disrespect to teachers, and concern for what others might think about how they conduct themselves.

Finally, the results of this study suggest that some characterizations of the educational experiences of students in China are accurate. That is, elements such as rote memorization, frequent exams, classrooms dominated by teacher lecture, and other "passive" or "surface" teaching and learning strategies were among the descriptions that the students in this study

offered about their educational experiences in China. However, the results of this study also suggest that the habits and preferences for how these students think about and engage learning in a formal educational context are not fixed. Instead, they adapt to the teaching strategies they encounter based upon their beliefs about the outcomes for the degree program; they adjust their expectations and preferences based upon cues from their professors, classmates, and the surrounding context; and they are cognizant of the influence of their educational backgrounds. This study adds to the broader field of research on students from China by suggesting that such students are not necessarily limited in their ability to maximize on more progressive approaches to teaching and learning because of the effects of their educational backgrounds. Thus, the story of students from China may be more complicated than it appears at first glance.

APPENDICES

APPENDIX A

Preliminary Participant Information Form

Preliminary Participant Information Form

1. Name:

2. Age:

3. Gender:

4. Country of citizenship:

5. High school (secondary school) that you attended - include the City and Province:

6. College or university of undergraduate degree - include the City and Province:

7. Final grade point average for undergraduate degree:

8. Have you completed any other formal education beyond high school prior to your current master's program? If yes, please describe.

9. Master's degree currently pursuing at MSU:

10. Semesters completed:

11. Current cumulative grade point average:

APPENDIX B

First Semi-structured Interview Protocol

First Semi-structured Interview Protocol

Starting Questions:
Please tell me a little about yourself.
Where did you complete your undergraduate studies and what was your major?
What are you currently studying?
What do you hope to do after you finish your program?

Primary Questions:
What was learning like in your undergraduate program?
Please describe what studying and learning was like in your undergraduate program?
What are some of the teaching strategies that you experienced during your undergraduate program?

What are some teaching strategies that you have experienced during your master's program?
If needed: Professors use various teaching/learning strategies and activities in the classroom. For instance, in the class session that I observed, your professor _____ and _____ [e.g., lecture and student discussion].

Can you describe for me your overall impressions of those experiences?

What stands out to you about some of those experiences?

Please describe to me, as fully as possible, how those experiences affected you?

Please tell me about an experience that was especially meaningful to you. What was the nature of the strategy or activity? What about that experience was especially meaningful to you?

Can you tell me about another experience that was especially meaningful to you? What was the nature of the strategy or activity? What about that experience was especially meaningful to you?

Clarifying questions:
Why?
How?
Can you tell me more about that?
What do you mean when you say _____?

Closing Questions:
I really appreciate your willingness to share your experiences with me. As you think about everything that we have talked about today, is there anything else that you want to add?

Do you have any questions for me?

APPENDIX C

Follow-up Semi-structured Interview Protocol

Follow-up Semi-structured Interview Protocol

Starting Questions:

How is this semester going for you?

Have you had an opportunity to see a basketball game or visit the art museum?

What class are you enjoying the most this semester?

Primary Questions:

1. Last time we talked about some of the teaching/learning strategies and activities that professors use at MSU. You mentioned:

   Are there other experiences you have had that you would add to this list?
   - What more can you tell me about those experiences?

2. Each of these 3x5 cards has a teaching/learning strategy listed on it. Many of them you mentioned in our last conversation. Would you mind sorting them into three categories? Category one: these work well for you. Category two: these work moderately well for you - they work sometimes, or you like them but they only work a little. Category three: these don't really work for you – the effectiveness is limited.

Individual Questions:

Examples:

One thing that came up in our last meeting was class size. You mentioned some classes have 30-40 students and other classes have more like 100. Is there a difference between how well you learn in a smaller or larger class? What makes the difference?

In our last conversation you mentioned that you had a rough start to your first year of college, but that it got much better because you learned how to "learn all by yourself." Can you tell me more about what that means? What kind of strategies did you gain that helped you to learn?

Closing Questions:

I've been asking you a lot of questions so that I can better understand your experiences in your master's program. But maybe we've missed something that's important. Is there anything that you can add that will help me to better understand your experiences with the strategies and activities that your professors use in the classroom?

Again, thank you for talking with me. I'd like to share the outcomes of my study with you.

APPENDIX D

Semi-structured Classroom Observation Protocol

Semi-structured Classroom Observation Protocol

Date/Time:	
Course:	
Student Participant(s):	

Describe each classroom activity, with special attention to:

Teacher and Student Actions	Classroom configuration
Duration:	Estimate Mayer's matrix: quad 1, 2, 3, 4

Guiding questions for the observation:

- Approximately how much of the class session is teacher talk, student talk, group work, individual work, silence, or other?
- What is the nature of teacher talk and student talk?
- What is the level of student independence?
- What is the nature of student and teacher questions (e.g., procedural, challenge content)?
- What role does students' prior knowledge play in the methods that the professor uses?
- What is noteworthy about the methods used in the class and the ways that students respond to them?

APPENDIX E

Hugo: Synopses of Themes

Table E1 – Hugo: Self-Directed Synopsis

Doc	Begin	Original Transcript
P1.1	256	In high school most of the things the teachers will tell you how to do it, but in college, years, you have to learn all by yourself.
P1.1	393	Oh, yeah. Dr. [professor] gave us some, uh, supporting materials. He, he just, uh, advise us to do it. Uh, if w, we are really interest in that. He advise us to do it.
P1.1	504	For me, I will, firstly, uh, talk to my classmates… whether they have already calculate, the correct answer, or they have some ideas on that. If most of them said, "Oh, sorry I don't have, I have no idea on that," I will send email to my professor asking some hints on it.
P1.1	615	Uh, we just, uh, just keep writing and reading and thinking. Ask questions if you don't understand.
P1.1	654	The questions students want to know or something.
P1.1	672	We just, uh, search a lot information. And talk to the professor if we feel, feel some problems.
P1.2	43	Yeah, because sometimes I mean when talking about a topic it is kind of, sometimes it is kind of a waste of time because I already know much of that. It is definitely no help for me to discuss on that.
P1.2	64	Because, you know when I talk to professors or my tutors. I probably have to be well prepared on that. Because you have to ask questions. If you really want to ask something, you have to know something.
P1.2	91	Which point you don't think you are 100% clear. You can write it down because people have different questions.
P1.2	110	I even didn't think about that. You give me the answers. I said, "It won't be helpful for me to do something on that."
P1.2	242	But, it's fine with me. I will ask questions to professors or I will review them or I can the questions to my classmates.
P1.2	294	because when they have the whole class discussion, some people will be so active. Some people will not be talkative on that. We just sit here and listen, listen to the instructors or somebody else. Um, I-. It's ok for me because I am kind of open-, opening, outgoing and be willing to share something in my mind.
P1.2	296	If you want to involved in that, you will get something. But if you don't like, it's totally a waste of time for you.
P1.2	395	Because we have to plan. We have to design the experiment things by our self. Definitely we can talk to our professors, but we have to do it, most of by ourselves.
P1.2	402	Because it's my project.
P1.2	405	That's the only reason, it's my project. I have to be responsible for that. If I do want to get the final credit, if I do want to get the good score on that. I want to get a paper from it. I have to pay a lot of time, energy, I have to be patient. I have to learn a lot of techniques or new machines or some new standard methods on that. That's my project. I have to take care of that. It take me a lot of time. So much time, but is, I love to do that. It's my project, that's the only reason.
P1.2	465	You have to take more responsibility than you are supposed to do. So, it's-, but we really learned a lot from that and, uh-, yeah.
P1.2	477	Because I choose a topic. It's something, I think it's interesting, but probably after I dig deeper or look at more knowledge on that I cannot totally understand that. Definitely, I will ask professor and talk to my classmates, but I can only understand really limited things, but I have to speak it out to explain it.
P1.2	516	That will-, is so helpful for them to choose a mixed group. Because they are comfortable, they are confident to speak English.
P1.2	526	Because sometimes some students are so, well, are so responsible for that.
P1.2	538	And what my tutor said is a really valuable, but it cannot be 100% match for me. It won't be so fitful for me. So, I would just listen to them and get something really good points and separate them, some bad things I don't think this is not my work, or it's not my things. I would just delete them. But, I think it's the natural things. Because different people have different ideas, perspective according to their experience. So I don't think it is kind of moderate well, but it's the natural things. You have to select something that will be useful for you.
P1.2	570	I don't know where I am. I just sit there, but I don't know where is my mind. So, but probably after 15 or 20 minutes I will come down. "Hey, you can't do that. It is a class you have to learn something." I can learn something from the third one or fourth one.
P1.2	581	It's, um, that's one thing probably I cannot totally concentrated on the class for the whole session. I would probably get a lost a little while and just, "Hey, hey, what are you doing. You have to focus on that." And then I force myself to do that.
P1.2	597	The only thing we can do is just pick up the knowledge you don't know when it's really come. So, yes, that what I talked to myself.
P1.2	622	Um, the thing is because we focus on the learning and teaching process, but the final destination for students is the personal goal, personal goal or their target whether they just want to get a diploma and want to get a job here. They want to further the study for the master students, for the study as a Doctor or PhD students. The course, which course they should choose or is helpful for them.

Table E2 – Hugo: Relationships Synopsis

Doc	Begin	Original Transcript
P1.1	504	For me, I will, firstly, uh, talk to my classmates … whether they have already calculate, the correct answer, or they have some ideas on that. If most of them said, "Oh, sorry I don't have, I have no idea on that," I will send email to my professor asking some hints on it.
P1.2	43	Yeah, because sometimes I mean when talking about a topic it is kind of, sometimes it is kind of a waste of time because I already know much of that. It is definitely no help for me to discuss on that. But since we are group, we need to talk on that and let everybody have the-, on the same page so we can move forward as a group.
P1.2	242	I will ask questions to professors or I will review them or I can the questions to my classmates.
P1.2	265	Yeah. It's, basically the same thing with the discussion things, or discussion with my classmates about the homework. Because, yeah, basically like that. We have different ideas on the topic. We have to share the same thing and you know make the conflict down a lower.
P1.2	272	[P1]: Sometimes people just arguing something is not helpful to the topic. They just argue for the arguing. So, it won't be a good choice to do that. But that's, you know, that's kind of things whether you can negotiate well, whether somebody can be a leader and can just help everyone can move it further.
P1.2	274	But it depends on your team member, your group-mates. Whether you can be a group leader.
P1.2	276	Or you just want to be a group member on that. Which duty you want to take and so I think it's just-. Sometimes it's work really well because 1+1 can be larger than 2. But sometimes 1+1 can be less than 2. Or less than 1.
P1.2	332	One thing is-, once-, because-. You know, I am a Chinese guy. We share the same culture on that. If I talk too much or share too much things during the class I will be just shrink a little while for my talking. That I shouldn't be so strange with my Chinese classmates. They-, they all-, we all think that-. We know that results. But we just don't like to see. If I say a lot on that, I will be-, uh, appear so different. I don't want to be so different. You know, it's kind of weird things. When people just handout. They say, "Hey, you, you are not, our group. You are such a different guy." "You are a fake. You are a freak or something." (Laughing) I don't want like to be that.
P1.2	347	Yeah, it's fine. Is more-. I can negotiate with my classmates, Chinese students. Said, "Um, I know that, and don't be shy, just say that." They will also understand me. So. Sometimes I have that concern, but it is not so much.
P1.2	443	You have to be efficiently communicate with our group member.
P1.2	445	And it's not only between Chinese students. It's also about-, between the international students and also domestic stu-, students. Because people from different parts of the world, they have different way of thinking.
P1.2	449	Especially for the project, different people have, uh, strong skills. Probably someone A is really good at computer. He can draw good pictures. But B has more logic. He has a good thinking way. So it's kind of, we have to pick up the strong points and collect them to create a really strong team results, so. Yeah. That's kind of a lot of work or we definitely need to team leader so I would like to choose here. It's kind of the way we do is more important.
P1.2	457	We have 3 people on one group. One guys totally don't care about the project. He is just, "Hey you guys can just do that. I may just put my name on that." Or something like that. He definitely don't care about that.
P1.2	461	It's not so bad, but you know sometimes people just don't like to take the responsibilities and you cannot just be so mad at them because. "I won't let you sign on that. It's not your project. You can't do that. I wont' let you graduate." Or-. It's not so-. I mean we are classmates. It's kind of some weird things if you see that.
P1.2	477	Definitely, I will ask professor and talk to my classmates...
P1.2	491	It is well, ok, all right because I am a guy that want to be good. And I also want people say, "Hey, you are nice. You are not so bad." So, I really need to prepare it well.
P1.2	493	It is so embarrassing. I totally don't like that. So I want to get well prepared for that.
P1.2	510	It's make a lot of difference. Because I think it's natural things for people want to be with their friends.
P1.2	512	I just think it's a natural things because-. They probably be more natural or more comfortable with their friends or their-, the same group. They probably have a- a idea of that I belong to this group. So, get back to our course. For Chinese students most of them will just create a group totally for Chinese students. And for me it's the same thing. Um, but I am the guy that I am not afraid or I am not repelled mix the group. I do have some experience with domestic students and also other international students, most of them from India.
P1.2	516	That will-, is so helpful for them to choose a mixed group. Because they are comfortable, they are confident to speak English.
P1.2	528	You will know why they think you did it good or did it wrong, or which way you can improve yourself.
P1.2	605	Even though sometimes you will be chosen, you can't answer that. It's a little embarrassing thing.

Table E3 – Hugo: Barrier Synopsis

Doc	Begin	Original Transcript
P1.1	546	So we have to, uh, listening and writing and, oh, and thinking, so. It probably can distract us some attention to the knowledge during the professor's saying, because you have to write it, and then you have to also understand something… I think it's helped me to remember something if I'm writing down.
P1.2	221	I think is contradictory... I cannot do it well, I cannot think well when I am writing. It's most of things I am writing and I stop it. I think a little while and keep writing.
P1.2	236	You know if I keep writing things because I want to get all of things on screen, but it is hard for me to understand the knowledge on that, the content. So there's terms of, "Oh, what does that mean?" Even though I am writing down, I probably cannot fully understand it.
P1.2	272	Sometimes people just arguing something is not helpful to the topic. They just argue for the arguing. So, it won't be a good choice to do that. But that's, you know, that's kind of things whether you can negotiate well, whether somebody can be a leader and can just help everyone can move it further. But it need more characteristics for a group. So, it's not works well always.
P1.2	276	Sometimes it's work really well because 1+1 can be larger than 2. But sometimes 1+1 can be less than 2. Or less than 1.
P1.2	294	[P1]: Because the thing is, uh-. Sometimes people will just, because when they have the whole class discussion, some people will be so active. Some people will not be talkative on that. We just sit here and listen, listen to the instructors or somebody else.
P1.2	319	I think one thing is for the cultural things. Another is for the language part. Some students are not so confident to speak out their English. Even though, I mean my English is not so well. I know... So. But some of them they are not so confident to speak out. Even though they know the knowledge.
P1.2	327	The tutors will ask some questions. All of the Chinese students will know that, but only the language part, the cultural things. Will just prohibit them to say something.
P1.2	332	Sometimes I will be the people just to sit there. Don't say anything... You know, I am a Chinese guy. We share the same culture on that. If I talk too much or share too much things during the class I will be just shrink a little while for my talking. That I shouldn't be so strange with my Chinese classmates... If I say a lot on that, I will be-, uh, appear so different. I don't want to be so different. You know, it's kind of weird things. When people just handout. They say, "Hey, you, you are not, our group. You are such a different guy." "You are a fake. You are a freak or something." (Laughing) I don't want like to be that.
P1.2	445	And it's not only between Chinese students. It's also about-, between the international students and also domestic stu-, students. Because people from different parts of the world, they have different way of thinking.
P1.2	457	We have 3 people on one group. One guys totally don't care about the project. He is just, "Hey you guys can just do that. I may just put my name on that." Or something like that. He definitely don't care about that.
P1.2	514	Yeah, it is different between the only Chinese students is because, for Chinese student's group we can communicate with Chinese. And there is no barriers for the communication. But for the, uh, mixed group. We have to use English. It will help you to improve your English, but sometimes it will repel you to speak it out or share something you really want to say.
P1.2	516	That will-, is so helpful for them to choose a mixed group. Because they are comfortable, they are confident to speak English. But another thing is, I guess the natural thing is, whether you want jump out-, jump over this barrier to be more open with different people with different color or different origins, whether you can be more open with them. So, if there is no-, it's kind of, you have to jump one, and jump another. If there is no language barrier, you only have to jump another barrier. So it's much easier than before. But, I cannot guarantee that-, I cannot 100% say that without a language barrier they will so likely to mix with the, uh, different cultural people.

