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Examining Institutional Climate in Higher Education: Administering the NILIE-PACE Instrument at a Private University in Central China

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EXAMINING INSTITUTIONAL CLIMATE IN HIGHER EDUCATION:

ADMINISTERING THE NILIE-PACE INSTRUMENT

AT A PRIVATE UNIVERSITY IN CENTRAL CHINA

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A DISSERTATION

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by

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Abstract

The first known campus climate study in central China was conducted for purposes of formative assessment by mixed methods, utilizing an instrument called the Personal Assessment of the College Environment (PACE) developed by the National Initiative for Leadership and Institutional Effectiveness (NILIE) at North Carolina State University in Raleigh. Surveys were translated into Mandarin and distributed in bilingual format to 1,170 campus employees at Central China University (a pseudonym) in Henan Province, and 945 surveys were returned, a rate of 80.8%. Participants who self-identified included both Chinese and foreign faculty, administrators and staff. Because the North American-normed instrument was administered in China, differences in latent factors and item groupings (loadings) were also studied using exploratory factor analysis (EFA) and parallel analysis (PA) to confirm findings. Overall climate scores as well as five latent climate factors were measured and identified, and a reliability analysis was conducted on the five latent climate variables. Axial coding of over 800 participant responses to two open-ended questions was also conducted. Of the five latent factors that emerged, elements related to organizational and institutional effectiveness received the most attention from participants (n = 943), with an alpha coefficient of 0.948, followed by individual workplace communication and cooperation, with an alpha of 0.928. Participant comments with the highest frequencies revolved around low salary, overly rigid regulations, a beautiful campus, lack of access to information, lack of shared governance and the locus of decision making in both management and academic settings on campus.

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To my wonderful dissertation committee, Dr. Lloyd Richardson, Dr. Natalie Bolton, Dr. Cody Ding, Dr. Lisa Dorner, and Dr. Thomas George, I know my energy and exuberance are not easily contained. I thank you all for your patience, your insights, and your very valuable time. I have learned much from each of you. But to my dissertation committee chair, Dr. Lloyd Richardson, I owe very special additional thanks. You stepped up without much warning, and have been helping me strike the balance between what is and what can be. Your own commitment to excellence in education and your example of research and scholarship is both humbling and inspiring.

May I make you all proud as proof of the value of your time wisely invested. As I advance in my newly chosen path, all of your wisdom and lessons learned will be with me. A thousand thanks and safe journeys to each of you.

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CHAPTER I: INTRODUCTION

How does a young university know whether its mission and vision are known and understood by its employees? To what degree is faculty in alignment with leadership regarding the mission of the institution? How valued are the opinions and ideas of each employee? The answers to these and other questions can be ascertained by an institution internally assessing its own climate and culture. One approach is through the lenses of organizational culture and climate, leadership and the role it plays in creating a culture of assessment on campus, and assessment, in particular the use of surveys, in higher education. In a working paper from July, 1996, Edgar Schein wrote:

> …[I]f learning ultimately only occurs in a community of practice, and if transformational learning involves changing of some cultural assumptions, it must be mediated by a consortium of practitioners who provide to each other the support and insight that only a fellow practitioner could provide, and, at the same, an outsider perspective that permits local cultural assumptions to be surfaced and examined. (p. 14).

Numerous assessment researchers and scholars in higher education agree there are two major functions of assessment, *internal improvement* and *external accountability* (Banta, Lund, Black, & Oblander, 1996; Bok, 1986, 2006; Ewell, 1991, 1994; Kramer & Swing, 2010) which align well with Schein's paradigm of transformational learning in organizations and the awareness of both internal influences and external group forces. Barbara Walvoord (2010) says the goal of assessment should be "informed action that enhances student learning" (p. 27). She cautions that educators often collect "pieces of assessment without taking stock of the whole picture" (Walvoord, 2010, p. 32) and

demonstrates that the central difference between problematic and ideal assessment systems is in how data are utilized. Michael Quinn Patton writes about "utilization-focused" developmental evaluation, stressing the goal is to achieve "intended use by intended users" (Patton, 2011, p. 315). Thus, this quick foray into the minds of some organizational development and educational assessment scholars offers a view of the purpose of this study. I was invited to work with the leadership, faculty and staff at a young, private university in central China and help them investigate their creation of an inclusive campus culture of assessment (Banta & Blaich, 2011), starting with how the employees feel about their campus climate and culture, based on survey data from faculty, staff and administrators (Baird, 1990; Procello, 2008). The Personal Assessment of the College Environment (PACE) climate survey from the National Institute for Leadership and Institutional Effectiveness (NILIE) at North Carolina State University consented to share their instrument for my research, one well suited to this purpose (NILIE, 2012).

Background to the Setting

In 1999, I was a keynote speaker at a women's forum in Beijing, and as a result was invited to visit a Chinese-American entrepreneur's vision for the future of private higher education in central China. The first time I visited the campus of Central China University (CCU) in Henan province, there were fewer than 250 students and just a few buildings on the site of a former lotus farm on the edge of a smaller city outside the provincial capital of Zhengzhou. The university owner had invested his personal wealth to obtain a long-term lease on the land, and through the services of a generous American architect, designed and built the initial campus site. The founder, Mr. Shawn Chen, was

creating a foundation board of directors and sought my input as an educator and community leader familiar with U. S. higher education and students from non-American backgrounds. Since then, the campus has grown to many classroom and administrative buildings, a library, an indoor and an outdoor stadium, an indoor athletic center with an Olympic size pool, dozens of food service centers, locally run shops, and residence halls for over 24,000 students and 122 foreign faculty members and their families. To arrive at this point in China's story and my opportunity to conduct research there, it is valuable to place CCU in an historic context of higher education in China, and private higher education, which was introduced by Confucius, something little known to most (Lin, 1999; Min, 2004; Zhou, 2006).

A Brief History of Higher Education in China

The Xia dynasty two thousand years before the Christian era is acknowledged as the earliest documented Chinese state, one which also valued education as the way to a nation of "knowledgeable and moral men" (Min, 2004, p. 55). The earliest formally documented higher education institutions emerged during the Zhou dynasty around 1100 B. C. and were called *pi-yong*. Education during the Zhou dynasty consisted "of government-run colleges and primary schools, and private schools" (Zhou, 2006, p. 2). Confucius, who lived from 551 to 479 B. C., had records indicating he taught over three thousand students or *disciples* during the Eastern Zhou dynasty (Min, 2004; Zhou, 2006). This was a time when the state institutions had been struggling, and many other lesser known scholars were documented to have run private institutions (Min, 2004; Zhou, 2006). By the Han dynasty, which lasted from 206 B. C. to A. D. 220, *tai-xue* had evolved, the word actually translating to *institution of higher learning* (Yuan, 1994). In a

time of great prosperity, over thirty-thousand students were documented as studying in the city of Changan on the main campus (Yuan, 1994). By the Tang dynasty, from A. D. 618 to 907, only the children of the most senior officials and royalty could attend the *guo-zi-jian* or universities (Min, 2004). However, an alternative educational opportunity emerged from what began as bookstores called *shu-yuan*, eventually evolving into scholarly societies and then private universities that dominated the Song dynasty, which began in A. D. 960 and ended in 1279 (Lin, 1999; Min, 2004).

The classical curriculum at the time revolved around the writings of Confucius, whose collective wisdom was also included on the imperial civil service examination (Min, 2004) which commenced during the Sui dynasty in 587 A. D. and lasted until 1905 (Zhou, 2006). Any man from any sector of Chinese society could bring great wealth and influence to his family by passing the exam and going on to assist the emperor in governing the nation (Lin, 1999). The impact of Confucian values, as China's former Minister of Education, Dr. Zhou Ji, shares, is immense and omnipresent:

> Education in imperial China was predicated on Confucianism, which attaches major importance to moral education and maintains that the fundamental purpose of education is to inculcate people with moral integrity and enhance people's sense of benevolence and magnanimity and spiritual well-being. Confucianism was thus at the core of the curricula and syllabi of all schools, in particular institutions of higher education. The Four Books, The Five Classics, and the Thirteen Classics, which are canonical works based on Confucius' teachings, were compulsory courses, although Buddhism and Taoism were also taught.

> Research in medical science, astronomy, geography, mathematics, law, war, agronomy, chemistry and other disciplines of learning made some headway in government-run education institutions at both central and local levels, but education in science and technology as a whole was weak and often neglected, for it always took second place to education in Confucian values.
>
> (Zhou, 2006, p. 3)

One European scholar posits the *shu-yuan* may have been like the early European universities such as in Bologna and Paris (Hayhoe, 1989), and both societies were also influenced by feudalism which slowed down access and developments in higher education (Min, 2004). The western concept of natural sciences entered China sometime during the Ming dynasty, which ran from 1368 to 1644 and flourished in the Qing dynasty, which ran from 1644 to 1911 (Zhou, 2006).

The era in Chinese history that many western cultures study begins around 1840, with the first Opium War until 1842 and Britain's forcible naval entry into China, which, until that time had remained isolated except for the entry of Jesuit missionaries in the 17th century (Hayhoe, 1989; Zhou, 2006). With the signing of the Treaty of Nanking and the British in possession of Hong Kong for 120 years, the Chinese set about learning from their western invaders, adding foreign language, war, science and technology, and industrial curricula to their education system (Zhou, 2006). This is similar to what Americans did when the Soviets launched Sputnik in 1957, and the American government took action to improve its national security and competitive edge through passage of the National Defense Education Act in 1958, making investments in research,

foreign language study, science and technology, and higher education (Smith & Bender, 2008; Thelin, 2011). By the time the second Opium War occurred in the 1850s, the wall of isolation had fallen to European trade (Waley, 1958). Chinese leaders launched a Westernization Movement in the 1860s, and in the Reformist Movement of 1898 the emperor chartered "the Metropolitan University of the Capital City" which would later become Peking University (Zhou, 2006, p. 4), the first government-run college of the modern era. Western missionary colleges were flourishing in the late 19th century along with new study abroad programs for both students and scholars in China (Min, 2004). Three young Chinese students followed their foreign professor to study in America in 1847, one young man returning to China in 1854 with a degree from Yale. Rong Hong is recognized as the first Chinese to earn a foreign degree (Min, 2004). Rong Hong went on to encourage others to study abroad and in 1872 the Chinese government sponsored 120 students to study in the United States (Min, 2004).

The Schooling System of 1902 and the Schooling System of 1904 are legislation on which China's modern higher education system is based, though the 1904 act is considered the seminal document that "laid the groundwork for the country's modern higher education system" (Zhou, 2006, p. 5). In 1916, Cai Yuanpei was appointed president of Peking University and immediately began its modern transformation to a western higher education model (Min, 2004; Zhou, 2006). He valued academic freedom and drew heavily on western curricula, implemented norms for college administration, faculty training and development, and is probably as revered in Chinese higher education leadership circles as Harvard's Eliot is today in America (Rudolph, 1990; Thelin, 2011). By 1921 the Chinese Federation of Education Associations announced a model of

education that emulated the American elementary, secondary and tertiary phases that was made law in 1922 by the Bill on Reform of the Schooling System (Zhou, 2006). The system is fondly referred to as the "6-3-3-4" which reflects the first six years of primary school, followed by three years of middle or junior high school, followed by three years of senior high school and then university (Min, 2004; Zhou, 2006). This model was revolutionary as until this time Chinese primary education had always been private, often conducted by tutors hired by parents to educate their children at home or in a *sishu*, a privately owned school with one teacher (Lin, 1999). After invasions and civil and economic devastation, by 1949 the *sishu* were still operating in remote rural areas, but there were only a total of 205 institutions of higher education, 124 public universities or colleges, 60 private universities and colleges, as well as 21 missionary-based universities and colleges educating a total of 117,000 students (Min, 2004). Minister Zhou cites 207 universities by 1947, 107 being government run, 79 private, and 21 religious, with a total numbers of students served of approximately 150,000 (Zhou, 2006).

The model of the western university in China, thanks to British, Canadian and German industrialists operating in Hong Kong, Shanghai and Beijing, as well as the French Jesuit and Protestant missionaries had a lasting impact (Min, 2004; Zhou, 2006). In 1905 the government finally abolished the imperial examination and the nation had identified 59 private primary and secondary schools, educating 3,855 young people a year later (Lin, 1999). "By 1949, there were twenty-one universities run or subsidized by foreigners" among them Yenching in Beijing and St. John's in Shanghai (Min, 2004, p. 57). When the Chinese Communist Party (CCP) gained power in 1949, establishing the People's Republic of China, the central government closed all private schools or

consolidated them into state-owned schools (Lin, 1999; Min, 2004; Zhou, 2006). In the centralized system, a national curriculum was designed to educate people to serve the state-controlled economy (Lin, 1999). During this period much of China's higher education system was heavily influenced by Soviet traditions (Min, 2004; Zhou, 2006). Many scholars and researchers were exchanged along with curriculum, syllabi and pedagogy and the highly specialized institutes and colleges evolved along the Soviet model, also separating research from higher education facilities, a successful partnership pattern established and flourishing in the United States (Min, 2004). In 1950, China's Ministry of Education (MOE) held a conference that resulted in creating provisional procedures for both government and private universities, along with curriculum reforms (Zhou, 2006). The system had three clear tiers with time limits for study; regular universities were three to five years, technical schools were two to three years and junior college programs offered by universities were allowed one to two years to complete studies (Zhou, 2006). The official document, called The Decisions on the Curricular Reform of Institutions of Higher Education, also called for universities to open graduate schools and to work with the Chinese Academy of Sciences and other research centers (Zhou, 2006).

In 1952 China had 190,000 students attending 211 institutions of higher education, but they were not as differentiated as they would become within just five years. There were 49 universities, 91 colleges and 71 polytechnic institutes across the nation (Zhou, 2006). By 1960, according to Min Weifang (2004), more than one thousand new universities exploded on the scene in just three years, bringing the number to 1,289 along with students attending them to 961,623. The Soviet model of

departmentalization, overspecialization, and the separation of teaching and research would continue until the 1990s (Min, 2004), when private universities and technical schools began to emerge to serve the public clamoring for access to a better life through education and training. Just prior to the "cultural revolution" in 1966, China reported 434 institutions of higher education serving 680,000 students (Zhou, 2006). Until a policy of openness and reform was adopted in 1978, a generation of Chinese lost the opportunity to attend college as the nation's higher education system was decimated (Lin, 1999; Min 2004; Zhou, 2006). No undergraduate enrollments were permitted for four years, and no postgraduates were enrolled for twelve years, actions which had a lasting impact (Min, 2004). The Soviet overspecialization model has been drastically culled from more than 1,400 specialties in the 1980s to around 200 as of 2003 (Min, 2004). China's biggest challenge in opening up to new ideas is how to reform a system that was based on a centrally planned education to meet a centrally planned economy (Lin, 1999). The price for participating in this new market-oriented economy is a rapid loss of egalitarianism, as the leadership has observed (Lin, 1999). The "massive redistribution of wealth" means pressing universities, especially the private ones, to expand to accommodate the families who want a better life for their children (Lin, 1999, p. 17). Often, with China's one-child policy, a student is pressured by the hopes of not only two parents but four additionally doting grandparents with no other grandchildren or children on whom to focus their ambitions (Lin, 1999; Wang, 2003). This combined with the new market economy has created untold wealth for those opening schools to meet the demands of ambitious, hopeful parents and grandparents, whether or not the child has earned high national examination marks and whether or not the school is of the highest quality (Lin, 1999). A

degree in hand is a matter of social prestige, but with the planned market transitioning to a more competitive one, education is in transition as it aligns with providing skilled workers for new jobs that did not exist a decade earlier (Lin, 1999).

The explosion of China's early mass access to higher education today is similar to what America experienced with the onslaught of the veterans seeking higher education after World War II (Thelin, 2011; Zhou, 2006). Bonner (1986) talks about how higher education leaders consulted with national and state government officials to better accommodate the Americans seeking a better life through post-secondary education, something China's Ministry of Education would agree is occurring with their population of over one billion people (Lin, 1999; Min, 2004; Wang, 2003; Zhou, 2006). In 1999, the central government declared it was time to raise the population's level of education and work to meet the increasing demand for access to higher education across a rising middle class (Lin, 1999; Zhou, 2006). This was right when Central China University (CCU) was granted its charter, opening its doors as both a U. S. and Chinese degree granting institution, under the auspices of Zhengzhou University in Henan, located in the most populous province in China with over 100 million people. Just as in America's race for higher education access, many of the young people applying and gaining admission are in need of remedial or supplemental education (Kerr, 2001; Rudolph, 1990) before commencing a program of study. Private schools and special programs connected to private universities are working to equalize learning opportunities and avoid frustrating academics concerned about delivering quality in the classroom (Lin, 1999; Wang, 2003). Depending on where a student went to school, conditions and experiences vary greatly between wealthy urban families and very poor and hardworking urban or countryside

families, just as they do in America (Bowen, Kurzweil, & Tobin, 2005; Lin, 1999). This gap in learner experience, an unequal ability to afford or succeed at university (Bowen, Kurzweil, & Tobin, 2005; Lin, 1993, 1999), and unequal access as seen in the literature of H. Wang (2011) is one of the serious challenges China faces in education. This rapid social change is at the heart of my study as it affects the climate as perceived by the faculty, staff and administration at Central China University.

Quality and Assessment at Issue

Throughout the history of higher education in both the United States and China, elements of assessment have been present, whether to gain admission, pass a course, or sit for a national examination (Rudolph, 1990; He, 2004). Today, China has a National College Entrance Examination (NCEE) based on over 1,500 years of examination tradition, but construct validity and reliability warrant further scrutiny (Liu, 2003; Rotberg, 2004). National government pressure from Beijing, urging universities to open higher education to the masses (Zhou, 2006), is causing a rapid response without a solid plan in place at some institutions (Min, 2004). According to Min Weifang (2004):

> In December 2002 the 31st session of the Standing Committee of the Ninth People's Congress adopted a new law to promote private education in China. This law gives private schools and universities the same legal status as public institutions and guarantees their autonomy. It also stipulates the evaluation procedures and legal guidelines that private institutions must follow. The legislation represents the official recognition that private universities serve the public interests. Private universities and colleges will be expected to grow more quickly,

> account for an ever larger proportion of higher education enrollments, and play an increasingly significant role in Chinese higher education. (p. 72)

Therein lies the problem. The central government has chosen to invest its resources in upgrading "the quality of the leading national universities to world-class status" (Min, 2004, p. 73), leading a gold rush phenomenon to occur in the private sector (Postiglione, 2006; Wang, 2003). Diploma mills are rampant as entrepreneurs, cities, and other entities race to meet the demand, keen for their share of the masses of hopeful applicants (Leng, 2007; Lin, 1999; Shor, 1992; Wang, 2003). *Quality control is at issue, from leadership, policy, and curriculum to classroom practices and academic honesty, and measuring outcomes is a critical feature of assessing, evaluating and maintaining quality on a continuous basis* (Bok, 2006; Ewell, 2009; Leng, 2007; Shavelson, 2010; Wang, 2003). It is only in the latter decades of educational design, with many practices borrowed from business and leadership models (Ewell, 2011; Procello, 2008; Shavelson, 2010), that U. S. institutions of higher education (IHEs) have begun to apply adapted or similar instruments in their own settings (Ewell, 2009; Li & Peng, 2007; Luthans & Youssef, 2007). In light of this movement to identify areas of weakness, strength or potential improvement through institutional surveys on climate and assessment practices, the U. S. Department of Education Office of Educational Research and Improvement (OERI) funded a study which was conducted by three universities' divisions of higher education research, and formed the three into an entity called the National Center for Postsecondary Improvement (NCPI). The history of the project and research generated, along with sample instruments and findings are housed on the web site of Stanford University, one

of the three IHEs participating in the grant. One instrument designed by the NCPI is the Institutional Climate for Student Assessment (ICSA), which was administered across the United States at all accredited two and four year IHEs, but was too cumbersome and culturally complex to translate into Mandarin without losing much of its construct validity. However, the National Center for Postsecondary Improvement (Peterson & Einarson, 1997) reported that thick description studies on a single IHE had led to strengthening institutional culture when associated with student assessment (Banta & Blaich, 2011; Kuh, 2001; Kuh, Kinzie, Schuh, & Whitt, 2005). Other studies reported positive impacts such as improved collegiality between administration and faculty (Friedlander, Murrell, & MacDougall, 1993) as well as an increased emphasis on student achievement (Williford & Moden, 1993) and faculty satisfaction in the classroom (Young & Knight, 1993). Research in efficacy in education and leadership settings demonstrates a positive impact is possible with group participation and buy-in for an assessment program (Gibson, 1999) and elements of continuous process improvement and retention also may be benefits of assessment implementation and application (Bandura, 1997; Goddard, Hoy, & Woolfolk Hoy, 2000). A mixed method approach, utilizing a simpler, more easily translatable climate instrument (Behling & Law, 2000) along with some open-ended questions and an examination of campus artifacts thus had the potential for positive impact as well as establishing critical baseline knowledge about the campus climate and culture (Kuh, Kinzie, Schuh, Whitt et al., 2005).

Purpose of the Study

The purpose of this study is to examine the perceptions of the leadership, faculty and staff of a young, private university in central China concerning the campus climate

(Baird, 1990; Kramer & Swing, 2010; Markus & Kitayama, 2003; Peterson & Einarson, 1997) and to model open, constructive communication across all campus functions through participation in this research study (Banta, Lund, Black, & Oblander, 1996; Bok, 1986; Ewell, 2009; NILIE & Hanayik, 2004; Senge, 1990, 1999).

Research Questions

The overall question: What is the status of the institutional climate at Central China University (CCU)? The research questions are based on a similar climate study (Peterson & Einarson, 2001) utilizing an earlier iteration of the same PACE instrument (NILIE & Hanayik, 2004) though the newest version was adapted for use in China. The specific research questions for this formative assessment study were:

1. How representative of the total CCU employee population is the returned survey sample?
2. How do the faculty, staff and administration of CCU perceive the overall institutional climate?

   H_o: There is no significant difference between groups on climate cluster scores.

   H_a: There is a significant difference between Chinese and foreign faculty on one climate cluster score.

   H_a: There is a significant difference between faculty and administrative scores on one climate cluster.
3. To what extent are there differences in perception of CCU's institutional climate among employees in each of the different roles (faculty, staff, administration)?

   H_o: There is no significant difference between faculty, administration and staff perceptions of campus climate. H_o: $\beta_1 = \beta_2 = \beta_3 = 0$

H_a: At least one $\beta \neq 0$

4. To what extent are there differences in perception of CCU's institutional climate among the various demographic classifications (division, gender, years of experience, nationality)?
5. What recommendations for change or improvement can be made based on the results of this climate survey? (for a report for the CCU faculty, staff and administration)

Scope and Delimitations to the Study

The study was an exploratory mixed-method design conducted on a single site, thus limiting its external validity and generalizability to other institutions with similar characteristics. The university is also private, has a faculty comprised of both Chinese and American scholars, and is less than fifteen years old. Staff and administrators are almost all Chinese, with two exceptions only. Participation in this study was voluntary and all identities remained confidential. A high rate of participation minimized any possibility of bias in the sample.

My position as a longtime board member at this institution could potentially bias interpretation of the results, which is one of the reasons I chose to utilize a quantitative approach to exploring the climate and culture at CCU. By administering a normed instrument with high content and construct validity, bias was minimized to the extent possible. The results of the study reflect the perceptions of CCU faculty, staff and administrators at one point in time and should not be generalized to public universities in China or other aspects of IHEs not reflected in this study.

Importance of the Study

Central China University (CCU) was founded in 1998 and began with fewer than 250 students; in 2010 enrollment soared to over 23,000. Explosive growth is common across institutions of higher education in China (Lin, 1999; Min, 2004; Zhang, 2002) and the education research journals there and abroad are full of approaches and tentative solutions from other nations (Bowen, Kurzweil, & Tobin, 2005; Min, 2004; Wang, 2003). Administering a culturally appropriate version (Behling & Law, 2000; Hofstede, 1980) of the Personal Assessment of the College Environment (PACE) instrument developed at the National Initiative for Leadership and Institutional Effectiveness (NILIE) of North Carolina State University, at the invitation of CCU revealed aspects of strength, weakness, concern, as well as faculty, staff and administration opinions and differences on a range of institutional topics, but with a particular focus on climate (Peterson, 1999), its strengths and challenges (Banta, Lund, Black, & Oblander, 1996; Banta, Jones, & Black, 2009; Ewell, 2009; Patton, 2011; Tierney, 1990). The leadership team working with me, comprised of both faculty and administrative participants, itself created a research element worthy of future study. How a strongly hierarchical power structure (Hofstede, 1980; Trompenaars, 2004) embraced this more inclusive, participatory approach through assessment will be revealed. Through demographic and open-ended questions added at the end of the PACE survey, qualitative data about the institutional climate and culture enhanced the interpreting of findings from the survey (NILIE & Hanayik, 2004). It is hoped the university will carefully scrutinize the findings, create appropriate responses and apply the data in ways that strengthen and improve present practices (Astin, 1991; Banta, Jones & Black, 2009; Chickering & Gamson, 1987; Ewell,

2009; Hutchings & Marchese, 1990; Patton, 2011, 2012) though such an outcome was beyond the scope of this research project.

In China, the peer-reviewed research demonstrates a plethora of educators interested in quality controls in higher education (Lin, 1999; Min, 2004; Wang, 2003; Zhou, 2006). Many articles cite comparative studies of North American, European, Japanese and Australian policies and practices, indicating the need to create and implement assessment practices relevant to the Chinese system of higher education (Wei & Yu, 2005; Zhou, 2006; Zhou, 2009). By conducting research on the utilization and impact of climate assessment in central China, within the social cognitive framework of group efficacy (Bandura, 1986; Parker, 1994), the door is open for many researchers and practitioners across the country to communicate, explore and experiment with both greater confidence and easier access from within China. In their article " 'Glocalizing' Chinese Higher Education," Heidi Ross and Jingjing Lou (2005) best captured the need, relevance, timing and positioning of this study:

> While the debate about what Chinese universities should be doing and do continues, students are arriving on the doorsteps of unaccredited institutions by the millions. It is highly unlikely that the problem of quality teaching and learning will be solved anytime soon. "[Q]uality assurance will be up to a professoriate in China that is generally under paid, a college and university administration that is focused on financing the expansion, and a government education apparatus that has begun to transfer more autonomy and responsibility to individual institutions (Postiglione, 2003, as cited in Ross & Lou, 2005, p. 237).

Thus, I began my baseline, formative institutional climate and culture study (Patton, 2012; Scriven, 1967) with the professoriate and the administrators and staff who support their work at the university.

Definition of Terms

1. Culture refers to the "values, beliefs and ideologies that members share about their institution" (Peterson & Einarson, 1997, p. 27). I also included "artifacts" that physically demonstrate or refute these elements (Schein, 2010, p. 24).
2. Climate refers to "current organizational patterns of important dimensions of organizational life, together with members' perceptions and attitudes toward them" (Peterson, 1988, p. 31). In simpler terms, climate is how people are feeling about what's going on in their campus culture and institutional environment (Schein, 1992, 2010).
3. Assessment is "the gathering of information concerning the functioning of students, staff and institutions of higher education" (Astin, 1991, p. 2). Scriven (1967) also divides assessment into two purposes, formative and summative. This study focused on formative assessment, which is gathering data for purposes of internal accountability and improvement (Banta, Lund, Black, & Oblander, 1996; Peterson & Einarson, 1997).
4. Evaluation is the utilization of assessment data "for individual or institutional improvement" (Astin, 1991, p. 2; Ewell, 2009; Patton, 2011, 2012).
5. Central China University (CCU) is a pseudonym for the research site.

Organization of the Study

The first chapter provided an introduction to the research problem and created the framework for the research project and justification for its implementation. The second chapter includes the theoretical foundation of the research problem as well as the context and methodologies selected to explore and analyze it. The third chapter is a description of the methods used in the study and the precise processes undertaken to address the research questions stated in the first chapter. The fourth chapter reports the results of the research project and the fifth chapter provides a summary and any implications and recommendations identified through study findings. Since this research design was a mixed method approach, utilizing both quantitative and qualitative data collection and analyses for formative assessment purposes, both the PACE instrument (NILIE, 2012) and the themes of all open-ended responses from study participants are archived by frequency in the appendices to the study.

CHAPTER II: REVIEW OF RELATED LITERATURE

This chapter opens with the theoretical framework underpinning this study, followed by a brief description of how the search for relevant literature was conducted in both Western and Chinese sources. The heart of this literature review revolves around assessment and evaluation in higher education. Additional relevant aspects of higher education that relate to assessment, evaluation, climate and culture are interwoven throughout to provide an overview of assessment in higher education as it relates to the research questions and the foreign context of this study.

Theoretical Framework

The lenses through which I approached my study begin with assessment and evaluation, which I call my primary lens, since identifying where an organization is and where it wants to go fall within this extensive body of scholarship (Astin, 1991; Ewell, 2009; Patton, 1997, 2011). Additionally, the secondary lenses of my theoretical framework were organizational culture and leadership and their role in institutional assessment and evaluation in higher education (Bok, 1986, 2006; Ewell, 2009) and finally a look at survey literature as it relates to assessment in higher education. Leaders and evaluation experts need to be familiar with the literature of organizational development as it relates to the institutions, individuals, cultures and climates being assessed to more fully understand the context of findings (Banta, 1991; Banta, Lund, Black, & Oblander, 1996; Schein, 1992). Core perspectives and methodological assumptions occurring within these lenses and framing my study included:

- Formative assessment for the purpose of internal improvement, as opposed to external accountability (Banta, Bok, Ewell, Patton, Scriven, Shavelson)

- Organizational culture research inspired by functionalism (Argyris, Hofstede, Schein)
- Utilization-Focused Evaluation (Banta, Ewell, Patton)
- Strengths and weaknesses of survey methodology (Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2009; Heeringa, West, & Berglund, 2010)
- Identifying potential gaps in ideal values and values in use (Argyris & Schön, Schein)
- Building a positive, inclusive culture of assessment on campus (Bok, Banta, Ewell, Patton)

The last element was an assumption included because of a pilot study I conducted in 2006 on the Central China University (CCU) campus. Faculty and administration were given an open-ended survey they could fill in confidentially, and much of this study reflects participant interest in learning more about where CCU is now, in order to begin mapping where it needs or wants to go, in terms of assessment strategy (personal communication from CCU president, November 13, 2011). Key concepts influencing my approach included continuous improvement and leadership's role in building an organizational culture of assessment that is for internal improvement first and external accountability second (Ewell, 1991, 1994, 2009, 2011) and is inclusive of faculty and staff where possible (Astin, 1991; Bok, 2006).

Conducting the Search

The discovery of a well-normed survey instrument which first inspired this proposal was archived on the Stanford University website. Embedded in the National

Center for Postsecondary Improvement (NCPI) publications was an extensive review of literature surrounding student assessment and the climate for student assessment at the tertiary level (Peterson & Einarson, 1997). Funding from OERI for the project ended in 2006, and a search of student assessment and climate research since that time was conducted first. Several key source reference texts were acquired based on the frequency with which they were referred to in NCPI data. Many of the same scholars cited in the NCPI project reports are still actively engaged in research, especially Trudy Banta, Albert Bandura, Peter Ewell, Sylvia Hurtado and George Kuh. ASHE had several literature review texts on planning and institutional research for higher education, and these were also worthy early sources of carefully reviewed research. Over time and much reading of the literature and searching for different instruments, I concluded the NCPI instrument was too lengthy and complex to translate well into Mandarin for a first-time assessment of this nature (Behling & Law, 2000). I sought a more culturally transferable instrument and found it housed on the website of North Carolina State University, where the National Initiative for Leadership and Institutional Effectiveness (NILIE) is housed. Their instrument is called PACE, the Personal Assessment of the College Environment, which is a climate survey easily conducted and more easily translated to adhere closely to the original content and its well-normed validity. The PACE instrument comes in two versions, one for faculty, staff and administration and the other for students. It is on the former version only that this study was focused. Since the goal was to adapt and then administer the PACE climate survey in a foreign context, it was useful to broaden the frame of the literature review to include peer-reviewed Chinese studies on assessment and climate issues in higher education, although the majority of these revolved around

student assessment rather than faculty and administrator climate perspectives, leaving a timely gap in the literature which this study may begin to fill.

Personal experiences in China led me to explore history first, since many observations in China suggested there might be some common elements regarding the unfolding process of early mass access to higher education (Bowen, Kurzweil, & Tobin, 2005; Trow, 1996). The review of literature began by reading five highly respected texts in higher education history, two from China and three from the U. S. The U. S. primary source was a classic on the history of higher education in the U. S. (Rudolph, 1990). One reviewer commented on a weakness in the Rudolph text, which led to a search for a supplemental primary source history text to fill in the gaps after World War I (Thelin, 2011). The Chinese sources on the history of higher education were selected where possible due to the author having earned a doctoral degree in the West and thus familiar with Western best practices in scholarly research and reporting (Lin, 1993, 1999; Zhou, 2006). From these major works, searches of critical references in various chapters and articles built the exploration, leading to author searches and title searches in the UMSL library databases for specific articles and text references cited in these primary sources, some of which are also included here. The majority of articles on American higher education, student assessment, institutional assessment, higher education leadership and organizational development were accessed via numerous searches in Education Full Text, Sagepub, J-STOR, ERIC, PsycINFO and Wilson Web. The main Chinese database for peer reviewed scholarly research is CNKI and can be accessed in English at http://en.cnki.com.cn.

Longtime study and work in cross-cultural education and training has afforded me an extensive professional library of source materials on intercultural management, organizational change and leadership education, though simple Google searches on recognized intercultural organizational scholars such as Fons Trompenaars and Geert Hofstede were conducted to assess their relative presence and influence on the higher education research and literature under review. Trompenaars was listed in over 107,000 references, and Hofstede was listed in more than 1.46 million references in a quick Google search. The search for further knowledge continued through the entire dissertation writing process, with new articles and other sources being added along the way.

Review of the Literature

I open this literature review with some history of higher education in the U. S. and China and briefly lay groundwork in their somewhat familiar patterns of later development over time. You may wish to revisit the first chapter of this dissertation for greater earlier detail on this topic.

History of Higher Education in the U. S. and China

U. S. practices in higher education, which began over three hundred fifty years ago with the founding of Harvard in 1636 (Rudolph, 1990), have been a point of reference for Chinese scholars in both distant and more recent decades (Ross & Lou, 2005; Zhou, 2006). In contrast, former Minister of Education, Dr. Zhou Ji, states in his text *Higher Education in China*, that the Chinese were operating schools of higher education over 3,000 years ago (Lin, 1999; Min, 2004; Zhou, 2006). In both cases, American and Chinese colleges were only available to elite male students in the early years, young men destined for leadership roles in society. In the U. S., it was not until the Second Morrill Act of 1890, when colleges legally opened to everyone and many HBCUs were established, that higher education began opening to a broader socioeconomic range of students (Rudolph, 1990). Only after the G. I. Bill was passed in 1943 to assist World War II veterans and was later amended to include Korean war veterans and Vietnam war veterans did mass access to higher education exist in the United States (Bowen, Kurzweil, & Tobin, 2005), though women and minorities were still lagging far behind in access to white males (Solomon, 1985).

Jesuit missionaries who came to China in the 17th century planted the first seeds of European and American academic influences, with a period of high westernization in

Chinese higher education flourishing in the 1860s (Min, 2004). However, effects of colonialism and the Opium Wars in the 19th century caused a period of isolationism that insulated China from the rest of the world (Min, 2004; Zhou, 2006). The predecessor of Beijing University was established in 1898 during the Reformist movement when the emperor approved "the first government-run modern college" (Zhou, 2006, p. 4). It was not until 1949 and the founding of the People's Republic of China that higher education was formally defined, and that "education in the New China be national, scientifically based, and for the people" (Zhou, 2006, p. 7). At the time America was entering the space race against the Soviets, the Soviets were investing heavily in China's higher education system, sharing books, course syllabi, faculty and scientific research models, all of which led to highly specialized programs in higher education and a strong separation between teaching and research that does not exist in the American model (Min, 2004; Zhou, 2006).

Sweeping reforms came into effect in China in 1978, after the Cultural Revolution, when access to higher education once again became a formalized national priority (Lin, 1999; Zhou, 2006). "To develop, it must draw on the experience of the rest of the world" (Zhou, 2006, p. 1) and to this end, China has been very successful at implementing exchanges and study abroad programs that share their values, history and perspective abroad while studying and observing other ways of learning and teaching (Lin, 1999; Min, 2004; Zhou, 2006). In 1947, just over two hundred universities were functioning serving 150,000 students in China. In 1965 there were 434 universities serving 674,436 students. As of 2004, there were 1,731 colleges and universities, accommodating over 13 million undergraduate students in China (Zhou, 2006). In

contrast, the U. S. had over 14 million total undergraduate students in 2,530 four-year colleges and universities that same year (NCES, 2004). China's population is four times that of the U. S. and their per capita income in 2010, according to *The Economist*, is $2,340 versus $45,592 in the United States. For a population of more than 1.33 billion people with so little relative personal income, China's commitment to higher education is impressive (Zhou, 2006). True universal access, which has not been realized in the United States either (Bowen, Kurzweil, & Tobin, 2005; Trow, 1996), cannot be achieved until economic parity among the Chinese people exists, particularly by closing the gap between urban and rural lifestyles, but the goal is commendable (Lin, 1999; Min, 2004; Ross & Lou, 2005; Wang, 2003). For now, merit access for the highest achievers is possible, and some limited financial assistance is accessible through foundations and other nonprofit foreign entities, most operating from abroad (Min, 2004; Zhou, 2006). China's educational leadership literature abounds with calls to make higher education affordable (Lin, 1999; Min, 2004; Pepper, 1996; Ross & Lou, 2005). Familiar patterns appear in the recent literature in both national experiences regarding affordability, escalating student debt and access to higher education, though at different times in history. It would be naïve to judge the two cultures as similar on this basis alone, thus spending time exploring organizational culture within the frame of national cultural differences was essential to understanding the survey data collected for this study.

Higher Education in China and the Call for Quality Reforms

A challenge to faculty morale and private Chinese IHEs' ability to provide a solid education revolves around the admissions process: "The private universities usually admit students who have very low [entrance examination] scores" (Lin, 2006, p. 192),

which means many academically deficient students are not equally prepared to study at tertiary levels without *remediation*, the concept of which I was unable to locate in post-secondary literature in China. This gap in student levels of preparedness can lead to frustration for both educator and student in the classroom, causing significant climate and culture concerns, some of which were captured in this study (Ross, Cen, & Zhou, 2011). Also, the challenge of two forces pulling from each end of a dichotomy also lead to stresses within the academy. According to Ruth Hayhoe (1996), "the authoritarian and centralizing structures of the bureaucratic institutions of higher learning linked with the civil service examinations, and the relatively progressive and flexible style of organization in the *shuyuan*…provided an important counterbalancing force" in Chinese higher education (p. 249). Educators in China face an academic desire to freely pursue and share knowledge through scholarly traditions, while the central government dictates the overall focus of energy and outcomes, often without providing the tools by which these goals are to be reached (MOE, 2010). This last paradox is somewhat similar to the American legislative practice of passing unfunded mandates on public education. A similar call to improve American higher education was issued in 1984 by the Study Group on the Conditions of Excellence in American Higher Education (Banta, Lund, Black & Oblander, 1996), in which the uses of "assessment and feedback" (p. 24) were stressed as processes instrumental to achieving excellence in teaching and learning. In 1985, China's national government announced a decision on reforms for the educational system which included reducing government control and greater autonomy for IHEs, which created the niche in which the private universities developed (Ross & Lou, 2005). This "[e]xpansion and decentralization of Chinese higher education has sharpened the

status hierarchy of tertiary schools" (Ross & Lou, 2005, p. 235). "Many private schools lack adequate funding, qualified teachers, and students. Systems of accreditation and oversight are in their infancy" (Lin, 1999 as cited in Ross & Lou, 2005, p. 237). As consumers and employers become more educated in China, they demand proof of quality from private universities, creating a need to assess present status and future directions for improvement (Lin, 1999; Ross & Lou, 2005).

The Primary Lens: Assessment, Evaluation and Organizational Development

This section of the literature review provides a brief history of assessment in higher education in the United States and also includes a limited exploration of trends in assessment in higher education in China. In closing this section, an overview of how assessment contributes to organizational development in higher education demonstrates why this study was needed and the critical nature of the timing for such a climate study in China.

Evaluation and Assessment in Western Higher Education

According to Bhola (2003), educational evaluation is an American invention (Smith, 2009). Richard Shavelson of Stanford University divides "the history of learning assessment" into four eras:

(1) Origins of standardized testing of learning in higher education (1900-1933),

(2) assessment of learning for general and graduate education (1933-47),

(3) rise of the test providers (1948-78), and

(4) era of external accountability (1979-present). (2010, p. 21)

The literature on the history of assessment includes the early influence of behavioral psychologists' work in objective-testing technology, such as E. L. Thorndike and the application of this testing method in the Army Alpha Test, which was developed to recruit soldiers in World War I (Shavelson, 2010). This leads to the important actions that spurred this growth and interest in assessment.

Richard Shavelson identified a landmark study by Learned and Wood in Pennsylvania from 1928 to 1932, where thousands of high school and college students as well as some faculty members were tested on "largely declarative and procedural content

knowledge" (2010, p. 23). This study along with another conducted at the Massachusetts Institute of Technology (MIT), where objective tests, procedures, scales and statistical analyses were developed to assess mastery or knowledge of mathematics, English and physics led to the understanding "that thinking was dependent upon knowledge and knowledge dependent upon facts" (Lagemann, 1983, p. 104). Knowledge of a fact was a measurable, identifiable quantity and so the practice of formal assessment grew from these early explorations.

Graduate Education and the Rise of the Test Providers

John Thelin, an historian in American higher education, identified the 1920s as a key turning point in the use of assessment, when "for the first time [colleges] had more applicants than student places, allowing administrators to implement selective admission policies" (as cited in Komives & Woodard, 2003, p. 13). From this opportunity came the Educational Testing Service (ETS), founded in 1948 (Shavelson, 2010), which came under the auspices of the College Entrance Examination Board and developed the SAT or Scholastic Aptitude Test still widely taken by high school students desiring entry into colleges or universities in the United States (Thelin, 2003). It is also a source of dispute in the literature, being regarded as biased in content and leading to inequity in access to top-tier higher education (Komives & Woodard, 2003), a parallel topic I introduce more fully in the Chinese literature on assessment.

Unusual in its day, the University of Chicago had an overall Examiner's Office, and faculty did not themselves test students in their courses. In the 1930s and 1940s the Chicago exams tested traditional procedural and factual items, but also more abstract concepts such as strategic and schematic knowledge and the ability to apply these in

combination through multiple choice and essay questions (Shavelson, 2010). About the same time, Learned was building on his early work in Pennsylvania and working with the Carnegie Foundation and Columbia, Harvard, Princeton and Yale universities to begin testing the "quality of students in graduate education" which eventually became the Graduate Record Examination (GRE) still in use today (Shavelson, 2010, p. 27). The goal was to improve the quality of graduate education by drawing a "line between the fit and the unfit" (Savage, 1953, p. 288) as the demand for graduate study had strongly increased during the Great Depression (Shavelson, 2010). In 1947 the number of universities utilizing the GRE test battery had grown to 175 (Shavelson, 2010).

As the nation's community colleges expanded so too did their assessment needs (Thelin, 2003). Veterans home from the second world war had widely different educational backgrounds and many lacked strong reading, writing and mathematics abilities, thus creating a need for pre-testing, placement testing or what Michael Scriven would identify as "formative assessment" (Scriven, 1967, p. 16). Around this same period, the GRE began testing on advanced levels of information in subjects like foreign language, fine art, biology and spent 1947 establishing norms by testing 20,000 graduate students at over fifty IHEs (Savage, 1953). The Carnegie Foundation was equally interested in assisting "institutions in assessing program effectiveness and individual student need as a means to improvement" (Shavelson, 2010, p. 28). The Carnegie Foundation, therefore, deserves much of the credit for supporting and studying *assessment as a tool for individual as well as institutional improvement*. The American College Testing program was created in 1959, becoming known later as ACT in 1996 (Shavelson, 2010). Throughout the 1970s, ETS and ACT experimented with critical

thinking items which required open-ended test prompts and extensive training of examiners and raters, which eventually got too costly and time consuming. These tests were redesigned to be taken in a multiple choice format (Shavelson, 2010). Numerous other testing companies emerged to meet other market needs. Eventually, the Carnegie Foundation left the assessment industry, now booming, and moved the GRE to the ETS, having honed testing down to well-normed multiple choice questions (Shavelson, 2010). Their legacy remains intact.

Assessment and External Accountability

History indicates Shavelson's estimation of 1979 as the beginning of the "era of external accountability" (Shavelson, 2010, p. 21) is later than other assessment experts would place it, among them Peter Ewell, a senior scholar at the National Institute for Learning Outcomes Assessment (NILOA). In the United States, when Congress passed the Higher Education Act of 1965, "institutional accreditation was assigned a new high stakes role by the federal government as the "gatekeeper" for institutional eligibility" for government-sponsored financial aid systems (Ewell, 2006, p. 57). American President Lyndon Johnson was the first to formally request a plan for federal investment in higher education (Thelin, 2011). Prior to that time, accountability and accreditation had been primarily a voluntary "approach to quality assurance" for over a century (Ewell, 2006, p. 56), but eight regional accreditation organizations emerged that today govern the extensive self-study processes by which IHEs examine their campuses every ten years (Provezis, 2010). Additionally, there are programmatic agencies that evaluate and make recommendations to institutions seeking program accreditation in specific areas of study, though these evaluation cycles tend to be shorter, typically every three to five years

(Ewell, 2006). In 1968 the federal Office of Education "linked itself directly to accreditation and indirectly to assuring college quality" (Shavelson, 2010, p. 103) and today the U. S. Secretary of Education examines and approves the accreditation agencies on a rotating basis every five years. Accreditation has become a major mechanism in the quest for accountability, and the power of external accountability has led to disputes in the literature by experts on such topics as academic freedom, institutional effectiveness, and concerns over exercising undue influence on curriculum and resource allocation (Ewell, 2009; Ross, Cen, & Zhou, 2011; Shavelson, 2010).

Measuring Outcomes

In 1981, U. S. Secretary of Education Terrel Bell appointed a National Commission on Excellence in Education. David Gardner, then president of the University of Utah, chaired the commission which generated *A Nation at Risk: The Imperative for Educational Reform* (1983). The report, though focused on elementary and secondary education, used stirring phrases such as "rising tide of mediocrity" and "the average citizen is better educated than a generation ago" (pp. 5-12, as cited in Mayhew, Ford & Hubbard, 1990). The fallout of the report soon reached political leaders and higher education circles. In 1984 the U. S. Department of Education released a report called *Involvement in Learning: Realizing the Potential of American Higher Education* (Study Group on the Conditions of Excellence in American Higher Education, 1984), which was followed by *Transforming the State Role in Undergraduate Education: Time for a Different View* (Education Commission of the States, 1986). All the reports cited the need to measure student learning and outcomes and recommended IHEs take a proactive role in assessment, ultimately leading to state mandated metrics (Procello, 2008). Derek Bok,

then president of Harvard University wrote a defense of higher education while noting its challenges. He encouraged the leadership role in creating a culture of assessment for both internal improvement and external accountability and stressed the role of higher education in innovation for global competitiveness in his book *Higher Learning* (1986). Vocational and technical schools along with community colleges seemed to be addressing society's needs for specifically trained workers, and because of measurable outcomes for these publicly funded programs, four-year colleges and universities felt the "pressure to account for student learning had risen palpably" (Shavelson, 2010, p. 105). The public, unhappy with rising tuition costs and longer times to earning a degree, demanded an accounting from the academy. It was time to explore assessment for reasons beyond accreditation, to address public accountability. However to do so would require self-examination for the purposes of improvement, ushering in the era of *assessment of student learning* (Ewell, 2009). The publicly funded universities received a strong message from political leaders in 1986, when the National Governors Association released their task force report *Time for Results*. Metrics needed to be put in place to establish that student learning was taking place, and funding was going to begin to be aligned with outcomes such as retention and graduation rates. The governors wanted graduates to be able to think critically and be good communicators (Ewell, 1991, 1994) and they stressed "the public has a right to know what it is getting for its expenditures of tax resources" (National Governors Association, 1986, p. 3, as cited in Mayhew, Ford & Hubbard, 1990). Actions from state legislatures and the federal government were not far behind.

Federal and State Roles in Assessment

Officially, the U. S. Constitution states no role "of federal responsibility for postsecondary education," making federal participation "recent and indirect" (Ewell, 2009, p. 11). While the Morrill Acts of 1862 and 1890 provided the establishment and support of state land-grant universities, in 1958 the National Defense Education Act after the launch of Sputnik by the Soviets in 1957 created funding for the sciences, research, foreign language and the first financial aid for non-veterans (Rudolph, 1990; Thelin, 2011). The state universities were receiving massive amounts of funding from the federal government well into the 1960s, including grants for research that created soft-money positions on many campuses that eventually blurred into the operating budgets of universities over time (Kerr, 2001). The competition for federal funding led to reporting and accountability measures in the externally funded programs. The IHEs were flooded with students and scrambled to accommodate the massive post-war growth, but there was no national plan in place for tracking or measuring results (Ewell, 2009). The policies established in 1915 by the American Association of University Professors (AAUP) had fostered a culture of academic freedom, shared governance and individuation with respect to many universities (Bok, 1986; Chaffee & Tierney, 1988; Mayhew, Ford & Hubbard, 1990), but these tenets of academic independence were hard to align with mandated measurement of outcomes (Bowen, 1979). Nine of ten states that had statewide boards of higher education in 1954 came together to create the State Higher Education Executive Officers (SHEEO) organization, which today has members from twenty-nine states participating from either statewide governing or coordinating boards of higher education (SHEEO, 2012). Many of the appointees to state governing boards are professionals in

the business sector who bring with them multiple perspectives on assessment and accountability in the workplace (Rudolph, 1990; Shor, 1992; Thelin, 2011). Birnbaum (1988) suggests linkages such as this, as well as corporate leadership serving on institutional boards of governors or state boards of regents, and business, management and organizational development faculty may also have suggested applying quality assurance practices to higher education (Procello, 2008). This philosophy is strongly in use today in K-12 public education strategic planning and assessment practices based on Baldrige criteria (Ewy, 2009) perhaps influenced by the professional experiences and practices of board members but is not widely accepted as common practice in higher education assessment (Ewell, 2009).

The Higher Education Act of 1965 created an indirect but powerful opening when access to federal financial student aid meant federal oversight of taxpayer dollars was at stake (Bonner, 1986; Shavelson, 2010; Thelin, 2011). Community colleges, supported strongly via the Truman Commission Report in 1947, were charged with conducting *community assessments* of learning needs which would determine curriculum development (Mayhew, Ford, & Hubbard, 1990). Later, with strong statistics about job placement to justify their programs, community colleges reaped the benefit of federal vocational education funding (Bonner, 1986). The states were watching, and coordinating boards for higher education, typically appointed by state governors, were beginning to ask questions about measurement and accountability processes (Ewell, 2009; SHEEO, 2005). Many board members tend to come from the business and commercial sector and had experience with management philosophies surrounding quality assurance measurement and reporting (Ewy, 2009; National Commission on Accountability in

Higher Education, 2005). According to Peter Ewell, regional accreditors were exploring topics like "institutional effectiveness" which encouraged compliance implementing assessment practices, but "their treatment of the topic has historically centered much more visibly on continuous improvement than on accountability" (2009, p. 12). "However, several differences among the student-assessment related policies and practices enacted by regional accreditation agencies" demonstrated a lack of uniformity into the 1990s (Cole et al., 1997, as cited in Peterson & Einarson, 1997, p. 14). The focus was more on institutional improvement rather than external accountability (Cole et al., 1997). This lack of uniformity in approach led to a landmark research study by the National Center for Postsecondary Improvement (NCPI), funded by a federal grant from the U. S. Department of Education and administered by the Office of Educational Research and Improvement (OERI).

National Study on the Status of Assessment in Higher Education

When the NCPI project, a combined effort of postsecondary assessment scholars at Stanford, Michigan and Pennsylvania began their work, there was no nation-wide perspective on what IHEs were doing regarding assessment or how the academy felt about its uses and applications (Peterson & Einarson, 1997). They set about asking every accredited two or four-year IHE about their assessment climates, definitions, efforts and practices, in order to compile "a national profile of undergraduate student assessment efforts in postsecondary institutions, and to increase current understanding of how institutions can engage in and promote student assessment that produces positive impacts on academic, student and institutional performance" (Peterson et al., 1999, p. 10). The publications of findings, original assessment instruments, literature reviews and reports

are archived on the Stanford University website, still of great value to those who will take time to locate and download the material. The conclusion of the NCPI national study on assessment in higher education was that the three strongest external accountability forces to drive assessment efforts were the federal government, individual state governments and regional accreditation agencies (Procello, 2008). Research published since that time concurs with these findings (Banta et al., 2002; Ewell, 2009) but the challenge remains the same: *there is no single assessment protocol or a single entity that oversees its implementation*, though reputable, credible scholarship has contributed to our understanding. American academic culture is based on academic freedom and shared governance (Birnbaum, 1988; Chaffee & Tierney, 1988) which made fascinating the question of how climate assessment in China would be perceived and whether a uniform national effort via the Chinese MOE could be implemented to drive such a phenomenon.

Literature Search in Chinese Higher Education

The literature on *assessment* in China is just developing, still focusing primarily on the National College Entrance Examination (NCEE), so I took a different approach. I found materials from several prolific Western scholars such as Postiglione, Ross, and Hayhoe who had conducted studies in China, but I was also deeply interested in understanding *how the Chinese scholars viewed assessment from their own perspective*. I needed to understand the context more fully and so conducted a deep search for peer-reviewed articles in English on the status of higher education in China. Many of the Chinese articles were written in an essay format such as one might see in a peer-reviewed philosophy or history journal. Most had three or four references listed, the majority of which were from Chinese authors and often the same few cited when reading on the same

theme. Over time, I began looking harder at where the writer was working, and noticed that when the writer came from a more prestigious university or research center in China such as Beijing, Shanghai or Nanjing, where there is frequent interaction with foreign scholars and Chinese scholars who have themselves studied abroad, often there were considerably more references cited, as well as some methodology sections and relevant statistical analyses included. For the scholars writing from the top tier universities some of the literature cited was international and the writing equal to the peer-reviewed norm with which I was most familiar. What I found most fascinating was that themes tended to come in clusters over time. For example, in *Chinese Education and Society*, it appeared that articles were selected for translation and published in thematically organized volumes with a strong guest editor. When I found one interesting article in a particular volume, I learned quickly to peruse the rest of them in the same edition. As I thought about this and the way older cities' commercial groupings also tended to cluster thematically in China, I postulated that perhaps being a highly collectivistic culture (Hofstede, 1980; Trompenaars, 2004) this clustering was a peer-related consensus activity in terms of editorial choices. Though I had a suspicion of why some of the Chinese research literature tended to be comparatively lean and modest, I went back to consult the literature as to why this phenomenon had occurred.

Higher Education in China Since 1976

During the Cultural Revolution from 1966-1976 intellectuals were not as highly regarded by their government as in other times in China (Lin, 1993). Investment in intellectual research was not a priority while a more practical approach to nation building was advanced (Hayhoe, 1996; Lin, 1993; Zhou, 2006). The National College Entrance

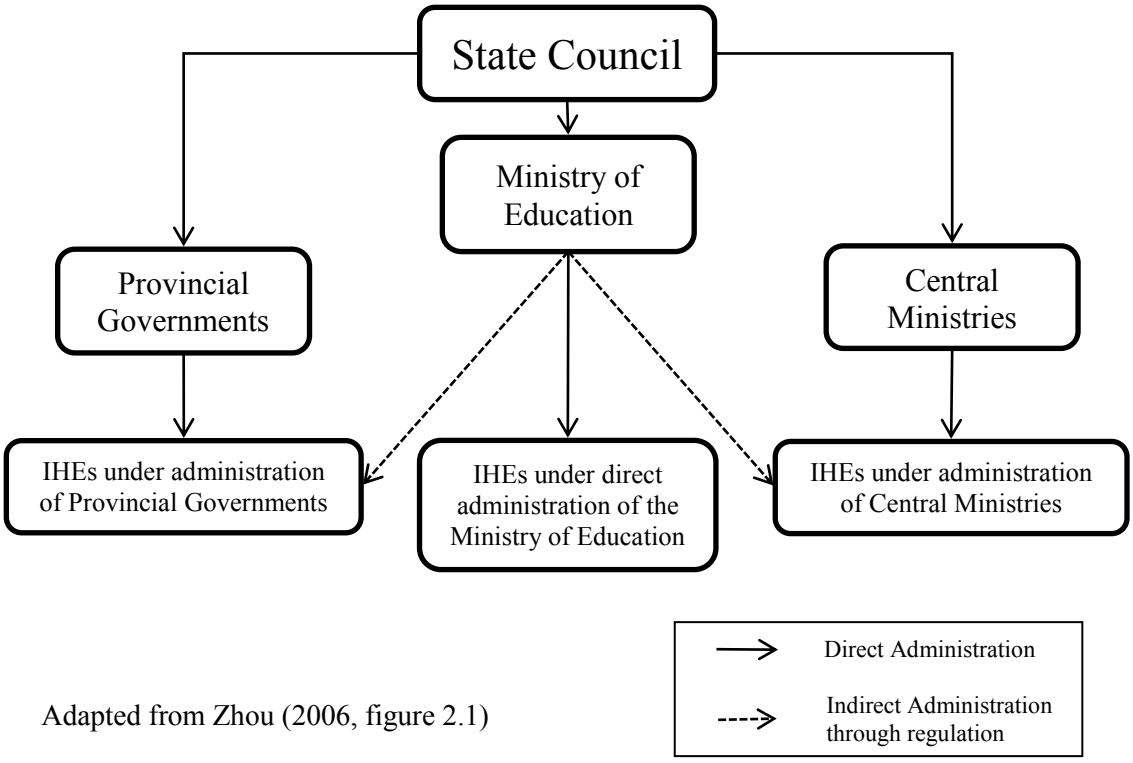
Examination (NCEE) was abandoned in China during this time, only to be reinstated in 1977 (Hayhoe, 1996; Lin, 1993). This sounds simple, but the impact was not. After more than a thousand years of a culture used to preparing for years to pass the imperial examinations, which could alter family life circumstances for generations, the changes in access were stunning (Hayhoe, 1996; Lin, 1993). While the NCEE was *not* used, students gained admission to colleges and universities by letters of recommendation from teachers and community leaders who knew them (Lin, 1993). In a sense, it temporarily leveled the playing field for the rural poor Chinese, up to eighty percent of the population in some provinces (Hayhoe, 1996), who had not had equal access to a quality education in elementary and secondary settings and were often unable to compete as equals with wealthier urban students on the NCEE (Qiao, 2010). It also allowed a greater chance of access for urban students educated in the "common" senior secondary schools rather than the "elite" or "key" schools where the children of the wealthy and influential attended (Lin, 1993), often earning or buying the highest scores on the NCEE and gaining the prized seats sought by all at the top flight universities (Hayhoe, 1996; Lin, 1993). With the reinstatement of the NCEE came outcries of test bias over content inappropriate for most rural students and their limited "cultural capital," due to the comparatively modest educational resources to which they had been exposed (Lai, Tian & Meng, 2011; Wang, 2010, p. 32). However, the rural versus urban issue was not the only concern. "Since the late 1990s, calls to abolish the entrance exam have periodically emerged in the face of widespread abuse of the system" (Zheng, 2010, p. 12). This outcry was in part a result of opening IHE access in the 1980s to paying students whose exam scores in some cases did not meet official entry requirements (Lin, 1993), a practice eventually abandoned (Zheng,

2010) according to some sources. And, as in many nations, a few worried families hired test-takers to sit the exam for their own less well prepared children, causing unfair outcomes (Lin, 1993). Overall, many Chinese still view the NCEE as a social equalizer, so no matter where a child is educated, if he or she is well-prepared and works hard at studies, there is still a chance to pass the exam and change a life (Zheng, 2010).

China's Commitment to Develop World-Class Universities

Starting in 1995 with the 211 Project, the central government committed to developing 100 "first-class universities" by early this century (Liu & Wang, 2011; Zhou, 2006, p.36). Development sources including the World Economic Forum state "improvement is still needed in a range of aspects, such as the quality of higher education training and knowledge innovation" (Lauder, Brown & Ashton, 2008; Schwab, 2009, as cited in Liu & Wang, 2011, p. 4). It is hoped the 211 Project will work toward this goal through "improving universities' overall conditions, developing key fields of study, and building a higher education public service framework" (Zhou, 2006, p. 36). However, in reviewing more about Project 211 implementation, I could find no wording on how this progress was measured or assessed, though goals in some of the three areas were stated. For example, in Minister Zhou's book *Higher Education in China*, he states: "The first phase of Project 211 has achieved its goals and yielded major results and returns" (2006, p. 38) but he does not articulate precisely what he means by this nor how these conclusions were determined. Much of the discussion is related to buildings, apparatus and equipment, library books and the amounts invested. This is natural in early phase capacity building, but the general style of language used is not unusual in the Chinese academic literature. There are goals for Project 211 stated for the Tenth Five-Year Plan

(2001-2005), but they are big picture concepts such as "to continue building key universities, turning most of them into national leaders in teaching and research" (Zhou, 2006, p. 39). Exploring many central government documents on higher education, there seemed to be little to no mention of outcomes-based assessment until more recently. The reason, I read later, was because of the national government's commitment to decentralize some functions of higher education to accommodate the mass access movement and allow provincial and local authorities to assess and respond to localized needs in their regions (Mok, 2001; Ross & Lou, 2005). However, the literature indicated concern whether "decentralization" was in fact accurate, and Mok (2001) went so far as to suggest that "both the *functional decentralization* and *territorial decentralization* have changed the central state from a provider state to a facilitator state and regulator state" (p. 144). His research showed Hong Kong, Taiwan and Singapore also decentralized the locus of control over higher education, but at the same time "strengthened the state's control and monitoring over the university sector by mean of stronger management and the implementation of quality assurance exercises" (Mok, 2001, p. 144; Tan, 1999). Project 211 has created a competition for resources between the designated IHEs, and they are reviewed by the central government, though it was not specified how (Mok, 2001).



Adapted from Zhou (2006, figure 2.1)

Figure 1 China's higher education administrative system.

Four years later, after President Jiang Zemin's call for world-class universities in China, the central government responded to the challenge by implementing Project 985 (Zhou, 2006). In 1999, Peking University and Tsinghua University were the first two IHEs to receive national support, and later seven more IHEs were added to the program. "Inter-disciplinary consolidation" and "key support to quality academic and research programs" funded "major national research projects" yielding patents and geological breakthroughs among other results (Zhou, 2006, p. 40). These first nine universities have the national focus and as of late 2011 Project 985 had expanded to include thirty-nine IHEs, which receive funding from the central government, one percent of its annual revenues, to achieve "world-class" status (Xiong, Zhang, & Liu, 2011). The funding is

obtained by submitting proposals for innovative programs and research in all disciplines, but encourages submissions based on interdepartmental and interdisciplinary projects and activities (Xiong, Zhang, & Liu, 2011). Meanwhile, the provinces and local authorities are challenged to support the other institutions closer to home. This is an astounding move to decentralize control in higher education, and many academics are pleased about this but concerned about the quality of leadership training and decisions in this newly accountable role (Mok, 2001). One scholar at Shanghai Jiao Tong University shared that one application of 985 funding has been to recruit "a number of world-class academic masters and top-notch internationally influential, young and middle-aged scholars" (Ying, 2011, p. 24). Most impressive was the change in the proportion of faculty holding a Ph.D. degree, which rose from less than twenty percent in 1999 to over fifty percent in 2008 at these designated IHEs (Ying, 2011).

In the past, the MOE directly set policy and controlled the provincial education offices, which in turn guided the elementary, secondary and tertiary schools in their regions, having little input to assess and address local needs. The change in decision-making locus caused some indecision for a time, as site leaders adapted to a new role. Additionally, the creation of a tiered system and curricular reforms in education have disturbed some scholars, and may have led to loss of morale in some settings (Lee et al., 2011; Wang, 2011; Wang & Zhao, 2011; Xiong, Zhang, & Liu, 2011; Yin & Lee, 2011). In fact, this decentralization creates a perfect opportunity for formative assessments across the educational system, so the local and provincial authorities have a grasp of the situation and identifiable areas of improvement and could gather baseline data by which measurement of progress can be made (Banta et al., 2002; Ewell, 2009). As of 2009,

there were sixteen provincial education evaluation agencies across China. The first two provincial sites were at Shanghai, established in 1996 and Jiangsu, established in 1997 (Guo, 2009). Guo reports at the tertiary level the Shanghai Education Evaluation Institute (SEEI) is responsible for:

> Evaluation of key disciplines
>
> Assessment of courses of excellence
>
> Selection of outstanding teaching materials
>
> Evaluation of graduates from vocational colleges
>
> Assessment of undergraduate thes[e]s
>
> Accreditation of Chinese-foreign, cooperatively run higher education institutions
>
> (Guo, 2009, p. 83)

The SEEI "is also actively engaged in academic research on education evaluation" as well as holds conferences and training programs locally and internationally (Guo, 2009, p. 84). While there were no specifics on methodology for conducting assessment, this was a positive indicator that assessment at the local level is taking place in the major education centers. There is also evidence of professional cooperation with accreditation councils and other educational quality assurance agencies in Hong Kong and Australia, perhaps indicative of a pattern that will expand into the interior provinces. This kind of cooperation, along with aggressive expansions of international higher education joint ventures and student and faculty exchanges will all contribute to the world-class academic status China is working toward. As one scholar put it:

> China's high level universities are in the process of moving from accumulating quantity to improving quality and, if the current strategy and input intensity is continued, Peking and Tsinghua Universities should be among the ranks of world-class universities in another ten years. Some scholars believe, however, that funding is only one of many conditions for building a world-class university; Chinese universities, which lack academic freedom and a conducive external environment, will find it difficult to develop [into] truly world-class universities based on increased funding alone (Ngok & Guo, 2008, as cited in Cheng, 2011, p. 27).

Assessment and Organizational Development

"Colleges and universities are highly specialized organizations" and the challenge is to determine how an institution can assess its environment "intelligently so that internal structures can be accountable, effective, and efficient" (Bess & Dee, 2008a, p. 4). If we view a university as a coalition of organized anarchists, much the way Cyert and March (1963) envision, and we see departments or divisions as organizational subunits (Birnbaum, 1988), then an operational concept within the coalition is that not every subunit will have equal power or influence (Bolman & Deal, 2008; Perrow, 1970; Schein, 1992). My work in both the United States and China demonstrates the need to understand and be able to function successfully in what Bolman and Deal (2008) call the political frame, however one system is loosely coupled while the other is tightly controlled, highly structural and bureaucratic (Birnbaum, 1988). Working smoothly in both organizations requires a strong understanding of how they operate, how their functions and abilities to act differ, and how to adapt to the changing and sometimes unspoken rules within them

(Hofstede, 1980). Detert, Schroeder and Mauriel (2000) claim there is no "comprehensive framework for defining and measuring organizational cultures" (p. 850) which limits our understanding of the relationship between culture and behavioral change implementation. The purpose of assessment centers around whether an individual or organization, once it assesses its behaviors and values, is willing or able to change based on the responses they themselves have generated (Banta & Associates, 2002; Bok, 2006; Ewell, 2009; Schein, 2010). A major purpose of assessment is accountability, but it also applies in settings of institutional improvement and accreditation, activity that calls for total participation of an organization and a desire to come into compliance with recommendations made by peer reviewers or funding agencies (Ewell, 2006, 2009).

History indicates Shavelson's estimation of the beginning of the "era of external accountability" (Shavelson, 2010, p. 21) is later than other assessment experts would place it, among them Peter Ewell, a senior scholar at the National Institute for Learning Outcomes Assessment (NILOA). In the United States, when Congress passed the Higher Education Act of 1965, "institutional accreditation was assigned a new high stakes role by the federal government as the "gatekeeper" for institutional eligibility" for government-sponsored financial aid systems (Ewell, 2006, p. 57). Prior to that time, accreditation had been primarily a voluntary "approach to quality assurance" for over half a century (Ewell, 2006, p. 56), but eight regional accreditation organizations emerged that today govern the extensive self-study processes by which IHEs hold themselves accountable and examine their campuses every ten years. Additionally, there are programmatic agencies that evaluate and make recommendations to institutions seeking

program accreditation in specific areas of study, though these evaluation cycles tend to be shorter, typically every three to five years (Ewell, 2006).

Social Cognitive Theory and Efficacy Research in Assessment

Bandura's Social Cognitive Theory, particularly as it concerns the role of efficacy in education (Bandura, 1990), provides an excellent frame for Banta's descriptions of IHEs supportive of assessment (Banta, 1991). Astin (1991), Birnbaum (1988) and Peterson (1988) also talk about collegial governance styles which often promote a stronger participation in decision-making roles, leading to a sense of well-being and deeper commitment to the pursuit of excellence in education. China's traditionally group-dominant, hierarchical collectivist social structure (Hofstede, 1980, 2010; Trompenaars, 2004) operates in strong contrast to the academic value of individualistic freedom in research and classroom practices (Ross & Lou, 2005; Wang, 2003). The clash between the collectivist cultural pressure to conform and the academic desire to affect change is powerful in Chinese IHEs (Lin, 1993, 1999; Postiglione, 2006; Ross & Lou, 2005). Thus, the intercultural conceptual framework of this study required all items on the PACE instrument be reviewed and piloted for suitability to Chinese culture and values (Hofstede, Hofstede, & Minkov, 2010). Self-efficacy is a social construct, in part, according to Bandura (1986), and other researchers have explored this construct within the framework of individualist versus collectivist societies and value systems (Erez & Earley, 1987; Markus & Kitayama, 2003; Triandis, 1989). It is widely accepted in intercultural research that collectivist culture professionals are more likely to derive satisfaction from a group achievement, while those tending toward an individualist value system will often derive greater satisfaction from personal achievements (Hofstede, 1980,

2010; Schein, 1996, 2010; Trompenaars, 2004). Devising a framework for institutional assessment can work within either a group- or self-efficacy model of cultural norms, though it is "doubly difficult" due to power differences within a group setting (Bandura, 1986, p. 466; Hofstede, 1980; Hofstede, Hofstede, & Minkov, 2010; Schein, 2010).

Assessment Across Cultures

Until 1980, when Dutch cultural anthropologist Geert Hofstede came out with a landmark book based on a global IBM employee study called *Culture's Consequences*, little had been published in English on values systems and cultural differences in a business context except on a one-to-one cultural comparison basis. With the release of Fons Trompenaars' seminal work *Riding the Waves of Culture* in 1994, leading managers began paying attention to the global impact of crossing cultures in business and management settings. Trompenaars' own background in doctoral studies from the Wharton School of Management at the University of Pennsylvania allowed some of this early cross-pollination between business administration curriculum and intercultural academic practices to emerge in his work, which made the later framework of his studies relevant and accessible to both business and educational leaders around the world (Hofstede, 2001; Hofstede, Hofstede, & Minkov, 2010; Trompenaars, 2004). When conducting a keyword search by author of Trompenaars, hundreds of peer-reviewed experts cited Trompenaars, often along with Geert Hofstede (1980) in research articles in many crossover genres, from educational psychology to counseling, business, intercultural management and leadership studies. Many Chinese scholars have pursued studies in the U. S. and Europe, and were exposed to these theories and practices,

eventually bringing them home again to influence their own leadership styles in China (Ji, 2006; Wang, 2003).

Assessment and the Role of Higher Education Leadership

It was not until 1870, when Harvard University appointed its first college dean of higher education that U. S. college presidents obtained formalized administrative help running their institutions (Rudolph, 1990). The American College Personnel Association began in 1924, and with it came diversified student services positions such as data collection, vocational guidance and placement testing (Komives & Woodard, 2003). It was also early in the twentieth century that deans of men and women became common on college campuses across America (Levine, 1986). After World War I, American socioeconomic interests changed to reflect the needs of a somewhat less agricultural and more industrialized nation (Levine, 1986; Rudolph, 1990). It was at this time business and management studies entered university curricula, after controversial insistence and strong participation from the business community (Thelin, 2011). This curriculum revolution is somewhat similar to China's present reforms, which are driven in part by World Trade Organization regulations and requisite adaptations (Ji, 2006; Wang, 2003) but occur at greater speed today due to modern innovations in learning, communication and global competition. Management literature has emerged as one of the crossover elements influencing educational leadership and policy research and practice in the U. S., Europe, and other developed regions of the world (Procello, 2008; Schein, 2010; Trompenaars, 2004), often exemplified by the imported practices of developing and promulgating mission and vision statements and other practices of top multinational companies (Collins, 2001; Collins & Porras, 1994; Schein, 1996, 2010; Senge, 1990,

1999). This body of research has presented two concepts of leading, transactional and transformational, both of which have been applied in American university settings (Birnbaum, 1988; Bok, 2006; Bolkan & Goodboy, 2009).