Table E4 – Hugo: Integrate Synopsis

Doc	Begin	Original Transcript
P1.1	457	It's not so often, but the subgroup talk is about, we have, kind of, a review. We learn a lot formulas, we learn a lot of new knowledge and professor will just, uh, "Okay, we can stop it". We just want to look back, back side, what we already learned.
P1.1	495	If you, if you really learn during the class. It's okay for you to, to get the, uh, get the correct answer. Also, we have examples during the courses. He will tell us, uh, how it's-, how the examples problems can be deal with. And we can just, uh … When we, when we have no idea on the homework we can look back to the examples.
P1.1	636	Um, so we, during one class we learn a lot things. She will, uh, give us some example. Some, some fact. Like the factory, they use the technique to deal with the pollutants. Some ground water techniques. They, she give us the, uh, examples... After we learn a lot things. It will help us to understand this. Yeah.
P1.2	24	Homework is just kind of a thing that can push me to do something, to review courses, to get refreshment on that. Basically, I have, I can have more understanding on that. It will be further than the teacher's talk to us.
P1.2	382	[Nate]: And that, uh, and you said that it seems to be only moderately helpful when you can, when you have an exam where you can just review for a couple of days before the exam. So, on the one part you're reviewing just a couple of days before the exam and then you have the exam. On the other part you're doing something and when you get to the exam you can remember it and speak about it in your own words. What is it that happens in that other way, where you can-, what makes it possible for you to know it or to remember it so that you can speak about it in your own words? [P1]: It's the, uh-. The thing is you really understand it. Not just you remember the words, you remember the process. It's probably you have to dig it deeper. You know the mechanics. I don't know. It's just the basic knowledge underneath. [Nate]: Ok. [P1]: If you know that, you will understand why people can choose this way not that way, or why-, or the basic logic lie behind that. It will help you to understand further. Probably you cannot understand the name of the different segments, but you will understand why they do this, why they do that. You can speak it out the ideas behind it. That's pretty good for me because I think that logic things and also the idea behind that is more important than the words or the only-, the name of some thing. But you know some courses just, the exams just ask you, "Please state what's the name of this thing." And what something behind it is-. Yeah. That's fine with me, but it won't be helpful for me to understand something.
P1.2	476	[Nate]: So why, when you are preparing for an individual presentation does it just help your learning moderately? [P1]: Because I choose a topic. It's something, I think it's interesting, but probably after I dig deeper or look at more knowledge on that I cannot totally understand that. Definitely, I will ask professor and talk to my classmates, but I can only understand really limited things, but I have to speak it out to explain it.
P1.2	483	[P1]: Because we have the group presentations for the [course number]. It's the project we do the presentation for our project. What we did, showing everything we have or everything we, for our results, test results. It is kind of really enjoyable way. I mean you did a lot of thing and you can show it to all the classmates and tutors.
P1.2	489	Because it's really helpful for us to collect something. Sorry (foot tap). Collect the knowledge and also get the conclusion. It's kind of, you did a lot of thing. You have to get some conclusion from that. This, if this is a part of what you did. And finally for the presentation you can shrink it to some really nice parts. Some conclusion things, some-, the core knowledge for your research or for your project. So that's perfect with me.
P1.2	493	As for-, so I can talk to people. I can explain it well. What if somebody ask a question? "Hey, yeah. What that means? I don't know." I say, um, "You know what, I don't know actually." (Laughing) It is so embarrassing. I totally don't like that. So I want to get well prepared for that. Even though they can't ask some question and I can't answer it. So, I have-, if I want to do that I have to prepare more than I imagine to be. So it will help me to understand further from that.

Table E5 – Hugo: Create Synopsis

Doc	Begin	Original Transcript
P1.1	546	She gave us the, uh, uh, empty, empty boxes or something. Just like the PPT. And we have to fill in names during the classes…
P1.1	571	The students, sit, the students are expected to act as the, uh, uh, evaluator, whether the students, whether the presenter, uh, talking well, whether the knowledge you think he want to, he or she want to express is great. Or, like, you know, the presentation whether it's body general, a body gestures, or you speaking speed or whether you PPT is great to, is okay to see or something like that. All the students have to involved in it for the evaluation. They got the, uh, evaluation sheet. They, uh, click on some points they think, according to the, uh, presenter, and they got the, uh, mark for them. Also some, some comments, some suggestions on that.
P1.1	615	And teacher just, uh, write down the specials parts... And directly show on the screen. So we can follow her and to write something. During she is writing, she's, she also speaking something. Uh, we just, uh, just keep writing and reading and thinking.
P1.1	686	My paper is about the, uh, Chernobyl accident. What the contaminations situation there. Whether we should still pay a lot of attention on that. Is whether people can move back to that areas.
P1.1	712	I get my project and do the experiments in ERC… um, it's my project. I have to do it by myself because I want graduate with plan A, which is a thesis. So I need a lot of data. I need some, some new things for my experiments.
P1.2	236	You know if I keep writing things because I want to get all of things on screen, but it is hard for me to understand the knowledge on that, the content. So there's terms of, "Oh, what does that mean?" Even though I am writing down, I probably cannot fully understand it.
P1.2	242	But, some classmates say it is really, really hard for them to catch up because each class they just write something down.
P1.2	247	I mean we have to write. (Laughing) The professor also needs to write. (Laughing) You know, I don't think that's-. It's unfair that they just stand there talking. We have to writing a lot of thing.
P1.2	260	It's not kind, of the screen directly show all the knowledge we have to know. We will have to write up. The professors can write something down and it will help. It will spend some time for them to do that at the same time we can think a little while. So it will help me to understand it and also write it down. At this time, write down, write the words down can help me to remember it.
P1.2	375	Because I like to see that you can remember them and speak them out with your own way.
P1.2	395	It's kind of a course based on the research things. Because we have to plan. We have to design the experiment things by our self.
P1.2	413	Writing papers. We had one course that have the final paper thing we have to submit that. It helped me a lot… That's really helpful, but it's not so helpful for me. Most of the time I just read something, I use from previous papers. And I collect them. I-, actually I didn't put too much my own ideas or new ideas on that.
P1.2	425	Writing format or some basic sections. First is abstract and some keywords and then introduction material, methodology and just 1, 2, 3 different steps. That kind of thing. I have a good knowledge on that now, but just for the contents of the paper. I really know a lot of thing, but it's just, kind of, I reading a paper. I cannot create new ideas.
P1.2	427	I think if you write a paper you have to create some new ideas. I definitely create some, but is not so-. I don't think it's so new.
P1.2	477	Because I choose a topic. It's something, I think it's interesting, but probably after I dig deeper or look at more knowledge on that I cannot totally understand that. Definitely, I will ask professor and talk to my classmates, but I can only understand really limited things, but I have to speak it out to explain it.
P1.2	483	Because we have the group presentations for the [course number]. It's the project we do the presentation for our project. What we did, showing everything we have or everything we, for our results, test results. It is kind of really enjoyable way. I mean you did a lot of thing and you can show it to all the classmates and tutors.
P1.2	489	Collect the knowledge and also get the conclusion. It's kind of, you did a lot of thing. You have to get some conclusion from that. This, if this is a part of what you did. And finally for the presentation you can shrink it to some really nice parts. Some conclusion things, some-, the core knowledge for your research or for your project.

Table E6 – Hugo: Culture Synopsis

Doc	Begin	Original Transcript
P1.1	216	Okay, so in China, the learning and teaching system is more like, um, it's really the, the teacher's just, uh, uh, tell us a lot things.
P1.2	305	Let me see, first reason is probably, I mean for some Chinese students-. One thing's some of them a little shy. It's a cultural things. Because we-, in our culture, we are not supposed to say too much things. We have to be patient. We have to be a, uh, you know, gentlemens or-, you can let other people say something and after that we can see that. It's not so much like, "Hey. I have idea. Hey, I got another one." It's not like that. It's totally different.
P1.2	319	I think one thing is for the cultural things. Another is for the language part.
P1.2	327	The tutors will ask some questions. All of the Chinese students will know that, but only the language part, the cultural things. Will just prohibit them to say something.
P1.2	332	Sometimes I will be the people just to sit there. Don't say anything. One thing is-, once-, because-. You know, I am a Chinese guy. We share the same culture on that. If I talk too much or share too much things during the class I will be just shrink a little while for my talking. That I shouldn't be so strange with my Chinese classmates. They-, they all-, we all think that-. We know that results. But we just don't like to see. If I say a lot on that, I will be-, uh, appear so different. I don't want to be so different. You know, it's kind of weird things. When people just handout. They say, "Hey, you, you are not, our group. You are such a different guy." "You are a fake. You are a freak or something." I don't want like to be that.
P1.2	345	But, you know, it's kind of a concern for me, but most of time I may push myself to say something.
P1.2	347	Yeah, it's fine. Is more-. I can negotiate with my classmates, Chinese students. Said, "Um, I know that, and don't be shy, just say that." They will also understand me. So. Sometimes I have that concern, but it is not so much.
P1.2	443	You have to be efficiently communicate with our group member. And it 's not only between Chinese students. It's also about-, between the international students and also domestic stu-, students. Because people from different parts of the world, they have different way of thinking.
P1.2	503	[Nate]: Does it make a difference if you are in a group with all international students or maybe even all students from China… [P1]: It's make a lot of difference. Because I think it's natural for people want to be with their friends.
P1.2	512	I mean in United States we can see that-. I don't know whether it's still a problem. But we-, I-, for me-. We cannot say we. For me, I just saw Asian peoples always hang out with Asian peoples. White peoples more like to be in a group with white people. And black peoples more likely to be hang out with black people. I just think it's a natural things because-. They probably be more natural or more comfortable with their friends or their-, the same group. They probably have a- a idea of that I belong to this group. So, get back to our course. For Chinese students most of them will just create a group totally for Chinese students. And for me it's the same thing. Um, but I am the guy that I am not afraid or I am not repelled mix the group. I do have some experience with domestic students and also other international students, most of them from India.
P1.2	516	That will-, is so helpful for them to choose a mixed group. Because they are comfortable, they are confident to speak English. But another thing is, I guess the natural thing is, whether you want jump out-, jump over this barrier to be more open with different people with different color or different origins, whether you can be more open with them. So, if there is no-, it's kind of, you have to jump one, and jump another. If there is no language barrier, you only have to jump another barrier. So it's much easier than before. But, I cannot guarantee that-, I cannot 100% say that without a language barrier they will so likely to mix with the, uh, different cultural people.

APPENDIX F

Wei: Synopses of Themes

Table F1 – Wei: Application Synopsis

Doc	Begin	Original Transcript
P2.1	162	So, I think, uh, the teacher just not only gaves us, give us lectures; but he, he, he was trying to collaborate all information, all the course, a—all the lectures he has given to, to, um … altogether to make us, make it just can, to make us, to make us actually use it when, to make us actually use it... he set up a pro, a little project, which he involves the course we have taken.
P2.1	164	So his specific design to, to; and trying, and trying to embed all the information, all the lectures, all the knowledge he has. Mm, he has, uh, talk. He has given before; and he designed that and let us to solve the project based, uh, on, uh, based on own understanding of, of the topics he has given.
P2.1	172	Yeah, and let us, not, not just, not only do the homework, but actually do a little project to learn how it works. In the, in the practical cases.
P2.1	189	And then we, we design is to illustrate, uh, be … Uh, uh, also he provided us not only, it also helped … So the project only includes the lectures he has talked before, so he also gave us some, uh, other, uh, some paper, u-uh, materials that let us to learn by ourselves based on knowledge, uh, you know from class. So we, it also we apply some extra curricular knowledge.
P2.1	193	So based on, half, most base it, base it, most knowledge base on the, uh, the courses, the course material, some… he put other materials in to let us learn and connect it. And also, he gives us more information, just more real, real information from the site and that has to deal with more some more real information, not, uh, the designed information for the homework.
P2.1	320	So, if this a home, homework just designed for certain concepts... Just kind of for practice of the equations. It's not that helpful. But if, if it's involving the real case, it's the type of project, uh, I talked before it's helpful.
P2.2	166	Yeah, some just talking and not showing, if he's talking too much, we have too many information to deal with. And no visualize the information. So sometimes hard to follow…
P2.2	266	Because I can just by, by practicing how to use that in the real case I can know that how, actually how the, how the actual system, real system work, and how can I use my knowledge to predict-, to make it work, or to predict the nature, predicts how technology working, how to apply the technology to the real world. And kind of practice, of the relate academic knowledge to practical applications.
P2.2	300	And to, because the teacher just, the, the class time, is not that much. And, uh, teacher just, the teacher always wanted to sh-, to show how, how something, how the topic works, and always, but it's always a complicated story.
P2.2	306	...just like I have the tool. So I want to know how that tool works. So I read. To see what can I use, how can I use that knowledge. So for the other part, if I don't understand, I need to re-, read the topic, or read the books with the papers to see what, what's the part that I missed. And I can get it by my own.
P2.2	322	So reading kind of go back to what have, what i, I'm give in the class, and, and learn more, more than what is shown in class.
P2.2	380	No, it, because the teacher just gave, just give us projects to let him, let we deal with real data. So that's the point of the, the project.
P2.2	446	Yeah, if it's the de-, the projects, the design would goes here when the teacher's well deva-, well related, we-, i-, it's, relate the information to the, to well link the information, giving the course, and the information we need to deal with the project... Relate the course based, uh, uh, topic to the real world. If is well link, it's a good link. Or let us pr- practice, and let us know how the real system work, based on or-, our own knowledge learned.
P2.2	454	it would go to the second category if it's just, the design is not, it's not well designed, and it's just like, to replace the, uh, replace a si-, a single data to the real data, with the real data, just like the same, just like the simple immigration of the homework to the to the project. Just a, a I, I'll say it, just a bigger homework.
P2.2	681	So if a good class discussion and kind of a little project. I mean, little project that is discussion which can relate the knowledge to the real case. And the teacher may, as-, ask us for ideas how. How that information works in real system. And he want to learn different thinking, and want to l-, to us to talk with the, with, uh, with both with him and with other people. To share our opinions. Of how they're, the, uh, to relate or, relate, uh, information, to relate the academic information to a real case. So if not a discussion, if not a good discussion, if it's, uh, just, uh, information that we can have from a book it's just academic stuff. If it's just like, to discuss why, 1 + 1 =2. It doesn't help.
P2.2	740	[Nate]: What helps you to learn when it's not fundamental knowledge that you're learning? [P2]: The pro-, kind of projects, because it's not that fundamental, uh, we know that we can use, apply it in the real cases. [Nate]: Ok. [P2]: So, just projects. [Nate]: Ok. [P2]: Um, to a, just a, just a by the way that we can actually use it, because it's, we can use it. Because everybody can use it, so it's better for us to actually use it to get, to learn more.

Table F2 – Wei: Barrier Synopsis

Doc	Begin	Original Transcript
P2.1	239	[P2]: Yeah. Even though the people are not helpful, I come with those so it's fun. So, it's always helpful. So, I don't think anything is not helpful. Probably some people don't work or sometimes… uh, but they have, they can do other things. That's, that's helpful. [Nate]: So what are, uh…? [P2]: Uh, I, actually, I don't mind that people doesn't work. So, you're in my group. I don't mind but I mind if everybody don't works.
P2.1	302	That's a, yeah, yeah, yeah. And reads what his slide tells him. [Nate]: What's on the slide… (Laughs) [P2]: Put up a slide so I don't like it. Um, I always play, I take out my phone, I play games. [Nate]: Yeah, yeah. (Laughs) [P2]: I know that he will give us the slides later. [Nate]: Yeah, yeah. [P2]: So I can just, uh, I can just, uh, print the slides and watch by myself, and learn by myself.
P2.1	378	It was the language problem. Oh, it's always the first biggest problem.
P2.1	384	So, the teacher just gives us, she has given lectures in English for forty minutes. We are a don't train for that, just … They said, it's just kind of about, and still there's a lot of information you need to take, and you need to think.
P2.1	388	So, yeah, the language is always the first problem.
P2.1	392	Uh, work with people from other countries, is always, it's still a challenging.
P2.1	396	And the English problem, I got so, is, is more reduced in the first year, after first year. But was, but for the first semester was very difficult.
P2.1	402	And part of it how people think. And, uh, because we think differently and we have a different culture. And we need to figure out how to speak to people from specific countries and how, what, sometimes for me still the challenging to, to meet with new people, because they are talking with something that I am not familiar with. The culture difference. So, it's always challenging. I'm still trying to be more, trying to learn more from other cultures.
P2.2	166	Yeah, some just talking and not showing, if he's talking too much, we have too many information to deal with. And no visualize the information. So sometimes hard to follow, always to be, to always follow his, him.
P2.2	522	If the group is good, if the group is not, I do the most. And other, you do, don't do anything that goes with the first one.
P2.2	663	Uh, it's, uh, the teachers throwing away the pro-, not throwing away, just gives, just gives, put up, put forward the, uh, uh, pro-, uh, question, and he want to hear the different voices from the classmates. Or, or he want us to lead a talk, and generalize our thinkings.
P2.2	673	Uh, yeah, yeah, if it's a well designed discussion we can have. Um, if it's, yeah. If it's well designed, or if, and if is many people are willing to talk. But if it's teacher just gives, gives a, uh, gives us a discussion, then no one, no one likes it. Or, no one just have a positive feedback, a positive response then it won't be good.
P2.2	681	So if a good class discussion and kind of a little project. I mean, little project that is discussion which can relate the knowledge to the real case. And the teacher may, as-, ask us for ideas how. How that information works in real system. And he want to learn different thinking, and want to l-, to us to talk with the, with, uh, with both with him and with other people. To share our opinions. Of how they're, the, uh, to relate or, relate, uh, information, to relate the academic information to a real case. So if not a discussion, if not a good discussion, if it's, uh, just, uh, information that we can have from a book it's just academic stuff. If it's just like, to discuss why, 1 + 1 =2. It doesn't help.