One key similarity both the U. S. and China face, as higher education opened to the masses, is *the dilemma of quantity versus quality* (Kerr, 2001; Zhou, 2006). Both Rudolph (1990) and Zhou (2006) cite this challenge and *how to meet the needs of a growing number of students without compromising quality of program delivery and student preparedness* after graduation. It was not until the late 1970s that American institutions of higher education began bringing in leadership ideas from MBA graduates, some of whom were beginning to run their finance, human resources and operations divisions (Birnbaum, 1988; Smith & Bender, 2008). From the earliest days in higher education, university leaders were selected from among the faculty; these teachers were often placed in leadership roles without any background in managing or leading people and organizations (Rudoph, 1990). It was not until the early 20th century in the U. S., when a division between student and academic affairs was codified through a document called *Student Personnel Point of View*, drafted by the American Council on Education in 1937 (Komives & Woodard, 2003), that specializations in educational leadership became a more commonly recognized practice. Komives, Lucas and McMahon (2007) state that research on higher education leadership in general is lacking even today, since its acknowledged inception sometime in the mid-19th century, a result of the industrial revolution and the resulting need for management systems. Though many of the qualities required of good leaders may be similar between nations (Collins & Porras, 1994; Kotter, 1995; Schein, 2010), differences between American and Chinese higher education

leadership styles vary greatly, and this needed to be understood in conducting this climate study (Bok, 2006; Eckel, Hall, Green, & Mellon, 1999; Zhou, 2006).

Just as in the United States, which introduced the notion of external accountability in higher education primarily after the increasing financial participation of the federal government (Ewell, 2009), China has evolved into a hierarchical system of external accountability in higher education. The Ministry of Education is the highest authority for higher education, operating directly under the state council in Beijing. Provincial governments have education departments that oversee the entrance exams and appoint and fund the provincial IHE leaders (Yu, Stith, Liu, & Chen, 2012). Leaders at Chinese IHEs must oversee stringent reporting mandates (Min, 2004) for both provincial and central government purposes (Zhou, 2006). Leaders of public IHEs in China are appointed by the state at either the national or provincial level, depending on the administrative line of command (Yu, Stith, Liu, & Chen, 2012) assigned to that institution. Some MOE responsibilities include:

> Setting standards for new schools, evaluation of teachers and teaching methods, collection, analysis, and publication of education data, maintenance of student records, overseeing international student exchange, degree conferral and managing State Key S & T research program. The M[o]E administers its higher education institutions independently or in collaboration with other governing bodies when there is shared jurisdiction. (Yu, Stith, Liu, & Chen, 2012, p. 25)

This is a different style of leadership and chain of accountability than Western university leaders are charged with, and in the midst of decentralization policy, China's university leaders struggle between two worlds for leadership, the traditional one listed here and the

encroaching global higher education models more familiar in Europe, Australia and North America (Liu, 1990). Annual meetings such as the Association of Universities of Asia and the Pacific (AUAP) gather leaders from across the region, sharing best practices, creating scholarly debate, international exchanges and joint program development (AUAP, 2012). This is an organization the leaders at CCU participate in and has led to their hosting an annual meeting on the CCU campus (personal communication from CCU president, May 2010).

Aside from faculty course surveys, the internal uses of institutional assessment are just coming of age in China, as demonstrated in the literature. Up to now, the most prominent uses of assessment in higher education in China are the National College Entrance Examination (NCEE) and the student classroom surveys of faculty performance at the end of every semester (Wang, 2003). According to Ross, Cen, and Zhou (2011), "educational quality is framed in key policy reform documents shaping Chinese education over the next decade" (p. 24). The authors refer to the central government document *Outline of China's National Plan for Medium and Long-term Education Reform and Development: 2010-2020* (MOE, 2010) which states, "[m]echanisms for innovation- and quality-oriented evaluation of research results shall be ameliorated" (MOE, 2010, p. 20) but overall, there is little reference to actual assessment and not *within* the institution itself or regarding climate and culture. Instead, words such as "optimization" are used frequently throughout the document. Perhaps this is due to the decentralization movement by the central government as expressed in the *National Plan*: "While serving national objectives, higher educational institutions shall also give their researchers a free hand to explore the unknown, and intensify basic research" (MOE,

2010, p. 20). This change in responsibility to the IHEs leaves a huge gap in the knowledge of how to lead an institution forward with more individual institutional responsibility and leadership accountability than ever before in China (Yang & Frick, 2007). This study provides one approach to consider.

Evaluation and Assessment in Higher Education

Chinese scholars are seeking answers about implementing quality assurance practices from educational models and practices from around the developed world (Li & Zhang, 2003; Liu, 2004; MOE, 2010; Wei & Yu, 2005; Zhang & Tian, 2003). The body of research developed by the landmark National Center for Postsecondary Improvement (NCPI) project has enormous implications for IHEs looking for ways to continuously study, evaluate and improve performance across their functions (Peterson & Einarson, 1997). The NCPI model offers a nationally normed framework of measuring institutional academic culture and climate, the approach to student assessment, internal and external influences on student assessment, assessment policies and practices, uses and impacts of student assessment, and attitudes toward involvement in and satisfaction with student assessment. The NCPI defined culture as "values, beliefs and ideologies that members share about their institution" (Peterson & Einarson, 1997, p. 27). Climate was defined in an NCPI report by Peterson (1988, p. 31) as "current organizational patterns of important dimensions of organizational life, together with members' perceptions and attitudes towards them." The NILIE- PACE instrument administered at CCU is about climate and culture as perceived by the faculty, staff and administration. It was developed after NCPI's institutional assessment instruments and is conceptually simpler to interpret and easier to administer in a foreign cultural context. Neither of these instruments has been

piloted in China to my knowledge, but recently another American assessment instrument has been adapted and administered, though it is not focused on faculty and administrative perceptions. It is the National Survey of Student Engagement or NSSE (Ross, Cen, & Zhou, 2011).

According to Heidi Ross and her research partners at Indiana University, a Chinese version of the NSSE was adapted which they called the NSSE-C (Ross, Cen, & Zhou, 2011). The intent was to assess student engagement with separate instruments, at both the high school (HSSSE-C) and university (NSSE-C) levels, "a key factor largely missing from Chinese quality assessment frameworks" (Ross, Cen, & Zhou, 2011, p. 25). The authors stated "the surveys represent the first evaluation instruments to be used in China that focus on the concept of student engagement" (Ross, Cen, & Zhou, 2011, p. 25). In their work *Assessing Conditions to Enhance Educational Effectiveness*, Kuh, Kinzie, Schuh, and Whitt (2005, p. 4) identify "two key components" to engagement on a campus:

> The first is the amount of time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success. The second is the ways an institution allocates its human and other resources and organizes learning opportunities and serves to encourage students to participate in and benefit from such activities. (p. 4)

My purpose in conducting the NILIE-PACE study at CCU was to add to this body of institutional assessment knowledge from the faculty, staff and administrative perspective, which to my knowledge had not been done in China. Each semester students are asked what *they* think at the end of every course, about the quality of teaching in the classroom

but *no one was asking the providers of the academic environment what they think is needed to create optimal conditions in learning*. The PACE climate survey gave the providers of the educational environment at CCU an opportunity to state their views (NILIE, 2012).

Institutional Impact of Assessment

Institutional impact of assessment is captured in the literature, whether single case studies (Banta, Lund, Black, & Oblander, 1996) or multi-institution studies (Erford, Duncan, & Savin-Murphy, 2010). The most common impact tended to be in curriculum design and revision, again going to Bandura's efficacy model, where teachers tend to take positive action regarding an element over which they actively have some control (Hoy, Tarter, & Woolfolk Hoy, 2006). Findings must be understood within the framework of both the internal and external influences surrounding and driving the IHE (Ewell 2005, 2009; Kuh & Ikenberry, 2009). Internal influences would relate to the way the institution uses student assessment and the impact these practices have, as well as the organizational and administrative support for the student assessment processes (Ewell, 2009; Kuh, Kinzie, Schuh, & Whitt, 2005). External influences could be local, regional or national government regulations or guidelines, organizations and agencies that exert pressure or have clout, and cultural factors (Ewell, 2009; Ross & Lou, 2005; Trompenaars, 1994; 2004) such as group vs. individual social tendencies, the cultural acceptance of practices such as bribery, cheating or other corruption of the assessment process, all of which can affect outcomes (Hofstede, 1980; Hofstede, Hofstede, & Minkov, 2010). Taking values differences into consideration when operating in intercultural education settings is crucial to successful research in assessment (Banta, Lund, Black & Oblander, 1996; Ryan &

Cousins, 2009). For this reason, piloting any adapted instruments is crucial to assure the content suits the new context and the materials are translated in culturally appropriate and content valid ways (Behling & Law, 2000).

The most frequently stated impacts of assessment come from the institutional effects of building a culture of assessment on campus (Banta, Lund, Black, & Oblander, 1996; Bok, 1986; Ewell 1994, 2006, 2009). A one-time cross-sectional study of the nature of this research project can be interesting for a short period as participants review reported findings and make short-term changes as a result, but the literature shows the strongest impact over time occurs when an IHE takes that first study, learns from it, and builds a culture of ongoing assessment on campus for purposes of internal improvement (Astin, 1991; Banta & Associates, 2002; Bhola, 2003; Bok, 2006; Ewell, 1994, 2006, 2009; Kuh, Kinzie, Schuh, & Whitt, 2005; Ramaley, 2002).

Assessment, Evaluation and Survey Methodology

"Survey methodology seeks to identify principles about the design, collection, processing and analysis of surveys that are linked to the cost and quality of survey estimates" (Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2009, p. 30). This field has become a profession unto itself, and the statistical literature has generated an entire body of scientific research based on both mathematics and the social sciences, but "has only recently developed as a unified field" (Groves et al., 2009, p. 31). However, the origins of modern survey methodology came from practices outside of traditional academic fields, and in fact find their beginnings in government research applications (Groves et al., 2009; Heeringa, West, & Berglund, 2010). Much of probability sampling theory came out of studies on representative sampling conducted by the U. S. Department

of Agriculture and the U. S. Bureau of the Census as early as the 1890s (Kaier, 1895), but more was done in the 1930s and 1940s and is reflected in the works of Hansen, Hurwitz, and Madow (1953) and Deming (1950) around their theories of sampling (Groves et al., 2009; Heeringa, West, & Berglund, 2010). In the early twentieth century, statisticians such as Bowley (1906) and Fisher (1925) explored the function of randomization in the selection of samples (Heeringa, West, & Berglund, 2010). Much of this early research still drives today's "primary techniques for sample design, population estimation, and inference" used in descriptive statistics when analyzing survey data (Heeringa, West, & Berglund, 2010, p. 4).

The dual nature of the origins of survey methodology makes it especially suited to mixed method approaches because of the limits of respondent choices in a Likert-style questionnaire, which are not able to probe deeply into issues and factors relating to selected scores (Merriam, 2009). Creswell and Plano Clark (2011) put it this way:

> Quantitative results can net general explanations for the relationships among variables, but the more detailed understanding of what the statistical tests or effect sizes actually mean is lacking. Qualitative data and results can help build that understanding. (p. 9)

Additionally, "several well-known figures in quantitative research, such as Campbell (1974) and Cronbach (1975), advocated for the inclusion of qualitative data in quantitative experimental studies" (Cresswell & Plano Clark, 2011, p. 21). Michael Quinn Patton, in his book *Essentials of Utilization-Focused Evaluation* (2012) brings the utility of mixed method evaluation into sharper focus:

> Quantitative measures strive for precision by focusing on things that can be counted. Quantitative data come from questionnaires, tests, standardized observation instruments, information systems, official indicators, and program records. Gathering numerical data requires conceptualizing categories that can be treated as ordinal and interval data and subjected to statistical analysis. In contrast, the evaluator using a qualitative approach seeks to capture what a program experience means to participants *in their own words*, through interviews or open-ended questionnaire items, and in day-to-day program settings, through observation. (p. 289)

Patton goes on to state that "numbers are parsimonious and precise" yet "words provide individualized meanings and nuance" (Patton, 2012, p. 289). It is this latter element in survey methodology that allows people the opportunity to "express their reactions in their own terms rather than impose upon them a preconceived set of limited response categories" (Patton, 2012, p. 290). At my research site, CCU, the 2006 pilot study survey consisted entirely of open-ended prompts, many of which elicited lengthy, detailed responses which were costly to translate in terms of time and man hours. Some participants went so far as to attach numerous handwritten pages of detailed examples and suggestions to the original questionnaire document. It is for this reason I chose to apply the combined wisdom of Campbell, Cronbach, Cresswell, and Patton by including the two open-ended prompts at the end of the PACE climate survey (NILIE, 2012). The developers of the PACE instrument at North Carolina State University offer client institutions the opportunity to tailor questions added in at the end of the survey which often include open-ended prompts (NILIE, 2012) as well as specific demographic items.

In this way, I remained in alignment with the highest quality survey methodology reflected in the literature, while capturing the greatest depth of participant perspective possible (Poncheri & Thompson, 2007).

The Search for Climate and Culture Studies

To better understand the state of research regarding my topic, I spent a lot of time searching for published climate and/or culture studies in university or other higher education settings that focused on faculty and other staff perspectives. The bulk of the earliest studies I located were K-12 studies, and in fact many of these were published earlier than those I located on IHEs. The logical response to why this occurred is about regulation (Ewell, 1991). Accreditation processes are different for public K-12 school systems than for higher education systems, and reporting on the K-12 environment provided to minors by taxpayers has a long history of public accountability in our nation. This element reflects an external accountability of outcomes, and is also the reason many such articles and reports are more readily available (Mo, Yang & Hu, 2011). In desperation, I began to seek sources in more specialized areas, and found an article on medical education from 2001. In the literature review in the article (Genn, 2001) was a reference to someone I had not read about before, though Genn referred to Robert Pace as "a world pioneer researcher into climates in higher education" (p. 445). I found Pace's work went back to the early 1960s and included topics such as "academic and student sub-cultures" and "differences in campus atmosphere" (Pace, 1958, 1963, 1964, as cited in Genn, 2001, p. 454). And so, I believe, with that discovery, I found an early source, if not the earliest I could find, of scholarship into climate and culture on university campuses. Intrigued, I wondered who else was doing early climate research, and found an

excellent literature review on school climate compiled by Carolyn Anderson (1982). In it, she had found early climate works by both Argyris (1958), who had conducted a bank study, and Astin (1961) who explored how to measure campus environments such as through gauges like intelligence of the student body and student to major personality relationships, which was not what I had hoped to learn. I did discover that Pace and Stern (1958) had developed a College Characteristics Index (CCI) which was designed for students to assess their college environment (Astin & Holland, 1961). However, Argyris' work was insightful concerning the informal culture of employees and how managers work within that framework, much of which sounded like certain behaviors I had witnessed in China at CCU. That was about as far back as I could find things actually related to higher education and assessment of climate.

Despite continued searching I tended to find the student focus at the heart of research, though occasionally with the inclusion of faculty involvement or engagement in assessment (Peterson & Augustine, 2000; Grunwald & Peterson, 2003; Rust, 2007). I did identify highly useful articles in higher education leadership that espoused the crucial role of leaders in building a culture and a scholarship of assessment across campus (Banta & Associates, 2002 ; Bok, 1986, 2006 ; Ewell, 2009; Rust, 2007), urging administrators to take a leading role and engage faculty in a collaborative process to move in this direction. I had such limited success in the traditional database searches, I began visiting individual IHE websites and spent hours searching for more internal climate assessment documents. These were also the most challenging studies to locate. It makes sense, however, that any assessment conducted primarily for purposes of internal improvement would remain unpublished. Throughout my last two years of study, I would occasionally go on a data

search to see if any universities had embedded such reports or studies in their websites, since I could not find them published elsewhere. The National Center for Postsecondary Improvement (NCPI) I referred to earlier, a completed project database embedded on the Stanford University website, was the most valuable and comprehensive data I located on climate, albeit again devoted more to student assessment as a priority (Peterson & Einarson, 1997). That archived site allowed me to pore over superb literature reviews from experts and learn much from their scholarship and records. This archival knowledge is another excellent example of shared knowledge, and I thank Stanford University for maintaining it. The National Institute for Learning Outcomes Assessment (NILOA) also had some excellent occasional papers that were most helpful (Ewell, 2009; Hutchings, 2010), and their staff was most helpful in sending me information about an assessment model they had designed. It was more student-focused than my intended research, but I learned a lot about the history of the student assessment movement from NILOA.

I did, however, keep searching, and in fact still did until my final proofreading of this dissertation. I found several useful papers on the ERIC database, most presented at various conferences, and am grateful their authors took the time to upload them for others to learn from (McMurray, 1994; Mahasinpaisan, 2011). Mahasinpaisan was more interested in transformational leadership than her title led me to believe, which stresses the value (for data miners, anyway) in choosing as directly related a title as possible to the actual contents of a scholarly publication. However, the 1994 paper by McMurray was valuable in its discussion of culture studies in IHEs, as well as working to generate a model linking culture and climate. Her emergent factors on campus were autonomy, interpersonal communication, research, cohesion and pressure; autonomy and

interpersonal communication were the two highest rated factors (McMurray, 1994). Her data and its presentation were what encouraged me to perform and share a factor analysis in my own study when I read about her thoughts on culture. Other than various generic faculty surveys conducted by local, regional or national teaching associations primarily focused on benefits or promotion, tenure and rank issues, there was little publicly available. Finally, I located several community colleges that had posted their climate survey reports from the National Initiative for Leadership and Institutional Effectiveness (NILIE) out of North Carolina State University in Raleigh. I was delighted to discover something I hoped would address my chosen topic of *climate from the climate creators' perspective*.

The climate instrument these colleges had employed was the Personal Assessment of the College Environment (PACE) that I ultimately selected and was granted permission to administer in this study (NILIE, 2012). My search on the NILIE web site led to three dissertations on the topic of the PACE instrument itself (Caison, 2005; Thomas, 2006; Tiu, 2001), though two of these were factor analysis studies revolving around construct validity of the instrument itself and not concerning a campus environment. I located another dissertation, this time concerning the status of upper administrative support for an assessment culture in the California State University System (Procello, 2008), which had a strong, effective grounding in assessment from the corporate and organizational studies used in business and management settings. My own international business and training background related comfortably to Procello's (2008) research, but I wanted to focus on academic scholarship, most likely with its roots where Procello (2008) had been reading. While these dissertations were helpful in thinking

about my own study, there were not a lot of other sources to draw from. Just as I was about to submit this dissertation, still searching for studies on campus climate, I discovered a new posting, or at least new to me. Florida Gulf Coast University (FGCU) posted a link on their campus leadership page, to a climate study commissioned in 2010 (Williams, 2010). Though the author of the FGCU study did not list many references, I was familiar with them all. I knew my search was hitting the saturation point. There were six open-ended questions at the end of the study, and they encompassed overall satisfaction, campus environment, campus work culture, climate in unit/department, institutional commitment to diversity, and additional thoughts. The organization of this study helped me frame how I would present my own hundreds of participant comments. Many of the same themes emerged from FGCU participants including salary issues, pride in building a young campus with fears of the direction things were taking, micromanagement, and communication issues. It sounded wonderfully familiar to me after three months in China and over two years of searching for a study like this one. More impressive is FGCU also posted a link to the follow-up study, indicating a desire to build and model a culture of assessment and transparent communication on campus. Most impressive was that the follow-up initiative had moved in-house, driven by members of the campus community. They included a list of recommendations as well as a coded collection of what I assume were all comments received for the follow-up study. This early culture of assessment at FGCU is similar to the impact I hope my own study in China at CCU will create, but that is not the focus of my study.

In summary, the majority of solid research conducted on institutional assessment or climate revolves around student assessment (Banta, Lund, Black, & Oblander, 1996;

Ewell, 2009; Hutchings, 2010; Kuh, 2001; Kuh, Kinzie, Schuh, & Witt, 2005; Kuh & Ikenberry, 2009;Wang & Hurley, 2012). The sources were limited when focusing on faculty, staff and administration, as I did in this study. While this was disappointing for my review of literature, it was exciting for me as a scholar. It made me dig deeper and keep on searching. The number of published university climate studies from the point of view of the *providers* of the academic environment is severely limited. Student assessment is essential, but assessing and evaluating the overall climate and culture, the *foundation* of the learning environment *for* those students, is perhaps more important and should be considered part of the overall climate of assessment. My thanks to the institutions which chose to post their findings, underlining the crucial value of transparency to work toward and achieve institutional excellence.

CHAPTER III: METHODOLOGY

The purpose of this study was to ascertain the climate of a private university in Central China, as perceived by the faculty, staff and administrators currently working on campus. No survey of this kind had ever been conducted at this site except for a pilot study conducted by me in the summer of 2006, an open-ended questionnaire sent to a purposive sample of 200 faculty and administrators. The resulting additional unsolicited responses due to sharing the questionnaire with colleagues determined the type of data collection in this study. The PACE instrument has been widely administered since 1991 (NILIE, 2012). It has been refined several times since then, and currently the instrument is comprised of 46 items in each of four climate category clusters or sub-groups normed on American participants: Supervisory Relationships contains 13 items, Institutional Structure contains 15 items, Teamwork contains 6 items, and Student Focus contains 12 items (NILIE, 2012; Caison, 2005). Items were responded to through a five-point Likert range plus a sixth response option for indicating when an item is "Not Applicable" (NILIE, 2012), which helped to control for missing data.

Research Questions and Hypotheses

The rate of growth at Central China University (CCU) mimics many American universities after World War II (Thelin, 2011; Zhou, 2006). There has been little time to create an assessment culture (Bok, 2006; Ewell, 2002) or train a rapidly growing faculty and staff beyond the most immediate needs and goals (personal conversation with CCU president, June 2, 2011). The research questions were based on a similar PACE climate study utilizing an earlier iteration of the same instrument (NILIE & Hanayik, 2004) though the newest version will be translated for use in China:

1. How representative of the total CCU employee population is the returned survey sample?
2. How do the faculty, staff and administration of CCU perceive the overall institutional climate?

   H_o: There is no significant difference between groups on climate cluster scores.

   H_a: There is a significant difference between Chinese and foreign faculty on one climate cluster score.

   H_a: There is a significant difference between faculty and administrative scores on one climate cluster.
3. To what extent are there differences in perception of CCU's institutional climate among employees in each of the different roles (faculty, staff, administration)?

   H_o: There is no significant difference between faculty, administration and staff perceptions of campus climate. H_o: $\beta_1 = \beta_2 = \beta_3 = 0$

   H_a: At least one $\beta \neq 0$
4. To what extent are there differences in perception of CCU's institutional climate among the various demographic classifications (division, gender, years of experience, nationality)?
5. What recommendations for change or improvement can be made based on the results of this climate survey? (for a report for the CCU faculty, staff and administration)

Rationale for the Design

I wanted to explore campus climate in a setting where climate research had never been conducted, thus requiring the most rigorous and comprehensive data collection and

analysis possible during a cross-sectional formative assessment study. For this reason, I committed to remain in residence three months on the CCU campus to observe and collect data, but also to understand it in as rich a context as possible (Emerson, Fretz, & Shaw, 1995; Merriam, 2009). I chose a mixed methods approach, simultaneously collecting both quantitative and qualitative data as well as artifacts for triangulation and deeper contextual understanding (Creswell, 2011; Teddlie & Tashakkori, 2009). Quantitatively, I wanted to understand the main effects of the independent/predictor variables and whether there were any interactions between them. I wanted to understand the importance of the predictor variables or criterion variables in this survey data by sub-group cluster (there are four latent variable clusters on the English version of the PACE instrument) for each campus group (faculty, administration, staff). I also wished to explore the strength of any associations between the quantitative findings and the qualitative frequencies and themes (Creswell & Plano Clark, 2011). However, as I read more survey research and learned more about Exploratory, Confirmatory and Parallel Factor Analysis, I realized my research situation was not a simple one (Field, 2009; Henson & Roberts, 2006; Widaman, 1993). Though the PACE survey had been administered on hundreds of college campuses in the United States, and has well-normed, reliable clusters of factors in the original English version (NILIE, 2012), it had never been translated into Mandarin, piloted or administered in the People's Republic of China. I needed first to validate or refute the standing American-based factor model (Caison, 2005; Tiu, 2001) for the Chinese version of the NILIE-PACE and its administration, and thus added a new underlying question to my research protocol: Do the same four factors emerge on the American and Chinese versions of the PACE? This called for factor

analysis before proceeding to describe or further identify any findings. First I needed to identify and confirm the presence of any latent variables under these new testing circumstances with the PACE (NILIE, 2012).

In addition to the factor analysis and subsequent quantitative analysis of data, a qualitative analysis of all open-ended comments provided by participants at the end of the survey was conducted. Two open-ended prompts were included at the end of the normed PACE survey (NILIE, 2012), offering an opportunity for participants to expound on their own campus climate and cultural priorities (Emerson, Fretz, & Shaw, 1995; Lofland & Lofland, 1995), and responses were tabulated for frequency of related cluster theme and by functional role (Denzin, 1978; Merriam, 2009; Miles & Huberman, 1994). In this manner, priorities identified as most or least in need of change were identified by each functional role group and by division where revealed by participants.

Research Design

The purpose of this non-experimental, mixed method study was to conduct a *formative assessment* (Scriven, 1967) of the climate of a young private university in Central China which has grown from 230 students to 23,000 students in a single decade. After obtaining developer consent and IRB authorization, a translated version of the Personal Assessment of the College Environment (PACE) instrument, developed at the National Initiative for Leadership and Institutional Effectiveness (NILIE) at North Carolina State University (NILIE & Hanayik, 2004), was translated into Mandarin, piloted and administered to the entire university faculty, staff and administration of CCU. The study encompasses two types of variables, observed and unobserved (Tiu, 2001). This chapter presents the methods and procedures used to conduct this research study,

including a discussion of population and sampling, the survey instrument and adaptation, a description of study variables, data collection, incentive to participate, protection of human rights, confidentiality and data analysis (Pinsonneault & Kraemer, 1993).

Instrument

The instrument selected for this study was the latest iteration of the Personal Assessment of the College Environment (PACE), developed at North Carolina State University in Raleigh at their National Initiative for Leadership and Institutional Effectiveness (NILIE). According to NILIE, the purpose of this instrument is "to obtain the perceptions of personnel concerning the college climate and to promote more open and constructive communication among faculty, staff and administrators toward the end of becoming a learning organization" (NILIE & Hanayik, 2004, p. 1). Based on Likert's work from the 1960s at the University of Michigan, where he identified four institutional climate concepts (Likert, 1967; NILIE & Hanayik, 2004), a climate study was piloted based on this theoretical framework in higher education at the Miami-Dade Community College system in 1986 (NILIE, 2012; Roueche & Baker, 1987). The adapted Likert profile of climate concepts utilized by NILIE is a four-system leadership and organizational model refined through more than 120 climate studies conducted since 1987 as displayed in Figure 2. The PACE (NILIE, 2012) identifies four latent climate variables assessed through multiple prompts in each category to form a cluster of factor responses that are measured in the North American history of its administration. The overall 46-item instrument has a coefficient of internal consistency measured by Cronbach's alpha, of 0.976 (NILIE, 2012). "The PACE instrument is divided into four climate factors: Institutional Structure, Supervisory Relationships, Teamwork, and

Student Focus" (NILIE, 2012, p. 11). Additionally, the instrument included demographic items which were tailored to the institution's population. Open-ended questions related to climate were included at the end of the instrument. A copy of the complete bilingual NILIE-PACE instrument administered in this study is provided in the appendices.

System 1	System 2	System 3	System 4
Coercive	**Competitive**	**Consultative**	**Collaborative**
Leaders are seen as having no confidence or trust in employees and seldom involve them in any aspect of the decision-making process.	Leaders are seen as having condescending confidence and trust in employees. Employees are occasionally involved in some aspects of the decision-making process.	Leaders are seen as having substantial but not complete confidence and trust in employees. Employees are significantly involved in the decision-making process.	Leaders are seen as having demonstrated confidence and trust in employees. Employees are involved in appropriate aspects of the decision-making process.
Decisions are made at the top and issued downward.	Some decision-making processes take place in the lower levels, but control is at the top.	More decisions are made at the lower levels, and leaders consult with followers regarding decisions.	Decision making is widely dispersed throughout the organization and is well integrated across levels.
Lower levels in the organization oppose the goals established by the upper levels.	Lower levels in the organization cooperate in accomplishing selected goals of the organization.	Lower levels in the organization begin to deal more with morale and exercise cooperation toward accomplishment of goals.	Collaboration is employed throughout the organization.
Influence primarily takes place through fear and punishment.	Some influence is experienced through the rewards process and some through fear and punishment.	Influence is through the rewards process. Occasional punishment and some collaboration occur.	Employees are influenced through participation and involvement in developing economic rewards, setting goals, improving methods, and appraising progress toward goals.

Figure 2 The NILIE Four Systems Model

Note. From Personal College Assessment of the College Environment (PACE): A Report for Gateway Technical College, Kenosha, Wisconsin (p. 4), by the National Initiative for Leadership and Institutional Effectiveness (NILIE) and C. Hanayik, 2004, Raleigh, NC: NILIE. Copyright 2004 by NILIE.

Reliability

The PACE instrument has been widely administered since 1991 (NILIE, 2012). It has been refined several times since then, and currently the survey is comprised of 46 items in each of four climate category clusters: Supervisory Relationships contains 13 items, Institutional Structure contains 15 items, Teamwork contains 6 items, and Student Focus contains 12 items (NILIE, 2012). Items were responded to through a five-scale Likert range plus a sixth response option for indicating when an item is "Not Applicable" (NILIE, 2012), which helped to control for missing data. This sixth option was recoded as missing data during SPSS statistical analyses, so it would not skew the Likert item factor analysis or other statistical data. The four climate factors the PACE instrument purports to measure are Institutional Structure, with a Cronbach's alpha of 0.95, Supervisory Relationships, with an alpha coefficient of 0.95, Student Focus, with an alpha coefficient of 0.945, and Teamwork, with an alpha coefficient of 0.94. The overall Cronbach's alpha coefficient of internal consistency for the 46 items is 0.98. These figures were calculated from results of over 11,000 individuals assessed between July 2003 and 2012 at institutions of higher education, the majority of which are community colleges (NILIE, 2012). During statistical analysis in this study, applying listwise deletion to the total 943 surveys received, thus leaving 678 fully completed surveys to include, the Cronbach's alpha for all 46 Likert items had a reliability of 0.977, which I rounded up to 0.98, matching the American findings.

Validity

The PACE instrument demonstrates sound evaluation practices to assure content and construct validity. "Content validity has been established through a rigorous review

of the instrument's questions by scholars and professionals in higher education to ensure that the instrument's items capture the essential aspects of institutional effectiveness" (NILIE, 2012, p. 12). The number of administrations and iterations of the instrument after intensive review demonstrate the ongoing commitment to achieving the highest standards of validity. There have been two dissertations located that contributed to the body of knowledge regarding construct validity of the PACE instrument (Caison, 2005; Tiu, 2001), and both sets of findings contributed to improvements made to later versions of the instrument. The number of climate factors has been reduced from six to four due to the two separate factor analysis studies conducted and reported in the literature. This demonstrates a high level of commitment to ethical standards and practices and a willingness to adapt the instrument in the face of reliable, credible data. To add to this body of knowledge because the PACE instrument had never been translated into Mandarin or administered in China, I chose to conduct an Exploratory Factor Analysis or EFA, by first listwise and then pairwise deletion, and confirm the extracted and rotated patterns through Parallel Analysis (PA). These results and discussion can be found in chapter four.

The Research Site: A Narrative

Henan Province is considered Central China. If you look at China on a map, geographically there is still much land far to its west, but much of it in that direction is wild and free, some of the most beautiful landscapes and natural wonders on earth. More than 100 million call Henan home, making it the most populated province in China. Most people are poor and come from modest, countryside communities, but there are some wealthier people in most cities, often determined by the industries or government

presence housed there. In the past two years more cars and more expensive brands and models have begun appearing even in smaller cities. Some students now have cars while many of their teachers still cannot afford them. This gives some idea of the social and economic inequities that seem omnipresent. The beautiful garden or park-like campus was not designed with automotive traffic in mind, a serious flaw in both campus and urban planning. Similar to American cities, the cost to retrofit for poor planning will greatly exceed the cost of smarter proactive design.

The city is home to the largest tobacco company in China, or so I was told during a personal interview on the street while out exploring. This means there are some leaders with access to wealth and power as well as opportunities for middle management and labor in the fast-improving smaller city. Central China University is located in the ancient heart of Chinese civilization along the Yellow River. The earliest known Emperor, Huang Di, known as the Yellow Emperor, is purported to have ruled in the region, and the city is full of references to this source of national pride and heritage. It is not far from the ancient seat of Zen Buddhism, *kung fu*, and the Shaolin temple with its moving cemetery for devoted monks fondly called the Pagoda Forest. It is a couple of hours by bullet train to Xi'an, home of the wondrous terra cotta warriors buried millennia before and found by a farmer in his field one day. It is minutes from the oldest known Stone Age village in all of China, where I found a hand-tool that is possibly ten to twelve thousand years old while out walking with experts one day.

The city that welcomed CCU on a quiet edge of town fourteen years ago has fewer than 200,000 people, small by Chinese standards. There is a train station in the city, but only for out-of-town travel. Everyone rides the old but serviceable city buses for

about twenty cents a ride, walks, takes a cab or tri-shaw, or rides a motorbike or bicycle. I marvel at women, sitting on the rat-trap atop the rear wheel of a bicycle, seated side-saddle, ankles crossed, balancing gracefully on no more than two firm muscles with their hair blowing behind them as their boyfriends or husbands power the ride. Farmers often motor into town with odd-looking but functional implements that serve as tractor as well as the family car. Many motorbikes are electric, silent, laden with families and goods often slowly moving along curbs, and drivers and pedestrians alike must remain sharp to avoid contact. I have never seen anyone wearing a helmet, and few drivers wear seatbelts unless they are approaching a toll booth, where a camera might catch them unbuckled. My friends laugh, but I always buckle up in China except in the back seat of a cab.

New roads, new apartments, and new trees are all around. Sometimes I see old women and men planting or watering new trees, or down on their knees patiently planting shrubs or flowers. I know they need the money to eat. I see people scavenging through trash, searching for plastic water bottles, soda bottles and paper or cardboard for recycling cash. The campus is a treasure trove of bottles and cans for recycling hunters. Every kuai counts! Their children may have had to move far away to seek work, too. Some villagers were forced from their homes in the universal plight of eminent domain, all in the name of progress, but were relocated to beautiful new apartments near their old neighbors and friends. A quiet new six-lane road along the back of campus boasts dozens of bright street lights, a boulevard and forty meters of green space along each side of the road. Many villagers come out from the dusty side roads, still permitted to remain offshoots of what will soon be a major thoroughfare for city hall traffic, a competing private university, a brand new public high school and a hospital that is slowly under

construction. They gather beneath the street lights, bringing strollers, bamboo mats, decks of cards, and sometimes a radio, often playing Henan opera that carries into the humid night air, treasuring the quiet evenings that soon will not be.

The CCU home city is a modest, dusty place, primarily because the region is the heart of China's bread basket and therefore agricultural, but also because there is a massive coal mining operation on the edge of town. In the summer, when winter wheat is harvested, the combination of chaff in the air mixed with the coal dust and general pollution makes it hard to find the sun, though the whitened skies tell me it is up there. Train cars full of coal from the mines rumble through the middle of campus, the tracks thankfully running slightly below the action of nearly 25,000 students above. Add to this air quality the constant dust from new construction in town and on campus, and you get the picture. This is not a place where someone with asthma could thrive. But there is great beauty here, too. The greatest beauty is in the people. Most work hard and are devoted to helping the members of their families. Many students are at CCU because of the sacrifices made by committed family members, and feel driven to do their best to make them proud. Sometimes they are willing to cheat to earn a high score. Sometimes teachers and their superiors feel pressured to look the other way. It is not something China is proud of, and they are working to bring ethics into daily life again, something not seen strongly since Confucian era teachings. But there are many students who have never cheated and never will. Bravo!

The cost of living by American standards is modest, but many still cannot make a living due to low wages and low levels of skills and literacy. China is working hard to change this, but with over a billion people to reach, it is a constant challenge to distribute

funding and other resources equally, the larger cities like Beijing and Shanghai often claiming the lion's share of development and media attention, particularly around the preparation for the 2008 Olympics or the recent Shanghai World Expo. Henan Province has a capital city called Zhengzhou, home to several million people, and prices are skyrocketing in the larger malls, some better department store items priced even higher than in the United States, demonstrating the increasing standard of living and actual wealth some are experiencing, but not all. This is one purpose for the establishment of Central China University or CCU, to even the playing field and offer rural Chinese students, and others who can afford university but perhaps did not earn the stellar entrance examination scores required for entry to more prestigious schools, a chance to attend college and change the future trajectory of the family.

In China, it is customary for employers to provide housing for workers, often on site. This is one reason why most employers have rolling steel gates and guards in attendance 24 hours. A university is no exception, but the quality of housing varies depending on the social level of the person, from humble gardeners to students, to teachers, class masters and administrators. At CCU, many faculty members must commute from Zhengzhou on a bus provided by CCU twice daily, which makes their teaching schedules and time management options nothing like an American faculty member might expect. This is because the site did not have such a high level of education across the population when CCU opened and needed teachers. Long days, often with few breaks, or days with long breaks and no way to get home, it doesn't seem to matter what would be most practical. Family ties pressure commuting faculty to remain based in Zhengzhou, but perhaps this will change as local lifestyle options open up with improved

incomes in the region. Rules are rules and everyone is expected to know the rules and follow them or seek permission when in doubt. Some faculty housing has air conditioning, but only the foreign student dormitories do. Few classrooms have air conditioning and heating can be irregular to inadequate for some as well. The Chinese students and recent graduates employed on campus live in non-air conditioned rooms, and do not have private quarters. A competing private university very close by offers totally air conditioned dormitories for all students and faculty, I witnessed when walking on that campus with a friend one evening, and I wonder whether CCU will finally meet this need.

The national government, through the Ministry of Education, directs and facilitates all educational activity in China to some degree. Though CCU is a private university, it is also subject to rules made by the national or provincial government. There is no board of regents at CCU, but there is a foundation board of directors who raise awareness of CCU and raise funds for scholarships for needy, worthy students. Class masters are a unique element of higher education in China. These are people who have earned a degree and serve as advisors to a class of students usually based on common year of entry and major, and have a position that is not quite faculty and not quite staff. Some of them, due to foundation board projects, have been selected to study in Arizona to learn about stress management, suicide prevention and other essential counseling and support techniques. Class monitors are appointed by class masters. These are students who are designated leaders within every campus classroom, the eyes and ears for the class master. Some students over the years have stated that some class masters have played favorites, nominating their monitors for scholarship opportunities and other

benefits on an unequal basis. Many faculty and staff members have also spoken to me of such biases over the years, hoping my status and frequency of visits to campus might mean I have some influence to assist. Looking for a safe, back-door way to be heard, to solve a problem, is natural in China.

Students who are not foreign dine in one of the several dozen dining facilities on campus, most costing very little. There are halal food services for Muslim students. Many students can be seen of an evening, walking back to their rooms to study for the night, swinging tall thermoses full of hot water for the breakfast hours the next morning. If they want to shower, they must watch the clock, since hot water is only available for two hours each morning and each evening. I also learned that students pay for their electricity and water usage, and there are the usual tiffs when some roommates are unwilling to pay their fair share. Some few elite students own cars, some have computers, but everyone seems to have a mobile phone and texting is the most popular form of communicating with one. Overall, I worry about the growing gap between the haves and the have-nots, an increasing trend around the world. In China, however, the gap is much wider between the rich and the barely surviving (*The Economist*, 2010). But like the visionary founder of CCU, I also believe education can be a great equalizer in all societies, and for this reason chose to base my study in a place I call “my other life.” I only have to look at the graduates of the opera department and the music department, to know all things are possible at CCU. Auditions and recitals cannot be faked or bought. The possibilities for every student, educator, and staff member at CCU are limitless. The potential for excellence is everywhere but rests on the ethics and individual choices made every day.

The CCU Campus

What began in 1998 as a few buildings hastily constructed on former lotus fields on the edge of town and welcomed fewer than 250 students the first year has grown to dormitory and classroom space for over 24,000 students. The founder invited a generous and visionary American architect to design the garden-like campus and buildings, and the master plan I once saw in a meeting in 1999 has come to fruition and been surpassed. The original gate, which is locked every night, opens to the city off a main street design with European influences. Shops struggle on the pedestrian level, some merchants claiming the rents are too high, but some are filled with "showboxes" that are small stalls rented by student entrepreneurs who fill them and sell their wares through a paid clerk who keeps track of who bought what from which box. Everything from make-up to Amway and Avon can be found in them. A few years ago, only cheaper goods were visible in the boxes, but as student disposable income has risen, the quality and cost of some goods on view has also increased. Hundreds of older, earlier dormitories top the street level shop structures and the exteriors are charming if one doesn't look too closely at the excessive physical wear evident for a complex so recently constructed. The students race to their dorms to avoid being locked out at 10:00 p.m. on school nights. There are many rules, few known to most foreigners.

In the heat of late spring and early summer this year at CCU, I saw the thousands of open dormitory windows strung with hangers of hand-washed laundry and shoes, cleverly placed to capture the elusive sun, drying in the dusty, humid air. Many of the older suites have two rooms with four students in each, with a shared

bathroom in between. I wondered how the students could survive in the endless heat of the nights, or how the teachers and students could function in the majority of older classrooms also not air conditioned. In comparison, the foreign faculty and most foreign students live in relative luxury and isolation, complete with air conditioning and hot water twice daily. If anybody on the foreign faculty wants hot water on demand, it requires purchasing one's own hot water heater and paying to have it installed. Foreign faculty reside in their own pair of recently connected buildings, one very old and constantly undergoing renovations, and the other brand new and not finished on all floors yet. They also have a dining hall so cooking is unnecessary. Housing and meals are included as part of the foreign faculty benefits package, although spouses and children are charged a modest daily rate for meals that quickly adds up against a very modest salary for CCU faculty. There is a noticeable difference in the quality of earlier construction and more recent construction, likely due to gaps in worker knowledge and skilled availability in this smaller city, and little training to bring skill levels and safety issues up to a standard demanded by law in the United States and most of the developed world. Many construction workers squat on site in buildings under construction, living simply with their families, some having relocated from distant cities or villages to feed and support them.

Chinese faculty may live in residence apartments on or just off campus, and at least four buses of approximately 200 workers seem to commute to and from Zhengzhou each day. The days must be very long for faculty or other staff waiting for their daily ride home. Many earn around $500 or more US dollars per month. Senior administrators live in the nicest flats, just off campus, and can walk to work or ride a

bicycle. Often in the evenings, the old stadium, which is outdoor and has a padded oval track installed, is the center of affordable night life for walking or jogging students, teachers, and young families from the city who come in to enjoy many features of the campus grounds. On some evening circuits there myself, I have met and been introduced to dozens of class masters and their growing families, music teachers, and other wonderful people I might not otherwise have met. There is a new indoor gym and stadium where annual commencement activities are now held, and next to that is an Olympic sized indoor pool and full exercise facilities, for an entry fee. In the summer I noticed locals coming in with children and toting floating toys, so the pool must be open to the public or at least to workers' families.

Walking on the vast campus, which has recently tripled in potential size due to a recent land acquisition, there are exquisite pieces by world class sculptors due to the efforts of a fellow charter board member who invited them to share their gifts with CCU. But my favorite spot on campus is one that predates all the lotus fields and infrastructure. It is an old pagoda with fading hand-painted murals inside its dome, perched atop a hill with tall forested green space all around it, flags of the world snapping in the breeze nearby, and an ancient legend of a fisherman that goes along with the peace and the view. I once joked with the founder and told him if he ever took down the pagoda, I would never return. I like to think my words contribute to its continuing presence on campus. He originally planned to tear it down and erect a revoltingly abstract metal campanile. I think the campus would have lost its true heart, but the soul is its people and the students they serve and guide.

Population and Sample

A report from the human resource department at CCU states the number of full-time Chinese faculty is 718. The university has a large foreign faculty that lives on campus, and human resources reports 122, mostly American, foreign faculty employed this academic year. In addition, there is an agreement with a Midwestern state university which employs and sends its own faculty members to CCU to teach, and this year there are 23 foreign scholars in residence representing that degree program. The total number of administrators on campus is 176, with only one of these being American and the rest Chinese. The number of general support and logistical staff on campus is 151. Therefore, according to the official employment records of the human resource department at CCU, the total potential population to sample from was 1,190 employees as of December 31, 2011 (personal correspondence from CCU human resources office, February 27, 2012). The actual number of surveys distributed in June 2012 was 1,170 due to normal absences for maternity or other personal health leave.

According to Fraenkel and Wallen (2009), "a recommended minimum number of subjects is 100 for a descriptive study, 50 for a correlational study, and 30 in each group for experimental and causal-comparative studies" (p. 106). The hierarchical nature of the power structure and the collectivist social structure in China (Hofstede, 1980; Trompenaars, 2004) indicated the majority of employees, if they felt safe in sharing their thoughts, would choose to participate in the survey. During the pilot study I conducted in 2006 on the CCU campus, over 300 questionnaire responses were handwritten and returned to me personally, some blank forms having been photocopied and eagerly shared for additional, unsolicited opportunities to respond to the questions originally posed to a

purposive sample of 200. I anticipated a rate of return of at least 75% spread across the constituencies listed above from human resources. The actual rate of return on the surveys was N = 945 out of a possible 1,170 or 80.7 per cent. Two surveys were returned blank in their envelopes, leaving *n* = 943 surveys with usable data. When the Exploratory Factor Analysis (EFA) was conducted, cases were excluded listwise for incomplete data, for a total sample of *n* = 872.

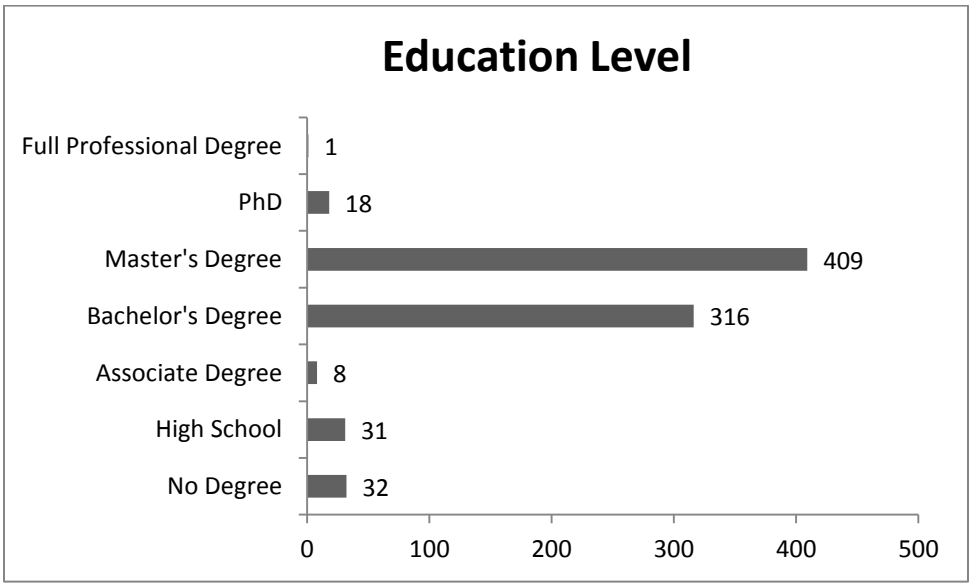


Figure 3 Number of Participants by Education Level

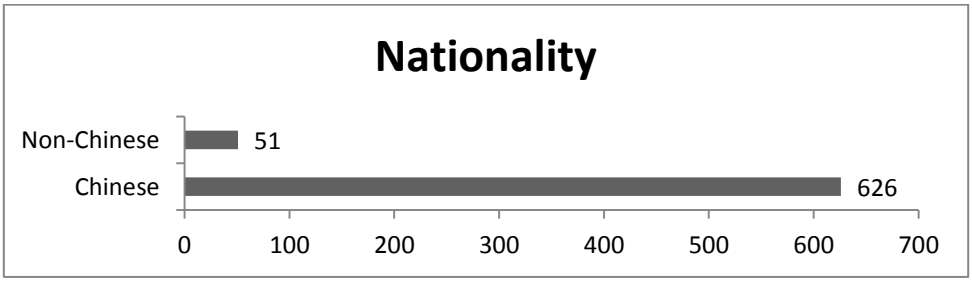


Figure 4 Number of Participants by Nationality

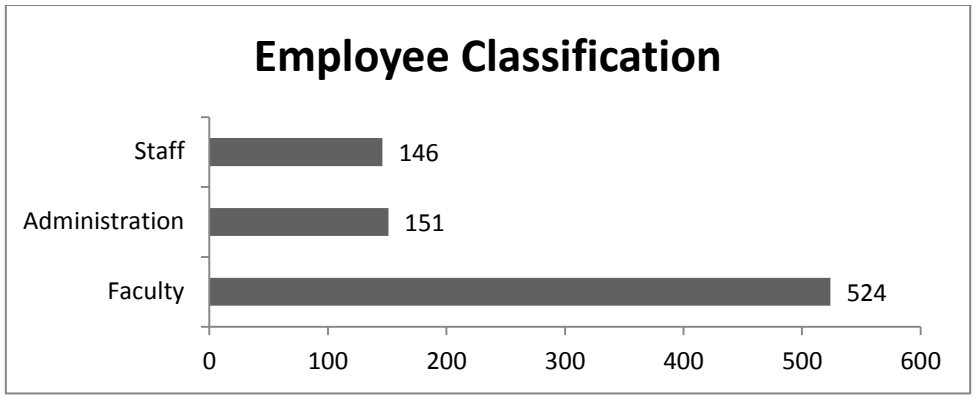


Figure 5 Number of Participants by Employee Classification

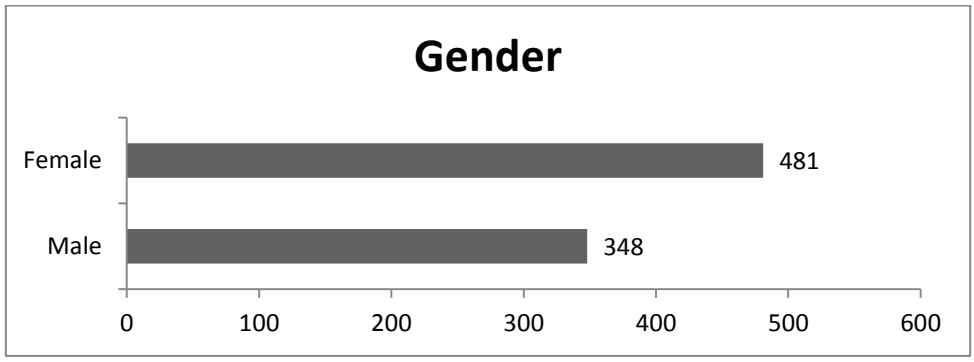


Figure 6 Number of Participants by Gender

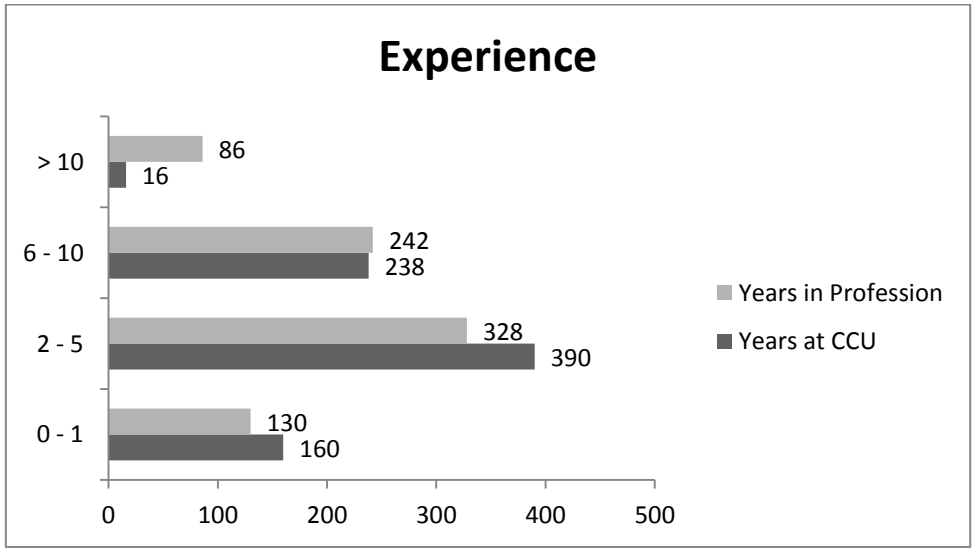


Figure 7 Number of Participants by Work Experience

Sampling Procedure

The CCU campus employees constitute a convenience sample, due to my longtime relationship as a foundation board member there. Everyone was invited equally to participate in the one-time cross-sectional survey, with no administrative pressure or consequence to respond. The open invitation to participate eliminated challenges to stratified sampling that might be skewed by uninvited surveys submitted for inclusion from uncertain origins. This lesson came directly from the 2006 pilot study at CCU. Confidentiality was stressed and assured, though numbering and tracking of survey instruments was done to be able to determine who returned a completed survey within the stipulated time frame (Tashakkori & Teddlie, 2010). This numbering and tracking was only available to the researcher.

Study Variables

This study was designed to examine two kinds of variables, observed and unobserved. The observed variables were the actual responses on the PACE climate instrument and the unobserved variables were the "hypothetical constructs or climate factor[s]" influencing participant responses to each observed variable (Tiu, 2001, p. 52). For purposes of this study, I called the survey items "observed variables" and each of the latent climate factors in the clusters within the instrument design "unobserved variables" (Tiu, 2001, p. 52). Each of the four clusters found in the U.S. studies: institutional structure, supervisory relationships, student focus, and teamwork, was a dependent variable for purposes of analysis (NILIE, 2012). Since the instrument is based on the Likert scale, data were coded and analyzed as interval data. Since this study was non-experimental, I used the terms *predictor* variables and *criterion* variables instead of

independent and dependent variables. Predictor variables are the demographic data such as years of experience, highest degree attained, faculty or administrative rank, campus division, age, gender, and nationality. Criterion variables are the outcome variables obtained from the results of each prompt and cluster. Because the instrument had never been piloted in China or in Mandarin, factor analysis was conducted, assuring the most parsimonious model to explore further. After both exploratory factor analysis (EFA) and parallel analysis (PA) confirmatory procedures were conducted, I also conducted a reliability analysis of the *five* latent factors that emerged during this first Chinese-based administration of the PACE (NILIE, 2012).

Procedures

Permission was obtained from NILIE at North Carolina State University to translate and administer the PACE instrument in Central China. Approval for this study was granted by the Institutional Review Board (IRB) at the University of Missouri-St. Louis. The cover letter and PACE instrument were translated by an independent professional translator into Mandarin Chinese. An independent back-translation of each was generated with a different certified professional to assure as precise an adherence to the original intent of each document and survey prompt as possible (Behling & Law, 2000). The demographic prompts added on to the PACE questionnaire reflected the campus culture (Astin, 1991; Banta, Jones, & Black, 2009; Ewell, 2009; Kuh & Ikenberry, 2009) and included employee classification (faculty, administration, support or logistical staff), campus division, gender, years of experience, years at CCU, and nationality (Chinese and non-Chinese). A copy of the bilingual cover letter and NILIE-PACE survey may be found in the appendices.

Once the translated and back-translated version of the PACE instrument was approved by translation team (Behling & Law, 2000), it was piloted with the assessment leadership committee on the CCU campus. A small sample of administration, faculty and staff were asked to complete the pilot survey and include feedback about unclear prompts, clarity of interpretation, use of Mandarin and so forth. During piloting, only a few small Mandarin word choices concerning leadership terms were discussed, and the leadership committee agreed to abide by the decisions of the translation team for final word choice. Six of seven minor word choices recommended by the piloting group were accepted by the translation team. The seventh suggestion was considered too strong a term, and not reflective of the more egalitarian concept of leadership intended by the original language of the item. I was pleased the translation team was not intimidated by the authority of the campus leaders piloting the instrument and expressed their disagreement on that single item. Until I observed this resolution process, I was uncertain it would occur in this harmony-based, hierarchical setting with powerful administrative leaders disagreeing with translators of lower status in the workplace (Trompenaars, 2004).

Survey Logistics in China

After successfully piloting and finalizing the bilingual PACE instrument in Mandarin and English, 1,300 copies of the approved IRB cover letter, the instrument and return envelopes were printed for distribution in anticipation of potentially including 1,190 participants. This occurred soon after IRB approval had been granted by the University of Missouri-St. Louis. The hierarchical nature of leadership and communication in China (Hofstede, 1980; Hutchings, 2010; Trompenaars, 2004)

required the announcement on the CCU intranet from the campus founder and president indicating the desire to assess campus climate, the free choice each employee could exert in choosing whether to confidentially participate, the fact that everyone who participated would receive a transparent report prepared by the researcher on the findings, and how and by when to return the survey to the researcher. A copy of this document, in the original Mandarin, is in the appendices. The same day this powerful, supportive electronic announcement went out, I delivered the first 130 surveys to the foreign faculty in their mailboxes in our mutual residence hall. Next came the delivery of 220 surveys to the central administration building's eight floors of offices. The second day, I personally distributed the remaining 820 surveys via several roller bag trips and deliveries to every remaining department on campus. Using a Mandarin language document generously provided by the Human Resources department, I recorded the number of surveys requested and left at each department, careful to note any differences in HR figures and actual site staffing numbers at the time of delivery. Only one department, Logistics, seemed to have no idea I was coming or why. The department leadership was in flux, and that meant no one was formally in charge, a difficult challenge in a Chinese workplace when most would not feel empowered or able to step up as a substitute without a directive from higher management (Hofstede, 2001). I patiently explained what the purpose of the survey was and that the woman I spoke with, seated just outside the department head's empty glass-walled office suite, might wish to confirm the support of *lao ban*, the founder and "boss" by checking her inter-office communications. She politely took the box of 150 surveys in their envelopes, and put them on a nearby desk. I wondered whether they would remain there untouched. The total number of surveys

distributed across the CCU campus was 1,170. Each survey included a bilingual cover letter approved by the IRB of the University of Missouri-St. Louis attached, and was then folded in half and placed within an official printed survey envelope addressed to the researcher in residence on the CCU campus during data collection. It took two long evenings and three people to insert the surveys into envelopes and organize them for delivery by location and quantity needed, based on information kindly provided by Human Resources. All 1,170 surveys were disseminated over a two day period, twenty fewer surveys than HR had originally predicted would be needed. Illness or maternity leave accounted for most of the difference.

Data Collection

The workers in the administration building preferred to have their completed surveys ready for pick up in one week, and one department, HR, actually delivered their completed surveys to my residence within that first week. I was asked to text the staff member who had delivered them to confirm receipt, which I did, letting her know her department was the first to respond. She was proud and delighted. The week of June 11, as arranged, I returned to the central administration building on the CCU campus with my roller bag to collect completed surveys as agreed. One department head, a Chinese female, left her office to walk me out as I was leaving with her department's surveys sealed in their original envelopes safely tucked in my roller bag. She kindly thanked me for conducting such a worthwhile study and then shared she had taken her time thinking about her answers. I thanked her for her cooperation, pleased to hear her perspective. When she asked when the findings would be shared, I told her I planned to generate a report based on my dissertation findings late in the fall semester. As I left the office with

my roller bag humming behind me, I hoped her interest and serious approach to the study was a good omen for overall participation rates and results.

While the academic departments had indicated a preference to return their surveys themselves, intending to hand them out and collect them during their campus-wide staff meetings the coming Wednesday afternoon, I was deeply concerned such potential time constraints and a serious lack of privacy would compromise the viability of participant data. This was not a topic for discussion when I politely pressed the issue, though my bilingual cover letter indicated participants were free to take their surveys home and fill them out privately if desired, returning them on their own to my residence or via the box in the building lobby placed there for collection purposes. Fewer than fifty Chinese participants took advantage of this option, though I was gratified some did. Three employees from two different departments contacted me to say they had not been permitted adequate time to respond to the survey, it having been distributed and collected within about three minutes at their respective staff meetings. Two staff members from one department informed me they were "told to put all Satisfieds and no comments" on their surveys (confidential informant conversation, June 20, 2012). They handed over their department's completed surveys, and upon opening them, I noted five participants had chosen to ignore that directive. These small anecdotes are powerful indicators of a cultural shift on campus, a desire for some to assert themselves when it is safe to do so. I admit I felt deeply honored that some participants were demonstrating their trust in me, in their superiors, and in their colleagues, taking a chance and stating their opinions.

Only one department, Logistics, with nearly 150 surveys outstanding, did not turn in their instruments within the designated time frame in the cover letter, but I had

expected this. After several prompts and two personal visits to that department, the surveys were returned completed after four weeks. The reason for the delay turned out to be a change in departmental leadership, which in China can often cause a halt to all present activities pending the new leader's directives.

Of the 1,190 total anticipated participants on the CCU campus, assuming perfect attendance according to HR data, 1,170 surveys were distributed and 945 were returned. Of these, 943 were suitable for inclusion in data analysis. Two surveys were returned blank, probably stuffed in their envelopes and returned rapidly during a faculty meeting, where non-participation under watchful eyes was perhaps not an option. During data analysis discussions with my research assistants, I learned that "many surveys are distributed on campus, but no results are ever reported and nothing seems to be done with them," so people may have a sense of futility when asked to fill out another one (CCU campus employee, personal communication, June 20, 2012). I scheduled intermittent conversations in June and July with the founder over initial findings, some themes of which were included in the annual July staff development training sessions on campus. This action was intended to send an early message of transparency in reporting data from this study to the entire staff at CCU.

Emerging Themes and Artifacts on Campus

Several major themes informally emerged quickly during data collection and storage processes: communication, academic freedom and ethics. This emergent data presented itself over hours upon hours of scanning documents and led to quick action to confirm or refute what I was noticing so early on. The first pattern I noted was about communication or a lack thereof, voiced by both Chinese and foreign faculty, staff and

administrators. After reading some of these comments more thoroughly, I knew I needed to collect artifacts to further understand and demonstrate these observations. One serious weakness in communication surrounded the notion of having an international, English speaking foreign faculty, the largest known in China, yet after fourteen years the administration persisted in conducting all communication on campus in Mandarin only, especially when it came to internal communications, class rosters, inputting of grades and so forth. Several teachers and administrators shared documents reflecting their comments which were documented as artifacts to demonstrate this aspect.

During the initial review of comments data, numerous allegations of corruption, cheating, and pressure from various sources on campus to alter grades were noted by both Chinese and foreign faculty and administrators. One way to triangulate, refute or affirm these observations was to participate by proctoring the semester final exams on campus. I was informed at length by international faculty and Chinese faculty about instances of academic dishonesty over attendance, assignments and exams. Several participants permitted me to interview them and record our discussions on the topic for future study. Others handed me bags of "cheat sheets" from single classroom exam episodes. I was encouraged to discover the campus patterns for myself. I photographed the privately run copy centers on campus as they allowed lines of students to make hundreds of miniature, often coded test answer documents; some even cut them into individual cheat sheets and distributed them to peers right in front of me. During final exams in late June, I also witnessed and photographed dozens of students caught in the act of cheating over a ten-day period, photographed hundreds of used cheat sheets, some boldly left on exam room floors, others slyly tucked into radiators and under shoes, and many afterward carelessly

tossed in classroom building trash receptacles, blatant in their sheer number. I noticed varying levels of scrutiny and action on the part of some proctors, even when confronted to address egregious examples of academic dishonesty right in front of me. This episode was one of the most powerful confirmations of qualitative data on the surveys. The experience led to discussions with leadership and an invitation to present a brief talk on academic integrity during the annual July staff development week at CCU, for which I prepared a bilingual slide show.

Encouraging Participation

After the first week of data collection, I requested a note go out from the administration thanking those who had already returned their surveys and welcoming those who had not yet done so to return them as indicated on the survey envelope provided. This notice was only sent out in Mandarin, on the intranet called the "OA" system on the CCU campus. The foreign faculty of 120 plus some families is not included in this crucial communication system, nor is their native language represented in such communications. The foreign faculty was the group that participated least on campus, at a rate of slightly below 50% returns. This was the group I had to work on the hardest to participate, which is not surprising given the nature of their lives on campus. Those who did respond to the survey commented on a lack of academic freedom or any sort of faculty governance, causing a lack of involvement and a feeling of being isolated both linguistically and culturally on campus. Other newer English teachers among the foreign faculty on campus were at a sort of honeymoon phase, and unaware of little beyond their own classes and students and their cultural adaptation in China. Some used the outlet of the comments section to voice dissatisfaction on matters better suited to

professional dialogues, which perhaps indicated a lack of organizational effectiveness at the operational level. One foreign faculty member asked for daily updates on foreign faculty return rates, offering to encourage colleagues to participate fully. He observed at one point that “some comments might be a form of therapy for the frustrated writers, some of whom have worked here long enough to know its weaknesses.”

Dealing with Incoming Data

As surveys came in, often in bags and boxes from each department, cover letters were detached and a random number was assigned to the first page of each survey from a printed list of five-digit random numbers generated by a program specifically designed for this purpose. Each number on the master list was crossed off as it was assigned to a survey. Each unique survey number was recorded on the upper right corner of the first page of the instrument. If any comments were found on items 47 and 48, or elsewhere on the survey, a notation of "EC" for comments in English found was added near the assigned random number on the first page. If there were comments in Mandarin anywhere on a survey, a green highlight marker was used to mark over the random number on the document to alert the need for translation. I recorded the identifying individual random number to any survey pages that had comments written on them, to assure data would always remain intact throughout the analysis process. I personally typed in the English language comments into an Excel spreadsheet designed to accommodate all comments for future analysis. This took just under three hours. My research assistants were instructed only to detach staples from one survey at a time when inputting data or scanning documents as needed, to protect against accidental mixing of documents. We all followed this protocol throughout the summer.

Translation and Tracking

Eight translators were required to assist with most of the over 800 comments from 486 total participants written in Mandarin on the open-ended prompts at the end of the instrument. Full scans of all original 943 returned survey documents were saved as pdf files and uploaded daily to the University of Missouri's SkyDrive data storage system

over a period of six weeks. Files were stored in my laptop as well as on a backup 16GB flash drive and saved daily. Separate additional scans were completed of the Mandarin language comments pages only, each individual file labeled with its assigned random survey number plus the letter T, indicating a need to be sent to a member of the translation team for Mandarin into English translation. Another Excel file was established to track each pdf file needing translation, and to whom it was sent and when. As the translated files were returned, the spreadsheet easily tracked any outstanding files. It took over twenty hours to carefully import the hundreds of completed translation files, returned to me as Word documents, into the same Excel spreadsheet containing the English language participant comments I had already typed in. Only two translation files could not be found upon data cleaning at home again, and the scanned and saved copies of those comment page files were sent back to China electronically for re-translation. They were returned translated in under 48 hours. My deepest thanks to the translation team!

Coding and Data Input

The Likert data from the first 46 items in the PACE (NILIE, 2012) survey required two assistants over 80 hours of data input together, one reading aloud and one typing into first one of two eventually completed Excel spreadsheets of the same data (943 surveys x 60 items each x 2 entries). Two Excel spreadsheets were created so data could be independently entered twice in separate files and later merged for comparison, rapid error identification and ease of data cleaning. Numbers 1-6 were assigned to stand for values marked by participants from left to right on the Likert scale survey sheets. Codes were also assigned for all demographic data and a coding key was displayed above

the data entry desk in my suite at all times for constant reference. For example, if no comments were made by a participant on items 47 or 48, a "0" was entered under each item reflecting no data for the item. If comments were made in English, a "1" was recorded in the database. Comments made in Mandarin were recorded numerically by placing a "2" into the database for these items. This file was later compared to the translation pdf files to assure no omissions in translated comment data. Having the scanned pdf file of every survey collected was helpful in providing quick access to any survey needed to resolve data entry, transfer or omission errors. My wonderful assistants, Elley and Caroline, and later, Vanessa, had an interest in statistics and quantitative research, in addition to Caroline's background as an accounting instructor. All understood the value of confidentiality and precision at every level of data collection, management and entry. Each was instructed to consult me if there were any questions about interpreting markings, meanings or handwriting. There were only 76 differences in data entry out of more than 100,000 key strokes entered. Data cleaning took less than two hours.

Ethics and Protection of Human Rights

This study posed no threat to any research participants. The data collection, aggregate reporting, and publication processes were designed to protect the identities and confidentiality of all participants (Salant & Dillman, 1994). No personal information of any kind was retained or reported by the researcher. The study and report are based on the data related to institutional climate revealed by participants only, and no association is made beyond a categorical or demographic group label of a respondent being a member of administration, staff or faculty. The scanned surveys containing no comments were

destroyed in China under my supervision. Some surveys containing written comments in either Mandarin or English were retained to display at the dissertation defense and for future study. Data will be destroyed after seven years.

The researcher holds a valid NIH certificate in Human Subjects Research and adhered to all legal and ethical guidelines in the U. S. and China. Approval from the University of Missouri-St. Louis Institutional Review Board (IRB) was received prior to study commencement. Access to CCU faculty, staff and administration was generously granted by the founder and president of Central China University in Henan Province, People's Republic of China, with the full support of the campus Party Secretary.

Limitations of the Study

This was a non-experimental, cross-sectional study, a formative assessment of the climate at a private university in Central China with a faculty comprised of both Chinese and foreign scholars. The NILIE-PACE instrument "is a self-report measure" and "actual experiences" of the participants were not observed (Ancis, Sedlacek, & Mohr, 2000, p. 184). The study was conducted for purposes of internal improvement as opposed to external accountability (Ewell, 2009). Though a mixed-method approach was used, the two open-ended questions at the end of the survey helped better understand, interpret and triangulate some of the findings from the respondents with stated concerns or priorities (Alwin & Krosnick, 1991; Denzin, 1978).

In addition to common weaknesses identified in survey literature such as social response bias (Tuckman, 1999; Nader, 1972) or "satisficing" and response order effects (Krosnick, 1999; Krosnick, Narayan, & Smith, 1996, p. 29), my personal experience in foreign cultures and the literature suggest there may be other cultural and linguistic

elements to consider in survey research (Dolnicar & Grün, 2007). For example, early intercultural research by Geert Hofstede and Fons Trompenaars identified cultural values in China which may inhibit respondents from choosing a truthful response instead of a harmonious, agreeable one (Hofstede, Hofstede, & Minkov, 2010; Trompenaars, 2004). In highly collectivistic cultures, one tends to operate within a hierarchical and strongly interdependent framework, thus making the actions of one vulnerable to consequences for all in that in-group (Hofstede, Hofstede, & Minkov, 2010). These ideas are explored more fully in chapter five. Given these limitations, the results of this study are generalizable to private Chinese IHEs bearing similar characteristics.

CHAPTER IV: RESULTS

This is a mixed-method study and this chapter is divided to reflect this. Quantitative data including descriptive statistics are analyzed first, followed by a detailed qualitative analysis of the two open-ended questions at the end of the NILIE-PACE survey. This seemed a logical progression given the opportunity to compare emergent factors on the first 46 questions and the subsequent reduced factor model along with any trends or further interpretation later revealed in the comments. Description of the sample population and descriptions of participant demographics are discussed first, followed by the descriptive statistics for each item and climate factor. Descriptive statistics include reporting the mean and standard deviation for each item response and climate factor as identified by factor analysis loadings in this study. The use of this instrument had not been piloted or administered in Mandarin or in China before, so inferential statistics are also discussed, beginning with Principal Component Analysis (PCA), Exploratory Factor Analysis (EFA), and then Confirmatory Factor Analysis (CFA) using the technique of Parallel Analysis (PA). Main effects and interactions of all dependent/criterion variables were also assessed. Since years of experience and years working at CCU could be classified as variables having more than one level, dependent/criterion variables were also recombined to maximize paired comparisons for examination. A reliability analysis was also conducted on the five emergent latent variables for added credibility.

A qualitative analysis of open-ended responses was conducted after the quantitative data were analyzed, so results could be compared to examine potential patterns or any correlation with quantitative findings. Responses were coded, recoded, reviewed and tabulated for themes (Merriam, 2009), to develop axial coding of the

overall data set (Miles & Huberman, 1995). Qualitative data were recorded and maintained by participant classification where identified (predictor variables such as gender, nationality, etc.) for eventual comparison with quantitative results. Additionally, where possible, documents related to emerging findings were collected during the three-month study on the CCU campus and were recorded, catalogued, and retained as artifacts to include as potential sources of interpretation and triangulation during data analysis (Merriam, 2009; Miles & Huberman, 1995). Copies of the most relevant artifacts may be found in the appendices or requested from the author.