Table F3 – Wei: Culture Synopsis

Doc	Begin	Segment
P2.1	55	Yeah, you know, that, uh, in China it's a, everything special so I mean, what… like specifically in China just because China education is about to take back, to take the exams, to have better grades, and to get involved in, to them .. just like SATs.
P2.1	59	Like China, you need to do a lot for work, pay a lot of attention to your grades in order to get to a good, uh, college.
P2.1	83	Yeah. So when I was young, we have kind of the weekend schools, but still you, you know, because the exams. I don't, I don't know if you are familiar with the Chinese exams. To get to college. It controls everything of the children's life so.
P2.1	101	[P2]: U—h, so I learned by myself and, uh, I, was, I, I read books and listened to the English podcast and the, the, it turned out to be very helpful because I got here and I can have new resources of information I can read more books to know different culture. [Nate]: Hmm. Hmm. [P2]: And tell people with different thinking and so I think that's very, very help for me.
P2.1	148	Yeah, listening to other people, this may help people think is always be very helpful. Not only the, the professors how to think, but your, just your classmates, just kind of always you're the same, we're same age how they think, and with a similar background, or a different background how they think because it's, it's, uh, diverse of course. Many people from different department takes. This really helpful for me.
P2.1	287	[Nate]: Yeah. What are other ways, um, maybe that professor or other professors were just giving information, um …? [P2]: Just giving? [Nate]: Yeah, so, so… [P2]: They would have slides of course, or… [Nate]: The, the PowerPoint slides? [P2]: The PowerPoint, yeah. [Nate]: Okay. So, maybe a professor who's just … [P2]: Just like, just click the button. [Nate]: Yeah. Just goes slide, slide, slide, and slide. [P2]: I haven't experienced that. I haven't. Yeah, in here, I haven't experience that, but in China I experienced that, uh, a-a lot.
P2.1	392	Uh, work with people from other countries, is always, it's still a challenging.
P2.1	394	Uh. That's good for me now. But I need still take one year to familiar with how to work with other people, from other countries.
P2.1	402	And part of it how people think. And, uh, because we think differently and we have a different culture. And we need to figure out how to speak to people from specific countries and how, what, sometimes for me still the challenging to, to meet with new people, because they are talking with something that I am not familiar with. The culture difference. So, it's always challenging. I'm still trying to be more, trying to learn more from other cultures.
P2.1	567	So, so actually, Gaokao just dominate all lives, all of our lives. It will, it influence ev-, every Chinese lives. It goes every part. Because the kind of education that go to, goes to every, through the blood of every people.
P2.1	575	And of course, at least there's two or three people just said, "You're too late, schools to take exams." So, a lot of people are wait outside. So, it's a kind of ceremony once a year in China. It's always crowded outside the campuses, the father, parents, or even, even the grandma, just to sit there and wait for you to come out. To ask you, "Oh, what's the result?" And, "how do you like it?" Because probably, the most important part in a family, that if you have a, uh, if you are, you are taking Gaokao.
P2.1	585	A-a-all that construction, all the construction stops. And there are always more, more policemen. Uh, uh, uh, either on the road. And so if they see a person need to, uh, need to help. To get him to the place, get him to the school take the course. He will, they will just drive you there. Or you can take, you can just pick up phone to, to, uh, to, to call 911. (Laughs) Chinese 911. You say, "Oh, I'm a little bit late. Can you send a police car for me…" They will take you there because everyone has children and everyone know what it's like in Gaokao.
P2.1	590	So, it's a big event in China.
P2.2	660	[Nate]: So I wonder if you have had any experience with, uh, um, discussions in class, classroom discussions. [P2]: Yeah, we have. [Nate]: So maybe describe to me what that looks like. [P2]: Uh, it's, uh, the teachers throwing away the pro-, not throwing away, just gives, just gives, put up, put forward the, uh, uh, pro-, uh, question, and he want to hear the different voices from the classmates. [Nate]: Mm-hm. [P2]: Or, or he want us to lead a talk, and generalize our thinkings. [Nate]: Mm-hm. [P2]: So talk for a while, but I didn't experience that much here. [Nate]: Ok. Uh, so you didn't experience it much, and- [P2]: Of course, in China there still is fewer this kind of class discussions. [Nate]: Mm-hm, ok. So, uh, do you, the few times that you did experience it here, uh, based upon that, would you, do you wish you would experience that more in your program at MSU? [P2]: Mm, class. [Nate]: Do you. [P2]: Uh, yeah, yeah, if it's a well designed discussion we can have. Um, if it's, yeah. If it's well designed, or if, and if is many people are willing to talk. [Nate]: Mm, mm-hm. [P2]: But if it's teacher just gives, gives a, uh, gives us a discussion, then no one, no one likes it. [Nate]: Yeah. [P2]: Or, no one just have a positive feedback, a positive response then it won't be good.

Table F4 – Wei: Integrate Synopsis

Doc	Begin	Original Transcript
P2.1	139	So at first, at first he introduce some background that we have. And then it gives some slides about the, the topic. He, he talks. And then after that, he, he gaves us some, some other projects... but really helpful, not only help us to practice our English skills, but also help us to, to, to find materials and to, to, um, to, mmm, to dig into a, the topic, and, uh, collaborate all information we need and present it. And so, it be very helpful to help us practice.
P2.1	162	So, I think, uh, the teacher just not only gaves us, give us lectures; but he, he, he was trying to collaborate all information, all the course, a—all the lectures he has given to, to, um… altogether to make us, make it just can, to make us, to make us actually use it when, to make us actually use it... class actually takes about four months typically, so every two months, one or two months to two months, he, he set up a pro, a little project, which he involves the course we have taken.
P2.1	164	So his specific design to, to; and trying, and trying to embed all the information, all the lectures, all the knowledge he has. Mm, he has, uh, talk. He has given before; and he designed that and let us to solve the project based, uh, on, uh, based on own understanding of, of the topics he has given.
P2.1	172	Yeah, and let us, not, not just, not only do the homework, but actually do a little project to learn how it works. In the, in the practical cases.
P2.1	193	So based on, half, most base it, base it, most knowledge base on the, uh, the courses, the course material, some… he put other materials in to let us learn and connect it. And also, he gives us more information, just more real, real information from the site and that has to deal with more some more real information, not, uh, the designed information for the homework.
P2.1	199	Can combine the homework, combine a set of homework together, but we need to think of what kind of knowledge we need to use.
P2.2	266	Because I can just by, by practicing how to use that in the real case I can know that how, actually how the, how the actual system, real system work, and how can I use my knowledge to predict-, to make it work, or to predict the nature, predicts how technology working, how to apply the technology to the real world. And kind of practice, of the relate academic knowledge to practical applications. So it helps gives me more information and help me more.
P2.2	530	And also help me to learn, because preparing's another process of learn. Learning, cause I need to actually gather information, deal with it, and, uh, think about how to, how to show it. How to show my think.
P2.2	576	Actually, because, it's just the talk. Because I, I just say that the information, learning information about the topic was from preparing and feedback. And the preparing, I get information, I look back to it, look back to calculation, look back to the thoughts, and think about the, uh, uh, think about the cases, and deal with, uh, and probably develop a kind of theory of that, or my thinking.
P2.2	663	Uh, it's, uh, the teachers throwing away the pro-, not throwing away, just gives, just gives, put up, put forward the, uh, uh, pro-, uh, question, and he want to hear the different voices from the classmates. Or, or he want us to lead a talk, and generalize our thinkings.
P2.2	681	So if a good class discussion and kind of a little project. I mean, little project that is discussion which can relate the knowledge to the real case. And the teacher may, as-, ask us for ideas how. How that information works in real system. And he want to learn different thinking, and want to l-, to us to talk with the, with, uh, with both with him and with other people. To share our opinions. Of how they're, the, uh, to relate or, relate, uh, information, to relate the academic information to a real case. So if not a discussion, if not a good discussion, if it's, uh, just, uh, information that we can have from a book it's just academic stuff. If it's just like, to discuss why, 1 + 1 =2. It doesn't help.
P2.2	740	[Nate]: What helps you to learn when it's not fundamental knowledge that you're learning? [P2]: The pro-, kind of projects, because it's not that fundamental, uh, we know that we can use, apply it in the real cases. [Nate]: Ok. [P2]: So, just projects. [Nate]: Ok. [P2]: Um, to a, just a, just a by the way that we can actually use it, because it's, we can use it. Because everybody can use it, so it's better for us to actually use it to get, to learn more.

Table F5 – Wei: Relationships Synopsis

Doc	Begin	Original Transcript
P2.1	148	Yeah, listening to other people, this may help people think is always be very helpful. Not only the, the professors how to think, but your, just your classmates, just kind of always you're the same, we're same age how they think, and with a similar background, or a different background how they think because it's, it's, uh, diverse of course. Many people from different department takes. This really helpful for me.
P2.1	203	we worked in group, so that's also help us to communicate with others and work with others, work in group.
P2.1	239	Even though the people are not helpful, I come with those so it's fun. So, it's always helpful. So, I don't think anything is not helpful. Probably some people don't work or sometimes… uh, but they have, they can do other things. That's, that's helpful... Uh, I, actually, I don't mind that people doesn't work. So, you're in my group. I don't mind but I mind if everybody don't works.
P2.1	247	I think it's always good for, to communicate with others because sometimes your thinking style just a, just fixed. Just like you think things like this, but other people think, can brought new ideas, can bring new ideas to this. And they also, they can also found some interesting part that you always missed. And so you, so if, so for, so first they, they help me to, they can help me to think, think differently.
P2.1	248	And, and, when, when with more, with many people, not more and more people, a certain number of people, we can talk and together, can discuss together. We can brainstorm and if more power, when more powerful than you think by yourself. And also is more people are doing project you can just, just, just split a project, can projects to different parts and everybody can focus on area, certain kind of area, and it's more efficient.
P2.1	250	And you don't need to care about more specific, some specific details, and you can, everybody can do what he's bet-, good, good at it.
P2.1	252	Or what's his best so, and more efficient. And also, it's more fun. People stay together and learn things together. It's fun. Not, but not, not just you'll sit down there and just do the work.
P2.1	260	For me, I'm not that, uh, I'm not very, sometimes I feel little angry but actually they are pe-... Actually they are good people, they are smart people. They the, the, they're not very, it's just kind of some …They're kind of lazy but not because they, they are not bad. They are good people. So, uh, I can just, I can just schedule the things and work, do some kind of work. So I don't care who just, I really don't, uh, I don't care that much as who, who's taking because… just if you have four people, it's not … It always does happens that everybody have a twen-twenty-twenty-five persons who works, involved.
P2.1	262	So, I'm not, I don't care that much. So, for me it's just working, the player for working with others always the highest one. Even though they don't help but they help me to, they make it happier for me to work. Rather than by myself. So.
P2.1	445	Just to improve myself to get new different knowledge from different people, from different areas of works.
P2.1	447	Mm, and I think it's also, even also help me in the future to, mm, get to collaborate with m-many people, professional people outside of, outside of, different parts of work or to share opinions, to solve problems.
P2.2	522	If the group is good, if the group is not, I do the most. And other, you do, don't do anything that goes with the first one.
P2.2	526	Because when we prepare, we actually, we need to gather all the information and go back to what we have, and how we present it, we need to design that. So, with more people in the group, who are actually working- we can talk with each other, we can communicate to have bet-, to have bet-, and we can have a bet- to decide the better ways for us to present the information, and what ki-, what, what, we, and then we prepare it we need to gather information so we will have more people working, we can gather as much as information, and have more thinkings, more ideas, and we can add it into it to make the presentation better.
P2.2	613	If it's a good person, he's giving a good presentation, it goes in first one. If it's not that good, it not, it's, it's poorly developed, it's third one.
P2.2	681	And he want to learn different thinking, and want to l-, to us to talk with the, with, uh, with both with him and with other people. To share our opinions. Of how they're, the, uh, to relate or, relate, uh, information, to relate the academic information to a real case.

Table F6 – Wei: Self-Directed Synopsis

Doc	Begin	Original Transcript
P2.1	189	And, and for finally so we need to design the uh, uh, uh, uh, to design the, uh … where to dig a, dig a hole to get the water out. So for that we, mm, we use, uh, uh, hydraulic calculations based on the Bernoulli's equation, and so we, we, we try, we just calculate the most, uh, contaminated area. And then we, we design is to illustrate, uh, be … Uh, uh, also he provided us not only, it also helped … So the project only includes the lectures he has talked before, so he also gave us some, uh, other, uh, some paper, u-uh, materials that let us to learn by ourselves based on knowledge, uh, you know from class. So we, it also we apply some extra curricular knowledge.
P2.1	199	Can combine the homework, combine a set of homework together, but we need to think of what kind of knowledge we need to use.
P2.1	219	I picked it because it was a busy course. Yeah.
P2.1	231	In Dr. [Professor]. That's more flexible because, uh, high grade, high-level class so.
P2.1	260	They the, the, they're not very, it's just kind of some…They're kind of lazy but not because they, they are not bad. They are good people. So, uh, I can just, I can just schedule the things and work, do some kind of work.
P2.1	302	Put up a slide so I don't like it. Um, I always play, I take out my phone, I play games. I know that he will give us the slides later. So I can just, uh, I can just, uh, print the slides and watch by myself, and learn by myself.
P2.1	312	So, (laughs), there's no, so if there's a slide that pe-, that the profe—uh, here. If, when that pe-, the professor gives slide, they always have more, much more information other than what he shows. What he shows is just kind of, give us idea of what he's talking about. But we need to listen carefully how he explain that, but it's not on the slide.
P2.2	266	Because I can just by, by practicing how to use that in the real case I can know that how, actually how the, how the actual system, real system work, and how can I use my knowledge to predict-, to make it work, or to predict the nature, predicts how technology working, how to apply the technology to the real world. And kind of practice, of the relate academic knowledge to practical applications. So it helps gives me more information and help me more.
P2.2	288	Yeah, yeah. Reading we can read, we have a I-, different kind of reading. We have read books, we can read papers, but for me, it's just kind of read. You can get information, by my own.
P2.2	306	I think when I have, when I get back from the class, I need to first to go back to the topic he has given to see what, understand what I don't understand. And find, and if this kind of information I understand, almost, I, I know that I can learn more if, if, uh, if this, uh, if I understand it I can, I can go, go to different top-, or I can, I can get-... So for the knowledge, I understand, or, always, mmmm, I'm always, uh, I always wanting to know more about it, because, just, for example, just, we can say that it's just I, I know that just, I, I, as, just like I have the tool. So I want to know how that tool works. So I read. To see what can I use, how can I use that knowledge. So for the other part, if I don't understand, I need to re-, read the topic, or read the books with the papers to see what, what's the part that I missed. And I can get it by my own.
P2.2	430	It's based on the course, or how the teacher arranged it. Or based on my, on my interest match, between my interests and her-, and his topic.
P2.2	446	...the projects, the design would goes here when the teacher's well deva-, well related, we-, i-, it's, relate the information to the, to well link the information, giving the course, and the information we need to deal with the project, which means... Relate the course based, uh, uh, topic to the real world. If is well link, it's a good link. Or let us pr- practice, and let us know how the real system work, based on or-, our own knowledge learned.
P2.2	514	I know what I want to present, I can chose what I want to talk. Uh, but it's best I can't communicate with others to see what's I miss, or-. So it's just kind of what I add, what I want to present, what I add there's no other opinions goes into it.
P2.2	637	To, to, let me, to let me think about what I have learned, or what I have not learned, what I should do. To improve myself, to improve my topic, or to improve my project, or improve my homework.
P2.2	673	Uh, yeah, yeah, if it's a well designed discussion we can have. Um, if it's, yeah. If it's well designed, or if, and if is many people are willing to talk. But if it's teacher just gives, gives a, uh, gives us a discussion, then no one, no one likes it. Or, no one just have a positive feedback, a positive response then it won't be good.
P2.2	802	I know that I can always improve myself, if I have a chance. I can finish a hard work, if I do, if I am working hard, um, and, uh, everything, everything's possible if I, if I, not everything, most things are possible if I-, for me to, uh, most things are possible if I actually working hard. I think. I have a capability to improve myself.