An Overview of the NILIE-PACE Instrument

The American designed and much administered PACE survey consists of 46 Likert response items based on four factors or clusters of latent themes: supervisory relationships, institutional structure, teamwork, and student focus. Two open-ended prompts offer an opportunity for participants to elaborate on climate or culture issues not captured in the previous 46 items (NILIE, 2012). This study represents the first known employee-centered administration of a climate and culture survey such as this in higher education in China. There could be no guarantee that reading and responding to the same prompts when translated into the target language of some of the participants would generate the same latent variables or clusters identified in the well-normed American data set, hence the decision to utilize Exploratory Factor Analysis (EFA) to explore, identify, and then confirm the most parsimonious model through Parallel Analysis (PA). Additional careful study of the open-ended comments at the end of the instrument provided further insight into how participants perceived their campus climate and culture at CCU, when combined with findings from the quantitative data and model. To view the

first 46 items which are Likert based, see Table 1. The last two questions, items 47 and 48, though included here for review of the prompts included in the PACE instrument, are open-ended and will be discussed in detail later in the qualitative analysis section of this chapter.

Table 1 NILIE-PACE Items 1-46 in English (NILIE, 2012)

1	The extent to which the actions of this institution reflect its mission
2	The extent to which my supervisor expresses confidence in my work
3	The extent to which there is a spirit of cooperation within my work team
4	The extent to which decisions are made at the appropriate level at this institution
5	The extent to which the institution effectively promotes diversity in the workplace
6	The extent to which administrative leadership is focused on meeting the needs of students
7	The extent to which student needs are central to what we do
8	The extent to which I feel my job is relevant to this institution's mission
9	The extent to which my supervisor is open to the ideas, opinions, and beliefs of everyone
10	The extent to which information is shared within this institution
11	The extent to which institutional teams use problem-solving techniques
12	The extent to which positive work expectations are communicated to me
13	The extent to which unacceptable behaviors are identified and communicated to me
14	The extent to which my primary work team uses problem-solving techniques
15	The extent to which I am able to appropriately influence the direction of this institution
16	The extent to which open and ethical communication is practiced at this institution
17	The extent to which faculty meet the needs of the students
18	The extent to which student ethnic and cultural diversity are important at this institution
19	The extent to which students' competencies are enhanced
20	The extent to which I receive timely feedback for my work
21	The extent to which I receive appropriate feedback for my work
22	The extent to which this institution has been successful in positively motivating my performance
23	The extent to which non-teaching professional staff meet the needs of the students
24	The extent to which there is an opportunity for all ideas to be exchanged within my work team
25	The extent to which a spirit of cooperation exists at this institution
26	The extent to which my supervisor actively seeks my ideas
27	The extent to which my supervisor seriously considers my ideas
28	The extent to which classified personnel meet the needs of the students
29	The extent to which institution-wide policies guide my work
30	The extent to which work outcomes are clarified for me
31	The extent to which students receive an excellent education at this institution
32	The extent to which this institution is appropriately organized
33	The extent to which my work team provides an environment for free and open expression of ideas, opinions, and beliefs
34	The extent to which my supervisor helps me to improve my work
35	The extent to which this institution prepares students for a career
36	The extent to which my work team coordinates its efforts with appropriate individuals and teams
37	The extent to which this institution prepares students for further learning
38	The extent to which I have the opportunity for advancement within this institution
39	The extent to which I am given the opportunity to be creative in my work
40	The extent to which students are assisted with their personal development
41	The extent to which I receive adequate information regarding important activities at this institution
42	The extent to which students are satisfied with their educational experience at this institution
43	The extent to which a spirit of cooperation exists in my department
44	The extent to which my work is guided by clearly defined administrative processes
45	The extent to which I have the opportunity to express my ideas in appropriate forums
46	The extent to which professional development and training opportunities are available

Note. (This instrument was used with permission from the National Institute for Leadership & Institutional Effectiveness, North Carolina State University-Raleigh. Copyright, NILIE, 2012.).

Question 47 is stated: "Considering the questions you have answered on this climate survey, please expand on the areas you find least favorable. You may give examples and explanation, but please refrain from identifying specific individuals. This is a confidential survey" (NILIE, 2012). Question 48 contains the same phrasing verbatim, except for the substitution of the term "most" for the word "least" in front of "favorable."

Exploring Preliminary Results

An excellent return of 80.8% of participants responded to the survey, and of 943 usable surveys included in this study, 393 were tagged for comment translations for either Q47 or Q48 or for both questions. Of 393 participants responding and answering either or both comment questions in Mandarin, 354 answered Q47 in Mandarin and 75 of these participants chose not to self-identify themselves as Chinese nationals. Some Chinese nationals also chose to respond in English. Of the 393 Mandarin language responses, 364 of these participants self-identified their worker classification. A total of 67 administrators, 222 faculty, and 75 staff participants. Of comments received in English to either or both comment questions, 35 of the 88 comments could be tied to self-identified Chinese nationals. Of the English comments from participants who self-identified as "Non-Chinese," 47 answered either or both comment questions. Two identified themselves as administrators, 41 as faculty and 2 as staff.

Question 47, concerning comments on least favorable climate aspects, attracted 435 responses, 354 in Mandarin and 81 in English. Only exactly half that number answered item 48 about areas found most favorable, and out of those 218 comments, as I scanned the surveys and performed coding tasks, phrases about a beautiful campus kept reappearing. A total of 412 responses were made to Q48, 329 in Mandarin and 83 in

English, though some Chinese nationals chose to respond in English. However, many of these comments were not actually positive and therefore were not counted as such in the 218 figure above. So, out of 943 possible opportunities to say something positive, only 218 chose to do so. Twice as many found negative things to say, and some responses were so carefully organized and considered, I found this highly indicative of how people were feeling overall, less than a quarter of respondents trying to be positive and maintain harmony because it was expected (Gittings, 1999; Hofstede, 2001, Yang, 1994), and of course in some cases well and truly meant, but hundreds more were willing to risk the truth and share some well thought out suggestions if it might have an impact on their campus (Pei, 2007; Perry & Selden, 2000). Of the 435 participants who chose to write about least favorable elements in item 47, only 16 people omitted their demographic data on items 49 through 60. To me, this speaks of the Fear Factor again. In a risk-averse society the western proverb, "The squeaky wheel gets the grease" is inappropriate in more hierarchical and collectivist cultures (Hofstede, 2001; Sinclair & Wong Po-yee, 1990). In China, the proverb one operates by in similar circumstances is more likely to be "The nail that sticks out gets hammered down" (Hofstede, 2001; Stross, 1990; Weidenbaum & Hughes, 1996). Of these sixteen submissions, all but two of them had comments written in Chinese.

Overall, only three surveys of the 943 submitted had Likert ratings of only ones or twos on all items, which were Very Dissatisfied and Dissatisfied rankings, respectively. Of these, all were faculty, two self-identified Chinese and one declined to disclose nationality. All three had master's degrees, had worked in the profession from three to five years, and had also worked at CCU for the same length of time. Two of the three

were male, and the third participant was female. I comment on these three because it takes courage in China to go against the harmonious face of the system, to delve beneath the surface presentation and express what lies beneath (Pei, 2007; Lin, 1999).

As part of the contractual agreement to utilize the PACE instrument, I was not permitted to alter the language or content of the items in any way except to translate them for administration in China. I was concerned that references to "diversity" on the survey might receive strange receptions from all but the Americans on the foreign faculty, but wondered whether the Chinese participants might interpret and respond to this element differently (Dolnicar & Grün, 2007; Hofstede, 2001). However, there are nearly 60 ethnic minorities in China, and the literature makes reference to their unequal opportunities, which I covered in chapter two. During the piloting of the instrument for comment by the leadership team, no one raised a question or comment about this terminology or its interpretation. A bilingual version of the PACE was generated for the CCU campus and can be found in the appendices. For a detailed description of the translation and piloting phases, please revisit chapter three.

Addressing the Research Questions

To explore the findings of this study, it is important to address the research questions:

1. How representative of the total CCU employee population is the returned survey sample?
2. How do the faculty, staff and administration of CCU perceive the overall institutional climate?

3. To what extent are there differences in perception of CCU's institutional climate among employees in each of the different roles (faculty, staff, administration)?
4. To what extent are there differences in perception of CCU's institutional climate among the various demographic classifications (gender, years of experience, years at CCU, nationality)?
5. What recommendations for change or improvement can be made based on the results of this climate survey? (for a report for the CCU faculty, staff and administration)

The first research question asks about how representative the sample is of the CCU employee population. The initial response is to state it is highly representative based on data entry experiences, but the best way to answer this is to share the statistics about survey participants along with their demographic information, where they chose to share it. As reported, 945 of 1,170 surveys handed out were returned, and of these, two were blank, making an overall return rate of 943 or 80.6 percent. This figure exceeded my proposed goal of 75 percent, and I attribute much of this success to the enthusiastic support from the CCU leadership and department heads who made this study a priority on campus.

Of the six potential areas for self-identification in demographics: gender, employee classification (faculty, administration, support staff), nationality (Chinese and non-Chinese), level of education, number of years at CCU and number of years in profession, people seemed most comfortable or perhaps least threatened sharing their gender, as 829 of a potential 943 participants chose to answer this question, with 348

male responses for a total of 42 percent and 481 female responses comprising 58 percent of those choosing to disclose gender.

Table 2 CCU Employee Classification Response Frequencies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Faculty**	**524**	55.6	**63.8**	63.8
	Administration	**151**	16.0	**18.4**	82.2
	Staff	**146**	15.5	**17.8**	100.0
	Total	**821**	87.1	100.0	
Missing		122	12.9		
TOTAL		**943**	**100.0**		

Table 3 Self-Reported CCU Employees by Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	348	36.9	42.0	42.0
	Female	481	51.0	58.0	100.0
	Total	**829**	87.9	100.0	
Missing		114	12.1		
TOTAL		**943**	**100.0**		

The next most frequently shared demographic data concerned employee classification with 821 responses, followed by level of education attained with 815 self-reporting, and then years of service at CCU where 804 shared their information. Because the CCU campus boasts one of the largest if not the largest foreign faculty of any

university in China (n = 122), identifying participants by nationality was important, particularly when attempting to explore trends and potential relationships based on comments and experiences shared in the qualitative portion of the PACE (NILIE, 2012). Number of years in the profession and nationality were the two demographic categories least self-reported, at 786 and 677 respectively out of a possible 943, which may indicate a desire to mask or protect one's identity further where negative comments or Likert selections were shared. Of those choosing to report their nationality, 626 were Chinese and 51 were non-Chinese, most of these American. Nearly 100 percent of the Americans on campus who participated in the study identified themselves as non-Chinese, while at least 260 Chinese participants chose not to identify themselves by nationality. I called this, informally, part of the Fear Factor.

When asked to identify a worker classification, there seemed to be some difficulty in choosing between the administration and staff categories as the subsequently reported ranges did not always match advance confidential data provided by human resources. This could be an issue for future iterations of the PACE in China, that more detailed descriptors for the faculty, staff and administration categories be added for reader clarification. Of those choosing to identify their employment classification, 821 out of a possible 943 participants, 524 or 63.8 % were faculty, 151 or 18.4 % were administration, and 146 or 17.8 percent were staff. According to confidential employee data provided by human resources, the total number of administrators on the CCU campus this academic year was 176, and the number of Chinese faculty was 718, foreign faculty was listed by HR as 122, followed by staff with a reported number of 151 for a total employee count of 1167. Thus, of the n = 943 total PACE survey participants, and

of these 821 or 87.1 % choosing to self-identify, the foreign faculty had the lowest response rate at 41.8 %, while the Chinese faculty had a response rate of 73 percent, although seeing a return rate of 100% for staff when compared to the HR data, it is safe to assume the majority of the non-identified participants in this category were also Chinese faculty. The decision not to self-report worker classification data supports my cultural understanding of what I informally labeled the Fear Factor on campus, based on Hofstede's interpretation of the power distance factor in hierarchical and more collectivist cultures (Hofstede, Hofstede, & Minkov, 2010) as identified in China. The nearly 100 percent rate of return from participants in the staff classification (146 out of an identified 151 by HR data) led me to investigate numerous scanned survey files to track the source of the unusually high indicator, even for China (Dolnicar & Grün, 2007). Some class masters and teaching assistants had identified themselves more humbly as staff, while others proudly designated themselves faculty. This is an issue I will address later in chapter five.

Table 4 Overall Responses by Demographic

		Classification	Nationality	Degree	Years at CCU Range	Years in Profession Range	Gender
N	Valid	**821**	**677**	**815**	**804**	**786**	**829**
	Missing	122	266	128	139	157	114

Table 5 CCU Employees Self-Identified by Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chinese	626	66.4	92.5	92.5
	Non-Chinese	51	5.4	7.5	100.0
	Sub-Total	**677**	**71.8**	100.0	
Missing	System	266	28.2		
	TOTAL	943	100.0		

Central China University (CCU) is young and was founded in 1998 with fewer than 250 students, 25 faculty members and 18 administrators and staff members. It is located some distance from a major city where well educated and highly trained staff might be easier to attract and retain in a more economically advanced consumer and opportunity infrastructure (Perry & Selden, 2000; Yuan, 1994). Of great interest to me was how large and of what make up the overall staff at CCU had become since 1998, compared to the number of students now enrolled which exceeded 24,000 in September 2011 and is set to surpass 25,000 in the 2012-2013 academic year. To explore this status, I asked about education attained and years of experience in one's profession as well as years serving at CCU which are displayed in Table 69 and Table 10. Though I was not able to ascertain this precise data from 1998 when CCU opened, perhaps the data acquired during this study might serve as an early benchmark from which to compare future statistics.

Table 6 Self-Identified CCU Employee Level of Education

Highest Level of Education Identified		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Diploma or Degree	32	3.4	3.9	3.9
	High School	31	3.3	3.8	7.7
	Associate's Degree	8	.8	1.0	8.7
	Bachelor's Degree	316	33.5	38.8	47.5
	Master's Degree	409	43.4	50.2	97.7

	Doctoral Degree	**18**	1.9	2.2	99.9
	First Professional Degree	1	.1	.1	100.0
	Sub-Total	**815**	**86.4**	100.0	
Missing	System	128	13.6		
	TOTAL	943	100.0		

The most crucial observation here should be the extremely low number reporting doctoral degrees at CCU (Yu, Stith, Liu, & Chen, 2012). Meetings attended, survey comments, and artifacts gathered during the summer permit me to observe that efforts are being made to hire new faculty with doctoral credentials, but there is outcry among present faculty who feel promises made earlier on to support and fund their own advanced degrees or research has not materialized except for a select or favored few (Lin, 1993; Postiglione, 2006). Fiscally it is faster and cheaper to identify and hire additional faculty already in possession of the academic credentials sought, rather than having to wait years to improve faculty qualifications by funding hundreds of faculty members holding only bachelor's or master's degrees to earn terminal degrees (Weidenbaum & Hughes, 1996). In thinking back on my studies in the history of higher education in the United States, many of our finest universities began with presidents who held only a bachelor's degree themselves, and it was not until the middle of the 19th century that graduate degrees were being earned more frequently and being demanded as a part of professional status and performance (Rudolph, 1990; Thelin, 2003, 2011). This issue and many others will be addressed later in this chapter as part of the qualitative analysis of comments from the PACE participants.

Some of the staff members reporting no diploma or degree were most likely the dedicated and friendly gardening staff, tirelessly maintaining a beautiful campus, often working six days a week from very early in the morning to early evening. Many of the

most modestly paid staff workers earn additional income by diligently seeking and recycling paper, plastic and cardboard across the campus. It is a way to supplement what for some is a meager salary and it provides a much appreciated environmentally friendly service on campus and within the community. One of the great challenges in China overall is how to improve one's standard of living when wages do not reflect and cannot keep up with the exploding consumerism and cost of living rises (Postiglione, 2006). This situation is visible across all sectors of campus worker. As more university educated Chinese hit the market searching for jobs, the skill levels demanded of graduates and new hires is also rising, leaving many who graduated earlier with lower credentials stuck in an economically limited dilemma (Altbach & Umakoshi, 2004; Postiglione, 2006). Most do not have the time or money to gain higher credentials to earn higher salaries and must continue to work at their present post to survive. Some Chinese reported feeling frustrated or trapped by this phenomenon when we spoke throughout my residency on campus. There was occasional talk of quitting, but few felt confident enough of being hired elsewhere to risk it.

A Dearth of Doctorates

If you look at Table 7, the majority of participants with bachelor's and master's degrees are Chinese and foreign faculty and middle level managers within the administration. When I conducted a cross tabulation of level of education by nationality, of the 51 foreigners who reported this data, 27 held a bachelor's degree, 15 a master's degree, and 6 a doctoral degree. The majority of foreign faculty bachelor's degree holders are American university graduates in various topics who are on campus teaching oral English, a supplement two hours weekly to the English as a second language (ESL)

curriculum taught by Chinese faculty in the Foreign Language department, many of whom also hold only a bachelor's degree. One participant held a law degree, labeled First Professional Degree in my data set. Just under half of the few identified holders of doctorates are not of Chinese origin. Lower pay and prestige combined with small city life are simply not competitive attributes for accomplished, ambitious Chinese who hold terminal degrees, and this goes double for Chinese who have rigorously earned doctorates from overseas, as issues of accreditation and ethical standards are in flux in China (Lin, 1999; Min, 2004; Wu, 2009). Status and investment, discussed in the first chapter, are being leveled at the top universities (Lin, 1999; Min, 2004; Zhou, 2006). Naturally, most top academics will want to attach themselves to more prestigious, well-connected universities with well-funded research programs and facilities (Yuan, 2011). However, most is not all. In fact, this summer, CCU welcomed a half dozen new Chinese faculty members with terminal degrees, another indicator that progress is being made to improve the qualifications of the faculty, albeit from strong comments and other findings in this PACE study, the opportunities are not being offered widely for advanced training and study from within yet. Overall, in response to the first research question, the answer is the total participation rate of over 80 percent and $n = 943$ with confirmation from self-identified demographic items by participants, it is safe to say this sample is highly representative of the population of Central China University.

Table 7 Worker Classification * Degree Crosstabulation

	Degree							
Classification	No Diploma or Degree	High School	Associate's Degree	Bachelor's Degree	Master's Degree	Doctoral Degree	First Professional Degree	Total
Faculty	6	1	0	150	338	14	1	510
Administration	13	8	2	77	47	2	0	149
Staff	12	19	6	81	18	1	0	137
TOTAL	31	28	8	308	403	17	1	796

Table 8 Self-Reported Employee Years at CCU by Range

	Number of Years	Frequency	Percent	Valid Percent	Cumulative Percent
	0 -1	160	17.0	19.9	19.9
	2 -5	390	41.4	48.5	68.4
	6 - 10	238	25.2	29.6	98.0
	> 10	16	1.7	2.0	100.0
	Sub-total	**804**	**85.3**	100.0	
Missing	System	139	14.7		
TOTAL		943	100.0		

Table 9 Self-Reported CCU Employee Years in Profession by Range

	Number of Years	Frequency	Percent	Valid Percent	Cumulative Percent
	0 - 1	130	13.8	16.5	16.5
	2 -5	328	34.8	41.7	58.3
Valid	6 -10	242	25.7	30.8	89.1
	> 10	86	9.1	10.9	100.0
	Sub-total	**786**	**83.4**	100.0	
Missing	System	157	16.6		
	TOTAL	943	100.0		

Table 10 Classification * Nationality Crosstabulation of Participants Answering all 46 Likert Items

Classification	Nationality		Total
	Chinese	Non-Chinese	
Faculty	377	44	421

Administration	128	2	130
Staff	115	3	118
TOTAL	620	49	669

Table 11 Gender * Nationality Crosstabulation

		Nationality		
		Chinese	Non-Chinese	Total
Gender	Male	258	24	282
	Female	345	27	372
Total		603	51	654

The second research question asked how faculty, staff and administration of CCU perceived the overall institutional climate. All Likert data were coded twice into Excel spreadsheets, merged for data cleaning, and later run in SPSS based on the following numeric identities: 1 = Very Dissatisfied, 2 = Dissatisfied, 3 = Neither Satisfied nor Dissatisfied, 4 = Satisfied, and 5 = Very Satisfied. The score of six (6) indicated a selection by the participant of Not Applicable, which was infrequently selected by participants and designed to minimize missing data in the study. However, to preserve data validity, the sixes in the data set were later coded as missing values to accommodate listwise data exclusion, an option identified in a larger exploratory survey study (Langford, 2009), though several studies did not adequately address missing data (Carle, Jaffee, Vaughan, & Eder, 2009; Ping, 2004). When calculating the overall mean for the 46 Likert items in the PACE, I chose to run the results for both listwise and pairwise deletions, mostly out of curiosity. The listwise calculation used $n = 678$ based on fully filled out surveys and running all 46 means through Excel, and calculated an overall mean of 3.66, which would place it heading toward Satisfied but not there yet. When

taking the same 46 factors through a pairwise deletion process, with the *n* for each item varying from 861 to 941 responses, the overall 46 item pairwise mean was 3.61. For strength in data credibility, validity and reliability in reporting, I have chosen to use the listwise overall mean of 3.66 for purposes of reporting this study.

Table 12 Means and Standard Deviations of Listwise Responses

	Mean	SD	N
Q1	3.68	.821	678
Q2	4.03	.810	678
Q3	3.88	.902	678
Q4	3.46	.966	678
Q5	3.47	.912	678
Q6	3.45	.970	678
Q7	3.72	.921	678
Q8	4.01	.779	678
Q9	3.88	.927	678
Q10	3.64	.913	678
Q11	3.55	.878	678
Q12	3.65	.826	678
Q13	3.54	.821	678
Q14	3.84	.808	678
Q15	3.16	.947	678
Q16	3.41	.948	678
Q17	3.69	.823	678
Q18	3.88	.821	678
Q19	3.86	.757	678
Q20	3.59	.914	678
Q21	3.53	.851	678
Q22	3.31	.994	678
Q23	3.50	.884	678
Q24	3.69	.868	678
Q25	3.63	.899	678
Q26	3.83	.918	678
Q27	3.75	.930	678
Q28	3.45	.850	678
Q29	3.56	.877	678
Q30	3.90	.749	678
Q31	3.76	.814	678
Q32	3.44	.986	678
Q33	3.58	.934	678
Q34	3.78	.899	678
Q35	3.68	.810	678
Q36	3.60	.865	678
Q37	3.72	.818	678
Q38	3.49	.946	678
Q39	3.72	.812	678
Q40	3.77	.763	678
Q41	3.94	.856	678
Q42	3.65	.779	678
Q43	3.89	.814	678
Q44	3.74	.882	678
Q45	3.46	.918	678
Q46	3.41	.991	678

Having two majority cultures reflected in this study, Chinese and American, survey research in differences between responses of individualist and collectivist cultures is also demonstrated in response patterns (Dolnicar & Grün, 2007; Hofstede, 2001; Ryan

& Cousins, 2009). Indeed, this proved true when personally scanning hundreds of completed surveys into my laptop this summer. Over time, I noticed two distinct patterns that I informally attached names to as I scanned, and this began a first informal coding process (Fowler, 2009; Merriam, 2009; Miles & Huberman, 1994). First to appear, "The Chinese Wall," a pattern most frequently noted, followed by one I soon designated "Frank, but No Rank." The Wall responses tended to be pages of mostly or all Satisfied selected, or mostly Satisfied (4.0) with an occasional Highly Satisfied (5.0), but none being selected below Neither Satisfied nor Dissatisfied (3.0), as if a subtle wall were erected on the paper in the mind of the reader who perhaps avoided or chose not to reveal any overt or perceived negativity in self-expression (Dolnicar & Grün, 2007; Hofstede, 2001). I wondered how much of this pattern was due to one of three things I had been informed about from some participants, the first being asked or told to complete the instrument in front of colleagues and quickly having to hand it back in to department officials, second, no investment of honesty due to sheer boredom at having to take another survey without any perceived outcome or impact, and finally, perhaps feeling fearful of saying anything negative and/or being caught doing so. Interestingly, when the data were run, my initial perceptions were slightly in error. Using the listwise case omission process for missing data, and including the averages per item based on the complete data sets generated by 872 participants of the 943 who returned surveys, only two of the 46 Likert items scored higher than 4.0, items two and eight. Item two with a mean of 4.03 referred to whether a supervisor expressed confidence in the participant's work, and item eight with a mean of 4.01 asked participants whether they felt their job was relevant to CCU's mission. Interestingly, three participants, two in English and one

in Mandarin, added side notes next to item eight on their surveys, asking whether the university actually had a stated mission, but the higher scores on these more personal items tell me there are individuals on campus who gain some stronger satisfaction from their work and how relevant their own role is to CCU's mission. Items two and eight had standard deviations of 0.81 and 0.79 respectively. All other items had means of 3.22 to 3.96, with standard deviations ranging from a low of 0.76 on item 19, referring to the enhancement of student competencies, to a single high SD of 0.99 on item 22, referring to the degree to which the institution motivated performance. The greater SD indicates broader disagreement through the wider scoring range on that item, where a smaller SD would indicate more closely grouped responses tending more toward agreement. Figures indicate the majority of items tended to be selected as Neither Satisfied nor Dissatisfied, and not much beyond Satisfied. At first glance, these data tell me CCU is getting by and has a lot of work to do, but consider my Wall theory, which may indicate the situation is considerably more unhappy than the data might present (Dolnicar & Grün, 2007; He, 2004; Hofstede, 2001) due to Chinese employees potentially concerned about repercussions for expressing dissatisfaction or dissent (Hofstede, 2001; Lee, 2001). This cross-cultural element, which is nearly impossible to accurately weight or capture in a statistical sense, makes the value of the participant comments that much more crucial to fully understanding the climate and culture at Central China University, hence the choice to utilize a mixed method approach to most effectively present participant voices (Arce-Ferrer, 2006). It was a logical next step, paring down the number of items based on responses into groups of latent variables, and then exploring the remaining items to see whether labels could capture the loadings in the data reduction model (Langford, 2009).

Only then did I look at all previously coded comments to see whether these data aligned with the latent variables is the next step in quantitative analysis (Kučinskas & Paulauskaitė, 2005). I did not want to force one type of variable to fit with another, but to let the data speak through emergent patterns, themes, and priorities through frequencies and then examine both forms of data for common links (Merriam, 2009; Miles & Huberman, 1994; Pinsonneault & Kraemer, 1993).

Crossing Cultures and Expressing Values

The overall CCU mean score on the PACE may not fully reflect the Chinese actual feelings due to cultural expectations of compliance when selecting Likert options (Oyserman, Coon, & Kemmelmeier, 2002; Yang, 2004). I expected, being of a harmony orientation, that most Chinese participants might choose to respond in the most positive ways possible, revealing little negativity in their selections (Dolnicar & Grün, 2007; Hofstede, Hofstede, & Minkov, 2010), as opposed to the mostly American foreign faculty who often felt no such cultural or social obligation to observe harmony values (Trompenaars, 2004), and at times chose more extreme prompts when rating something more negatively (Dolnicar & Grün, 2007). I was interested in seeing how foreign and Chinese faculty in particular rated the same items and decided to compare means between Chinese and foreign faculty responses on items 1-46. My assumption was the Americans would be much stronger in their criticisms and therefore select options 1 or 2 more frequently than their Chinese colleagues. To explore this, I ran a comparison of means and standard deviations for each of the 46 Likert items on the PACE, but only between those participants who self-identified as faculty, both foreign and Chinese, since these were the two most robust participant categories for comparative purposes. The largest *n*

for any item of the foreign faculty was 44 with the range dropping to a single item low of 33 participants. Means on foreign faculty responses went from a single low of 1.91 to a single high of 4.25 with a standard deviation (SD) range of the 46 items from 0.795 to 1.293. The lowest mean (1.91, or slightly below Dissatisfied) for foreign faculty was on item 10, the extent to which information is shared in the institution. This was a complaint heard on a daily basis in the dining hall, and if you review the appendices and see some of the documents shared with newly arrived foreign teachers, you will see why. Everything is in Mandarin, even the class rosters and teaching schedules, after fourteen years and fully 14.6 percent (123 out of 841) of the faculty being foreign and non-Chinese reading. That proportion is projected to increase to 16.8 percent, or 145 foreign faculty for the 2012-2013 academic year. For a founder who proudly uses the mantra "East meets West" to recruit foreign faculty, message during speeches and in print on campus and elsewhere, it is more like "West meets Wall." Little effort has been made to accommodate the dual language nature of the faculty, where few are functionally bilingual. The daily OA system, or the campus intranet with daily announcements from leadership, only goes out in Mandarin and all but one Chinese speaking member of the foreign faculty are omitted from that electronic mailing list. The campus announces events typically by posting bright red banners on poles on the main thoroughfare near the classroom buildings and administration building, but these are only in Mandarin, with one rare exception noted and photographed this summer when international speakers, including myself, participated in a women's forum. The foreign faculty lives together in a single complex, which I not-so-privately refer to as the bubble, where English is heard constantly; but once outside, unless a foreign teacher is conversing with an English

language learner or diligent Chinese faculty member wanting to improve English skills, that is the extent of English overheard on campus outside of classroom settings. Communication issues will be explored in greater depth when I analyze and discuss the profusion of comments around this issue later in the chapter.

Chinese and Foreign Faculty Speak in the Numbers

The Chinese faculty had a more robust $n = 377$ on six items, down to a single low of $n = 342$ on item 15 which also reflected the lowest mean score of 3.09, which concerned the extent to which one can appropriately influence the direction of their institution. That score is just barely above Neither Satisfied nor Dissatisfied, and keeping my Chinese Wall phenomenon in mind (Miles & Huberman, 1994), that is about as low as a harmony culture will tend to score without causing overt dissent (Dolnicar & Grün, 2007; Ryan & Cousins, 2009). Knowing the people and the campus as I do, it is a polite way of saying many faculty, just below half who had the courage to state their case, feel powerless to affect change at CCU (Oyserman, Coon, & Kemmelmeier, 2002). No Chinese faculty item means fell below 3.00, which statistically confirms my scanner's intuition over the Wall phenomenon, while sixteen of the foreign faculty item means scored below 3.00. Generally, these items relate to how things are run or Institutional Structure and communication as the PACE clusters reveal. The lowest score from the foreign faculty was on item ten, concerning the extent to which information is shared on campus (NILIE, 2012). I can confirm that through three months of strong comments shared with me at many sittings, as well as my own experiences when needing information.

Table 13 Pairwise Faculty Responses by Nationality

	Chinese			Non-Chinese			Mean Difference
	Mean	N	SD	Mean	N	SD	
Q1	3.60	367	.819	3.10	39	1.119	0.502
Q2	4.01	374	.785	4.02	44	1.131	-0.012
Q3	3.76	373	.877	3.88	42	.942	-0.122
Q4	3.33	370	.976	2.48	42	1.110	0.854
Q5	3.36	366	.910	3.33	42	1.097	0.025
Q6	3.30	367	1.015	2.68	44	1.029	0.621
Q7	3.60	368	.963	3.05	43	1.154	0.549
Q8	3.97	373	.829	3.90	40	1.033	0.068
Q9	3.81	376	.911	3.62	42	1.268	0.195
Q10	3.60	377	.860	1.91	43	.947	**1.698**
Q11	3.48	374	.884	2.49	39	1.048	0.994
Q12	3.61	375	.833	3.30	44	1.153	0.313
Q13	3.52	366	.846	3.26	43	1.026	0.261
Q14	3.77	375	.786	3.55	40	1.131	0.218
Q15	3.09	342	.993	2.33	42	1.141	0.757
Q16	3.33	375	.929	2.18	44	.995	**1.146**
Q17	3.78	375	.839	3.36	44	.810	0.420
Q18	3.90	368	.815	3.33	42	1.052	0.572
Q19	3.84	375	.805	3.39	44	.970	0.454
Q20	3.50	375	.961	3.44	43	1.181	0.057
Q21	3.45	372	.866	3.40	43	1.158	0.054
Q22	3.11	377	1.089	2.93	44	1.169	0.182
Q23	3.33	358	.891	3.03	38	1.000	0.306
Q24	3.59	377	.880	3.70	44	1.091	-0.118
Q25	3.51	377	.951	2.84	44	1.160	0.671
Q26	3.78	376	.926	3.42	43	1.239	0.366
Q27	3.69	375	.929	3.40	43	1.218	0.293
Q28	3.38	360	.885	3.15	33	.795	0.229
Q29	3.50	377	.917	2.59	39	1.117	0.906
Q30	3.87	376	.734	2.98	42	1.024	0.896
Q31	3.77	377	.840	2.88	42	1.064	0.886
Q32	3.34	374	.966	2.23	44	1.008	**1.112**
Q33	3.42	375	.980	3.76	42	1.055	-0.346
Q34	3.63	375	.915	3.60	43	1.050	0.030
Q35	3.64	370	.779	2.98	44	1.110	0.658
Q36	3.49	372	.879	3.55	42	.889	-0.061
Q37	3.70	373	.840	3.19	43	1.029	0.514
Q38	3.41	373	.970	2.55	40	1.061	0.858
Q39	3.71	376	.800	4.25	44	.811	-0.543
Q40	3.77	372	.769	3.32	44	.909	0.453
Q41	4.02	374	.785	2.02	44	1.151	**1.999**
Q42	3.59	363	.827	3.17	41	.863	0.422
Q43	3.81	376	.862	3.80	44	1.002	0.010
Q44	3.66	376	.880	2.86	43	1.207	0.799
Q45	3.39	372	.927	3.09	44	1.007	0.299
Q46	3.33	372	1.017	2.74	43	1.293	0.584

The single item of greatest personal interest to me was item 16, regarding open and ethical communication being practiced at the institution (Johnson, 2007; Kramer &

Swing, 2010; NILIE, 2012; Northouse, 2010). My three months in residence on the research site afforded many observational and conversational opportunities to see for myself the ethical values manifested in both student and employee actions, which I will address during the qualitative data analysis portion of this chapter. The foreign faculty ranked the ethics prompt with a mean of 2.18, just hovering at Dissatisfied, while the Chinese faculty gave it one of their lowest mean rankings, too, at 3.33 (Lin, 1999), which is unsurprising to one who has spoken with and listened to many student, faculty and administration experiences on this subject. This mean is well below Satisfied (4.00), which in Chinese culture is very telling, albeit discreetly by Western standards (Dolnicar & Grün, 2007; Hofstede, Hofstede, & Minkov, 2010). Where an American member of the foreign faculty might not feel much or any discomfort marking a 1.00 or Very Dissatisfied on a survey, many Chinese might wish to express the same disagreement or disappointment by safely checking off the Neither Satisfied nor Dissatisfied option to state their own views (Oyserman, Coon, & Kemmelmeier, 2002).

In six items only of the 46, the Chinese faculty item means were actually lower than the foreign faculty means. They were a fascinating yet not unexpected grouping of lower means. In ascending item order, item 2 was first, with mean differences of only one one-hundredth of a point, but it was about the extent to which a supervisor expresses confidence in one's work (NILIE, 2012). This does not surprise me in a culture where one is expected to do one's job and not receive praise for it, compared to the Western and very American notion of motivation through positive communication and worker feedback. Item 3 also had a lower mean for the Chinese faculty, and this item concerned the level of cooperation within the work team (NILIE, 2012). Some Chinese faculty were

not as satisfied with their team's spirit of cooperation as the foreign faculty expressed of their own respective teams. Much of this difference may also be due to cultural expectations of egalitarian communication for the mostly American foreign faculty compared to the more hierarchical and even authoritarian communication pathways I observed in some Chinese faculty and administrative settings (Birnbaum, 1988; Hofstede, 2001; Tierney, 2008). The next lower mean for Chinese faculty did not occur again until item 24, which assesses "the opportunity for all ideas to be exchanged" within the work team (NILIE, 2012). That was followed by item 33, which asked about the extent to which the "work team provides an environment for free and open expression of ideas, opinions and beliefs" (NILIE, 2012). Next came item 36, concerning the extent to which the "work team coordinates its efforts with appropriate individuals and teams" (NILIE, 2012). Finally was item 39 which had the largest reverse gap between foreign faculty and Chinese means. This item concerned "the extent to which I am given the opportunity to be creative in my work" (NILIE-PACE, 2012). Each of these elements speaks volumes about the lack of academic freedom many Chinese faculty experience and express in comparison to their foreign counterparts (Hayhoe, 1989). However, it is not uncommon in collectivist and more hierarchical cultures to expect stronger top-down authority matrices (Gibson, 1999; Hofstede, 2001; Trompenaars, 2004). But in higher education, as I explored in chapters one and two, China did for a time import Western notions of academic freedom (Hayhoe, 1996; Rudolph, 1990; Thelin, 2011), Dewey (1916), and other concepts that seem to be on the rise again as international exchanges and joint ventures in higher education soar in China along with frequency of exposure to these

once found and then lost for a time ideologies (Gittings, 1999; Hayhoe, 1996; Postiglione, 2006).