APPENDIX G

Chun: Synopses of Themes

Table G1 – Chun: Adjustment Synopsis

Doc	Begin	Original Transcript
P3.1	56	Okay. Actually we have those kind of lab things in undergraduate studies, but this course is kind of different from the other courses because for this course, we have to choose some topics we are really interested and then and design the experiment ourselves. But for those lab courses in my undergraduate studies, it's kind of okay, now to that. We have to learn some, some technologies of how to exam some chemicals about chemicals things. So the teacher will always give out the handout several days before the lab will begin and we have to read it and understand how the steps going and…
P3.1	68	Mm-hmm. Actually before I came here, I didn't expect so many Chinese students and when I come I recognize that there is a lot. Maybe half or more than half of the students, they even didn't pass the language exams and they can come. So I was kind of disappointed and actually when, before I came, I was like okay. I have to come here to do a lot of experiment, maybe publish some papers and do the thesis, but after come here is like and I think we have um, but after coming here, um it seems that um we don't have so many… we don't have so many professors here and we've got too many students. And so it kind of abandon the professors because they have to take more students.
P3.1	134	Um, I think the main points are in the textbook, but maybe the details maybe a little different and I think this uh, how to say that. This is a special things for the teachers here different from the teachers in China because uh when I was in my undergrad studies, the teacher always giving the lectures following the book exactly.
P3.1	219	Um, since actually I don't have so many presentation experience before or maybe I have for maybe just one minute or two minutes. This is kind of long for me and um at first I was very nervous and I cannot imagine that I can finish it.
P3.1	362	Um, I don't whether it's because of the language things because last semester I just came here and uh I'm not, I cannot understand everything. So I kind of struggle and um I don't know. We also have a course this semester, but like the slides it's not so many but last semester, there is a lot of slides we have to… and also for the exams um, it is not simply recite those things. You have to understand how it works or some general ideas or, but you have to like write your own idea about certain questions. But for this course for this semester, it's like I can just recite it and do the exam.
P3.1	369	[Nate]: So how do you know when you've learned something in a course or how do you know that you've learned something from a course? [P3]: Um, actually when I was in my undergrad studies, I have basically I have never think about these questions, but after I came here like for the course of the Dynamics things, it's kind of we always think, consider those situations as uh just ignore a lot of factors in the reality. And um, just, how to say that, but after each course if I cannot understand why we are learning this course, I will just go direct to the teacher and ask what is the application of this course in the reality. And he's, yeah. He's also very happy to answer this question and he will just tell me and also tell the students in the class. So from this I can know how can I just apply those or what did I learn in the reality.
P3.2	76	Sometimes I will just keep quiet, but I think I'm kind of active than the others because the most of our class is Chinese. I don't know, maybe Chinese they are not so used to like raising their hand, answering questions. So just maybe several of us will sometimes respond to the teacher.
P3.2	127	Because, um, this kind of experiment is different from the other experiments I did before in my college or in anytime else. We have to design our own experiments and um, I don't know, I just really like it.
P3.2	144	Um, but um, but um, because we in Master's, we do not have so many homeworks. So, we just have one course require a homework. So basically I think, and it's just six homeworks. So I think it's okay and it, it helps.
P3.2	400	[Nate]: Ok. Yeah, why-, okay-, why do you think it is that students maybe do not do their best in the discussion? [P3]: Um, I don't know, maybe it's also because of the Asian. They are not really used to this kind of active things. And they prefer to just receive those knowledges from teachers.
P3.2	417	[P3]: Um, I just remember there was one course last semester, in last semester is about the policy and the teacher usually will set a question and people who are willing to answer it can answer it. But, um, I don't know, maybe because of the language and last semester is the first semester we came here. So we cannot, let-, say something really good or very related to the questions. So most of time, like me, I cannot get involved really well, so I'm not feeling so good.

Table G2 – Chun: Application Synopsis

Doc	Begin	Original Transcript
P3.1	78	And the way he taught, the way he taught the classes, um we have certain kind of models and he will do it in a very detailed, deductive way so we can understand everything, how we can derive certain equation or certain like law or something. So it's kind of a help us to remember how can we use this laws or apply this laws.
P3.1	127	But there must be some who look over the text to get some clue of how the handouts or the results or looking for some examples to understand the processes. Because I think um the examples or something like problems can really help us to understand it.
P3.1	142	Oh um, it's just um apply for those equations to the maybe reality problems or just a very kind of similar problems from what the teachers have taught us in the lecture.
P3.1	146	Um, mm we have to calculate something and some of things like, we have to draw some graph of how the contaminants behave in the certain environment. And for the others, because we have different kind of models and so the teacher will sometimes it will apply to a certain reality problem maybe he made up himself, but we don't know just kind of reality and we have to apply it not just take it here and substitute some numbers in it. We have to think about it and solve it.
P3.1	181	He will just solve it on the class after derived those new things.
P3.1	328	For that class we had to um, we have to make a group of three or four and doing some projects which is a real project. It's based on some reality and we have to design how to take out the contaminates in the plume or we have to um… yeah basically we have to do the whole process, how we start and what is the cost things, issues.
P3.1	369	[Nate]: So how do you know when you've learned something in a course or how do you know that you've learned something from a course? [P3]: Um, actually when I was in my undergrad studies, I have basically I have never think about these questions, but after I came here like for the course of the Dynamics things, it's kind of we always think, consider those situations as uh just ignore a lot of factors in the reality. And um, just, how to say that, but after each course if I cannot understand why we are learning this course, I will just go direct to the teacher and ask what is the application of this course in the reality. And he's, yeah. He's also very happy to answer this question and he will just tell me and also tell the students in the class. So from this I can know how can I just apply those or what did I learn in the reality.
P3.1	375	Um, because I have to know some knowledge about these systems so that I can apply those, those knowledge into like certain kind of case study in the reality or and if you have, you know nothing about it, you can … and I think you cannot like solve those problems in reality.
P3.2	88	Um, when sometimes you cannot understand, the examples really helps a lot and also because some of the um examples are kind of practical, so you will know how to apply it like in, in, in certain case or in certain problem and not just theoretical things, so I think it's good.
P3.2	137	Um, because what, what the teacher assigned as homework is basically the important part, the most important part during their lectures. So you can, you can grasp those important parts during, during your homework and um, you were, and it's also application of those, those theories, so you can like make, make use of them.
P3.2	162	I think, um, the knowledge which required in exams are always covered in lectures, but in different forms. Like in the, in the remediation class which is the class require the notes, it's kind of directly, we just, we just have to get to know the processes and if you, you can, sometimes you can just remember it and you can do well in the exam. But like the Dynamics one, um, we have to solve problems maybe the, the specific problems are not mentioned in the lecture, but it should related to some knowledge and we can like apply those knowledge on those questions. So maybe this is the different to use.
P3.2	201	Um, because uh, it's kind of practical things, I like those things instead of just knowing those theoretically or something like that.
P3.2	253	And you can apply it to a lot of cases like if you're, because for that course is about chemistry, the basic chemistry, are knowledges and when we're doing the experiment, we can't, we have to do some chemical things, so we have to definitely apply those basic laws or knowledge.
P3.2	283	Um, I think for those assignment, you have to do the calculations, but it's not just simply calculation, you have to, you have to like apply the right maybe equation or the right laws.
P3.2	285	And, um, some of them will like involved with real problem, but some of them will just assume it's such a situation and ask us to figure it out.
P3.2	341	Um, of course we can get the knowledge during those report or project. It's also a part of the learning process, but I'm like emphasis more on this kind of practical skills which may applied in the future and which is very important.

Table G3 – Chun: Relationships Synopsis

Doc	Begin	Segment
P3.1	72	And um it's kind of like the, like the resources of the teachers, but um I think the good thing is I think is, since there is a lot of Chinese students. The life would not be so hard and um when you come up with something which is I'm sure can easily to communicate with others so which is also good.
P3.1	206	Uh it's we have … the teacher will uh distribute some report from, I forgot from where, but we have to go over those report and make a 15 to 20 minutes presentation, introduce the whole report of things, the new technology or so we can learn from each other from that.
P3.1	285	[P3]: Sometimes I will just skip it. [Nate]: Just skip it. (Laughing) [P3]: I'm sorry. [Nate]: Okay. [P3]: But sometimes I will like ask for um classmates for help and if even they cannot explain it, I would just go direct to the teacher and ask about it. [Nate]: Okay. [P3]: After class I mean.
P3.1	338	Uh… we just, we just pick several times every week to meet and discuss how everything going. If we cannot figure it out, we can just ask help, or ask some senior student because maybe they have some similar project as us. So we can ask them for help.
P3.1	346	[P3]: Mm-hmm. When we do the project, we are always dividing several parts, different people. So we will, basically if I was assigned to a certain part of the project, I would concentrate on this one, but I may not so familiar with the other parts so I cannot uh have a very good understanding of the whole project. And the good thing is if you have something which is you can't, you don't have a clue. You can just discuss it in groups and that is good.
P3.2	77	Students are not so active on class and they are, they prefer to keep quiet and like maybe this is kind of show respect to teachers because in Asian countries, we have to like, teacher is higher than students, so it's not like equal here. So the firstly is pay some respect and if you have questions, you can, you can ask after the class, not, but instead of interrupting him on class. The second one is maybe because of the language and the third is maybe they don't, they cannot understand.
P3.2	131	Um, actually sometimes, maybe we, like we will take part in um, our advisers group to do some experiment which is not our own project. It's like, we are helping senior student to do it. Sometimes for me, I cannot have an overview of the whole project, so I was just going and help. And I don't know what, what is this stuff for and why we have to do this.
P3.2	185	Because talking to the teacher is very important. Not only that you can understand certain things you're not sure, but you can have this kind of communication with your professor and he can give you some advices with your thought and um, I don't know, maybe it's also kind of networking. If you can get well along with your professor which means you are, you are doing better than not doing this.
P3.2	219	Mmm. Yeah, maybe sometimes when we are doing the project, we are divide it into several parts. Everyone responsible for one part. Sometimes people cannot like, because like me, I'm not doing the whole project. I may be more familiar with the part I am doing, so, so this is like kind of disadvantage compare to the individual projects.
P3.2	386	[Nate]: ...are there other times in your program at MSU where you didn't have the ability to ask questions, uh, where there is something where you thought "Maybe I don't understand this. I'd like to ask a question," but for whatever reason, you weren't able to? [P3]: No. The teacher will always give time for us to ask questions. [Nate]: Ok. [P3]: And if not, we can still ask them after class, so it is great.
P3.2	395	Because this kind of discussion is kind of casual and, um, even we do not discuss it well, the teacher will not notice (laughs). And maybe not everyone will do their best in those discussion.

Table G4 – Chun: Self-Directed Synopsis

Doc	Begin	Original Transcript
P3.1	157	Um, let me see. Maybe at the beginning of the semester, the teacher will ask us to write some minute paper which is you take one minute to write what is very clear in the class and what is unclear in the class and what is problem and the questions you got and to write it down. The teacher will take down those questions and solve it in the next meeting.
P3.1	163	But uh, but later there is kind of no minute papers… Maybe because we are kind of not so willing to write those minute papers.
P3.1	285	Sometimes I will just skip it… But sometimes I will like ask for um classmates for help and if even they cannot explain it, I would just go direct to the teacher and ask about it. After class I mean.
P3.1	328	It's based on some reality and we have to design how to take out the contaminates in the plume or we have to um… yeah basically we have to do the whole process, how we start and what is the cost things, issues.
P3.1	336	We can choose the groups ourselves.
P3.1	338	Uh… we just, we just pick several times every week to meet and discuss how everything going. If we cannot figure it out, we can just ask help, or ask some senior student because maybe they have some similar project as us. So we can ask them for help.
P3.2	41	When people can hardly understand something, they will like they have to pay more attention to it, but if you can't you cannot understand, maybe some of them will give up
P3.2	76	Sometimes I will just keep quiet, but I think I'm kind of active than the others because the most of our class is Chinese. I don't know, maybe Chinese they are not so used to like raising their hand, answering questions. So just maybe several of us will sometimes respond to the teacher.
P3.2	96	I think the notes the teacher provides is enough for us to, to get to know the processes or because the textbook is too big. And every, every like for every lecture, it requires too many materials which like for us, it's kind of a lot and time consuming. We have to take a lot of time and maybe we can still cannot finish those reading material, so I just do not read it.
P3.2	119	Ok. I think there is two situation. The first one is they have no question and um, they think they, they got a really real understanding of this lecture. The second situation is they didn't understand what the teacher talking about and so, they don't know what to write. So, yeah.
P3.2	127	Because, um, this kind of experiment is different from the other experiments I did before in my college or in anytime else. We have to design our own experiments and um, I don't know, I just really like it.
P3.2	133	And sometimes experiments kind of time-consuming. If you did something wrong, you have to redo it and I remember I have, I had a time to do the experiment from 12pm to 8pm just stay here. I just stayed there and oh, okay.
P3.2	169	We have to collect some literature to, to support our experiment, to see what kind of method we are using and is it, does it work well or like some kind of literature review, those kind of things.
P3.2	186	[Nate]: Ok. So have you had times at MSU where talking with your teacher after your class wasn't as helpful for your learning? [P3]: Mmm, no. [Nate]: No. So, it's always been helpful when you talked? [P3]: Because I'm not going to the office or every time, just when I got question, I will go to them.
P3.2	203	So you have to, when you are doing the projects, you have to considering every steps by yourself not just following the teachers.
P3.2	205	And then when you find problems, you have to first figure it out yourself. If you cannot, you can like communicate with your professor to figure that out. And I think in this process, we can learn more than just receiving those lectures.
P3.2	395	...um, even we do not discuss it well, the teacher will not notice (laughs). And maybe not everyone will do their best in those discussion.
P3.2	406	[Nate]: So just thinking about that, about things where you're receiving the knowledge from the teacher or doing like you said some of those more active things, for you, what would you say helps you to learn the best? [P3]: Um, active. Because you have to pay more attention to the teachers so you can understand certain part and then you, you can have your question about it. If you were, you were not sure about what the teacher is talking about, how can you get a question about it and how can you discuss it with it. So, um, actually, this kind of active is good.

Table G5 – Chun: Prepare Synopsis

Doc	Begin	Original Transcript
P3.2	46	[P3]: But like this, for this class, the teacher require us to take notes. And I think this is a good way to, for us to like keep, pay our attention to the lectures. [Nate]: Ok. So yeah, you had told me about that in the last meeting and you said, uh, remind me, the professor gives you papers with like blank, blank slides and then and then you have to write down in there. And then does the teacher collect those or just the teacher expects to see you writing? [P3]: Yeah. She expect to see us writing and we keep the notes. And we use them to prepare for the exam or future usage or something.
P3.2	71	[Nate]: So when the teacher ask questions then in the Dynamics class, did you ever or how often did you answer the question? [P3]: Yeah. Sometimes I will answer the question if I know (laughs).
P3.2	77	Firstly, it's kind of Asians style you know? Students are not so active on class and they are, they prefer to keep quiet and like maybe this is kind of show respect to teachers because in Asian countries, we have to like, teacher is higher than students, so it's not like equal here. So the firstly is pay some respect and if you have questions, you can, you can ask after the class, not, but instead of interrupting him on class. The second one is maybe because of the language and the third is maybe they don't, they cannot understand.
P3.2	119	Ok. I think there is two situation. The first one is they have no question and um, they think they, they got a really real understanding of this lecture. The second situation is they didn't understand what the teacher talking about and so, they don't know what to write.
P3.2	186	[Nate]: Ok. So have you had times at MSU where talking with your teacher after your class wasn't as helpful for your learning? [P3]: Mmm, no. [Nate]: No. So, it's always been helpful when you talked? [P3]: Because I'm not going to the office or every time, just when I got question, I will go to them. [Nate]: Ok. So, how often would you say in one semester, let's say in the Dynamics class, how many times in a semester in a class like the Dynamics class would you go and talk with the teacher after class? [P3]: Maybe three or four times. [Nate]: Ok. [P3]: But sometimes we will just, because when we, we are not always have time when the teacher offer the office hours. [Nate]: Mm-hmm. [P3]: And sometimes we will just ask some quick questions immediate after the lecture is over, so those little questions.
P3.2	205	And then when you find problems, you have to first figure it out yourself. If you cannot, you can like communicate with your professor to figure that out. And I think in this process, we can learn more than just receiving those lectures.
P3.2	406	Because you have to pay more attention to the teachers so you can understand certain part and then you, you can have your question about it. If you were, you were not sure about what the teacher is talking about, how can you get a question about it and how can you discuss it with it. So, um, actually, this kind of active is good.
P3.2	417	Um, I just remember there was one course last semester, in last semester is about the policy and the teacher usually will set a question and people who are willing to answer it can answer it. But, um, I don't know, maybe because of the language and last semester is the first semester we came here. So we cannot, let-, say something really good or very related to the questions. So most of time, like me, I cannot get involved really well, so I'm not feeling so good... And actually, maybe because I didn't well prepared for the class so, um, I cannot do it well.
P3.2	436	[Nate]: Good. Uh, this is a good one. I wonder about umm, if you had another class where there was class discussion what do you think would have to happen in order for you to say "Oh, that goes actually in number one now, not in number two?" [P3]: If I get real prepared. I have something to say, and, um, I can get involved. I think it would be very good thing to do.