Demonstrating the language and communication gaps on campus were clear in items 10 and 41, both related to the level of communication and information shared within the institution. These means expressed the widest cultural and climate gaps on campus. The foreign faculty gave item 10 a low mean of 1.91 while the Chinese faculty scored a mean of 3.60 on the same question. Several Chinese faculty and administrators over the years have casually shared with me their experiences on other university campuses in China. Relative to those earlier experiences, the CCU campus is much more relaxed and open, but when compared to an American expectation of communication on campus, this element falls well short. The difference confirms the mealtime discussions in the dining hall. Many first year foreign teachers have an extremely positive attitude to their early experiences on campus, while the more seasoned foreign teachers tended to express greater dissatisfaction or frustration overall. Longer term foreign faculty feel isolated, unappreciated, undervalued and disrespected by the continuing communication patterns, and a formal communication system only in Mandarin on an ostensibly "East meets West" mission and vision centered campus. For item 41 the gap was greatest, with the foreign faculty scoring a mean of 2.02 against the Chinese faculty mean of 4.02, with SDs of 1.15 and 0.79 respectively, regarding the extent to which one receives "adequate information regarding important activities at this institution" (NILIE, 2012). My own three months on campus confirm this. Several wonderful cultural events, Beijing opera stars performing a centuries-old classic, a world class piano recital, and CCU opera graduate recitals, all would have been missed had not a student or a member of the

Chinese faculty informed me of their timing and location. After my relatively brief but highly frustrating exposure to this last-minute good fortune of thoughtful friends sharing what otherwise would have been missed and lost, my heart went out to foreign faculty who live with this lack of foresight and inclusion on a daily basis, some for many years now. It is affecting morale in powerful ways, this communication gap most likely based on ethnocentrism and tradition (Trompenaars, 2004). But what about first impressions and branding to outsiders? It made me think about other visitors to campus who would also be unable to read the colorful banners on a so-called "international" campus, or like me, simply did not happen to pass by one at the right time to catch it on display. In answer to research question two, then, the overall climate score from faculty, administration and staff at CCU was 3.66, or heading towards Satisfied, but not there yet. This is not unexpected in a young university with many systems and issues still being developed and evaluated (Ding, 2004; Li, 2010; Liu & Wang, 2011; Yang & Welch, 2011).

I have demonstrated through the demographic data how few educators have terminal degrees or many years of experience, so CCU is not just young in its own right. The faculty is also young and relatively inexperienced, many without a master's degree which may compound the challenges faced by the administration, some of whom do not come from academic backgrounds themselves and include members retired from the military. Sometimes wisdom and greater experience is worth paying more for, as I saw during the summer training session with the announcement of new faculty hires with terminal degrees. While this seems to have disturbed some long serving faculty who felt they had been promised opportunities for advancement and further study that had not

been honored, these new hires are one way of finding a solution short-term for raising the level of education, research, and classroom experience in some faculty members at CCU. It is not possible to solve every challenge or frustration to every stakeholder's satisfaction at one time (Birnbaum, 1988; Bolman & Gallos, 2011). That the administration had the courage to support this study and then hear what everyone has to say speaks volumes to their commitment to pursue excellence through communication (Bok, 2006; Patton, 2012). This is a strong, positive first step in that high impact direction. May it bring hope to those who are frustrated yet do their best to serve students every day.

Exploring and Analyzing Group Differences in Perception of Climate

We have answered the first two research questions by delving into descriptive statistics about each factor, and learned where the Chinese faculty and foreign faculty in particular align and differ in their perceptions of the climate and culture at CCU. This avenue of exploration was chosen because those were the two groups that could be most closely compared, having education and experiences that are the most alike despite cultural differences (Arce-Ferrer, 2006; Gregg & Banks, 1965; Ping, 2004). Almost all of the CCU administration and support staff are Chinese, and while I value their experiences and perceptions, their voices were not able to be captured as effectively through a one on one comparison as with faculty, but one analysis conducted across all groups (Tashakkori & Teddlie, 2010). Briefly, I would like to address the strongest areas of interest in participant response for CCU employees across the spectrum of faculty, administration and support staff (Ding, Liu, & Berkowitz, 2011).

Accentuate the Positive

Interpreting the item means from the PACE participants tells me a lot in a quick glance. Having five choices, five being Highly Satisfied, I did not see a single 5.0 mean on any item for any employee classification at CCU. This is natural for a young organization, still getting its bearings in terms of massive growth in a short time, many new hires, turnover, organizational development, human resources knowledge, and processes at all levels (Schein, 2010; Senge, 1990). But looking more deeply will tell us more. Going from left to right on Table 15, we begin with faculty means. The faculty only rated one item at 4.00 or higher, out of 46. What does this say overall, that every other item ranked below Satisfied? The immediate thought related to Item Response Theory (IRT) and the inclusion of the foreign faculty and Chinese faculty in one group, with their ease of choosing Dissatisfied as an option must have something to do with this tendency. I looked quickly to the other two columns to confirm my hypothesis. Yes. Item two asked participants to answer "The extent to which my supervisor expresses confidence in my work" (NILIE, 2012). This score of 4.0 indicates many faculty members have some or good individual communication with their department chair or other immediate supervisor, depending on the structure of the department. But a 4.0 simply means Satisfied, not highly so, leaving much room for improvement. Having seen the number of Chinese participant surveys marked with Satisfied and Highly Satisfied, I know this rating can be improved. The administration mean for this item was also one of their six items scoring a 4.0 or higher, and for this item the mean was 4.06. For the support staff on item two, their mean was highest, which would be expected as each person would be more likely to have a direct reporting relationship with a supervisor, and

in China, the line of command is firm, sometimes tending to authoritarian, and often immovable without prior approval (Hofstede, 2001; Trompenaars, 2004).

The administration also scored above 4.0 on five additional items: items 3, 8, 9, 30 and 41. Each of these were more personal in nature, and perhaps participants felt more in control of how these elements in their workplace could be managed. Many of the other items related to elements outside one's personal control, at least in much of China, and so lower means would reflect a participant's relative inability to take ownership of those situations and operate more autonomously, something not always welcomed or highly valued in a harmony-based (on the surface), collectivist culture (Hofstede, 2001; Trompenaars, 2004), especially by the boss. Overall, the support staff had the most optimistic means for the greatest number of items. The highest single mean of 4.12 was for item 41 which concerned receiving "adequate information regarding important activities" on campus (NILIE, 2012). This is a relatively safe item to score generously on, when you look at the other options workers have to indicate displeasure, though few did unless one considers my Wall theory. My years serving on the board of this institution and having met and conversed with many people there over fourteen years, leads me to two conclusions. The first is that in a hierarchical, top-down management structure such as exists at CCU, it would be expected that information and authority would flow from the top. Second, the optimistic nature of the scores could also indicate gratitude to have a job in a difficult global economy and a wish to reflect nicely upon the bosses above in the power chain who can make life difficult quickly (Hofstede, 2001; Lin, 1999; Perry & Selden, 2000). Dissent in China is not valued, conformity is. The presence of the foreign faculty on the CCU campus since it opened , though the majority of their interaction is

limited to Chinese students in the classroom, has generated a more open culture, though by American standards it is still limited in terms of free speech, academic freedom, and faculty shared governance (Bergquist & Pawlak, 2008; Bowen, Kurzweil, & Tobin, 2005). However, in conversations over the years with several high level administrators, they have shared the CCU campus is relatively open and relaxed, which they enjoy very much. The workers who fall into this category of staff at CCU comprise a broad range of skills and educational levels, one reason I sought demographic data about participants' level of education. I hope to understand more about these responses through factor analysis, which I will attempt to describe for all prospective readers instead of just researchers. The high means tell us where the participants felt the most content in their workplace setting, but I wish to examine what the low means in each category of worker will tell us.

Table 14 Overall Item Means by Worker Classification

	Faculty		Administration		Staff		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Q1	3.57	.862	3.80	.719	3.83	.808	3.66	.835
Q2	4.02	.819	4.06	.788	4.10	.777	4.04	.806
Q3	3.79	.885	4.00	.894	4.10	.828	3.88	.885
Q4	3.28	1.027	3.56	.861	3.73	.895	3.41	.991
Q5	3.36	.929	3.42	.821	3.60	.910	3.42	.910
Q6	3.28	1.017	3.71	.752	3.52	.968	3.41	.979
Q7	3.56	1.005	3.95	.846	3.76	.948	3.67	.979
Q8	3.96	.840	4.07	.682	4.08	.710	4.00	.791
Q9	3.81	.956	4.01	.833	4.03	.816	3.88	.915
Q10	3.47	1.002	3.68	.805	3.70	.930	3.55	.960
Q11	3.42	.930	3.59	.796	3.68	.839	3.50	.896
Q12	3.56	.877	3.61	.816	3.70	.785	3.59	.851
Q13	3.50	.865	3.51	.753	3.61	.753	3.52	.826
Q14	3.74	.849	3.99	.730	4.03	.779	3.84	.826
Q15	3.04	1.040	3.20	.841	3.17	.971	3.09	.996
Q16	3.24	.999	3.45	.832	3.50	.958	3.32	.969
Q17	3.75	.836	3.46	.839	3.63	.827	3.68	.841
Q18	3.84	.847	3.99	.741	4.05	.762	3.90	.818
Q19	3.79	.825	3.97	.576	3.96	.745	3.85	.775
Q20	3.49	.979	3.65	.854	3.68	.822	3.55	.934
Q21	3.45	.920	3.60	.733	3.60	.786	3.50	.868
Q22	3.13	1.089	3.25	.889	3.47	.965	3.21	1.040
Q23	3.31	.908	3.79	.714	3.78	.840	3.49	.891
Q24	3.61	.901	3.75	.835	3.86	.825	3.68	.881
Q25	3.44	.977	3.64	.771	3.80	.863	3.54	.933
Q26	3.77	.958	3.95	.814	3.94	.863	3.83	.919
Q27	3.69	.963	3.89	.891	3.90	.847	3.77	.935
Q28	3.36	.906	3.38	.763	3.56	.762	3.40	.858
Q29	3.41	.978	3.60	.758	3.74	.755	3.51	.912
Q30	3.79	.828	4.01	.615	3.96	.696	3.86	.776
Q31	3.70	.894	3.70	.732	3.82	.819	3.72	.854
Q32	3.25	1.050	3.45	.923	3.62	.899	3.35	1.012
Q33	3.46	1.018	3.68	.806	3.70	.908	3.54	.969
Q34	3.65	.936	3.95	.850	3.98	.851	3.76	.917
Q35	3.58	.846	3.77	.727	3.80	.807	3.65	.824
Q36	3.50	.887	3.58	.907	3.68	.915	3.55	.898
Q37	3.65	.862	3.82	.688	3.79	.821	3.71	.828
Q38	3.33	1.010	3.51	.937	3.65	.878	3.42	.981
Q39	3.75	.839	3.71	.862	3.77	.791	3.75	.834
Q40	3.72	.800	3.84	.665	3.82	.754	3.76	.770
Q41	3.84	.994	4.10	.712	4.12	.787	3.94	.921
Q42	3.56	.833	3.77	.614	3.68	.818	3.62	.799
Q43	3.78	.884	3.97	.748	3.99	.879	3.85	.864
Q44	3.57	.942	3.90	.806	3.85	.923	3.68	.926
Q45	3.35	.951	3.45	.872	3.48	.906	3.39	.929
Q46	3.25	1.059	3.39	.903	3.43	1.037	3.31	1.030

The overall mean for items 1-46 for the faculty (combined foreign and Chinese) with an $n = 524$ was 3.55. The mean for the administration ($n = 151$) was 3.72 and the mean for CCU staff ($n = 146$) was 3.77. Please see Table 14. The mean of all groups on

all items combined was 3.62, heading toward Satisfied, but not there yet. It is important to note that out of the 943 participants, only 821 are reflected in this table, as 122 people chose not to identify their work classification, most likely to protect their privacy to the extent possible (Ping, 2004; Yang, 2004). However, in several of the unclassified participant surveys, I obtained some of the most frank comments on the final two prompts which were open-ended questions about the most and least favorable aspects of the climate and culture at CCU. Thanks to the participants who felt able to share their information to make this analysis possible. For those who were not comfortable sharing this information yet, I hope the day will come when they feel confident to do so.

Quantitative Research Analysis

The descriptive statistics have been very enlightening, especially when woven into the qualitative data and artifacts my three months with the participants at CCU generated. However, I wanted to know more about how and how well the PACE instrument operated in a Chinese higher education environment (NILIE, 2012). I could not expect the instrument to measure exactly the same things with different populations, different cultures and through different languages (Ding, Liu, & Berkowitz, 2011). The Personal Assessment of the College Environment (PACE) had never been translated into Mandarin or administered in China before this study, and no university in China has published on a climate and culture study related to employees (as opposed to assessing students, where there is some extant research in English) that I could locate (Ross, Cen, & Zhou, 2011). Although some universities in China may have explored this type of measure, they have not openly reported or published anything of note that I could find. Of course, when assessment is used as a tool for internal improvement, this is an

understandable paradox (Banta & Associates, 2002; Bok, 1986; Ewell, 2009; Hayhoe, 1989; Kuh, Kinzie, Schuh, & Witt, 2005) as data would then be kept for internal use only (Banta, 1996; Ewell, 1991; Patton, 2012). This study was pioneering territory, and a chance for CCU and potentially the MOE to learn much from CCU's investment of time and candor. Not to conduct this analysis would weaken the potential power of this study and its findings. I would also like to take a moment to thank the researchers at NILIE at North Carolina State University for graciously permitting me to administer the PACE, in Mandarin and English in a bilingual format, in China (NILIE, 2012). Their professional generosity is an example of how a body of knowledge can grow from scholars working together around the world. Collaboration is personally and professionally rewarding, cost effective and the fastest way to solutions and new knowledge.

Survey studies show a remarkable depth of knowledge that can be gleaned from factor or item extraction, retaining only those variables or survey items that reliably contribute to what is being measured (Ding, Liu, & Berkowitz, 2011; Field, 2009). Some items may turn out to be unnecessary or not measure in China what they measure with American or other participants, and, therefore, a more parsimonious or pared down model can be constructed based on Structural Equation Modeling (SEM), which consists of many options such as Principal Component Analysis (PCA), similar in many ways to Exploratory Factor Analysis or EFA (Kim & Mueller, 1978; Tabachnik & Fidell, 2007). That was my first step to understand how the CCU participant responses might most efficiently group together to show me more about their perceptions about the climate and culture unique to their institution.

Once a model is isolated through EFA, it is extracted and rotated so some group or groups of factors (things the survey purports to measure) cluster together in what many researchers call loadings, eliminating the value or values with lower loadings or no probable relationship to any other factors. These groupings might tell me more about what my participants were thinking, how they may perceive certain elements or issues in their environment as highly related or not at all related. And participant classification groups such as faculty, staff or administration (or by nationality, gender, years of experience, and years at CCU) might each perceive the campus and their experiences differently, as we saw briefly when exploring the means and standard deviations on the Chinese and foreign faculty responses item by item. Expert scholars and researchers keep up with what is going on in their profession, in their specialty, but they must also keep learning more about quantitative and qualitative analysis, strengthening the validity and reliability in their own research findings by making wise choices in how to conduct studies and evaluate and report findings (Field, 2009; Matsunaga, 2010). So, I learned it is not good enough, to stop here with only a preliminary model of parsimony extracted. The EFA needs to be confirmed, double-checked, often by having split the data set in half, which is called split-half reliability (Field, 2009; Tabachnick & Fidell, 2007). In the case of factor analysis, the first half of the data are used for the EFA and the other half are run later for a CFA, but I wanted to use as large and robust a data set as possible for this study. I then chose to use my casewise deletion list for the EFA and the Parallel Analysis (PA), which was 678 surveys out of the original 943 received, so only those 678 surveys that were completed in all 46 items of the Likert prompts were included for factor analysis. To be able to use my larger data set without splitting it, I read about

multiple ways to conduct factor analyses and learned more about Parallel Analysis when I kept seeing articles and books referring to the Monte Carlo method (Agresti, 2010; Field, 2009; Henson & Roberts, 2006; Kline, 2011). So, in the case of this study, I chose the most statistically powerful method of confirming the validity of the model I generated in EFA, and in this study I chose to utilize PA. The statistical software package I used was SPSS version 20. One thing I learned later was that I did not have to download coding to run the PA in SPSS after all, because a new function called bootstrapping is already embedded in the software. However, for purposes of replication I will share that I downloaded the PA coding from O'Connor (2000) embedded at http://flash.lakeheadu.ca/~boconno2/nfactors.html.

Why PCA & Exploratory Factor Analysis

Earlier I mentioned the need to understand how the Mandarin version of the PACE (NILIE, 2012) instrument might reveal latent variables that differed from those identified via American studies. I wanted to focus on how the data in this study were speaking for participants in their own right, and not in comparison to American studies and findings using the same instrument (Cheng & Yuen, 2012; Li & Hui, 2008). This is what led me to the overarching question underlying the construct validity of this study: what are the latent variables that emerged from the Chinese administration of the PACE (Tiu, 2001), and which items tended to load or group together (Cheng & Yuen, 2012; Costello & Osborne, 2005; Gregg & Banks, 1965)? These questions were a good fit to conduct Principal Component Analysis (PCA) and Exploratory Factor Analysis (EFA) to further understand what the employees at CCU wanted to say (Field, 2009; Matsunaga, 2010; Widaman, 1993). The differences between the two nearly identical processes are

the assumptions behind each (Cheung & Chan, 2004; Tabachnick & Fidell, 2007). PCA assumes no underlying causal model when analyzing the number of variables to construct a more efficient model. EFA is best used when there are assumptions around variables that links will form groupings of items into what are called unseen or latent variables (Field, 2009; Langford, 2009; Tabachnik & Fidell, 2007). These groupings or loadings of factors are given a name by the researcher, which can be a delicate area if thinking is too broad or too narrow in scope. When I explore trends in qualitative data, we will better understand these quantitative data in light of how participant comments reflect priorities through personal experiences, and when combined, how these quantitative and qualitative data may shed more light on why certain groups or individuals within groups chose to answer the way they did on certain items. All of these interwoven threads help me better understand and describe the overall climate and culture at Central China University (Merriam, 2009; Smith, 2009). But it is time to explore the third and fourth questions of the study, how participant responses vary by worker classification and then look at these trends as they relate to the various demographic data where participants chose to share it.

PCA, EFA & Emerging Factors

The many iterations and administrations of the PACE instrument over the years indicate strong links between many of the items (NILIE, 2012), and my target population was also in higher education, albeit from another country, language and culture. The similarities between American PACE participants and sites and the site for this study were why EFA was my chosen path to a more parsimonious model to identify a model revealed by the CCU participants with the PACE (Henson & Roberts, 2006; NILIE, 2012). Because of this demonstrated relationship between items, I felt comfortable using

an oblique rotation instead of an orthogonal rotation which would assume no relationships between variables (Field, 2009; Kline, 2011; Matsunaga, 2010; Tabachnick & Fidell, 2007). "In PCA, multicollinearity is not a problem because there is no need to invert a matrix" (Tabachnick & Fidell, 2007, p. 614).

Sample Size and Missing Data

Missing data were not a problem because I ran only listwise cases that had complete data sets for inclusion in this PCA. All missing data in this study were designated MAR or missing at random. Comrey and Lee (1992) as cited in Tabachnick and Fidell (2007) recommend 500 cases as very good, and 1,000 cases as excellent for a sample size for factor analysis. In this study, 943 total surveys were collected and $n = 872$ used for the quantitative portion of this study. There is an adequate or very good (Comrey & Lee, 1992; Field, 2009) sample size for this factor analysis.

Normality

In this study, PCA and factor analysis were used to generate descriptive summaries of the relationships between the items on the PACE survey. The sample size being as large as it is ($n = 872$) suggests the assumption of normality, but random cases were examined for univariate and multivariate outliers, and all were examined through communality estimates (Tabachnick & Fidell, 2007) and there were none identified. Only 47 of 943 surveys were self-identified as from "Non-Chinese" nationals, or slightly fewer than 5% of the total responses.

Initial Findings

The principal component analysis (PCA) was run on SPSS version 20 with the 46 Likert items from the Personal Assessment of the College Environment (PACE)

instrument (NILIE, 2012) using oblique rotation (oblimin). To verify the sampling adequacy of the CCU data, I used the Kaiser-Meyer-Olkin (KMO) Normalization statistic which generated a KMO = 0.98, classified as "Superb" by Andy Field (2009, p. 671), and indicates the strong representativeness of the sample used in this study. I examined the KMO values for each item, found in the extraction column of the communalities table generated in SPSS, and the cumulative average for all 46 items was 0.63. However, item 17, concerning faculty meeting the needs of students (NILIE, 2012), had a low KMO = 0.473. This was the only item with a value below 0.5. The rest of the items ranged from a KMO of 0.52 to a high of 0.78, all above the recognized acceptable limit of 0.5 (Field, 2009; Matsunaga, 2010). Cronbach's alpha on all 46 items combined was 0.98 and when each of the 46 items were examined, the alpha coefficient for the model never dropped below 0.976 when any single item was removed. Bartlett's test of sphericity generated χ^2 (1035) = 24013.82 with a $p < .001$ which indicated a correlation between the 46 items that was strong enough for conducting an exploratory factor analysis.

Exploratory Factor Analysis (EFA)

The EFA generated a total of five latent factors with eigenvalues (EVs) above the Kaiser criterion of 1.0 (Field, 2009). There is some debate about acceptable limits dropping to 0.7 such as in Jolliffe's criterion (Field, 2009), but 63 percent of the cumulative variance in the generated unrotated model was explained by the first five latent factors identified in SPSS, displayed in Table 16. Each factor is displayed by SPSS output in a "matrix of regression-like weights" (Tabachnick & Fidell, 2007, p. 616) that "loads" or clusters that grouping of items into a latent variable and calculates its relative variance in that variable. Two additional factors had EVs greater than 0.9, bringing the

accounted for variance in the model up to 67 percent, but I did not consider including them, so I could focus on the strongest latent factors in the data. I have left this data along with the first twelve components identified by the EFA for your review in Table 15. The scree plot (Figure 8) indicated the sharp drop off after the first component, and the points of inflexion on the second to the third component or factor was much more subtle, as were the differences between the third, fourth and fifth components, at which the line heads into the scree or "garbage zone" with a nearly straight line between the remaining factors not used in the new model.

Table 15 EFA Using PCA

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	22.904	49.792	49.792	22.904	49.792	49.792	17.971
2	2.275	4.946	54.738	2.275	4.946	54.738	15.769
3	1.436	3.121	57.858	1.436	3.121	57.858	15.469
4	1.335	2.903	60.761	1.335	2.903	60.761	8.054
5	1.037	2.255	63.016	1.037	2.255	63.016	2.820
6	.933	2.027	65.043				
7	.908	1.974	67.017				
8	.822	1.788	68.805				
9	.752	1.634	70.439				
10	.704	1.530	71.969				
11	.669	1.453	73.422				
12	.625	1.360	74.782				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

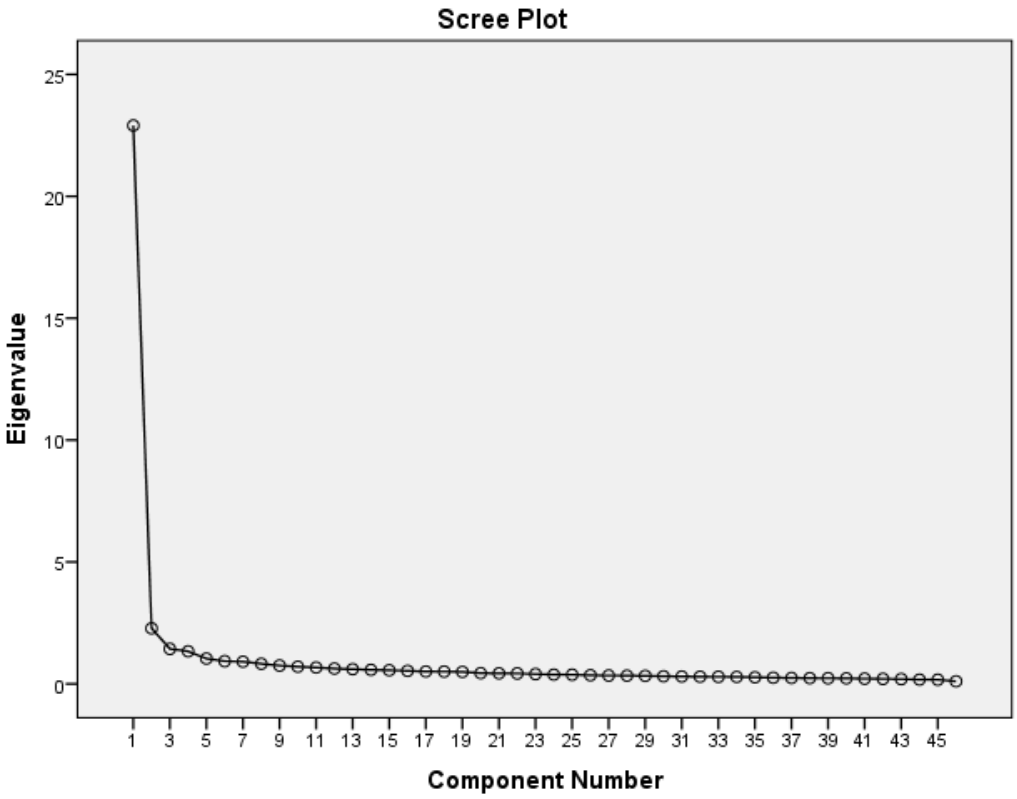


Figure 8 Scree Plot of EFA

Rotation and Emergent Latent Variables

The PACE instrument is well normed in the United States, and the items have known and expected correlations. For this reason, I felt it most prudent to select an oblique rotation to extract and examine the strongest EV variables into factor groupings or loadings (Field, 2009; Kline, 2011; Tabachnick & Fidell, 2007). This step allows for the non-included variables and survey items to fall away, leaving only the elements on which I wished to focus. The extracted and rotated items that loaded or grouped together into components or groups clustered by some latent variable as yet unidentified can be found in Table 16.

Naming the Latent Variables

This is one aspect of the study I enjoyed immensely, linking both quantitative and qualitative elements of my research knowledge in order to more fully understand what was happening on the CCU campus (Merriam, 2009). Having personally labeled every incoming survey with a random number to track it in the data set, scanning hundreds of the surveys into pdf files for data retention and future study, I began to notice patterns on my own (Creswell & Plano Clark, 2011; Tashakkori & Teddlie, 2010). I mentioned two of them when I talked about the Wall and the Frank but No Rank response patterns. I also read every comment either while typing it in English into my Excel spreadsheet, or adding it in later when the translation team sent them back to me in English. Clear priorities emerged even informally reading each document over time (Miles & Huberman, 1994). I went back to the PACE instrument (NILIE, 2012) and carefully added the prompts next to each item in the rotated pattern matrix, and thought about why certain items had grouped together the way they did. How were the CCU participants viewing their campus climate and culture? What priorities were being expressed by these links between items? For fun, I also ran an EFA on just the responses from the Chinese faculty (377 self-identified in all), my largest sub-group in the data set, and did a listwise run with $n = 277$ to see if any different factors might emerge, fully aware that this was a smaller data set than recommended for conducting factor analysis (Field, 2009; Tabachnick & Fidell, 2007). The strongest component there was not the same one in the overall employee EFA data. But I will share what I found about the Chinese faculty pattern matrix in a moment. First I want to share the overall pattern matrix for all CCU participants whose surveys were included in the listwise data.

The first of the five components (Table 16) or latent variables identified in my factor analysis was comprised of 16 items on the PACE survey and represents institutional and organizational effectiveness with an alpha coefficient of 0.95. The second of the five strongest components represents a clustering or loading of ten items from the PACE survey, and represents individual workplace communication and cooperation, and had an alpha coefficient of 0.93. The third component or latent factor emerged from a grouping of eleven items on the PACE instrument, which represents serving students and mission centric themes. It had an alpha coefficient of 0.92. The fourth component, which had all negative loadings, was comprised of three items for a combined alpha = 0.82, and represents shared governance and professional development. The fifth and last component I have selected to study, with the weakest of the EVs but still above 1.0, contained only two items from the PACE survey, but they were crucial to understanding the culture and climate and have therefore been left in this analysis. The final latent factor represents information flow and access, and it had a more modest Cronbach's alpha = 0.73. One item, item number ten concerning "the extent to which information is shared within this institution" (NILIE, 2012), loaded onto two components, the first and the fifth. It was the only cross-loading item on my pattern matrix. It also tells me how much of a concern employees have with the flow of information or access to it on campus. Overall, the main message from participants is elements of organizational effectiveness need to be addressed first, closely followed by workplace communication patterns. The fact that student focus was buried in the middle of the findings demonstrates deeper organizational concerns need to be addressed first, according to the attention given these points by participants.

Table 16 Rotated Pattern Matrix

	Question Text (NILIE, 2012)	Component				
		1	2	3	4	5
Q4	decisions are made at the appropriate level at this institution	.736				
Q11	institutional teams use problem-solving techniques	.694				
Q5	the institution effectively promotes diversity in the workplace	.663				
Q6	administrative leadership is focused on meeting the needs of students	.661				
Q22	this institution has been successful in positively motivating my performance	.644				
Q1	the actions of this institution reflect its mission	.614				
Q10	information is shared within this institution	.604				.419
Q32	this institution is appropriately organized	.569				
Q12	positive work expectations are communicated to me	.565				
Q28	classified personnel meet the needs of the students	.541				
Q13	unacceptable behaviors are identified and communicated to me	.535				
Q16	open and ethical communication is practiced at this institution	.487				
Q23	non-teaching professional staff meet the needs of the students	.474				
Q25	a spirit of cooperation exists at this institution	.473				
Q29	institution-wide policies guide my work	.472				
Q15	I am able to appropriately influence the direction of this institution	.462				
Q20	I receive timely feedback for my work					
Q21	I receive appropriate feedback for my work					
Q9	my supervisor is open to the ideas, opinions, and beliefs of everyone		.865			
Q26	my supervisor actively seeks my ideas		.856			
Q27	my supervisor seriously considers my ideas		.847			
Q34	my supervisor helps me to improve my work		.741			
Q2	my supervisor expresses confidence in my work		.735			
Q43	a spirit of cooperation exists in my department		.671			
Q3	there is a spirit of cooperation within my work team		.652			
Q33	my work team provides an environment for free and open expression of ideas, opinions, and beliefs		.600			
Q14	my primary work team uses problem-solving techniques		.566			
Q24	there is an opportunity for all ideas to be exchanged within my work team		.479			
Q44	my work is guided by clearly defined administrative processes					
Q19	students' competencies are enhanced			.722		
Q18	student ethnic and cultural diversity are important at this institution			.652		
Q31	students receive an excellent education at this institution			.643		
Q37	this institution prepares students for further learning			.629		
Q30	work outcomes are clarified for me			.567		
Q8	I feel my job is relevant to this institution's mission			.545		
Q17	faculty meet the needs of the students			.544		
Q35	this institution prepares students for a career			.536		
Q40	students are assisted with their personal development			.535		
Q42	students are satisfied with their educational experience at this institution			.502		
Q39	I am given the opportunity to be creative in my work			.479		
Q7	student needs are central to what we do					
Q46	professional development and training opportunities are available				-.612	
Q38	I have the opportunity for advancement within this institution				-.571	
Q45	I have the opportunity to express my ideas in appropriate forums				-.490	
Q36	my work team coordinates its efforts with appropriate individuals and teams					
Q41	I receive adequate information regarding important activities at this institution					.661

Structure and Pattern Matrices

In using a reliable, well-normed instrument such as the PACE (NILIE, 2012), there is already an assumption in this climate instrument that items and underlying or latent variables are assumed to be somehow related or correlated to each other. This is why I chose to use an oblique rotation formula instead of an orthogonal one, which would assume no correlations of any kind between variables. However, using oblique rotation also requires I share my correlation coefficients between each variable and factor, and you can find these in Table 17 which is the factor structure matrix. The rotated factor pattern matrix shows the regression coefficients for each variable on each factor, and these may be found in Table 16, grouped by component.

Table 17 Factor Structure Matrix showing correlation coefficients between each variable and each factor in the EFA

	Component				
	1	2	3	4	5
Q4	.809	.573	.495		
Q11	.799	.545	.503	-.418	
Q22	.776	.524	.504	-.528	
Q25	.774	.612	.650	-.498	
Q32	.773	.497	.631	-.481	
Q5	.760	.498	.534		
Q28	.755	.516	.623	-.457	
Q12	.747	.625	.498		
Q6	.733	.473	.527		
Q29	.732	.496	.667	-.454	
Q16	.723	.562	.568	-.463	
Q1	.722	.489	.558		
Q13	.702	.589	.457		
Q10	.692	.464	.416		.531
Q21	.692	.663	.571	-.421	
Q23	.688	.564	.526		
Q20	.683	.568	.620	-.429	
Q15	.652	.440	.548	-.438	
Q26	.572	.878	.427		
Q27	.545	.853			
Q9	.514	.839			
Q34	.504	.794	.453	-.429	
Q43	.448	.755	.545	-.425	
Q3	.543	.742	.437		
Q2	.417	.739	.479		
Q14	.568	.738	.567		
Q33	.550	.734	.463	-.468	
Q24	.626	.715	.561	-.435	
Q44	.568	.602	.570	-.492	.401
Q36	.578	.598	.579	-.557	
Q31	.643	.503	.812		
Q19	.544	.426	.785		
Q37	.566	.469	.778	-.505	
Q35	.546	.498	.727	-.523	
Q18	.512	.409	.725		
Q40	.529	.475	.720	-.553	
Q42	.585	.460	.716	-.552	
Q30	.456	.568	.701		.407
Q8	.531	.543	.677		
Q39	.473	.585	.675	-.566	
Q17	.522	.412	.652		
Q7	.609	.506	.613		
Q46	.582	.449	.440	-.761	
Q38	.522		.430	-.706	
Q45	.592	.551	.513	-.676	
Q41	.475		.480		.751

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Voices Speaking through Numbers

When I ran an experimental EFA on the Chinese faculty only, the component pattern that emerged from their survey data was different from the overall pattern matrix generated by all participants, though fewer than 5% of these had self-identified as "Non-Chinese" nationals. Of five components that also emerged, most were similarly loaded with the same items as the model generated by the overall campus findings. What was strikingly different was the first component generated by Chinese faculty data. One might expect a high or higher number of items loading onto the strongest component in the model, but this was not the case. The voice of the Chinese faculty will be heard through their first component, represented by only three items (Q38, Q46 and Q41) from the PACE survey (NILIE, 2012). This speaks to the power of this element and its singular importance to the Chinese faculty. The latent variable represents frustration over the lack of input and the lack of opportunities for advancement, further study and training at CCU. Hundreds of participants took time to share that this is one of the biggest weaknesses of campus climate, an aspect identified by CCU employees overall, not just some members of the faculty. But the Chinese faculty sees it as their largest concern and top priority, and in choosing to run an EFA out of curiosity, I saw it, too. This interpretation is based on many years of observation, interaction and relationships on the CCU campus. The Chinese faculty at CCU cares about academic freedom expressed through access to information, and opportunities for input, professional development and advancement. Such is the power of using factor analysis in survey research with a mixed methods approach (Creswell & Plano Clark, 2011; Teddlie & Tashakkori, 2009). It allows researchers to delve beneath the means and standard deviations item by item and

understand the deeper context of the data, better able to visualize how people perceive their environment and their priorities. The rotated pattern matrix for the Chinese faculty EFA is in the appendices.

Parallel Analysis (PA) & Confirming Findings

Replication of results is a good way to check initial findings, and conducting an EFA is no exception. Some researchers criticize EFA for its "inherent subjectivity" (Henson & Roberts, 2006, p. 396; Tabachnick & Fidell, 2007), but I find it suits my mixed method approach well, especially because I am so longitudinally familiar with the research site and some of the participants. The subjectivity lies in labeling the latent factors of the components that emerge from the extraction and rotation processes. There are various methods to check results from an EFA, but the literature strongly supports the use of parallel analysis or PA (Field, 2009; (Henson & Roberts, 2006; Horn, 1965; Matsunaka, 2010; O'Connor, 2000; Tabachnick & Fidell, 2007; Zwick & Velicer, 1986), and this is what I chose to use to confirm my EFA findings.