APPENDIX H

Mei: Synopses of Themes

Table H1 – Mei: Barrier Synopsis

Doc	Begin	Original Transcript
P4.1	150	…it's just too many. And as an international student you know, reading is not fast, is not fast at all and I take too many time, you know, too long time in reading and sometimes I just don't know, don't understand what I'm reading, just go through, okay. Nothing left in my mind. (Laughing) See that happens all the times. So sometimes I, you know just so tired of reading, you know just, you know can't get, cannot get anything out of it.
P4.1	190	So, but the thing is, it's yeah like I said it's the international students, it's not really quite easy to understand in class. Because most of the time I think the professors speak faster than I expected and there are sometimes it takes me for a while to really understand what's going.
P4.1	326	But I have a, you know, a background in you know… at least I learn something. I know something before, I learn so that's more easy to understand and then I can apply that theory into the assignment very quickly. But for the other like accounting or marketing I have no idea what is it before I enter the program. And one thing is, another thing is, um, sometimes for international students, you don't know the background, you don't know the cultural things, you don't know the slangs or you know, stories. Like in marketing, they talk about a lot of American brands. You don't know, what is that?
P4.1	328	And then they talk about a lot of slangs that will be used in class. That's really difficult for interna-, international students to understand. Even though sometimes the professor will ask whether you heard about this before. Even though he, you know he would like to explain you a little bit but that, that doesn't really help a lot because it's cultural thing you need to you know, I remember sometimes he talk about some name in a TV series or cartoons series that all the American students watch, you know from children you know, when they grow up. How can I know that? (Laughing) So it's hard you know, sometimes it's hard especially that you know something just, US originate…
P4.1	338	So it's hard, so yeah like I said if I had that background you know I did that things before and plus, um, it's my interest. I will learn more quickly. And then I would do the assignment, confidently. That's how I decide…
P4.2	349	Um, so depends, depends on my teammate. Um, someone teammate, like the, um, they are local, they are domestic and they, you know, they smart and they, they will dominate, but I will, you know, if I know something they don't, I will just tell them or, you know, I can share, I, I will share my opinions. Um, in some groups, we have different groups of different class, in some group, if the people are more quiet than me, then I will speak out. I usually will be, you know, um, kind of coordinate the whole group.
P4.2	364	So the first type of team, I will put here because I don't usually have chance to-. I, I don't really share enough my, uh, opinion. So I usually, because they are so strong you know, in their opinion sometimes, and then, you know, either way, if it's, you know, um, we can get it done. We just, um, um, agree.
P4.2	450	Umm, other classes. Um, so for, for some subjects that I never learn before, I have no background about that, I will put here (laughs) because I-. Even the professor lecture, I have a hard time to understand so, so even, you know, it make it even harder to understand you know, the conversation between the other students and the professor. Sometimes it will be better. So it depends on the subject. So like the finance or, you know, I have no idea what's that and, and just beyond my understanding. (laughs) So I usually just, um, listen and, you know. Sometimes they, you know, speak too far out of my understanding I even, I just pay no attention to that because I, I don't understand anyway.
P4.2	753	Uh, we meet together to, um, finalize the talking point for each questions, but in terms of writing each person would take one of the question. So, um, so that means you cannot have a overall, a comprehensive understand of the whole questions you cannot, uh, answer. You just focus on one. So every time you just focus on one, one questions.
P4.2	775	So if you did, you are the, the people that, that proofread you might have a whole picture, but otherwise you just have a small part, you know, don't have the whole part.
P4.2	850	So, yeah, I don't know if, what, just for this team and this class we don't have much interaction, you know, um, for this specific briefs. And, um, because he write the whole thing for the whole year whole semester, and then, I think of, I, I lack, I lack the opportunity to practice.
P4.2	862	So that's kind of challenging because I, like, I have no practice at all. (laughs) I think that, that the one that writes, writing, they will have, so ready for the exam, but not me, so I will put it here. (laughs)
P4.2	952	um, because I'm still not very confident about my English-speaking skills. So I usually, um, write down what I'm saying you know, very detail and then I just, um, for beginning, I will memorize all I have.

Table H2 – Mei: Clarify-Solidify Synopsis

Doc	Begin	Original Transcript
P4.1	186	Well I don't like memorize things, because that's you know, after the exam or after the you know presentation or something, your forget everything and it is not internalized. So I would rather to understand them and then maybe I can apply them later on. The thing is something, a lot of things you learn but you don't have a chance to apply them, and then you forget them.
P4.1	194	First of all I think if I think that knowledge is internalized that means I will use them naturally when I, you know when I something happened that, you know, I can, I can apply this knowledge, naturally I can think of, "Oh, this is what we learn we can you know, that fits in this situation or scenarios." In order to do that I think, you need I think I need more time and then I need more practice maybe just for some accounting, maybe I can do more exercise or something in order to you know, the more you do you, the more you understand and the more you unders-, and you know, use later on, you can apply the same knowledge.
P4.1	259	And then I'll try to match whether their problem or you know what they are presenting is the same or different with us. So I would you know just kind of think you know, listen why they are different. And if the same I feel good 'cause maybe we're right. And if different we try to figure out why they think that and you know try to you know find some support to our problem.
P4.1	319	But usually that's how I understand, you know if I can do the assignment by my own and very confidently, so that means I understand that.
P4.1	364	So in the internship I will, you know talk about this to my employer, to my supervisor about, um, you know this is my interest. You know I want to kind of go more depth into this area and then hopefully after the internship I can be more knowledgeable in this interesting, the area that I interesting in… have more in depth knowledge about that, because that will be also possibly my future job.
P4.2	378	I will remember last time you asked when will you realize you learn something. I think that's another important way. As long as you can tell people why you think this is right that's the way you knew, you, you know about the stuff.
P4.2	396	So a lot of time, um, in that type of group meeting, I will, you know-. They will have their own opinion and then I will argue with them and "I think this is right because" blah blah blah, and then sometimes I'm wrong and then they tell me, "You're wrong because" blah blah blah, and then I, I think that kind of meeting, you know, we have more interactive um, communication, and then that will help me a lot to learn something.
P4.2	526	because sometimes the quiz are so confusing. So, you know, after you go over the contents, you, you not understand, but when you do the quiz, it's, you know, you, it happens to be wrong, you know, different from your understanding, then you're even confused you know, by the quiz. But that's kind of useful as well because you know what your misunderstanding is and then you can find out why, and then, yeah, that's another way to learning, too.
P4.2	705	Umm, yeah, because you learn some formula or, you know, some basic, uh, theory in class and you don't know how to use it sometimes. And then through the homework, you can know, oh, in this situation, we better, we can use this calcu-, um, formula.
P4.2	908	but this, this project I kind of, uh, uh, like a leading, leader to, um, coordinate the other team members, get their thoughts and then, um, finalize the PowerPoint and what, what we need to present. So it actually give me a lot of confidence, um, about my leadership or my knowledge after I learn.

Table H3 – Mei: Relationships Synopsis

Doc	Begin	Original Transcript
P4.1	122	there's a lot of teamwork and I think this is very different from my previous school-. Um, undergraduate and graduate? You know master degree, master program because it's most individual. But here is, you know, you need to have a lot of team projects.
P4.1	128	You need to work with other teammates together to you know, get things done. So this is the biggest difference but which I like. I mean teamwork I like because this is one of the selling point of this program maybe.
P4.1	130	You know, you get to involve a lot of teamwork, and which is very useful for your career and, you know, your future jobs
P4.1	260	And then I'll try to match whether their problem or you know what they are presenting is the same or different with us. So I would you know just kind of think you know, listen why they are different. And if the same I feel good 'cause maybe we're right.
P4.1	265	And if different we try to figure out why they think that and you know try to you know find some support to our problem. And then you know later on when there's Q&A I just, I usually you know usually don't speak. And I just, you know, expect other students to kind, you know, ask the questions why you think that, and usually what I think will be asked by other students. (Laughing)
P4.1	273	My team they will kind of you know raise the question anyway.
P4.1	351	So the other thing is-, um-, MBA is like kind of a build up your network. So you learn more people learn professor or learn employer. You know, you kind of build up a network. That's, I think that's mostly the major purpose for MBA.
P4.2	87	Yeah, it's-. basically it's-, I don't think it's related much with the class content but it does, uh, improve your, um, social or, you know, that sort of things.
P4.2	145	I'm not familiar with that, I don't want to ask some stupid questions that, you know, maybe, um, feel shame about myself to, to ask that questions. I think mostly it's because I'm not familiar to the topic
P4.2	333	So we have a lot of team assignment and then, you know, maybe every week we will have three or four team meeting and just discuss, um, how to do the assignments, something like that.
P4.2	349	depends on my teammate. Um, someone teammate, like the, um, they are local, they are domestic and they, you know, they smart and they, they will dominate but I will, you know, if I know something they don't, I will just tell them or, you know, I can share, I, I will share my opinions. Um, in some groups, we have different groups of different class, in some group, if the people are more quiet than me, then I will speak out. I usually will be, you know, um, kind of coordinate the whole group.
P4.2	364	So the first type of team, I will put here because I don't usually have chance to-. I, I don't really share enough my, uh, opinion. So I usually, because they are so strong you know, in their opinion sometimes, and then, you know, either way, if it's, you know, um, we can get it done. We just, um, um, agree.
P4.2	374	because, in that case, you have to tell people why you think this is right
P4.2	384	As long as you can tell people why you think this is right, that's the way you knew, you, you know about the stuff. And then especially when they agree with you that means you're right.
P4.2	396	So a lot of time, um, in that type of group meeting, I will, you know-. They will have their own opinion and then I will argue with them and "I think this is right because …" blah blah blah, and then sometimes I'm wrong and then they tell me, "You're wrong because …" blah blah blah, and then I, I think that kind of meeting, you know, we have more interactive um, communication, and then that will help me a lot to learn something.
P4.2	430	So, um, yes, even though I don't ask questions. But sometimes when they ask the questions that, that, you know, also my question, that will be great and then I also want that answer from Dr. [Professor].
P4.2	587	Um, not here is because usually, um, some of the exams, the professor is so nice they give you all the, you know, scope or even the practice exercise and then you can, you know, even the solution then you, you do it well or you memorize and then you will do it on the exam because this exam, the question in the exam will be similar as the practices. So, but in that case, this kind of help students get not bad grades. Everyone get a good grade. So it's not really help the students to learn something.
P4.2	721	So I used the wrong formula even though it makes sense to me why I used that. So that's, you know, another way. I, I would talk to Professor because I, I do that wrong and then talk to Professor... So it's another way to feedback or to, to help you to understand the contents.
P4.2	753	because they assume you, you know, we have already have the consensus of the talking points, they assume you can do well
P4.2	842	So we will gather together and talk about, um, the problem statement, what's going-, you know, what, reach a consensus upon what's the problem, major problem of, of this case.
P4.2	1004	So, usually, and you have teammates around you. Usually I don't feel much, um, as much as pressure, as much pressure as the individual one.

Table H4 – Mei: Self-Directed Synopsis

Doc	Begin	Original Transcript
P4.1	118	I mean for the first semester is, you know the impression is too many reading, and then I tried to read them all but later on my supervisor, I mean my GA supervisor told me, "No one ever really read them all." (Laughing)
P4.1	160	And the thing is not every reading is interesting. If it's interesting, yeah maybe I, I, I, maybe the topic I'm interesting in. I might be you know, get out of it something, but if the reading is boring or you know very difficult to understand, so I just you know, yeah I just forget and I give up... you know…
P4.1	200	So usually in the class I focus on the class and after that I focus on something else. I don't really have time to you know strengthen my thoughts, my understanding. So but, but also based on my previous work experience, it's... If I have similar… I mean my work experience have similar problems before. When I learned this related contents, I would be more easy to learn because I will relate it to my, you know, past experience and then, oh if I were… I can do that…
P4.1	202	If the contents can be related to my past experience that would be more easy to internalize.
P4.1	248	So if the team is not presenting, they do one of the case. So that means the other case you're not working on you didn't read that case at all. So when the team presents that case I usually-. I try to but it's hard because you didn't read that case at all. And even though he present the background you still, you know it's hard for you to understand the whole… what's going on in the case.
P4.1	260	Because that's something I knew. (Laughing) And then I'll try to match whether their problem or you know what they are presenting is the same or different with us. So I would you know just kind of think you know, listen why they are different. And if the same I feel good 'cause maybe we're right.
P4.1	265	And I just, you know, expect other students to kind, you know, ask the questions why you think that, and usually what I think will be asked by other students. (Laughing)
P4.1	310	So I-, you know this confirmed me that I think this professor is problem, he didn't, she didn't you know teach us in a effective way but on the contrast that professor maybe do well in delivering the contents to the students.
P4.1	326	But usually that's how I understand, you know if I can do the assignment by my own and very confidently, so that means I understand that. But that's really based on my background and my interest. [...] But I have a, you know, a background in you know-, at least I learn something. I know something before, I learn so that's more easy to understand and then I can apply that theory into the assignment very quickly. But for the other like accounting or marketing I have no idea what is it before I enter the program.
P4.1	338	So it's hard, so yeah like I said if I had that background you know I did that things before and plus, um, it's my interest. I will learn more quickly. And then I would do the assignment, confidently. That's how I decide…
P4.1	347	Mm, well, maybe for MBA program it don't really, you don't really know very detail for every subject. It's a program for creating a leader in the future. So if I, I think it's worth it because um, at least I know about different, different subjects like finance and accounting and which you never know in your previous position and that helps you to um, kind of understand or coordinate well in your future position. Cause you know, at least you know some of the terms.
P4.1	364	So in the internship I will, you know talk about this to my employer, to my supervisor about, um, you know this is my interest. You know I want to kind of go more depth into this area and then hopefully after the internship I can be more knowledgeable in this interesting, the area that I interesting in-, have more in depth knowledge about that, because that will be also possibly my future job.
P4.2	645	But for most of the class, um, especially those I'm interesting in I will try to understand, you know, internalize instead of just memorize
P4.2	651	because I've, I foresee that there will, I use, I will use this knowledge in my future work. Um, so I have the motivation as well for that contents. And then I will, you know, if I have time, um, I, I make some time to, you know, spend more time to try to understand, not memorize

Table H5 – Mei: Culture Synopsis

Doc	Begin	Original Transcript
P4.1	49	[P4]: In undergrad, I think most of the schools in China are similar. But um, my experience is mostly the lectures. So sometimes we have small groups, you know, small class. Maybe we, uh maybe 30 or 40 person in class but sometimes where we have big classes like here sbout 100 people. You know but most of it is lecture and actually the interactive opportunities is little with the professor. Usually the professor gives the speecher, give the speech, uh, the lecture, and then yeah that's about it, and then the students just show up and listen... [Nate]: Yeah? (Laughing) [Nate]: So uh, that's what happens in the classroom and, um, obviously you learned a lot during your undergraduate program. What were some of the, uh, things that helped you in your undergraduate program? What helped you to learn then? So maybe it was, you had some really good textbooks or it was studying with others or the lectures were really helpful or-. What sorts of things helped you to learn during your undergraduate program? [P4]: Mm I think it's a combination. Textbook is very important. So to be honest I don't have any textbook now, I mean the hard copy because they're so expensive. (Laughing) But in my undergrads I always buy textbook. So usually the textbook is recommended by the professor-. They also tell you which store you can buy in or you know, just a a a, you know, a specific book you need to um read before class or after class. So the textbook is important. And um. And in the class, the professor usually have the slides-. But not most of them have. Most of them, most of them have the slides, but some of them just using the you know, the hand writes, projector you know... [Nate]: Mm-hmm. The projector, the overhead projectors? [P4]: Yeah, the overheads projectors, and then you write something and then you need to write down in your notebook. (Laughing) [Nate]: Yeah, so taking notes on what they're putting up on the overhead? [P4]: Yes, but that's kind of helpful too because you know, what he wrote is the most important point he wanna make sure you learn. So that's normal. What else? And I, actually I don't think I usually work in groups, I just you know individual study. Mostly individual study. And yeah. What else? Um, yeah pretty much.
P4.1	326	And one thing is, another thing is, um, sometimes for international students, you don't know the background, you don't know the cultural things, you don't know the slangs or you know, stories. Like in marketing, they talk about a lot of American brands. You don't know, what is that?
P4.1	328	And then they talk about a lot of slangs that will be used in class. That's really difficult for interna-, international students to understand. Even though sometimes the professor will ask whether you heard about this before. Even though he, you know he would like to explain you a little bit but that, that doesn't really help a lot because it's cultural thing you need to you know, I remember sometimes he talk about some name in a TV series or cartoons series that all the American students watch, you know from children you know, when they grow up. How can I know that? (Laughing) So it's hard you know, sometimes it's hard especially that you know something just, US originate-.
P4.2	116	[Nate]: And, um, so, so what is it about, uh, the lectures or, or a teacher using lecture that you find helpful for your learning? What makes it a helpful lecture? [P4]: Well, for me, I will prefer, always prefer lecture. So (laughs) because I like to listen more than I like to speak. So for lecture, um, you know, because I, I have no problem listening. I, I, I will be patient you know, in class and just listening. So, um, yeah. To, when I'm listening, I will try to, you know, process the information coming in, and then I will, mm, kind of be comfortable to learn something with, um, used, using this way. [Nate]: Mm-hmm. So, uh, so you talked about, um, not liking to speak in class the last time we spoke. Uh, what, what is it that-, why is it that you don't like to speak in class? [P4]: Yeah, I just think about these questions today and I also talk, discuss with my, uh, advisor, my GA advisor. Um, I think one thing is my, maybe my personality. I, you know, I have no problem, just, like, one-on-one conversation, I have no problem. I don't feel stressful. But if I was in the public and then, when, I see, you know, everybody's looking at me and then they just listen to me to say something I would feel stressful. That's maybe my personality or something. And another thing is, um, if I not know, I don't know much about the content, I'm not familiar with that, I don't want to ask some stupid questions that, you know, maybe, um, feel shame about myself to, to ask that questions. I think mostly it's because I'm not familiar to the topic and, um, especially in class, I-, when I listen, I, I, I'm not (laughs) that quick to process every information I get so, um, I would take some ti-, it would take some time for me to understand maybe after the class or when, when I go over, go over the slides or the textbook again and then I might have a better understanding. But during the class I, I better, you know, I, I, I prefer to listen more than ask.