Table 18 Parallel Analysis Matrix from rawpar.sps

```
Run MATRIX procedure:

PARALLEL ANALYSIS:

Principal Components & Random Normal Data Generation

Specifications for this Run:
Ncases    678
Nvars      46
Ndatsets  125
Percent    95

Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

        Root       Raw Data       Means      Prcntyle
     1.000000    22.904195     1.531304     1.577899
     2.000000     2.275188     1.479062     1.516413
     3.000000     1.435526     1.441757     1.480843
     4.000000     1.335184     1.402448     1.430635
     5.000000     1.037226     1.371019     1.398790
     6.000000      .932514     1.344779     1.374963
     7.000000      .908178     1.319196     1.340581
     8.000000      .822318     1.292298     1.313910
     9.000000      .751527     1.268587     1.295492
    10.000000      .703861     1.244961     1.268000
    11.000000      .668564     1.220879     1.240535
    12.000000      .625374     1.199151     1.217551

------ END MATRIX -----
```

Numerous studies, text books and articles had a reference to Monte Carlo studies, which I learned was a term applied to computer generated simulation studies (Agresti, 2010; Field, 2009; Kline, 2011). Another term I learned was “bootstrapping” (Kline, 2011; Tabachnick & Fidell, 2007), and it was later, after I conducted my confirmatory factor analysis through PA software (Field, 2009; O’Connor, 2000) that I learned the newest iteration of SPSS contained a bootstrapping program. But what is parallel analysis? It is taking the original data set that was used for the EFA, and loading it into the program for PA (O’Connor, 2000). Upon designating the number of cases you are loading in, the number of variables, the number of randomly generated data sets you wish

to run against your own original data set, you set the alpha (in my case to 0.05), and run the program.. A parallel analysis matrix listing root, raw eigenvalues (EVs), means and percentiles of random data EVs will show up on screen. The EVs from my parallel analysis (125 sets of randomly generated parallel data were run) were nearly exactly the same as those generated by my original data set, confirming the reliability of findings from the EFA. Readers can examine the original settings and results printed out from the PA in Table 18 (O'Connor, 2000). This part of my study was only possible because of researchers and scholars generously sharing their findings and creations, risking criticism, controversy, and censure, but also generating discussion and advancing knowledge. I thank Brian O'Connor (2000) for setting such a fine example for other future graduate students, scholars and researchers.

Reliability Analysis of the Most Parsimonious Model

I have identified five latent factors or variables in the massive survey data set from the participants at CCU. I have confirmed my findings through parallel analysis (PA). To make this study as powerful as possible, I also wanted to know how reliable the factors were the EFA generated and the PA confirmed. For this step, I went back to SPSS and conducted a reliability analysis of all five latent factors in my extracted and rotated model, again which are found in Table 17, this time with all the item prompts included so readers can review the themes that emerged in the form of components based on the first Chinese administration of the PACE (NILIE, 2012). Each of the variables of the five components listed on the table, item by item, I loaded into the item window of the reliability function in SPSS, which I left set on the default, alpha. This is because I wanted to ascertain the alpha coefficient or Cronbach's alpha for each of the five

components broken out in Table 17. I named each factor as I entered the data, to keep my research well documented, duplicable, and organized. Because my sample size was large, there was no need to run ANOVAs or ask for inter-item correlations or covariances (Field, 2009), because I had generated these data already during the factor analysis procedures. I did, however, want to know the Cronbach's alpha if the latent factor were deleted, and so selected this option to report the new scale if the item were deleted. I also checked particularly for item by item alpha values greater than the overall alpha for that factor, which would indicate a need to delete that item to strengthen the overall reliability of the factor and the model (Field, 2009). I found none. I feel confident that my reliability analysis confirmed a strong five factor model of latent variables that explain 63 percent of the total variance in the data from the employees at Central China University.

Discussions of Each Factor

When I ran the reliability analysis, the first component, which represents institutional and organizational effectiveness, generated an alpha coefficient of 0.95. The items loading onto this factor had alpha ranges if deleted from the survey of 0.943-0.947. Participants had a lot to say about how things are being run at CCU, from the overall efficiency and functioning of institutional processes and practices down to operations at the departmental level. The second component, which I felt identified as a more internal, personal view for participants, represents individual workplace communication and cooperation, had an overall alpha coefficient of 0.93. The "item if deleted" range for the items loading on this factor had alpha coefficients was from 0.915 to 0.924. The third component or latent factor, which represents serving students and mission centric themes, had an alpha coefficient of 0.92. The item if deleted alpha ranges were from 0.902 to

0.914. This to me was a fascinating loading pattern, because the student focus elements were closely aligned here, but also how people felt their own work tied to the mission of the institution. This told me many participants view their work as intrinsic to serving students, a good discovery at a university, especially a young one such as CCU. The fourth component, which had all negative loadings, represents shared governance and professional development. This latent factor indicated participants had strong feelings about this theme. It was comprised of three items, which is a small but powerful grouping, for a combined alpha = 0.82, and represents shared governance and professional development. The alpha dropped to an all-time low of 0.682 to 0.801 for any one of these items being deleted. Of course, this lowest alpha of all was worth investigating and considering (Shawn, Green & Mark, 2006). Why would the reliability of this factor drop so much for the loss of one question? What topic would have that much power? The focus for this lowest alpha was item 46, which asked participants "the extent to which professional development and training opportunities are available" (NILIE, 2012). This single item had the strongest impact on the reliability of the model, and to me speaks of the seriousness and timeliness with which the administration at CCU must act to support continuing education and training opportunities for all CCU employees. The fifth and last component I selected to study, with the weakest of the EVs but still above 1.0, contained only two items from the PACE survey (NILIE, 2012), but they were crucial to understanding the culture and climate and therefore remain in this analysis (Creswell & Plano Clark, 2011; Miles & Huberman, 1994). The final latent factor represents information flow and access, and it had a more modest Cronbach's alpha = 0.73. One item, item number ten concerning "the extent to which information is

shared within this institution" (NILIE, 2012), loaded onto two components, the first and the fifth. It was the only cross-loading item on my pattern matrix. But that told me access to information is a big deal on the CCU campus, and is an area requiring immediate attention.

Table 19 Reliability Analysis: Cronbach's Alpha

Latent Variable	Alpha
Institutional & Organizational Effectiveness	.948
Individual Workplace Communication & Cooperation	.928
Serving Students/Mission-centric	.916
Shared Governance & Professional Development	.824
Information Flow & Access	.732

We have looked at what the quantitative data are saying for the people at CCU who took the time to fill in and return a survey. Many people did not take time, were not allowed time, or perhaps did not feel comfortable writing down comments in front of others, and so their story stops here with the quantitative data (personal communications from various participants, June 2012). But for those employees who had something to say, whether positive or negative, about their experiences at CCU, I will explore what was said, how often, and how it may help further reveal the people's voices, ideas, and experiences at Central China University. Where possible, I will share the demographic data as they tie to the latent factors and axial coding of comments (Miles & Huberman, 1994) in a cross-cultural context (Hofstede, 2001; Tierney, 2008; Trompenaars, 2004). I will also tie in artifacts with the relevant themes that emerged from the latent factors as well as the coded comments to triangulate findings where possible (Creswell & Plano Clark, 2011; Emerson, Fretz, & Shaw, 1995; Merriam, 2009; Miles & Huberman, 1994).

Revisiting the Research Questions

This study was designed to answer simple questions about the status of institutional climate at a university where climate had never been assessed before. I purposely kept my research questions as open as possible, so the unfolding data were driving the process as much as the questions being asked. I have taken a constructivist approach to the study, connecting findings through a mixed method data analysis approach (Creswell & Plano Clark, 2011; Tashakkori & Teddlie, 2010). This portion of the chapter focuses on the third, fourth, and fifth questions in my study:

3. To what extent are there differences in perception of CCU's institutional climate among employees in each of the different roles (faculty, staff, administration)?
4. To what extent are there differences in perception of CCU's institutional climate among the various demographic classifications (division, gender, years of experience, nationality)?
5. Are there artifacts to support a culture of assessment in terms of policies and practices? (mission statement, department policy, course syllabi; top-down leadership awareness and action, etc.)

To answer these questions, I explored the means of items as well as latent factors for each worker classification group, as well as by other demographic data such as gender, nationality, years of experience in one's profession, and years at CCU. I focus on what I call contrastive highlights of the most interesting findings, and where possible, interweave relevant comments and artifacts supporting or refuting findings to further enrich my understanding of the workers, their perceptions and their experiences of the climate and culture at Central China University. For those readers interested in more

detailed findings, I have listed all the mean and SD findings by demographic classification and latent factor in the appendices for your convenience. Keep in mind that a score of 1.0 = Highly Dissatisfied, 2.0 = Dissatisfied, 3.0 = Neither Satisfied nor Dissatisfied, 4.0 = Satisfied, and 5.0 = Highly Satisfied, and keep my Chinese Wall theory in mind, too, as you review the numbers (Detert, Schroeder, & Mauriel, 2000; Dolnicar & Grüb, 2007; Hofstede, 2001; Schein, 2010;).

Mixed Method Data Mining

In my fourteen years of experiences there since the first year of its existence, Central China University has a tradition of hiring from within, beginning with undergraduate students who served the founder as part of an elite management internship opportunity to help cover tuition and housing costs. Many of these highly loyal and very accomplished students eventually graduated and continued on at CCU as class masters or were hired into entry level administrative roles. Of these student assistants, a select few earned an opportunity to attend graduate school in the United States, some only after being pressured or even coerced to sign a contract promising to return and serve up to seven years at CCU (personal confidential communications, 2008-2012). The number of years signed away, something that feels too much like indentured servitude to an American researcher, I was informed by confidential informants, has been reduced to three to five years in some more recently negotiated contracts. One informant came to me in tears this summer, saying he had been told the administration could withhold his visa if he refused to sign. The fact this practice was shared with me by ten different people indicates the potential for a changing culture at CCU, perhaps reflecting regional or national changes in China (Postiglione, 2006; Hayhoe, 1989; Lin, 1993, 1999). I felt

obligated to paint the most detailed picture possible of the research site and its participants, and these anecdotes help achieve this end. I weave others in where they will help paint a richer picture of the climate and culture at Central China University.

Speaking up When It is not Easy

Searching for a back door person of influence to help solve problems is an indirect cultural approach to discord in harmony-based societies like China (Hofstede, 1980; Trompenaars, 2004). My longtime role as a volunteer in board leadership at CCU has brought many people to my door or into my Inbox and into my heart over the years. Some people slide unsigned notes under my door, or walk up to me on campus, quietly hand me a message while looking into my eyes and then walk away silently. Others come to my room to speak, often wringing hands or occasionally shedding tears while colleagues stand silently with them, nodding their support and encouragement. Determined, of ten courageous people are willing to step out of their cultural comfort zone to share their truths and hope their uncomfortable transparency may pave the way for dialogue, for shared voices and governance (Bandura, 1986, 1990. 1997; Schein, 2010), which you will also see demonstrated in the data. These are the types of sometimes sensitive anecdotes I chose to share, where multiple discussions with more than one informant occurred on an issue which added strong credibility and validity to their inclusion here (Emerson, Fretz, & Shaw, 1995; Merriam, 2009; Onwuegbuzie & Collins, 2007).

Professional Ethics and the Power of Respectful Disagreement

Out of respect for participant confidentiality, all identities are protected. It is hoped everyone reading this dissertation will respect the value of truth as perceived by

others, even when it may be uncomfortable. Growth or change is often uncomfortable—just ask any adolescent, which CCU is in terms of its age and system development (Birnbaum, 1988; Bok, 2006; Schein, 2010). Nothing can change in this world if humans continue to do the same things the same ways they have always done them (Argyris, 1992; Astin, 1991; Bandura, 1997). I share these relevant confidential participant experiences as an example of data not formally captured in this survey instrument, but as a transparent example of the topics and artifacts that emerged this summer as a result of administering the PACE on the CCU campus (NILIE, 2012) and remaining in residence for three months on site (Detert, Schroeder, & Mauriel, 2000). Dozens of people approached me after returning their surveys, explaining they had more to say they did not feel free to write down. I listened and wrote down these conversations as soon as possible and have consulted the fieldnotes as I explore and discuss the comments included in the surveys (Emerson, Fretz, & Shaw, 1995; Merriam, 2009). Other less controversial issues will emerge in this portion of my discussion of results, but this communicative style and activity points to much going on beneath the harmonious surface, sources of discontent people still do not feel free to discuss without social or workplace consequences (Li & Zhang, 2003; Lin, 1999). I wish this research, this researcher, and this setting to be as transparent as possible, so readers will keep in mind all that is not said (Bolman & Deal, 2008; Hofstede, 2001; Johnson, 2007). Much of my deeper interpretation of PACE (NILIE, 2012) findings comes from longtime exposure to the setting and its wonderful, complex people as I read their comments and revisited their means on items.

Quantitative Data Informing Qualitative Findings

The majority of participants in this study are Chinese, and chose to use Mandarin to share their views on the PACE (NILIE, 2012). I worked with nine qualified translators to receive pdf files of scanned comment pages for translation, each survey logged in with a unique random number assigned to track it and keep it linked to all demographic data from that participant. The files for translation were distributed to the translators electronically. The translators could open the files, read the original handwriting of the writer, and then type an English translation into a Word document bearing the same file number which was then returned to me to be added to the Excel database of comments. Additional random checks of survey content by comment translation were performed by my data entry assistants, both native speakers of Mandarin. This process took seven weeks to track and manage, one of the reasons I opted to remain on site at CCU. The other reason for remaining on site was to obtain any artifacts that might support or refute emergent findings related to themes I was noting in the comments (Merriam, 2009).

In order to put the 848 total comments shared by hundreds of participants, some answering one question, and others answering both, into some kind of order, I turned to the literature on qualitative and mixed methods research and began by coding the comments by main idea, one at a time (Miles & Huberman, 1994). After coding a few dozen comments a priori, within a few pages several recurring themes emerged (Fowler, 2009; Groves et al., 2009). In several texts and studies on survey data analysis I had read that with a sample size as large as mine it was not necessary to code beyond the first few dozen items, utilizing the principles of random sampling because in vivo codes would emerge that quickly by sheer chance (Fowler, 2009). Honoring the commitment I have

made with myself to assure every voice is heard in this study, I decided to keep my codes as individualized as possible, so every type of comment found its voice in these pages. Additionally, to further explore the data, I then assigned each comment into one of the five latent factor groups where possible, looking for links between the quantitative and qualitative data sets (Smith, 2010). I entered these two sets of codes, thematic by item and also by latent variable group by item, into Excel. I imported the Excel file into SPSS (Onwuegbuzie & Teddlie, 2003) and generated frequencies for comment themes by CCU demographic group and latent variable group, and combined that data with the means for the various demographic groups on the PACE (NILIE, 2012) latent factors that emerged in this study (Sandelowski, Voils, & Knafl, 2009). Tables 23 and 24 are lists of the codes I assigned to every comment, though not every comment fit into a latent variable category. As an example, one frequently made positive comment (n = 48) was that CCU has a beautiful campus. Rather than force such a comment under a variable that it doesn't fit, I created tables to include all comment codes and their relative frequencies, whether or not I address them more fully within these pages. I will however explain in as much detail as possible and share actual participant comments relating to the most frequently cited comment themes, but Tables 23 and 24 are displayed so you can see for yourself the frequencies of each comment. Table 23 refers to the open-ended question in the PACE asking participants to elaborate on any aspects of institutional climate they found "least favorable" (NILIE, 2012) which I refer to as Q47. Table 24 has the codes and frequencies of comments from participants asked to elaborate on any aspects of their institutional climate they found "most favorable" (NILIE, 2012) which I refer to as Q48. Thus,

examining all these combinations of "quantitized" data (Sandelowski, 2003, p. 327) I present the highlights of my findings.

Taking the Overall Systems Perspective

Michael Quinn Patton (2012), in his latest book *Essentials of Utilization-Focused Evaluation*, has a list of bulleted questions that closely match the purpose of this formative assessment study at Central China University (CCU):

- What are the program's strengths and weaknesses? What works and what does not work?
- What implementation processes need to be improved, if any?
- How are participants reacting to the program? What do they like and dislike? What do they find valuable? What do they resist? What factors seem to be affecting program completion?
- How do different subgroups in the program respond; that is, what works for whom in what ways and under what conditions?
- What are program staff reactions? What are their perceptions of what could be improved?
- Where are opportunities for improvement? How can outcomes and impacts be increased? How can costs be reduced? How can quality be enhanced? (p. 173)

In addition to Patton's excellent questions, I would add one more to his last bullet: How can outcomes and impacts be measured? All of these points Patton (2012) makes are well targeted at an institution utilizing assessment to evaluate the status quo and proceed from there. I suggest these questions are also tools any university, department or work group

should make use of when considering an informal or formal assessment project or study. They helped me review all the means and cross-tabulations of demographic data with survey responses, identify the most pressing issues, and it helped drive this chapter design.

Order of Exploration

For ease of review, Table 21 is reprinted here for discussion purposes. Please keep in mind that the components listed in the rotated pattern matrix will be discussed in order, from the top and to the right, beginning with the first component, the latent factor it comprised I assigned the title Institutional and Organizational Effectiveness (IOE). After that I discuss the second latent factor, which I named Individual Workplace Communication and Cooperation (IWCC), the third factor, named Student Focus/Mission-centric (SFMC), the fourth factor, named Shared Governance and Professional Development (SGPD), and the fifth and final factor, which I named Information Flow and Access (IFA). The comments themselves, word frequencies, phrase patterns, all from participants, drove my choice of labels as I studied the item groupings or loadings (Miles & Huberman, 1994; Patton, 2012). Interestingly, I noticed the numbers of comments I assigned to each of the five factors where applicable somewhat paralleled the eigenvalues breakdown for each factor in the pattern matrix in terms of percentages of comments. By far, the first two factors tallied the most comments from participants, and I have divided these by their respective question number, so both positive (Q48) and negative (Q47) observations from participants are addressed during each factor discussion that follows. Please see Table 22 for the top comment frequencies on each factor. A complete list may be found in the appendices.

Table 20 Rotated Pattern matrix

	PACE Question Text (NILIE, 2012)	Component				
		1	2	3	4	5
Q4	decisions are made at the appropriate level at this institution	.736				
Q11	institutional teams use problem-solving techniques	.694				
Q5	the institution effectively promotes diversity in the workplace	.663				
Q6	administrative leadership is focused on meeting the needs of students	.661				
Q22	this institution has been successful in positively motivating my performance	.644				
Q1	the actions of this institution reflect its mission	.614				
Q10	information is shared within this institution	.604				.419
Q32	this institution is appropriately organized	.569				
Q12	positive work expectations are communicated to me	.565				
Q28	classified personnel meet the needs of the students	.541				
Q13	unacceptable behaviors are identified and communicated to me	.535				
Q16	open and ethical communication is practiced at this institution	.487				
Q23	non-teaching professional staff meet the needs of the students	.474				
Q25	a spirit of cooperation exists at this institution	.473				
Q29	institution-wide policies guide my work	.472				
Q15	I am able to appropriately influence the direction of this institution	.462				
Q20	I receive timely feedback for my work					
Q21	I receive appropriate feedback for my work					
Q9	my supervisor is open to the ideas, opinions, and beliefs of everyone		.865			
Q26	my supervisor actively seeks my ideas		.856			
Q27	my supervisor seriously considers my ideas		.847			
Q34	my supervisor helps me to improve my work		.741			
Q2	my supervisor expresses confidence in my work		.735			
Q43	a spirit of cooperation exists in my department		.671			
Q3	there is a spirit of cooperation within my work team		.652			
Q33	my work team provides an environment for free and open expression of ideas, opinions, and beliefs		.600			
Q14	my primary work team uses problem-solving techniques		.566			
Q24	there is an opportunity for all ideas to be exchanged within my work team		.479			
Q44	my work is guided by clearly defined administrative processes					
Q19	students' competencies are enhanced			.722		
Q18	student ethnic and cultural diversity are important at this institution			.652		
Q31	students receive an excellent education at this institution			.643		
Q37	this institution prepares students for further learning			.629		
Q30	work outcomes are clarified for me			.567		
Q8	I feel my job is relevant to this institution's mission			.545		
Q17	faculty meet the needs of the students			.544		
Q35	this institution prepares students for a career			.536		
Q40	students are assisted with their personal development			.535		
Q42	students are satisfied with their educational experience at this institution			.502		
Q39	I am given the opportunity to be creative in my work			.479		
Q7	student needs are central to what we do					
Q46	professional development and training opportunities are available				-.612	
Q38	I have the opportunity for advancement within this institution				-.571	
Q45	I have the opportunity to express my ideas in appropriate forums				-.490	
Q36	my work team coordinates its efforts with appropriate individuals and teams					
Q41	I receive adequate information regarding important activities at this institution					.661

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 23 iterations.

Table 21 Comment Frequencies by Factor

Latent Variable/Factor	Least Favorable	Most Favorable
Institutional & Organizational Effectiveness	240	50
Individual Workplace Communication & Cooperation	99	205
Serving Students/Mission-centric	79	96
Shared Governance & Professional Development	205	53
Information Flow & Access	52	16

The First Factor: Institutional and Organizational Effectiveness (IOE)

The name Institutional and Organizational Effectiveness (IOE) came about because most elements related to the university's daily operations, how things get done, by whom and how effectively, and the worker's observations of, experiences with and relationship to the larger scale functions on campus. Of the total 436 unhappy, critical or frustrated participant comments shared in Q47, fully 240 of them fell under this construct. This is not unexpected for a young enterprise, trying to balance explosive growth with scarce resources and every department thinking it is the most important, wanting or needing more than they have (Birnbaum, 1988). When looking at the responses to most favorable aspects in Q48 also falling under the IOE label, participants had far fewer positive things to say about how their university is managed, what they think of leaders, how decisions are made, and so forth. They had only 50 comments praising leadership, access to information, and also had some expressions of gratitude for cultural and arts programming on campus.

In reviewing the matrix with the list of prompts in Table 21, clearly the IOE component is comprised of various threads, but they are related in the minds and ratings of the majority of participants at CCU. Interestingly, unlike the loadings of American participants, where institutional structure, supervisory relationships, student focus, and teamwork are separate components (Tiu, 2001), the majority of CCU participants, who are Chinese, interpret institutional structure and their role within it as a broader entity, most likely a reflection of their collectivist values of team membership and group cohesion (Hofstede, 2001, Triandis, 1989; Triandis, Bontempo, Villareal, Asai, & Lucca, 1988; Trompenaars, 2004). But if we explore Table 23 more closely, people's voices are embedded in these numbers. The most obvious concern of participants was Q4 or item 4, "the extent to which decisions are made at the appropriate level in this institution" (NILIE, 2012). In looking at the IOE comments for administrators, numerous cited "little to no communication between departments and it's common for one department to shuffle responsibility to other ones." Faculty complained of poor salaries, unreasonable teaching loads, and a recent overhaul in the salary system that erased seniority, putting many more experienced faculty down to a level of pay with much less experienced teachers. Two administrators stated they were disappointed in this decision, as it affected morale seriously on campus. So many people complained solely about a poor salary or unacceptable housing conditions that I had to honor their voices by assigning a separate code for each of these comments. Both positive and negative comment frequency tables appear in their entirety in the appendices.

Table 22 Least Favorable Climate Coded Frequencies

Q 47 Code	Meaning of Code	Count	Rank
OE	Organizational Effectiveness	91	1
COM	Communication	81	2
FT	Further Training or Study	76	3
BWC	Benefits & Working Conditions	61	4
ORR	Overly Rigid Regulations	56	5
SAL	Salary	56	5
AF	Academic Freedom	41	7
AIQ	Academic Integrity & Quality	35	8
MRL	Morale	31	9
IDC	Interdepartmental Cooperation	23	10
OA	Organization Administration	23	10
COR	Corruption	22	12
FAV	Favoritism	18	13
RT	Respect for Teachers	18	13
NAF	Non-Academic Focus	16	15
LDR	Leader(s)	14	16
POL	Policy	13	17
TQ	Teacher Quality	13	17
WL	Workload	13	17
PWR	Power	11	20

Many faculty members make the equivalent of US$500 per month although the few with higher credentials can command a higher salary and better benefits. Some teachers live off campus, but many workers expect their Chinese employer to offer accommodations. Many faculty and staff members complained about the quality of housing offered by CCU. I know some younger CCU workers living in dormitories with roommates, but they do not have air conditioning, which is inhumane in such a hot summer environment with workers on campus year round. Many classrooms, in operation until later in June every year, do not have air conditioning either, and the ceiling fans I had to use myself in classroom settings were inadequate in sweltering conditions. I have visited some senior administrative apartments and found them adequate and including air conditioning. There are clearly differences of rank and seniority when it comes to housing benefits. Universal was a comment revolving around a “lack of humanistic care” regarding “policies, rules, and mandates, some of which can change without warning,”

cited one administrator. One example that stood out for me, because I witnessed it, was the fingerprinting attendance rule. At staff and faculty meetings, employees are expected to put their finger on a tiny scanner/reader to log in their presence at mandatory events, some of which in America would be completely optional. One participant said he was mortified that someone actually followed up to find out why he hadn't checked in. The foreign faculty are not subjected to this "overly rigid form of regulation," and the tally about this humiliating management control tactic earned an early code I assigned of ORR.

When I examined the cross-tabulations of worker classification by latent factor, I noticed quickly that faculty, combined Chinese and non-Chinese, tended to rate things lower than either administrators or support staff. Their lowest item mean was in factor 4 or Shared Governance and Professional Development (SGPD) at 3.31, but their score on IOE was not much better, coming in with a mean of 3.35, both just barely above Neither Satisfied nor Dissatisfied, about as low as most Chinese would score on a Likert survey item (Marsden & Wright, 2010). The foreign faculty had the lowest overall scores, which is not surprising considering the American value of pragmatism, especially when one's name is not attached to it (Stewart & Bennett, 1991).

The Chinese employees as a whole rated the average of all IOE items (see the matrix in Table 21, the first component grouping) their second lowest mean with 3.46, with the majority of comments revolving around "unreasonable requirements," "rampant cheating, lying; inefficiency of some leaders," and "the extent to which grading is micromanaged by administrators." Issues around organization, "changing regulations without warning," or "lack of input in departmental decisions" may be symptoms of a

young organization or a weak or ineffective administrator here or there, but this university has had some time to focus on internal improvements and tends not to consult or include the very people creating the environment. One participant commented: "A good leader selects high-quality people and then gives them the authority to do their jobs. This does not happen at CCU, where nearly every decision is micromanaged from the top." This comment, it may surprise you, came from a Chinese participant. This micromanagement has other consequences, and they affect the classroom and overall worker morale to great impact, or so the frequencies of issues tell us.

A lack of academic integrity and quality, one of the top ten unhappy topic codes on Q47, along with low morale, weak interdepartmental cooperation, corruption, favoritism, lack of respect for teachers, and no promised further training or study opportunities were issues not just affecting faculty. Slightly lower down on the count table was policy, teacher quality, power, and organization administration. All these dysfunctional elements are intertwined with how people do not feel valued. The word translated over and over in the comment files was "humanistic" which I explained to my team was "humane." What a strong word to choose when there are so many others. At times high level administrators are "not included in decisions that affect them, and even at times [their] work responsibilities," which ostensibly they were hired to carry out as professionals. Their empathetic comments about unwise changes in faculty salary structure indicated possibly fear, apathy or a lack of power to intervene or countermand such a misguided direction from the leadership (Asante & Gudykunst, 1989; Trompenaars, 2004). This is a fascinating finding, one worthy of further study and one indicating people are unhappy enough to speak out in a safe forum such as this. Face to

face expression of dissatisfaction, however, is another thing. In China it is unlikely and unwelcome, such confrontations between superiors and subordinates, therefore nothing changes easily. In a collectivist culture, people tend to feel more comfortable staying silent, though they are not always happy while they do it (Asante & Gudykunst, 1989; Hofstede, 2001; Trompenaars, 2004).

The top-down management style is not one valued by academics in America or China, and the numbers bore this out. Several workers commented on having retired military officers as department heads, and their management style was not conducive to a "positive" or "free" work environment because it was "too rigid." This is likely a cost-effective way to acquire older leaders on a military pension (thus requiring lower salaries) with some management skills, to make up for a relatively inexperienced faculty and staff overall. Some administrators have strong higher education leadership backgrounds, but have not had to work for an entrepreneur before. One said, "There is lack of team spirit; the school cannot provide space of self-development for the faculty; administrative efficiency is low." They are underutilized, in my opinion, as are many talented people on campus. This is based on years of conversations and observations. Foreign faculty rated Information Flow and Access their lowest rating with an abysmal 1.95, slightly below Dissatisfied. But the Chinese faculty rating for shared governance and professional development (SGPD) was the lowest of all Chinese workers at 3.37. All Chinese workers rated SGPD the lowest item, reinforcing the dissatisfaction with the management structure and non-academically focused leadership. Two foreigners who self-identified as administrators were even more harsh, rating information issues their lowest mean of 1.75. They talked about not having access to basic information that all

Chinese workers received daily, with updates of all kinds of information relevant to campus life and work. Their second lowest rating was in IOE. Clearly, the Chinese faculty value shared governance, a voice in how they teach, when they teach, and how they evaluate and grade their students, and want more of a say in these policies. The means by level of education for the Chinese employees dropped as exposure to ideas around academic freedom increased. I wondered whether any contact with the over 120 foreign faculty members might have anything to do with this. Without exception, the Chinese employees rated shared governance the lowest mean of all, by every demographic aspect of the participants. This goes to how an organization operates, from the top down to the lowest workers, who referred to themselves often in these comments as "grassroots." Sometimes their scores were lower than the faculty on elements of governance.

Because CCU is a young university, many of the issues cited in Table 23 reflect the "cult of personality that exists here." The founder has absolute authority and those trusted or in favor have strong influence, as those without such influence have indicated in their comments. Another Chinese employee said, "the university is an enterprise but not an educational institution," citing as did others, a lack of academic focus. Instead, construction projects are a constant visible investment on campus, mostly to accommodate the leap in enrollments over the years. But there is still no air conditioning in most classrooms or in most Chinese student dormitories, though the international students and foreign faculty have this luxury. There is an Olympic size swimming facility, which few Chinese use because they've not been exposed to swimming, but no parking garages which are going to be in desperate demand as more wealthy students

arrive on campus with cars no teacher can afford. These are all aspects I have observed for myself. But these decisions are choices from the founder, with perhaps an occasional directive from the MOE or the provincial ministry indicating a suggested enrollment for the coming year. The founder being a highly successful entrepreneur, has brought a combination of extraordinary vision and an ability to wheel and deal to leverage financing for huge construction projects, all encapsulated in an old style Chinese "lao ban" or "boss" mentality to his seat of power. To be fair, he is doing the best he can with limited resources while according to Table 23, many working at CCU are clamoring for more money, better living and working conditions, and a voice at the table to help things run more effectively. "Too many people just put on airs when problems are brought to them." Another talked about how the university operates where, "the grassroots directors have duty but have no power or authority to perform their duty effectively." Worst of all, something I have noted myself over many years and many visits on campus, "The school with the presence of the Chairman is different from the school without the Chairman." Everything seems to grind to a stop when, after being micromanaged from above, leaders and middle managers hesitate to act, "fearing consequences." And this is an issue the foreign faculty judge harshly, as their comments reflected (Lin, 1999). One Chinese faculty member stated, "Many foreigners do not understand this type of leadership, and have had a hard time adjusting." As I mentioned in my site description, most foreigners live in isolation and comparative luxury to most Chinese employees on campus, and few actually interact because their lives are so differently scheduled. The Chinese faculty with its heavy teaching load is not free to pursue research, because they "have to provide eight hours of question and answer sections for each class, which many students think is

useless. Too many extra hours teachers must work." The issues raised here, however, are more to do with organizational development and effective leadership and management skills, and supplying or finding workers with the knowledge, skills and ability to apply them. One visitor to the campus sitting next to me at graduation this June stated it succinctly, "I think this place has Founder's Syndrome." In effect, all five factors reflect different aspects of how things are being done at CCU, the culture, but the factors allow us to hone in on the strongest patterns and feelings *about* how things are being done in the voices, the climate (Schein, 2010).

A Culture of Cheating Driven by Exam Consequences

One of the hardest aspects for me to witness this summer was final exam time. The last two weeks in June were full of students heading to different assigned rooms for exams, usually not with their own teacher present but assigned proctors who were employees from all over campus, most of whom would have rather been doing something else. I walked from room to room observing openly cheating students, and at times photographed proctors seated with their backs to the students, reading a paper or a book, fully aware of the rustling of cheat sheets going on in my full view behind them. I mentioned in chapter one the history of the civil service exam, and how passing it could change a family's status forever. Children must pass elementary school exams to gain admission to middle school, and must pass middle school exams to enter high school. Somehow, this pressure to get to the next phase has created a somewhat socially acceptable endemic culture of cheating in China, though never to the degree I witnessed on the CCU campus. I was somewhat comforted to see some strong comments from both Chinese and foreign employees at CCU on this issue. I spoke with the founder on this

academic blight, and he took quick action and invited me to speak at the July campus in-service training week on academic integrity. The campus Party Secretary, a former university dean and supporter of academic excellence, also took quick action to address this issue directly. Now it is up to each teacher, every day.

The Other Side of the Coin

There were many positive comments surrounding IOE, and in attempting to remain fair and balanced, I address these issues as well. If you look at Table 24, you will see the Q48 codes and their frequencies in the comments from participants. The items with frequencies lower than 10 have been included in the appendices for those wishing to review the entire set of themes. Many commented on the commitment to student development and a "free atmosphere" which meant that compared to other institutions some participants had taught in before, the standards they are experiencing at CCU please them. A few fortunate workers have been able to study abroad, attend international meetings, or other benefits not open to all, as the Q47 respondents told us with their comments about favoritism and corruption. One foreign faculty member stated "Overall I have witnessed numerous improvements in my department aimed at reducing cheating and improving the quality of instruction. The trend is in the right direction." This is from a longtime teacher with a rare doctorate on campus, someone who has the power to affect change, if the culture were more inclusive of all faculty being treated as one body to educate students and create an atmosphere of scholarship and learning. Many people complained about housing and salary in Q47, but positive comments concerning the IOE issues tended to celebrate "a free atmosphere" and the fact that students were in an environment to support their development. The physical beauty of the campus is

something many people who could not think of anything more positive to say chose to say instead of leaving the space blank, I think. Often, these were people with strong comments on Q47, while others just left Q47 blank and focused on only positive or harmonious comments. The word "harmony" came up so frequently I finally gave it a code, to honor the value the Chinese participants were pleased to praise.

Table 23 Most Favorable Climate Coded Frequencies

Q 48 Code	Meaning of Code	Count	Rank
SD	Student Development	60	1
FATM	Free Atmosphere	58	2
COM	Communication	50	3
BC	Beautiful Campus/Environment	48	4
CNC	Climate & Culture	45	5
LQ	Leadership Quality	39	6
ACT	Activities on Campus	37	7
INTL	International	36	8
FT	Further Training or Study	33	9
OE	Organizational Effectiveness	28	10
PD	Personal Development	27	11
IDC	Interdepartmental Cooperation	23	12
FOS	Freedom of Speech	22	13
AF	Academic Freedom	20	14
HARM	Harmony	19	15
BWC	Benefits & Working Conditions	18	16
TQ	Teacher Quality	16	17
MRL	Morale	14	18
FF	Foreign Faculty	10	19

In comparison to some other places Chinese have worked, 58 celebrated an atmosphere of freedom and 50 talked about positive communication with a boss or colleagues. In all, there were only 48 positive comments against 240 negative ones when it came to how effectively run the campus is. Ten commented on the draw of the foreign faculty, seeing it as a source of pride to be unique of all universities in China. The international angle the founder calls "East meets West" was acknowledged 36 times by

mostly Chinese workers on campus. One person expressed gratitude for employment and another for a comfortable house and living for his family. Interdepartmental cooperation is successful in some places on campus, because 23 people took time to say they felt good about it, although this might reflect a person getting along within his or her own department, rather than the way the concerned administrators were talking about the lack of it in their comments. Thirty-nine people said positive things about the leadership and nearly as many complimented the leaders on the impressive cultural, sports, and musical events, while on the other side some faculty and administrators warned that students might have too many activities on campus, thus drawing them away from their studies. Overall, the comments about a free atmosphere made me feel sad, wondering what those participants had experienced before this campus that would lead them to make such a positive statement using the same phrase so frequently. CCU clearly can do much better when it comes to systems, consistency in rules, equal treatment, timing of communications, encouraging autonomy for workers where possible, better interdepartmental cooperation, learning to trust and have confidence in administrators, and keeping promises regarding further training and a chance to advance within one's chosen profession or career. All of this is possible with a commitment to frequent dialogues, honest conversations, and no promises made that cannot be honored (Bok, 1986, 2006). Face is easy to maintain, as is harmony, if truth is openly sought and shared. Excellence is always in the hands of those who will step up and work toward it.