APPENDIX I

Huan: Synopses of Themes

Table I1 – Huan: Application Synopsis

Doc	Begin	Original Transcript
P5.1	467	And then they will follow by presentation which is, uh, like, uh, some team, uh, will present how the analysis the case, but the case half, at least half of this class you will have to write the write up. So which means you understand the story and he also had some thinking, uh, how this case should be and what's your solution to that case and you can compare your idea with other team's ideas to see. So that you can say, "Oh, okay, there is another way to solve this problem" and, uh, what's the, um, like, uh, pros and cons in, in the solutions between yours and theirs. And that's another way to help you to, uh, increase the understanding of the, uh, business case.
P5.1	555	Uh, sometimes there are different opinions to solve the problem. We can compare them. While you're comparing those different opinions, you get better understanding of the subject.
P5.1	569	So comparing your solution to other people's solution is definitely a good thing to help you to, in the future when you evaluate a business opportunity or business case, it can, uh, help you to build up, uh, we call it a well-rounded, uh, skill sets or the mind, mindset.
P5.2	134	Um, sometimes they are real companies. Sometimes they are just, uh, like, um, a story, so that you can, uh, think about, uh, the situation in that company. So, mm, most of this, not most, uh, all those case, cases will, uh, be related to the topics she's going to discuss with us in the class.
P5.2	198	Also because you are, right now you are in the school so you get a chance to experiment the different style, so.
P5.2	225	I think in the clo-, when close to the end of the semester, I can-, end of the course, I can't understand why he wants to shorten this time for Q and A because most of the time people will ask question, uh, specifically relate to the case.
P5.2	230	But he want us to be more focused on the, mm, on the course itself instead of talking about how manager, managers works in this company. He wants us to shift our focus on the, on the ideas, on the concepts i-in this chapter instead of discussing, uh, why he would do this, what, what are the policies or quality issues in this company. I can't understand that, but to me I would say, um, there are still, um, um, chances or, mm, possibilities we can answer questions specifically relate to this chapter, or this subject.
P5.2	298	…so that we can, uh, not just a learn what, what the topic is, but also we will be able to, uh, uh, connected them with our past experience or understand how other industry, how, how, they, uh, apply those, uh, concepts.
P5.2	435	So we can have the, afterwards, we had the debate, who is responsible for the problem. It's quite, uh, it's, it's quite helpful in understanding the situation and I think I learned a lot from that because you, you just position yourself as uh, uh, uh, person in that case and then you, you argue and debating with other people and then you get, get the first hand idea about, "Oh, that's how they really feel when other people attack me."
P5.2	580	So, um, for, for the MBA team, it helped me in terms of how to communicate with domestic students how to maybe sometime solve the conflicts, and how to improve the teamwork in terms of that, I think it's very helpful.
P5.2	717	Because presenting is important i-if you are a manager. Right now the communicating, uh, uh, with your audience or with your, uh, colleagues. Presenting is a very effective way. That's the reason why, why we have this class, right?
P5.2	787	But what I am trying to say is that what you've learned is just, uh, from a, to the-, how to say that? Um, 2-D information. Like you read from the book, right? So you will form your own idea. How you interpret that. But from quiz, from Q and A, so people will ask you differently and maybe they will, um-, so it's kind of a 3-D experience. So you get a idea it's very thing, uh, and people just, uh, help you to volume it. So that you really know how to apply those I, uh, uh, concepts in the real life.

Table I2 – Huan: Relationships Synopsis

Doc	Begin	Original Transcript
P5.1	417	Uh, to be honest, uh, this semester, we had a lot of team meeting. This team is, uh, is, is not the MBA team. Because in the beginning of the last semester, the MBA program they will assign you a five-person or four-person team. So that's your MBA team. But, uh, my team right now is, uh, kin-, kinda like, uh, some a few friends, we form a study team. And, uh, sometimes if we do not have enough time, we will assign the, uh, work within the team. Like for me I will read the whole case and I will briefing all my team members so that we can understand the situation, we can start the discussion and to do the homework without everyone reading that case. Because sometimes you don't have to, right?
P5.1	471	…how this case should be and what's your solution to that case and you can compare your idea with other team's ideas to see. So that you can say, "Oh, okay, there is another way to solve this problem" and, uh, what's the, um, like, uh, pros and cons in, in the solutions between yours and theirs. And that's another way to help you to, uh, increase the understanding of the, uh, business case.
P5.1	495	You kinda like, uh, practicing this, it kinda like other classes. You have the problem set, you practicing them while doing the practicing you, you get deeper understanding of the theory in the chapter and then you go to the class. You compare your results with other students. And you get the quizzes to test your fundamental understanding of the chapter.
P5.1	515	…and typically we will be, we will get distracted very easily.
P5.1	545	So, it's kinda like, uh, if you study alone, um, of course you make distracted by other things or you're laptop as well. Um, but when you study in a group kinda like if the whole team is moving forward, you can like get pushed, you have to focus, right?
P5.1	551	But, um, first of all you get, uh, like, uh, you uh momentum to moving forward together and also, um, there are some parts maybe for you it's not easy to understand but other, uh, teammates they already understand that they can explain to you in a very easy way for you to adopt.
P5.1	555	Uh, sometimes there are different opinions to solve the problem. We can compare them. While you're comparing those different opinions, you get better understanding of the subject.
P5.1	569	So comparing your solution to other people's solution is definitely a good thing to help you to, in the future when you evaluate a business opportunity or business case, it can, uh, help you to build up, uh, we call it a well-rounded, uh, skill sets or the mind, mindset.
P5.1	655	And also for the whole class you will get a chance to publicly compare your team's solution with other team's solution.
P5.1	681	Mmm, and the, I like readings and, um. Mmm, I would compare them. I think through comparing, my perception, uh, about one subject with other people's reaction or the result of the, uh, the thing or some things happened there I would have my self-reflection.
P5.2	194	Uh, which relates to my second point is that while we are preparing for the slides we get chance to, um, communicate how, how we do it and how to assign works to each individual and how to coordinate with each, with each other. It can help because in the future we will go back to the workplace.
P5.2	196	And how we, um, how we are doing here is kind of like a simulation about how in the future we work with other colleagues, so it helps you.
P5.2	435	the professor divide us into three groups and, uh, each of group will present, uh, manager's idea, like our teammates presenting the marketing, manager's i-idea; another team was presenting purchasing; one for production. So we can have the, afterwards, we had the debate, who is responsible for the problem. It's quite, uh, it's, it's quite helpful in understanding the situation and I think I learned a lot from that because you, you just position yourself as uh, uh, uh, person in that case and then you, you argue and debating with other people and then you get, get the first hand idea about, "Oh, that's how they really feel when other people attack me."

Table I3 – Huan: Culture Synopsis

Doc	Begin	Original Transcript
P5.1	101	Uh, during my college year, I would say it's kind of similar situation like what I did in, uh, in high school. It's basically professors they were lecturing. And they will give you problem set and you to go back and do some practice. But, um. Can I compare that with what I studying right here? Uh, in China, there will be some like midterm and finals. This one are the same, but professors they, um, pay, mmm like the weight, they put in midterm at final exams, it's kinda like 50-50% or like 40 or 60% but they do not have the scores for your participation or the homework, problem sets, or the peer uh, ranking something. Not at all, just the exam. It's similar like the high school, the last or final national exam will decide your destiny. And, uh, the, in the, in the university also the two exams will decide your, uh, GPA, the final score. It turned out that during the midterm week and final week the whole classroom, will, will open, uh, 24 hours. So… and basically they're lecturing, um, especially when, especially my, uh, the university, it's, uh, they kinda like emphasize, uh, very solid knowledge they can teach, uh, university undergraduates. So they spend a lot of time to teach some very general, uh, subjects.
P5.1	388	Yeah, definitely every class like, uh, oh, like, unlike what, what's what are the subjects I did in undergraduate like all the classes they have quiz, team project, individual homework. And they also require, uh, class participation that will also makes you very nervous or focused especially for international students.
P5.1	427	Uh, also there are some things about the culture thing and about the social thing, I didn't know before. Yet if you, if I just tell you from the senses of the story, or the gist of the story, you may, uh, like ignore or neglect, uh, some background thing. So I think that part also helps me to understand the whole story not just the, uh, uh, main gist, the gist of the story to solve the problem or do the homework.
P5.1	576	I would say it might be, uh, international student special. Mmmm. There are two things. One is like well known is language barrier. Sometimes there are some context, we have no idea what is that and, uh, and it's very crucial for you to understand the situation or understand the problem. But, uh, since the majority of my class they are domestic students, sometimes, sometimes professors won't stop and explain the details. And sometimes I can catch up with that because I, I can search them online at the same time, but sometimes I don't even know how to spell them so which, which makes me, uh, which makes it impossible to search online to see what are the things. And those things, sometimes are crucial for the, uh, humor or for understand the case at all.
		So this is, I think, is the language part it's kinda like, uh, very obvious barrier for international students. Uh, what is another thing? Another thing is about, um, the way how you say the, uh, problem. Maybe for, um, that's just the, uh, my guessing, uh, for a number of domestic students they've encountered this problem before. And they have the way to solve it already. Or they generally have the idea how to solve that problem or how to react to this kind of question. But for international students, we would never encounter that situation before so that's, that's impossible to, to act in that situation.
P5.1	581	Sometimes there are some context, we have no idea what is that and, uh, and it's very crucial for you to understand the situation or understand the problem. But, uh, since the majority of my class they are domestic students, sometimes, sometimes professors won't stop and explain the details.
P5.1	597	Or maybe say it easily like, um, um, you're asking me a question. I'm supposed, if, um, I'm supposed to react it in this way-. But, uh, in China or in most Asian countries we may perceive that inappropriate or impolite, we may want to, uh, wait for a while and then reply or reply it in another fashion, but here they just, uh, reply it directly. So that makes a big difference is from them. If sometimes we want to, um, be get more involved in the class participation but it's just, uh, different situation, totally different situation. Maybe in China, uh, the participation is. "Oh, okay, you pay attention to that," and professors ask us questions. You raise your hand and then you answer the question. But here it's just, say, say it.
P5.2	397	Uh, oh, first thing is that as I recall when I study in, in China, um, professors will, uh, ask the question and then ask like, it's kinda like have a standard procedure. Who understand these questions? Ok. Then students will think about it short time and then raise your hand, and then professor will say, "You can ask this question." The student will stand up or just sit there but, uh, speak out. That's kinda like a procedure. So, but here it's kinda like what-, after professor ask question the students just speak out or sometimes they will raise their hand, uh, even during the lecture.
P5.2	413	Uh, another part is that, um, we may think about-, we want to hear-, it's kinda like culture, uh, because Eastern culture, Asia culture, um, like, uh, your parents, your teachers would teach you, uh, learn to how to listen to other people. So we probably want to give the opportunity to other people so we can learn from their ideas instead of sharing the ideas.

Table I4 – Huan: Self-Directed Synopsis

Doc	Begin	Original Transcript
P5.1	417	Because in the beginning of the last semester, the MBA program they will assign you a five-person or four-person team. So that's your MBA team. But, uh, my team right now is, uh, kin-, kinda like, uh, some a few friends, we form a study team. And, uh, sometimes if we do not have enough time, we will assign the, uh, work within the team. Like for me I will read the whole case and I will briefing all my team members so that we can understand the situation, we can start the discussion and to do the homework without everyone reading that case. Because sometimes you don't have to, right?
P5.1	463	If you really pay attention to the discuss and you want to learn, get, to learn this class and you will learn a lot from that.
P5.1	477	Uh, has some questions in your mind and then he teach the chapter you will say, "Oh, that's the answer to my question." And then you will be able to ask different questions, uh, followed by his explanation. Um, but he structured it in this way like he will lecture that before you read the chapter.
P5.1	485	If you pay attention to that lecturing, you will bring those questions to the, during, to the readings. And that will re-match if you can read some his lectures and then you will, are comparing and, "Oh." That's a structure, how you follow his structure to, to read this chapter.
P5.1	643	If there's something there you would want to spend a little bit extra although the extra effort varies, uh, on person, right?
P5.1	657	Also a very good chance for you to, to, improve yourself I would say. Yeah, I mean if you have to do the presentation every week, it, it could be, uh, a huge pressure, but the, if you have time to do that, that, that's, that's good thing.
P5.2	190	So, during the, this process we kind of like comparing each other's ideas and the discuss and maybe improve fine tune our final idea.
P5.2	236	I mean if students can answer, ask this question or he give us more Q and A time to react to other people's questions we will be able to, uh, the presenting team we will be able to show people how our thinking processes are and, uh, how we really understand the chapter and developed our solution or what other ideas we'll learn from the chapter. I mean, you can ask me always after the class or, or just we discuss it on chitchat, we'll talk about that. But it's totally different when you're standing on the stage and people ask you some question, it's, it's really challenge to test you whether you learned it well or not.
P5.2	256	Because for-, on the one hand, on one hand he, uh, when I watch them presenting I will be able to compare my ideas with them, right?
P5.2	258	At, at least compare my team's idea with the presenting, uh, presenting team's idea. I think that help, helps me to, um, understand the question from another angle, which is always very inspirational or very helpful e-especially when they have totally different idea were from mine.
P5.2	294	And I'm not quite sure although I finished the assignment, but I'm not quite sure, uh, that. Mm. What, um, some of those in-, questions or some of those problems and how the management really have to deal with this, uh, problem. So when I come to the class, uh, she will walk us through the process…
P5.2	302	Uh, we also did the, uh, readings beforehand, but you know for the concept, sometimes them, the differences between two terminologies or two concepts that are very close, I, even I read the readings or articles. I may not be able to really understand that. So in the class, he will, uh, explain the details to us so that I, I went, "Oh, ok, that's it." Mm, and he will give us examples, and I can ask questions if I cannot understand that.
P5.2	355	Uh, another one is the discussion also for the idea comparison. So that when you hear some students ask good questions and you will know, "Oh, ok, they thinking about it differently." Or, uh, maybe professor talked about the topic, but he didn't cover all the areas and, uh, if the, a student ca-, uh, ask a question, then he will be like stretch the topic a little bit, talk about some, uh, examples to how we would be able to understand the idea.
P5.2	373	So discussion helps you to improve your understanding of the subject.
P5.2	468	So my team is a little bit different, but I think it's really helpful because everyone get chance to develop your, uh, own solution. And then, when you compare with other people you will get better understanding of that.
P5.2	643	But here it's more like, "Oh, ok, today, I learned something." I have, I can communicate with my, uh, friends or professor and if I don't understand this, I have internet, I can search around, and I can, uh, get some, uh, inputs from other people and, uh, maybe magazine, maybe, uh, a link. It', it's kinda like 360. Right, it's kind of like everything interaction with you, and it's, uh, a process. You're building up your learning experience pr-, building up your, uh, knowledge, so. Through the whole semester.

Table I5 – Huan: Future Oriented Synopsis

Doc	Begin	Original Transcript
P5.1	559	That part I think is very, very beneficial to, uh, to your learning, uh, uh, to a learning process, because, uh, for, especially for business world, sometimes or I would say most of the time, they are not one single right answer.
P5.1	569	So comparing your solution to other people's solution is definitely a good thing to help you to, in the future when you evaluate a business opportunity or business case, it can, uh, help you to build up, uh, we call it a well-rounded, uh, skill sets or the mind, mindset.
P5.2	162	Uh, for Statistics, last semester is kind of like a boardroom setting so they will give you a total of seven minutes but they will stop you in the, in the middle, anytime, so…
P5.2	194	Uh, which relates to my second point is that while we are preparing for the slides we get chance to, um, communicate how, how we do it and how to assign works to each individual and how to coordinate with each, with each other. It can help because in the future we will go back to the workplace.
P5.2	196	And how we, um, how we are doing here is kind of like a simulation about how in the future we work with other colleagues, so it helps you.
P5.2	238	It's, it's different. You, you can feel the pressure, uh, when you answer those questions. If you are not really good at it you won't be able to answer them. And also to me I think Q and A session is the, uh, session that I care about. I think, mm, that's kind of really helped me to develop my real presenting skills.
P5.2	240	Because presenting is not only presenting the, uh, information, you prepared also will, you will have to, uh, provide the simultaneous answers. I think that's the most, uh, challenging part to me and I want to develop my skills in that area.
P5.2	435	Yeah, it doesn't happen often. But that time was fun because, uh, uh, in that class, uh, the professor divide us into three groups and, uh, each of group will present, uh, manager's idea, like our teammates presenting the marketing, manager's i-idea; another team was presenting purchasing; one for production. So we can have the, afterwards, we had the debate, who is responsible for the problem. It's quite, uh, it's, it's quite helpful in understanding the situation and I think I learned a lot from that because you, you just position yourself as uh, uh, uh, person in that case and then you, you argue and debating with other people and then you get, get the first hand idea about, "Oh, that's how they really feel when other people attack me."
P5.2	580	So, um, for, for the MBA team, it helped me in terms of how to communicate with domestic students how to maybe sometime solve the conflicts, and how to improve the teamwork in terms of that, I think it's very helpful. Uh, but for study, mm, I will say there is still a, a gap. Or maybe our team specific case because I really didn't spend time to study with my, wi-with my teammates. I saw a few, really a few team, they study together but, uh, now I have my own study, uh, study group like with my friends.
P5.2	717	Because presenting is important i-if you are a manager. Right now the communicating, uh, uh, with your audience or with your, uh, colleagues. Presenting is a very effective way. That's the reason why, why we have this class, right?
P5.2	787	But what I am trying to say is that what you've learned is just, uh, from a, to the-, how to say that? Um, (pause) 2-D information. Like you read from the book, right? So you will form your own idea. How you interpret that. But from quiz, from Q and A, so people will ask you differently and maybe they will, um-, so it's kind of a 3-D experience. So you get a idea it's very thing, uh, and people just, uh, help you to volume it. So that you really know how to apply those I, uh, uh, concepts in the real life.

APPENDIX J

Min: Synopses of Themes

Table J1 – Min: Culture Synopsis

Doc	Begin	Original Transcript
P6.1	57	We will not have-, We will have fewer chance to discuss in the classes because Chinese classes totally not like American.
P6.1	175	Especially the American student, they will have a lot of opinions they need to sh-, talk about. And for our international student, uh, fewer for us. (Chuckles). We will, we will, we so aggressive. Just we will, we will not so desire to talk about in the classes. We will, maybe, kind of, uh, not so positive. And if you ask me, I will talk, but I will not, just, uh, just so, just like American student they will very, very positive like I, I don't how to talk.
P6.1	296	It depends on the student thinking because actually for us-. I'm not sure other international student because for our Chinese student we like the things just, um, maybe we get used to the teaching style, the Chinese teaching style because the teacher will directly to tell you what will, what will you see in the exams and so sometimes we will, we, we like the teacher to spend too much time on that kind of information even though we would know the information is maybe interesting or maybe related with our the thing we learned but we like something very straightforward.
P6.1	298	Can help me to solve the problem maybe will prefer to like that. So the thoughts on classes, we will-. Yeah, she will talk about a lot of information and we just listening. And we will have some cultural gap. Sometimes she talk about some things and maybe we, we may not totally understand (chuckle). So the for us, it's a, just, is just okay, just fine. But we like the most, just, we like to learn the things is very useful.
P6.2	78	So ah, this is because sometimes if the topic is familiar with me and I have ideas and I can enjoy it, but sometimes I would find out, ah, the ideas I think is very different from the American students.
P6.2	82	Maybe some, for example in the Policy Evaluations sometimes we talk about an example how to use some … how to use some model to address the problems, and when we thinking about that kind of things we will… the angle is total difference. And at that time I will just, uh, think the small group discussion just, uh, helps me a little bit. Because their ideas, the thought process are so different.
P6.2	104	And uh… so it depends on the number of the people in the group and uh, and the people, if they are, sometimes the student, the American students are nice, but sometimes they will, um… if the people they, they, more stubborn, right? Just they insist that their ideas-, that kind of people. [Nate]: Yeah, they're more stubborn? [P6]: Yes. Stubborn. And some people they will more, just, they liked shared opinion, they would love to listen what you're talking about. Or sometimes some people will be nice to international students, and sometimes some people they will just, uh, not to-, because you still have language problems and so during the talking you still have some problems, so maybe that kind of people they will not, um, they will not, so-, so-, they would not love to talk with you maybe, yeah.
P6.2	426	And that kind of stuff. Actually, that kind of stuff is important, but uh, for especially for our international student, is very hard. Because we need to, um, just think that problem-, maybe I think she need to balance the time of the class. For the half of time, she need to talk about information, and half time she need to talk the homework problems.
P6.2	430	Uh, maybe-, and even for the American student and sometimes we use totally different, uh, method to solve the problems. They would prefer use drawing grade, great. Someone prefer use the equation, and yeah. Sometimes for us, the-, we are, our understanding for the correction, is total different.
P6.2	650	So then, and the peoples, I guess, aren't very respect. And h-. The American student, seems like once they have some ideas they immediately to say. And the Chinese student, they would not. They would prefer to-, if they have a topic, they would think. They would think deeper, deeper. And until they have a comprehensive ideas, they will talk.
P6.2	656	Yeah, they don't-, this point they don't like American students. Americans have just little bit idea, and he will immediate to tell you, "Oh, I have this thing, I think this is maybe…" Yeah. It depends the student come from where. (Laughs)

Table J2 – Min: Self-Directed

Doc	Begin	Original Transcript
P6.1	232	Yeah, it's the extension for the part-, the discussion. Because we have the similar problems. Maybe more difficult, uh, uh, difficult, maybe more difficult problems than the, the, the topic we discuss in the classes and we receive that kind of homework to finish by ourself, and-. Because, uh, the, the handout questions will, we can solve together and the homework is just for ours. Just for ourselves, maybe that's the difference.
P6.1	248	The policy project? Yeah because we are doing and, uh, [Professor] has just told how, the, this project is a, we, everyone have to choose one topic. Just like one policy, which can in your country or in America and you need to talk about why you choose this policy and, uh, you, use, uh, what kind of methodologies to evaluate that policy. And, uh, you need to, need to have a design to how to evaluate this policy and you will choose to evaluate his process and his, uh, outcome and you need to talk about that kind of things.
P6.1	259	Uh, it's very, take a lot of time spend the exam because if you, when you choose one policy you need to, you start to evaluate a lot of things you learn during the whole semester you are use in these projects.
P6.2	78	So ah, this is because sometimes if the topic is familiar with me and I have ideas and I can enjoy it, but sometimes I would find out, ah, the ideas I think is very different from the American students.
P6.2	82	Maybe some, for example in the Policy Evaluations sometimes we talk about an example how to use some … how to use some model to address the problems, and when we thinking about that kind of things we will… the angle is total difference. And at that time I will just, uh, think the small group discussion just, uh, helps me a little bit. Because their ideas, the thought process are so different.
P6.2	212	So it just like to put all the things you learned in the whole semester together. By your own self.
P6.2	230	Together. The whole class together, if you have idea you can raise your hand, and tell, and show your ideas, and yeah.
P6.2	264	And actually, in this way, if - if the student are more positive and they would like to say something and under that classes, you will - you also feel comfortable and relaxed.
P6.2	582	For exams, you just in the limit time to by yourself, and without to close folks, to solve the problems-. It can really check you, whether you understanding-. Understand these problems, and do I really know how to solve these problems, yeah.
P6.2	680	And you need the teacher to tell you, give you some hints, if you face these problems, you need to think. Because there are some thing you are easy to miss, and will let you to get wrong answers. And for the- the Public Finance, it doesn't… (Laughs)

Table J3 – Min: Feelings Synopsis

Doc	Begin	Original Transcript
P6.1	133	In the high school, it's very kind of like the graduate, this master program because, uh, you feel very stressful. A lot of homework just-. And, uh, you feel very, you, even maybe the, during the high school, you'll have too much think. You will not to think the future what you should do, and you just will focus on the, yeah, that moment you need to, you, you need to finish the homework and you have to take the exam to get a higher grade. You need to, uh, do all the things to prepare for that exam, to, to go into a good college. And you don't have to many time, too much to think about your future, what would do. So the, maybe during their high school, I will not, I didn't have to ma-, didn't have a lot of idea for my and expection for my bachelor, yeah.
P6.1	141	Yeah, stressful and, uh, lot of thing need to do and, uh, yeah.
P6.1	189	I will prefer to talk about, share my opinion in the little group. That kind make me feel comfortable. (Laughs) Oh, yeah.
P6.1	203	Yeah. Maybe that will, in the littlest group will not feel so nervous and you can, because, but every time I feel nervous and I cannot just, if I, I, it's hard for me to say. (Laughs)
P6.1	270	Yeah, because not, uh, just, uh, not only the, the final this kind of project and, uh, on readings. Even though every time I cannot finish the reading because a lot of and, uh, the homeworks and all these kinds of things will make, make me feel all this master and these courses is very, um, have a lot things I, I have learned and make me feel more-. I don't know which word to, to describe that feeling. Just that, oh, I can get lot of things from these courses. Just, just is make me feel good even very stressful and sometimes you feeled upset because something you may not, did not good and uh, but-, Comparing the courses during the bachelor, the master. The courses in the master program is, is very useful and more specific and more practical and, yeah. Feels good.
P6.1	354	Maybe, maybe we will have the, uh, similar, our ideas when we exchange our ideas we will have something new and I think, "Oh, it's, oh, uh, that idea is amazing," when we exchange and share our ideas and turns out some new ideas maybe that connections makes me feel, make feel good. Because I like that feeling just talk about and discuss and have some new idea. Yeah.
P6.2	132	Because that will make me feel just, um, I have some (Laughs) I don't know how to say. Just I can feel I useful in this school study. And I can get something and talk about my area.
P6.2	166	And um, maybe something, um, I don't understand and through talking with other peoples and they can lead me to have a new-, have a, uh, understanding differ. And have new ideas, and, about the things, and yeah, and maybe the-, yeah. When I'd, um-, maybe I have some contribution for the group study. Yeah, that kind. It would make me feel better.
P6.2	176	And I just feel, maybe, I totally have no idea what the topic, I maybe just can, uh, when they are, uh, put forward some main ideas and maybe I just can give me some suggestions and, yeah. I cannot help them a lot, and yeah, the situation become here. (Laughs) [Nate]: Okay. So then it becomes a three. [P6]: Yeah. Because I think I cannot help the group projects a lot, so I would feel not happy. (Laugh) And the situation would come here.
P6.2	248	If sometimes, uh, the-, and if more students, they have ideas and the classes, the classes, um, what is word, I forget-, just the other students, they seems to enjoy it and the environment will get better. It seems like everyone, uh, everyone is enjoyed, and everyone can get something learned. And the whole class is-, will maybe feel better.
P6.2	264	And actually, in this way, if - if the student are more positive and they would like to say something and under that classes, you will - you also feel comfortable and relaxed. You feel good.
P6.2	542	Every classes we have quiz. So every classes we have to read the PPT in other words. Because after class, and we will have a quiz. Actually, it can help, but it will make us feel very nervous. But we would get used to. (Laughs)

Table J4 – Min: Relationships Synopsis

Doc	Begin	Original Transcript
P6.2	104	And uh-, so it depends on the number of the people in the group and uh, and the people, if they are, sometimes the student, the American students are nice, but sometimes they will, um… if the people they, they, more stubborn, right? Just they insist that their ideas-, that kind of people. [Nate]: Yeah, they're more stubborn? [P6]: Yes. Stubborn. And some people they will more, just, they liked shared opinion, they would love to listen what you're talking about. Or sometimes some people will be nice to international students, and sometimes some people they will just, uh, not to-, because you still have language problems and so during the talking you still have some problems, so maybe that kind of people they will not, um, they will not, so-, so-, they would not love to talk with you maybe, yeah.
P6.2	118	Yeah. Yeah. And if the people they are, they don't like the international student, they insist that they are, their ideas, and they maybe that kind of student, if you talk with them you will have a very few chance to talk.
P6.2	132	Because that will make me feel just, um, I have some (Laughs) I don't know how to say. Just I can feel I useful in this school study. And I can get something and talk about my area.
P6.2	166	And um, maybe something, um, I don't understand and through talking with other peoples and they can lead me to have a new-, have a, uh, understanding differ. And have new ideas, and, about the things, and yeah, and maybe the-, yeah. When I'd, um-, maybe I have some contribution for the group study. Yeah, that kind. It would make me feel better.
P6.2	176	And I just feel, maybe, I totally have no idea what the topic, I maybe just can, uh, when they are, uh, put forward some main ideas and maybe I just can give me some suggestions and, yeah. I cannot help them a lot, and yeah, the situation become here. (Laughs) [Nate]: Okay. So then it becomes a three. [P6]: Yeah. Because I think I cannot help the group projects a lot, so I would feel not happy. (Laugh) And the situation would come here.
P6.2	248	If sometimes, uh, the-, and if more students, they have ideas and the classes, the classes, um, what is word, I forget-, just the other students, they seems to enjoy it and the environment will get better. It seems like everyone, uh, everyone is enjoyed, and everyone can get something learned. And the whole class is-, will maybe feel better.
P6.2	254	Seems like everybody are joined.
P6.2	264	And actually, in this way, if - if the student are more positive and they would like to say something and under that classes, you will - you also feel comfortable and relaxed.

Table J5 – Min: Clarify-Solidify Synopsis

Doc	Begin	Original Transcript
P6.1	213	An example we will discuss, talk about how to use the, how to use, how to use the thing we learn in the classes to, to, to, to explain, to-.
P6.1	274	Actually I don' think they should separate. I think they are together because you don't have a participation, you cannot get things in classes and you, you will participate and, uh, after the classes you need to do the homework and because you, you need to do the homework and you can know, oh, you actually get the things into your mind. And after the homework and you need to do the exams to check, "Oh," whether you have really get the things and, uh, and so this, the final, this big project is the thing to check. "Oh, are you really can use the things you learned." So I think actually all of them are important.
P6.1	334	Every time I felt I learned a lot is because, uh-. Because I can successfully to, to discuss the problem with our little group.
P6.1	354	Maybe, maybe we will have the, uh, similar, our ideas when we exchange our ideas we will have something new and I think, "Oh, it's, oh, uh, that idea is amazing," when we exchange and share our ideas and turns out some new ideas maybe that connections makes me feel, make feel good. Because I like that feeling just talk about and discuss and have some new idea. Yeah.
P6.1	362	Homework is the just the, homework is the, just like a test. Yeah, check whether you learn that things. Maybe you need to use the thing you've learned to solve that problems and, and once you did and you feel, "Oh! I actually, I got it." Yeah.
P6.2	119	[Nate]: Okay. Okay. So part of what I'm hearing you say is that what's helpful about the small group discussion … [P6]: Mm-hmm. [Nate]: Is having an opportunity to talk about your ideas or what you think about the question or the discussion topic. Is that right? [P6]: Yeah. And um, and it's too related with the… during the discussions, you think my thoughts are, whether my thought has some, just uh, spark with other people's.
P6.2	214	And just like to check how many things you have learned during the semester, yeah. And you think of the kind of things you learned and you can use, yeah.
P6.2	444	Because it's-, if the homework, sometimes, um, actually for homework, homeworks can help you to, uh, address the information you learn in the class. And it will help you to know, uh, what problem you still have, you cannot understand them. So you get wrong answers, and it can help you.
P6.2	454	Yeah, because after a spring break, the Public Finance, the-, because most of us did so bad in the mid-term, so we talk with the professor, and I talked to her, and I said maybe the homework, we need more practice. So, she just-, the classes in this week, and we don't take the classes, we don't have the classes, we don't know the information, and he just ask to do the homework for that class. And all of us think, if uh, under that situation, we can solve the problem by myself and so why do I need you-. And you don't, yeah, we don't need to-, if we can solve the problem by ourself, then why do we need to have the classes?
P6.2	582	For exams, you just in the limit time to by yourself, and without to close folks, to solve the problems-. It can really check you, whether you understanding-, understand these problems, and do I really know how to solve these problems, yeah.

APPENDIX K

Cheng: Synopses of Themes

Table K1 – Cheng: Relationships Synopsis

Doc	Begin	Original Transcript
P7.1	153	Sometimes one, sometimes two based on how uh, how large the reading material because sometimes you; cause for example my week, we have an entire book to read. So for one person it's too much. So I have uh, I have two students in that week to deal with that deal with that material.
P7.1	328	Professor actually encourages you to have a discussion with your classmates. Because the professor knows that uh, some of the questions are really challenging.
P7.1	332	So you might encounter it in the future of your career, if you do analysis like if you have missing data, you really have to choose between the methods, which methods you think is better. So that require some of the discussion. So the professor encourages you to discuss.
P7.1	367	We will be in small group to, to, to everybody is in a small group. Everybody have to contribute their ideas.
P7.1	440	So for the professor part because, I feel like it's very, based on my two-year experience here, it's very, It's somewhat different from China. Because, just based on my college experience in China, most of the professors in China are very serious. So if you, like, like here, even in the master degree, if you like, it's okay, if you crack some jokes with the professor, that's okay. But in China, the professors are highly professional. They don't want to crack jokes with you because they just want talk business. So sometimes, we really feel kind of pressured if you ask, You always think about, What if I ask this question and it's actually really stupid?
P7.1	448	The professor will feel like, The professor will, will probably don't like you or something. Sometimes it's just your own thinking. But sometimes it could happen because in China, because of this very disciplined driven education system, the professors or teachers in schools, they really tend to like high-grade students.
P7.2	60	Uh, for me, I don't think it's as effective as individuals. Because if you have a group of people, um, usually like you just need to do part of the presentation. You don't need to do all the other stuff, so is kind of limited opportunity for you to dig deeper into this topic.
P7.2	168	So I think this, the leading discussion, plus blogging before the class, is the best way to lead a discussion, especially if students will lead a discussion as well, so students know better about their classmates, the question fits better.
P7.2	194	Most of the other class is, especially first year class, and Public Policy class, that professor just go for, like American students take control. We just sit back, say, okay, all right. It's safe here. (laughter)
P7.2	198	So I think even though I know that, I won't like to interrupt the professor and say, I'm sorry, I know that already. I would just do like him going on, because I really appreciate the efforts.
P7.2	206	Because you can imagine that, uh, especially those class discussions where American students really take control, because they know more about their country apparently, and that will be much more severe when the small groups discussion happens. Most of the American students will take even more control. International students basically have no say because they don't know the full situation we're talking about.
P7.2	273	when I first come here, again just is I don't know how professor will react. You also don't know how your classmates will react, especially the, the, you have classmates from America, from all over the country.
P7.2	289	Um, first off, I definitely think that most of the professors in this programs are very supportive, um, and like how, the way I, I, I perceive it is just that, uh, um, when you talk about, for example, when you talk about a professor, um, or your classmates, they are passionate about, uh, talking back to you. Like, uh, and now they won't be like just, okay, yeah. I just let it go. They, when we talk about something or talk something about them, uh, with them, they will be passionate about, uh, the subject, what our subject is, and then they'll be waiting to take time, actually take time to talk something, uh, with you on the subject. I mean, that happens, that cool, I understand that this professor either is pretending or is really care, he at least cares about, uh, sharing some ideas with you. Um, and just a good experience. And there hardly much any professor in this program that, uh, aren't that passionate. They actually, the first year, you know, the first semester, the professor in Macroeconomics Theory can, feels indifferent, but, uh, I think just personality because he's just a serious guy, so I think he's still very, very, he still cares about us, really, really, really, uh, really, really well, but he's just a very serious guy. So, I kind of feel like, uh, less passionate about talking something with him, but it's not because he don't care, it's because he's too serious. So, (laughter) so, yeah overall, I think professors are very supportive. Yeah.

Table K2 – Cheng: Barrier Synopsis

Doc	Begin	Original Transcript
P7.1	406	Because my English was not that fluent at the time and I still didn't know like how professors will react because I always think their could be different from, from my country.
P7.1	440	It's somewhat different from China. Because, just based on my college experience in China, most of the professors in China are very serious. So if you, like, like here, even in the master degree, if you like, it's okay, if you crack some jokes with the professor, that's okay. But in China, the professors are highly professional. They don't want to crack jokes with you because they just want talk business. So sometimes, we really feel kind of pressured if you ask, You always think about, What if I ask this question and it's actually really stupid?
P7.1	453	The professor has that kind of ideology and so if you constantly ask some questions that the professors think it's kind of silly, why don't you even understand that.
P7.1	465	So sometimes, you could have this kind of pressure thinking that asking questions have a risk.
P7.2	60	Uh, for me, I don't think it's as effective as individuals. Because if you have a group of people, um, usually like you just need to do part of the presentation. You don't need to do all the other stuff, so is kind of limited opportunity for you to dig deeper into this topic.
P7.2	94	I think the reason for that, for international students especially, is because when the professor trying to organize the class as a discussion, as a seminar, most of the time when American students talk about something, especially, uh, uh, something happening in the society or something based on the American cultures, most of time we don't know what is going on.
P7.2	96	So, even if professor asks some question based on what we are talking about, we cannot really participate.
P7.2	98	But, uh, if it's part of the lecture, professor, uh, basically just lecture you on the things you need to know, um, and then he asks questions from, based on the things he has already told you, you would have much more opportunity to participate in, and discuss with American students, because especially the first year, the first class, Public Policy, there's a lot of discussion. Most of time we don't know what American people, what American students are talking about. We cannot even participate.
P7.2	120	some of the Americans at least know some basic knowledge of, of, or background about the American society or something like that. We don't know nothing about that, so we, we, we are even more confused,
P7.2	158	But that all depends on, uh, like, uh, I think this just, again, just the difference between international and American students, because basically you are still in America so the discussion often based on some of the American events or culture. So, there ought to be something international students like me just don't know. So I want to express something sometimes during the class discussion, but I just can't because I know this, I don't know the full picture if I see something that could be wrong, or something like that. So, American students really like class discussion. I can tell that they really like class discussion.
P7.2	194	Most of the other class is, especially first year class, and Public Policy class, that professor just go for, like American students take control. We just sit back, say, okay, all right. It's safe here. (laughter)
P7.2	202	They don't care if American governments having something like, it doesn't really matter that much to them. So even if they do know, it's okay. So most of time, we don't ask. Yeah.
P7.2	206	Because you can imagine that, uh, especially those class discussions where American students really take control, because they know more about their country apparently, and that will be much more severe when the small groups discussion happens. Most of the American students will take even more control. International students basically have no say because they don't know the full situation we're talking about.
P7.2	228	That is really, uh, when I have a lot of stuff to say, that's when I can see the connection of this material to my own country. Like especially education is really easy to, some of the material is really easy for you to compare with stuff happening in China, so when that happens, I have a lot to say.
P7.2	273	Because if you have some of the classmates that is very, you know, um, very, feels very different or something like that, you will feel like in a class, you will feel like less passionate to learn anything because you feel like you, um, like especially for international students, if American students don't want to talk to you, you feel like you don't belong here, that definitely emotionally hurts you a little bit, so you won't be have that much chance to learn more about things. So I'm very glad that, I don't know about the other program or things like that, but I'm very glad that my classmates, especially American classmates in this program, is really supportive.

Table K3 – Cheng: Culture Synopsis

Doc	Begin	Original Transcript
P7.1	101	Uh, but I certainly did expect very different style of, of teaching and learning as well uh, because for example, I think still you may, if I told you that in college is much, it's much more flexible. But you still feel uh, kind of uh, pressure from the University. University still has a lot of rules for you. Even if you can manage some of the schedules for yourself. So I think in China, the entire Chinese education system is very discipline driven. So you may be in college, or something like that, the university will set up a lot of bars for you. No matter what you learn, those are the bars that you have to accomplish. Uh, but before I come here I, before I came here I feel like maybe the US is less about the discipline driven and more about the creativity of the students themselves.
P7.1	104	So if I attend a university in US it's probably more about how you're going to create. For example, when I'm learning, public policy for public professor will tell me how you're going to, Will try to push me to think, well how I am, going to approach in some of the politic problems. Instead of just reading from the research and tell you, "Hey this is the way you should do that."
P7.1	440	So for the professor part because, I feel like it's very, based on my two-year experience here, it's very, It's somewhat different from China. Because, just based on my college experience in China, most of the professors in China are very serious. So if you, like, like here, even in the master degree, if you like, it's okay, if you crack some jokes with the professor, that's okay. But in China, the professors are highly professional. They don't want to crack jokes with you because they just want talk business. So sometimes, we really feel kind of pressured if you ask, You always think about, What if I ask this question and it's actually really stupid?
P7.1	461	Or something like that. So, but I'm not think that the, the, the professors or teachers in China are necessarily all like that. But I did encounters uh, maybe uh, one, two, or three teachers or professor in China. Because the system really pushed them to only think about just test scores or grades of students. Totally kind of lose the kind of the sense of what students really about, if student's didn't do well in school, they just think, "This the bad kids. I don't want, It's hopeless. I don't want to talk about him."
P7.2	96	So, even if professor asks some question based on what we are talking about, we cannot really participate.
P7.2	98	Most of time we don't know what American people, what American students are talking about. We cannot even participate.
P7.2	120	you know, it's I described, some of the Americans at least know some basic knowledge of, of, or background about the American society or something like that. We don't know nothing about that, so we, we, we are even more confused,
P7.2	158	I think this just, again, just the difference between international and American students, because basically you are still in America so the discussion often based on some of the American events or culture. So, there ought to be something international students like me just don't know. So I want to express something sometimes during the class discussion, but I just can't because I know this, I don't know the full picture if I see something that could be wrong, or something like that. So, American students really like class discussion. I can tell that they really like class discussion.
P7.2	198	Yes, that also happens in, uh, the other class. It's not a discussion class. It's totally lecture. But that class, uh, the professor often will, during the lecture he'll assume that some of the stuff happening in America, we international students have no idea about it, but that is actually usually not the case. We actually know something about that, um, but he will still like take some time to, to discuss, to present us something.
P7.2	202	We want to ask some kind of question, some conceptual questions, things like that. But most of time, the professor don't even explain things to us, like this can know actual situations happens in America, we don't tend to ask that much, because first of all, is, it's, just some events we don't think we are necessary to know about, especially some of the international students, they are sent by their local governments, and so they going to go back to work. They don't care if American governments having something like, it doesn't really matter that much to them. So even if they do know, it's okay. So most of time, we don't ask. Yeah.
P7.2	206	Because you can imagine that, uh, especially those class discussions where American students really take control, because they know more about their country apparently, and that will be much more severe when the small groups discussion happens. Most of the American students will take even more control.
P7.2	228	That is really, uh, when I have a lot of stuff to say, that's when I can see the connection of this material to my own country. Like especially education is really easy to, some of the material is really easy for you to compare with stuff happening in China, so when that happens, I have a lot to say.
P7.2	273	when I first come here, again just is I don't know how professor will react. You also don't know how your classmates will react, especially the, the, you have classmates from America, from all over the country.

Table K4 – Cheng: Self-Directed Synopsis

Doc	Begin	Original Transcript
P7.1	140	If you have some ideas coming from the readings, you can blog on a-, comment on that follow up. And the other students saw what you uh, said about reading. If they also have some ideas, they can reply to you so that we can discuss, discussed before the class and the reading. And some of the students who are going to present, they can read the blog beforehand, so that they can know what the other students are thinking about. So they can use those information to create some questions, in order to stimulate discussion during class.
P7.1	233	You have to basically just, Because that class, I really like that class. Because it's that class, the professor really teach you a lot of stuff. Each topic, professor really talk to you a lot. If you really pay attention to that class, uh, for each of these questions, you really have a lot to talk about. So it's going to especially meant to be a kind of a long answer question.
P7.1	290	Uh, but this one is more flexible. It's basically, you don't need to, The professor could just tell you that you don't need to cover all the readings and that's very long. You just need to read out of stuff to get an idea, you really like one article in particular you can just full on talk about this article.
P7.1	406	Because my English was not that fluent at the time and I still didn't know like how professors will react because I always think their could be different from, from my country. So I'm kind of hesitate to do things like this. So when that happens, I do learned, I still think I learned a lot because there's a whole new area for me. But, uh, where I reflect on that, uh, I feel like I really learned a lot of stuff, that I should have learned if I just ask or try to figure out.
P7.1	409	So I think for learning, you really have to, in the first time, you really have to have the courage to be not ashamed to ask questions or make mistakes so that you can learn from that.
P7.2	146	But when I actually get into that practice, actually do that, like, you can, you can, the first time I encounter that practice, I kind of feel like my head just went black. I can't remember anything about that, so I have to, it's a really hard experience. You, you-. Again, it's like what I told you about the learning process, you think you know something, but when you actually do it, like, uh, a lot of stuff that is just, just, uh, missing from your head and that process really, uh, just, uh, combine all of the knowledge I know, uh, into my head, you know, in a very strong way. Like during that, because of that process. Practice, I really just, um, uh, kind of fully grasped the trade off between all those things you need to know during the process of creating the tax structure.
P7.2	168	I think it's the class I just attend this year about the eradication. Because that class, a lot of discussion, a lot of class, we use discussion format, professor will have lecture and then they say, you go for on about discussion. But that class, what's good about that class that not only professor has a lecture before the class, like half an hour or 20 minutes before the class, tell you everything you need, not everything, but in general something you need to know, and then we go on discussion. Professor will actually appoint, uh, some of the students to prepare a presentation, and students will lead the discussion. Instead of, [Nate]: Yeah, leading discussion, yeah, okay. [P7]: Yeah, students will lead a discussion instead of professor, and the reason why I think it's better is because students know better about their classmates. Like they know like what kind of uh, uh, discussion question will be most effective to unite a discussion among classmates. And the other thing about leading discussion, I think the strategy is very good, is because, um, we also have blogging and comment section before the class. So, even if the classroom is like the first year, or second year, or sometimes some students mix up, so like if the first year students want to do a presentation and ask us something about the, uh, something they're reading, and he doesn't know like how, how we, uh, perceived those reading materials, uh, we have blogging. So she or he can read that and know, ok, so just based on the blogging, a lot of students really like to discuss this, this question in particular. So I put more effort, more focus on this question, so that the discussion will go well. So I think this, the leading discussion, plus blogging before the class, is the best way to lead a discussion, especially if students will lead a discussion as well, so students know better about their classmates, the question fits better.
P7.2	202	Uh, some, it happens once or twice, but that hardly happens. Like most of the internat-, we ask questions only when we know things but we're still confused. We want to ask some kind of question, some conceptual questions, things like that. But most of time, the professor don't even explain things to us, like this can know actual situations happens in America, we don't tend to ask that much, because first of all, is, it's, just some events we don't think we are necessary to know about, especially some of the international students, they are sent by their local governments, and so they going to go back to work. They don't care if American governments having something like, it doesn't really matter that much to them. So even if they do know, it's okay. So most of time, we don't ask. Yeah.

Table K5 – Cheng: Application Synopsis

Doc	Begin	Original Transcript
P7.1	332	So you might encounter it in the future of your career, if you do analysis like if you have missing data, you really have to choose between the methods, which methods you think is better. So that require some of the discussion. So the professor encourages you to discuss.
P7.1	341	Cause we learn more and more models and the situations we might encounter. You really have to think about, under the situation, usually this model works better. But you don't have the data on the exact model it means to address. So under this situation how we're going to do. So you have the other inferior choices which one I think is still better, something like that.
P7.1	377	And you can gather some of the data on that and the results, the outcome of that program, you can use the methods we've learned in the class to try to evaluate whether this program uh, is working as it, as it's meant to be or it's not working. Why it's not working things like that.
P7.1	379	So it's a actual data driven analysis.
P7.2	70	Because preparation is one thing for you to learn, but, uh, I think especially for my major so if you want to like, uh, get a job in this policy area, you're going to have to know how to present well, to public, or to your, your coworkers. So is very important for us to constantly practice this kind of way when talk to somebody when present new ideas. Especially, there's always a time limit so you cannot put everything into the presentation. You have a long preparation, but you can only put some of them, so it's a process, you have to learn how to choose the most important thing to present, how to present in a way that is most clear for the people, for the audience. So it's, it's, it's also very good learning process for me.
P7.2	146	that class we also did a lot of, uh, practice because the professor is very practical. He's not just like, uh, even our final paper is not a research paper because students do a lot of research papers, but when you actually get into the, the department, uh, doing works, you don't usually do research papers. You do some report or something like that so, so they can practice us a lot of this as well.
P7.2	146	But when I actually get into that practice, actually do that, like, you can, you can, the first time I encounter that practice, I kind of feel like my head just went black. I can't remember anything about that, so I have to, it's a really hard experience. You, you-. Again, it's like what I told you about the learning process, you think you know something, but when you actually do it, like, uh, a lot of stuff that is just, just, uh, missing from your head and that process really, uh, just, uh, combine all of the knowledge I know, uh, into my head, you know, in a very strong way. Like during that, because of that process. Practice, I really just, um, uh, kind of fully grasped the trade off between all those things you need to know during the process of creating the tax structure.
P7.2	148	The early class of economics, because the early class of economics is basically just math. So those class, if you really want to, um, fully understand those concepts, because those logical stuff, concept stuff, you-, you again, like the learning process, you think you know, but really, you really have to use it and really think about it. Until that time, you can't fully just grasp, grasp the meaning behind that. You can't fully use it. So, for those class, homework is, it's definitely very necessary and I would say is category one.
P7.2	234	Because that's the most, most of the class project and papers will be the final thing you have to do. It's like everything combined together, after you learn, combine together in this project. You have to, first of all, and that someday, you have to learn to use it. You have to actually use it in a process, you will encounter more problems, have to discuss with professor or classmates, so that's the probably one of the best ways for you to push you to fully understand the, the, what the class is all about. So, projects definitely very, very useful in terms of learning.
P7.2	269	Um, like that Local Finance professor, he is actually really tough, especially during the presentation process. He is actually, he's just put us into the, rea, reality. He just say, okay, you're proposing some kind of policy idea, just suppose I'm the mayor, and you propose, or governor, propose to me and helping the governor in the real life, and have you criticize you. When that happens, that, we just shocked. (laughter) The first person just don't know what the hell is going on. It's really, really tough, but you can know that this really happening in that because mayor and governor, they don't get, they don't give any source on how you feel and all, they just say what, what works the best. So, when that happens, first of all, you will feel really sad, depressing, um, but when you think about it, and when we get through that process, you came to understand that we really learn much more from that process.

APPENDIX L

Photo of “Speak English!” Sign

Figure L2 – Photo of “Speak English!” Sign

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REFERENCES

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