The Second Factor: Individual Workplace Communication and Cooperation (IWCC)

This item is similar to the first factor, except that each question posed related to the participant's personal work situation. As I labeled these two factors, I visualized a

pair of concentric circles between these two elements of campus culture, this factor being the inner more personal circle, surrounded by the overall campus systems in the outer circle. Many people on the CCU campus have a good working relationship with their immediate supervisors and team members. On this factor over 200 people commented on Q48 in a positive manner, citing "teamwork," "cooperation," and "community" dozens of times. Examining the items comprising this factor, Q9, Q26, and Q27 were a pleasant combination (See Table 21). Some workers in China do have bosses who seek their ideas, are open to them and will consider them. While many more people did not share this opinion, they did find other sometimes humorous ways to point out something positive when they couldn't think of what else to say. For example, one cynical comment from a Chinese faculty member about his favorite part of CCU made me laugh out loud: "summer vacation and winter break." One unhappy soul said of Q48, "I'm sorry, I can't think of anything good to say." Others cited more personal pleasures such as enjoying the many concerts, recitals and cultural events on campus, many of which are free for workers. One Chinese faculty member said the campus "has a democratic atmosphere" with which I am certain many of the foreign faculty would take immediate issue. But terms mentioned again numerous times like a "free atmosphere," "a flexible and free style," "the climate of activity," and "good working environment" tell me that some people on campus are experiencing a greater amount of latitude in their workplace than previously experienced elsewhere.

The fact that so many participants focused on issues around teamwork and positive relationships with others demonstrates the power and value of group cohesion, harmony within one's work group, and being part of a team, all of which are congruent

with collectivist cultures (Asante & Gudykunst, 1989; Hofstede, 2010). Far fewer are comments about individual freedom, except where faculty members are demanding freedom to teach and test without interference from administration. Perhaps the vestiges of Dewey and the early forays into Western notions of academic freedom that left with Mao Zedong's entry on the scene are misty ghosts of memory in teacher education classrooms in some universities in China (Dewey, 1916). This is good to know and CCU leadership should be proud to acknowledge these efforts to create a more relaxed, collegial atmosphere on campus, though improvements in teacher autonomy might be something to consider. There are still others on campus with different experiences.

The Darker Side of the Second Factor (IWCC)

"The faculty is not valued highly." Often I saw the term "respect for teachers" again with mixed reviews, some feeling like CCU had a better behaved student body, while others felt precisely the opposite, stating that many of the problems in classrooms came from "poor student quality," meaning the level of academic proficiency of many of the students is below academic standards for university entrance. The private universities are booming, the provinces do not regulate them in terms of accreditation the way they do the public institutions, and students who fail to earn high enough scores on the national entrance exam can buy their way in (H. Wang, 2011; Yang, 2004). This is demoralizing to a faculty with no training or experience in remedial education, and there is no initial skills assessment of all incoming freshmen (Yuh, Stith, Liu, & Chen, 2012). The teachers are on their own when it comes to finding ways to deal with unmotivated learners who may buy their grades, pay someone to sit in their classes and even take their exams apparently, if some comments are accurate (Lin, 1999). But if teachers are poorly paid

and do not feel valued, why fight it? Standing up to fight corruption is that nail sticking out which is culturally going to be hammered back down into smooth, harmonious conformity (Asante & Gudykunst, 1989; Hofstede, 2001). This is the ethical dilemma of all Chinese educators, and by default, the administrators they need to back them when they do stand up (Colnerud & Rosander, 2009; Yang, 2004). Ninety-nine people felt strongly enough about this issue to say something negative about their immediate working conditions, and how much their voice is not welcome.

One faculty member referred to "the achievement of a harmonious environment in such a society that pays too much attention to pragmatic interest may only be reached through the removal of conflicts of interest." This is a very long-winded, indirect way of speaking about corruption, another subject hard to broach anywhere, let alone in China (Lin, 1999; Perry & Selden, 2000; Weidenbaum & Hughes, 1996). Additional indirect terms were used that sounded charming, but the message was clear for someone ready to understand: "Too much administrative atmosphere and not enough academic atmosphere; school places big value on building hardware infrastructure." This is a veiled reference to the founder's entrepreneurial drive to build new buildings at the expense of improved salaries, student and faculty living conditions, install desperately needed classroom and dormitory air conditioning, and other "humanistic" things that would improve morale and help drive the quality of teaching and learning in a more positive direction. A staff member mentioned high turnover in employees due to dissatisfaction in the workplace.

Across the comments were remarks about lack of communication. Administrators were split on having seen some improvements in interdepartmental cooperation and communication, while others said there was little to no effective communication between

departments. Many of my longtime friends at CCU have told me there are small fiefdoms of power, and no one shares power. One staff member observed that it can take many visits to one department to get something accomplished and sometimes people fail to meet their obligations. An administrator said "There is no sufficient communication between administrative departments, and shirking of responsibility occurs when problems appear. For example, when graduates need to handle the formalities to leave school, the thought should be for the students, rather than students being left to the mercy of the academic department's convenience. Try to make things easier! Serve the students and faculty from the bottom of heart." I wish that administrator would take that message to every department, and let students and faculty hear it, too. The power is in the words, in setting an example, where the model is that staff and administration support faculty in educating students (Bok, 1986; Kerr, 2001). It is that simple, just as the wise writer stated. Everyone matters. They need a good plan and a process to execute the plan. But it sounds like plans change without warning, and often foreign faculty are the last to know. At times, there is so much new growth activity on the CCU campus, people might not feel like they matter as much as the next new construction project. What kind of message does that send? How does that affect morale? These are good topics for further study.

Communication and Inclusion

I had an opportunity to converse with and visit friends and colleagues on campus and learned much during my extended stay this summer. One of the strongest issues I identified myself is a lack of coordinated communication across all faculty, so I am satisfied to see this issue was a constant presence in the 847 total tracked and analyzed comments. There is an internal intranet called the OA system on campus. It operates only

in Mandarin, and is only accessible to the Chinese administration, staff and faculty, with one exception of a married foreigner to a Chinese spouse. No other foreign faculty member has access to the daily announcements, which often include time sensitive information such as performances, recitals, and other extracurricular activities frequently occurring. Several foreign faculty members stated in their surveys that they would never know anything was going on if their students did not inform them out of kindness. Also, there are banners posted announcing events, but almost always these are in Mandarin and are unable to be understood by over 120 foreigners, not counting their families. This fall, the number will approach 140, and that is a significant proportion of a faculty out of the information loop. It causes resentment, disappointment, and a loss of morale. Worse, it creates an artificial duality in the faculty that does not have to exist. But this ethnocentric perspective on electronic updates is not the only linguistic block. Teachers wrote about this, but they also shared experiences having to input grades with help from a student, because the database was entirely in Mandarin. The teachers had adapted, but many resented having to ask a student for help when inputting private information no student should see or have access to. These are simple things that could be easily fixed, but someone must step up, take responsibility, and make sure these changes are executed in a timely manner. This lack of action after so many years on fundamental communication elements that disrupt the climate, culture and morale of the foreign faculty especially, help me understand that the largest factor, IOE, deserves to be in first place because many systems, even one as elementary as communication links, must be a top priority for CCU to become a top university. Some person does not know this is part of their job to take care of things like this, which goes to job descriptions, worker evaluations, and of

course, communication with staff at open forums and meetings where issues like these could be raised and dealt with on an ongoing basis.

In summary, if you are a Chinese staff member, you might know more about what is going on around you than the foreign faculty members on campus. However, the Americans are most likely to speak out about something they are not happy with, while many Chinese will talk about the same things behind closed doors, with trusted friends and family, and go back into the same situation the next work day without confronting anyone about it (Asante & Gudykunst, 1989). The values differences between individualism and collectivism, truth versus harmony, and direct versus indirect communication are all part of what makes this such a tough topic on campus (Trompenaars, 2004).

The Third Factor: Serving Students/Mission-Centric (SSMC)

Compared to the first and the fourth factors, this factor is fairly in the middle in terms of number of responses, which were nearly equal, with Q47 receiving 79 comments and Q48 receiving 96. This is not surprising to me, as I would expect people with something positive to say at a university might revolve around students. But I want to start with the negative comments, many of which revolved around the "low quality of students" referring to those who perhaps were not well qualified to enter university but could afford to pay their way in (Lin, 1999, Yang, 2004). One person bravely mentioned the mission was to make money since it was being run as a business, "a family business." An administrator spoke to low morale because of "the vague path of career promotion" leading to serving students poorly. One staff member said, "Many students need to improve their behavior in public areas." This could refer to public displays of affection

which are not socially acceptable in China, or perhaps something related to alcohol induced consequences of a weekend evening. One faculty member bravely shared "The school pays too much attention to students' needs, and ignores the importance of the faculty." There were dozens of comments like that, about a lack of attention to faculty needs or a lack of faculty respect, breaking an ancient tradition in China (Hayhoe, 1996).

An observant staff member noted there were too many "external teachers" or adjuncts and had a concern that "they don't know the students well enough and the teaching quality is not guaranteed." One faculty member said "I think some of the school's activities are too flashy. We should make more efforts to improve the inner quality of our school, such as the learning and academic atmosphere. The school should adopt better policies to improve teaching quality and bring in more good teachers." This teacher is likely referring to the myriad performances on campus, replete with beautiful set designs, high technology lighting and sound, and stunning costumes. I imagine the writer was thinking of many years of a limited salary when a gloriously costumed student performer dances across the stage wearing his raise.

There were many wonderful comments in this category on the positive side such as one staff member who said, "All is for the students, all for students." An administrator said, "The school takes measures to meet the needs of students such as democratic management, openness of Sino-Western education, and attention paid to the development of students." My opinion is this is somewhat idealistic, but is a true reflection of the founder's vision and mission. However, several people wrote little notations on their surveys near questions about the mission of the institution, and asked what the mission of CCU was, or if there was a mission statement, they had never seen or heard reference to

one. Several participants shared their pride in working at a university that offered more foreign faculty than any other in China, and others liked the "East meets West" theme of the founder. One staff member said, "The school encourages the individual development of students in a positive and correct way. Universities don't equate to factories, which only manufacture standardized products, so it's of vital importance for CCU to maintain this feature." I liked this statement, because it speaks to a movement away from strict social conformity, and perhaps is indicative of creative thinking and more individualism. Many people liked the student focus on campus. I think some teachers are jealous!

The Fourth Factor: Shared Governance and Professional Development (SGPD)

When I looked at the pages and pages of printed out cross-tabulations for each factor, I took out a hot pink highlighter and tracked trends and then compared the quantitative results with the coded comments. On four out of five demographic markers, the Chinese workers had the most to say about this area, but for them, the aspect of shared governance was the worst issue. The Chinese faculty had the lowest means across the board of the Chinese workers on campus. Means rose slightly for administration and higher again for staff. When I explored by level of education, those with no diploma or degree had the lowest mean on SGPD, indicating powerlessness and having no voice, which I might expect in a hierarchy in a smaller city (Asante & Gudykunst, 1989) and then means rose by education level once for high school graduates, and then kept falling until the Master's degree holders lowered everything across the board with their harsher ratings on all five factors. I wondered if they simply had the courage to state their dissatisfaction or if their level of education meant they were paying more attention. Their mean of 3.39 in IOE was beaten by their extreme low mean of 3.36 for SGPD, expressing

deep disappointment in the lack of shared governance and opportunities for professional development. Staff members who had been at CCU longer than ten years also had the lowest mean for that demographic with a mean on SGPD of only 3.0, or Neither Dissatisfied nor Satisfied, which to me reads like a failing mark: the Wall. The foreign faculty was more outspoken, even ranking with a 2.0 in this area, though the combined mean hovered at 2.75, and therefore leaning more toward Dissatisfied (Dolnicar & Grün, 2007).

The majority of negative comments (205 responses in total for Q47) surrounded the lack of further training, which as I discussed earlier, was apparently a condition of hire on campus for some faculty and staff members who knew their credentials needed improving in order to be able to move ahead on the pay scale. Others were disappointed they did not have a say in how to teach their courses, how to test, and how to improve the quality of education on campus. Their focus was more about shared governance, and wanting a say in how things were done on campus, more in the way a Western educator might expect to engage on campus (Postiglione, 2006). Comments included: "No one listens to faculty members voices and opinions;" "Some teachers earnest desire to be further trained or educated cannot be satisfied while others may get the chance because of relationship factors." These are fairly representative of the types of comments shared in this category. A member of the foreign faculty said, "There really isn't an academic-oriented environment among foreign instructors. The high annual teaching turnover, inexperience of instructors, and the general lack of recognition toward incoming instructors' endeavors at teaching well tempts one to feel unappreciated and unrewarded." On this aspect, I would say by far the most prevalent comment was about

the lack of further training, lack of a chance to move ahead in a career because of it, and some resentment that newer faculty members with higher credentials were being hired in front of their perceived turn to study and advance first. Clearly, some frank discussions need to take place, so the perceived broken agreements can be resolved and learned from. One faculty member sums it up nicely: "All the teachers blindly listen to the requirements and tasks from Academic Affairs management. There is no chance to report conditions and no initiatives. Young teachers cannot get attention for their continuing development." A non-faculty employee said there is no consideration for an employee's personal development and communication is top-down.

Two workers were so diligent in their comments, wanting to do their best to serve their students, I felt I must share them. The first regarded the kindergarten, where a teacher there humbly requested an autoclave or type of sterilization equipment that would kill off bacteria on eating utensils and dishes and keep the children in her charge healthy and safe. The other teacher was in physical education, and spoke bravely about how "wardens do not permit us to turn on the lights in the gym during the daytime, and sometimes it's too dark to see well enough to play sports." Someone is taking orders from higher up, most likely it is a non-teacher ordered to conserve electricity costs. But this shows a remarkable lack of care for the well-being of students, if lighting cost is more important than the students' ability to see in the gym. Someone is not empowered to make a smart decision, but only follows orders, even when it does not make sense (Cyert & March, 1963). So, this comes back to factor one, IOE. These conscientious CCU employees are doing their best to do a great job at work, but someone needs to hear their voices and then act appropriately. They are important observations, made to serve

students better. Everyone should feel free to speak out if safety is an issue. More importantly, someone needs to listen and have the power to respond in a timely manner (Collins, 2001). I suggest training dates be scheduled to talk about employee thinking and responsible actions (Senge, 1990).

The Sunny Side of CCU

Not everyone was displeased with the governance and their opportunities for professional growth and development. While 205 comments were negative, there were 53 positive comments, though these three items, Q46, Q38, and Q45 were all negatively loaded, telling me there was not a great happy group of participants sharing on this factor. A few people stated a negative, but in a more positive way, such as "Provide us with more training opportunities, while allowing us to fully apply personal abilities." I was never certain whether that was a back-handed negative or the person simply wrote in a strange tense. Some simply said their personal development had been good or great, and one said, "I am given creative freedom for teaching my courses." One undeclared employee thanked a particular staff member for exemplary teacher training classes. I can only surmise by the much smaller volume of positive comments that things tend toward the lack of shared governance, and people want to speak about how they do things at CCU. They want a chance to be heard. In the departments that are making advances in this regard, congratulations! Such department leaders are setting a fine example for others to learn from. I encourage all departments to create regular community forums to share what's going on, what is working and what is not working. Go back to the questions I shared earlier from Michael Quinn Patton, and let those be a guide to start the first awkward conversations. The participants in this survey are ready to engage in dialogue.

Most people, if not all, want to do their best, and they need to know they matter. And holding a meeting once in a while to talk things out or listen when others talk doesn't cost anything but time.

The Fifth Element: Information Flow and Access (IFA)

While only two items, Q10 and Q41 loaded onto this factor or latent variable, one was so important, it also showed up even more strongly on the first factor, IOE. These questions revolve solely around information, how much it is shared and how much one receives when it's important information. Only 68 people answered this question with a comment relating to this factor, but 52 of those comments were negative (Q47) and only 16 were positive (Q48). But in terms of construct validity, these two questions had a lot of impact on the reliability of the PACE. For the non-Chinese employees this factor was their all-time low mean of 1.94, while the Chinese employees gave it a much higher 3.86, due most likely to their more cohesive social structure and top-down management system (Hofstede, 2001; Trompenaars, 2004). If one is forced to fingerprint to prove attendance at a meeting, one probably knows the rest of the rules at work fairly well in order to stay out of trouble. So, on average, most Chinese feel plugged in, although voiceless. The Americans of the foreign faculty do not feel plugged in, but they have voices and use them. I choose not to further identify foreign faculty, because the number of non-Americans is so small, they would be virtually identifiable and therefore unprotected by anonymity.

For the Chinese employees, by years of at CCU, the first year hires rated a 4.0, generous, and then every group thereafter rated IFA lower and lower, but only to 3.64 for after ten years. For expatriates abroad, in intercultural terms we would call that a

honeymoon effect. The new arrivals are too immersed in their own culture shock and cultural adapting to notice all is not perfect (Asante & Gudykunst, 1989; Hofstede, 2001; Trompenaars, 2004). In fact, when I looked at all five factors across the board for the longest term employees, employed more than ten years at CCU, I noted all of their means were the lowest of all the groups on that table. Perhaps they see or know more and are frank in reporting things more harshly, but it may be possible they feel comfortable speaking out because they have been at CCU so long (Hofstede, 2001). I end this discussion of the five factors with the foreign faculty. When I ran their statistics by demographic group, without exception they had the lowest means for information flow and access to information. This is a loud statistical noise. Only those foreigners who were first year teachers or workers, or did not possess a degree, had any means above 2.0. This goes back to an expected "honeymoon" phase in a new cultural setting, when newcomers are excited to be in the new environment and may not have experienced culture shock or become aware of deeper cultural nuances around them. The combined mean for all foreign faculty, staff and administration was only 1.94, and across the board on all five factors, the few foreign administrators had also rated the items more harshly than either foreign faculty or foreign staff, and their low on factor five was an abysmal 1.75. Clearly, information, as I discussed earlier concerning the "two cultures, one campus," is one of the most important challenges that must be immediately and systematically addressed for positive climate and culture growth at CCU. Fortunately, it is a matter of process, not additional expense. Perhaps that is a direction to begin with on campus at Central China University.

CHAPTER V: DISCUSSION, RECOMMENDATIONS AND FUTURE RESEARCH

A young, private university in central China took a chance on inviting a foreign scholar to help them assess and better understand their climate and culture. The campus is arguably one of the most beautiful in the world, if not in China. Performances and cultural events impress visitors and campus residents alike, but these activities are all on the surface. This study was about delving beneath surface impressions, however positive, to discover what challenges should be addressed to improve the quality of education students receive on campus. This exploration started by assessing the providers of that environment, asking them how they perceive their workplace. Expenditures on campus reflected China's early massification efforts and created visible signs of growth, but no one had assessed the invisible elements creating the learning environment for students. Everyone was encouraged to participate in the first campus climate and culture study, the likes of which had never been seen in China. Slightly more than 80% of eligible participants made time to share their views to the extent they felt comfortable. While some perhaps felt bound by tradition to state only positive or non-negative things, others broke with millennia-bound top-down hierarchical power structures and took a chance, and wrote about their climate experiences on campus. The North American normed PACE instrument (NILIE, 2012) proved to be a worthy tool for this purpose.

Through the use of exploratory and confirmatory factor analysis, factor extraction and oblique rotation, five areas or latent factors were identified by the 943 participants through the ways they chose to answer the questions posed. The first factor, organizational and institutional effectiveness, concerned the majority of participants most

frequently, as reflected in the factor analysis and in the comment frequencies. This is an outcome expected in development phases of institutions as rules, leaders, and processes are put in place, function or fail, are improved or discarded, causing frequent change not easily accepted by a culture that values tradition and knowing all the rules of operation by which harmony can be maintained. The second factor, communication, also concerned a great number of participants. Much of the dissatisfaction expressed around comments related to the first factor came from a lack of input from the employees on how these frequent changes affect them. In most departments there is no open communication where workers could freely share their suggestions or concerns, which also affected morale. On an individual level, many felt they had a good working relationship with their immediate supervisor and team, while others felt bound to silence due to management structures that did not exhibit the values those trained to teach in higher education settings have come to cherish. Micromanagement, overly rigid rules, sudden changes in procedure without adequate warning, lack of input from faculty and staff regarding more efficient or effective ways to work, all were reflected in the voices of those with the courage to speak out to help their department to reach its highest potential in performance. All these areas deserve immediate attention. The way forward will be found through open, improved and frequent communication across teams, across departments, and between Chinese and foreign staff members. With openness can come truth.

The third factor that emerged concerned student focus and mission-centric aspects of the campus climate. While many participants praised the plethora of cultural and sports activities found throughout the year at CCU, more were concerned about a lack of commitment to or focus on academic integrity and consistent enforcement of rules

surrounding academic honesty. Favoritism, pressure on teachers and administrators to look the other way, all these poor choices have a price in terms of quality of education and the perceived ethics on campus. Students who can cheat through their university experience not only shame and demoralize their families who sacrifice much to pay for their education, but they also disrespect teachers and threaten the reputation of the university. At the same time, class masters, faculty and administrators who participate in this unethical tradition, generated by ancient, omnipresent social pressure to pass at any cost, perhaps cause the most damage on campus of all through the poor examples they set for students and for higher education across China. When campus employees in positions of authority refuse to respond or take consistent corrective action when these charges are brought forward, they cause even more damage to the journey toward world-class excellence. Students who do not truly learn will be unable to perform in workplaces across China, failing to meet the expanding needs of one of the largest populations on the planet. This concerned faculty and administrators greatly, and perhaps the fourth factor, shared governance and further training elements, can play a powerful role in addressing this ethics gap on campus.

All workers, faculty, support staff and administrators, were united in their desire to have a greater say in how best to meet the needs of students at CCU. There is no faculty senate or open forum conducted on a regular basis by any leadership council. Power is maintained behind closed doors and is closely held, leaders often inaccessible below a certain level. Some in power intimidate or pressure others to remain silent where there may be discontent or concern. There is no overall safe haven or official mechanism to lodge complaints, make suggestions, or obtain a fair hearing for one's ideas except for

a few good relationships cited between worker and supervisor. The most emotional comments from all sectors revolved around a perceived broken promise from upper management to invest in professional development training, up to and including earning advanced degrees for faculty, many of whom still hold only bachelor's degrees. So many cited this aspect it indicated there was no other outlet and participants felt disappointed enough to risk sharing this feature over and over again in their comments. *A lack of opportunity for advancement*, voiced more than the grave nature of challenges expressed over academic integrity, even voiced above disappointment in salary scales which were recently shifted without any input from employees, *seems to affect employee morale most across all employee sectors*.

The fifth factor, access to information and its flow, was a small loading of only two items, but its contribution to the overall pattern matrix and its validity was highly significant. The top-down, closely held power structure has led to few people in the know about planning and monitoring progress at CCU. Many people who have relevant skills and talents that could be directed to improving the quality of various aspects of campus services and programs go unidentified. The *foreign faculty*, which within five years will constitute 20% or more of the faculty in total, *was most frustrated at their lack of inclusion on campus*. Their comments revealed a Mandarin language only class roster and grading system, along with an intranet communication system entirely in Mandarin which absolutely isolated them from campus life, access to cultural events and other time sensitive data to which their Chinese counterparts had daily access. Additionally, the campus climate effects from culture clashes between the American faculty expectation of academic freedom and the often "overly rigid" and "overly regulated" Chinese faculty

dynamic was cause for great concern. Perhaps creating regular open forums for faculty, staff and administrators to participate in without fear of reprisal for speaking out so long as discourse remains civil, might be a powerful response from leadership reflecting employees' need to be heard and feel safe while sharing their concerns. Creating opportunities for Chinese staff to mentor and befriend foreign staff members might also lead to peer coaching, peer teaching, and extensive research partnerships, all of which could benefit CCU on its journey to world-class excellence.

Observations and Recommendations

This study could not have been as robust without selecting and gaining consent to utilize the right instrument. The generosity of both the team at NILIE at North Carolina State University at Raleigh as well as the entire campus of participants at Central China University made this study possible. But I have had time to consider some things. First, regarding the study itself, the PACE instrument was not allowed to be altered in any way except to translate it and present it in a bilingual format, found in the appendices (NILIE, 2012). However, when I examined the questions for face validity, Q5 about diversity in the workplace struck me as potentially culturally bound (NILIE, 2012). I wondered how participants would perceive and respond to the item, and was surprised to see it load onto the first factor. I did casually ask my pilot study group if they had any comments or questions, and fully expected one of them to ask why that question had to be included. I was ready with my response about being bound to the original content of the instrument but never had to address the issue. It turned out that the international aspect of CCU was what readers seemed to assume when they read the question, and they answered it with that in mind to the best of my knowledge.

I was fascinated when I ran the EFA on the Chinese faculty, which I did because they were my single largest subgroup and I was curious, and noted that the ethics question, Q16, did not attach or load to any of the emerging groups or factors. This pattern matrix, too, is in the appendices. If further study is conducted at CCU utilizing the same instrument for follow-up measurements, it might be worthwhile to construct additional items around the topic of ethics, which is such a serious issue across China (Lin, 1999; Postiglione, 2006; Yang, 2004). I do feel that seeing a single item such as that at least raises the concept in the minds of readers, and perhaps serves to bring such a sensitive and potentially explosive topic into the light for more open discussion and solutions. To that end, then, creating more items around the issue of ethics on campus might make even more of an impression concerning the crucial social implications for China's status as a world leader. It would permit stronger institutional benchmarking data and monitor progress or lack of it in this controversial area, one closely followed by "think tanks" like the Rand Corporation (Goldman, Kumar, & Liu, 2008).

Future Research

When I first read Patton's work on utilization-focused evaluation (Patton, 2011, 2012), after reading on the history of assessment, how it made its way from military intelligence testing, and found its way into elementary and secondary schools, to business and management models, and then into higher education (Ewell, 2009; Shavelson, 2010), I realized this field of research is young. It has only been around since the 1980s in its higher education iteration. We have much to learn, but we can learn faster if we share what we find. When I spent years searching for studies like mine, there were few published. As stated earlier, this is most likely due to the purpose being for internal

improvement rather than external accountability, such as in accreditation processes (Astin, 1991; Banta & Associates, 2002). I would like to applaud institutions that post climate studies for others to learn from, which may also serve to hold themselves accountable for having done so. But Pinsonneault and Kraemer (1993) are right. Longitudinal studies need to be conducted, monitoring progress or regression on the path to improved campus climates and cultures. For example, CCU might consider implementing a follow-up study, much as Florida Gulf Coast University has done, to track and measure progress, and hold their campus accountable for improving from within by supporting and building a culture of assessment, evaluation and excellence (FGCU, 2011).

Building a culture of assessment on campus can start using the data set from the CCU study in other ways. Multivariate analysis of variance (MANOVA) comparisons and *t*-tests could be conducted between groups such as staff affiliation (faculty, administration, or support staff), gender, years of experience, and nationality of (Chinese and non-Chinese) faculty, administration and staff, to see whether any predictive elements emerge within demographic classifications. Any university planning to undertake formative assessment or wishing to establish an evaluation and excellence center on campus should plan and execute actions based on a wholly inclusive model, encouraging everyone to take individual responsibility for things like open communication, ethics, academic honesty, thus creating a culture of assessment and each participant reflecting these values.

Limitations

This was a cross-sectional study of a formative assessment which limits its impact on understanding the status of the climate over time at CCU. Pinsonneault and Kraemer (1993) wrote about the limitations of a cross-sectional survey, stressing that longitudinal data are more robust. The large sample size, generous cooperation from participants and meticulous attention to research protocols made this a highly credible study. The intercultural aspects of administering an instrument normed in one culture and utilized in another also deserve greater attention from scholars and researchers. Examining what is being measured in any setting significantly different from the one in which the instrument was developed always bears scrutiny. It is my hope that people reading this study will understand and be cautioned that the findings in in it can therefore only be applied to other institutions with populations bearing the same characteristics as Central China University.

Closing Thoughts

Central China University agreed to openly share any findings, positive and negative. Honoring the first factor, the campus administration might wish to explore more on organizational culture and leading change (Kotter, 1995; Schein, 2010). In my own experiences in leadership, change cannot come from a dedicated middle. It must come from the top, and everyone must be heard, feel included, to generate buy in and work together toward a mutually agreed upon goal. A boss is not a leader. Forced change is powerless and loses momentum to sabotage, resentment, and a lack of trust (Bolman & Gallos, 2011). From some of the comments CCU employees graciously shared, we have learned that many wish to share their ideas, and have a forum provided to easily do this.

Perhaps that is the place to begin. Leaders need to get out, meet the faculty and staff frequently, and listen. They are not to give orders, but to listen, and truly hear what people want, what they need, and how they think they can do their jobs better, cheaper, or faster. Listening tells people that leaders value what they have to say. Letting people know they bring value to an organization frees them to feel like they have a stake in how things function, and whether things get accomplished well or just get done (Argyris, 1992; Schein, 2010). This is self-empowerment, and without this, nothing implemented will last beyond the manager who pushes it (Birnbaum, 1988; Bolman & Deal, 2008).

The data tell the story, that the central factor at issue is organizational, by the sheer number and variety of questions that loaded onto the first variable named. It's all about how things operate, but behind that is communication. Communication in two languages must become standard operating procedure with nearly twenty percent of faculty unable to fully or effectively participate in the system. Spending money and time on improving communication, as participant administrators reported and advised, "across departments and divisions," is a great place to start. Within departments, more open meetings, with no fingerprinting mandate, for example, might significantly improve employee morale. Letting teachers express to administrators what they think their students need, and then working together to respect everyone's expertise and eventual input might also improve educators' sense of academic freedom.

Underutilization of gifts, perhaps due to lack of an employee talent assessment procedure at intake or on an annual basis is a highly effective way to assess all human resources on an ongoing basis. Many people at CCU have talents they are not using and these translate into lost opportunities for the campus and, ultimately, the students. As

learning and experiences grow and change, so do people's skills along with them. Teachers have talked about students who are not ready for their curriculum, which makes students feel like failures and teachers frustrated from failing to reach them. Assessing all incoming freshmen, and offering courses that are designed to meet their needs upon entry will allow students who are ready to move into university level curricula to do so, while those who require remediation may be provided the caring, supportive learning experiences needed to avoid lost confidence and entry into the endemic cycle of cheating. This leads me to my final point.

Many strong Chinese and foreign participant comments mentioned favoritism and corruption. Most workers desire a chance to improve their skills, to make more of opportunities, and the people at CCU have expressed their desire for these experiences, too. Further training opportunities is one of the biggest priorities I read about, from every sector of participant, irrespective of gender, years of experience, or worker classification. Whatever action CCU may choose after reading and reviewing this study, it is hoped actions will be taken consistently and, with all processes, kept transparent. As new rules and processes are generated from incrementally more open input, inclusive discussion and constant feedback, they should be applied equally and consistently. All processes and actions should be regularly assessed and evaluated to improve and adapt them until they work for CCU. It all starts with an open door, an open ear, a caring heart and an open mind. We all walk the path to world-class excellence together.

My thanks to everyone who so kindly and patiently supported this study.

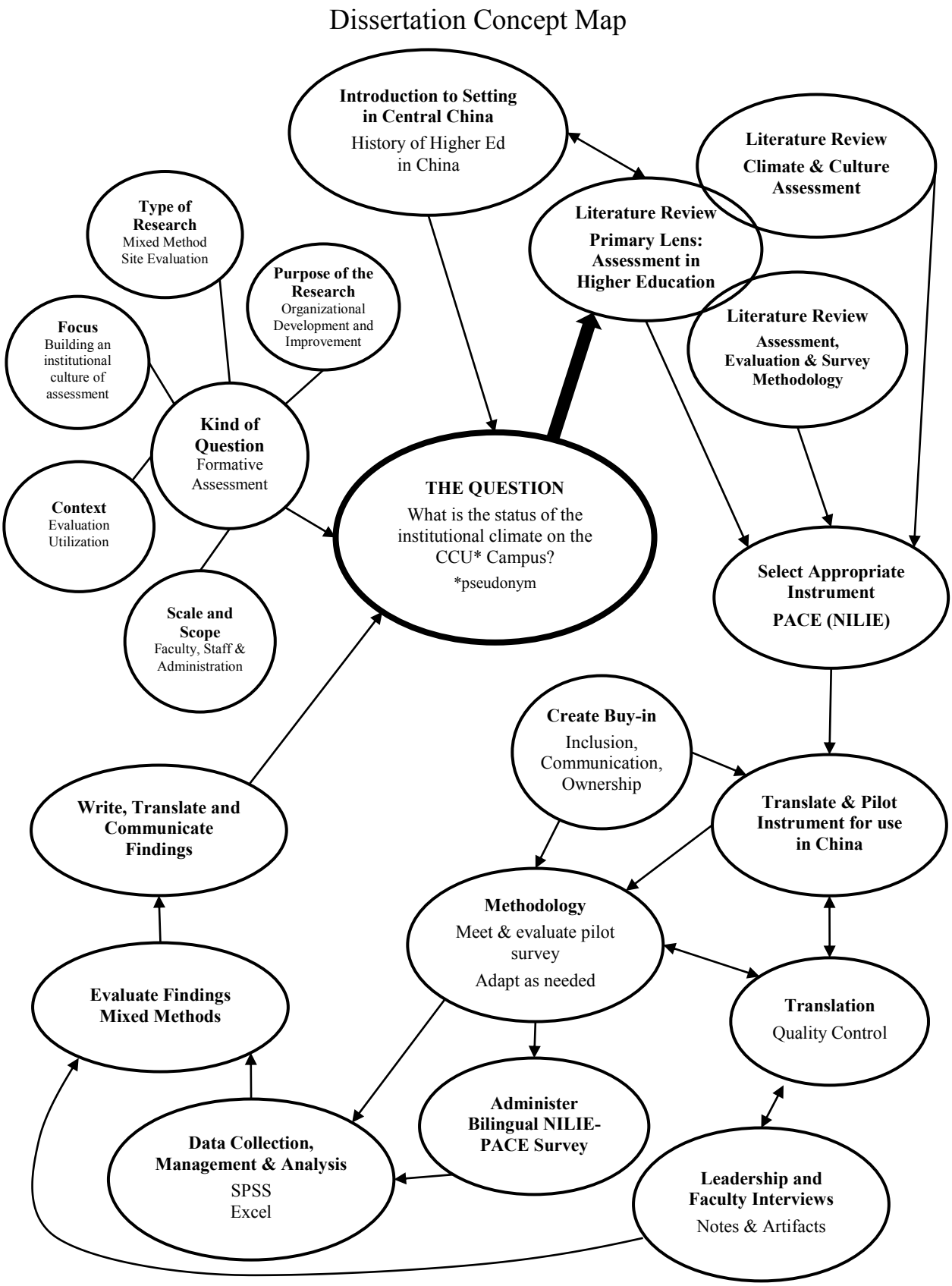


Figure 9 Dissertation Concept Map. Adapted from Procello (2008)

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APPENDIX A: Bilingual Study Cover Letter

College of Education
One University Boulevard
St. Louis, Missouri 63121-4400

TO: Faculty, Administrators and Staff of [redacted] University
FROM: Ji Linda Jacobsen, [redacted] (in residence through August 8, 2012)
RE: Confidential Campus-wide Survey on Institutional Climate
DATE: June 1，2012

Every member of the [redacted] faculty, administration and staff is invited to participate in a confidential climate survey. A climate survey is an opportunity for employees to safely and privately share their feelings about four key areas of campus function: the institutional structure, supervisory relationships, teamwork, and student focus. The questions are designed to encourage your own honest assessment of how you feel about the culture at [redacted] regarding each item. There are no right or wrong responses, and every survey will remain confidential and the final results reported in aggregate to protect confidentiality. At the end of the survey are two open-ended questions where you are free to elaborate on your responses to the climate questions in the survey. You may respond in Chinese or English and you may choose not to answer any question.

There is no pressure or obligation to participate in this Ph.D. dissertation research project, but your input is most welcome and will provide valuable information for every department and individual that takes time to share honest, confidential views on the campus climate here at [redacted]. Please place your completed survey in the envelope provided, and drop it off at your department office or at my residence. I will personally maintain all data and files, which will be treated confidentially every step of the way.

Many thanks for considering sharing your views by taking this confidential climate survey, which will help [redacted] on the road to excellence. **I will collect them until June 16, 2012.** I am happy to answer any questions or concerns you may have and you may reach me on my mobile at 1870 382 0790 to speak with me privately or via e-mail at: lfj@globalvisionstrategies.com.

关于西亚斯组织氛围的保密调查问卷

致西亚斯全体教师、管理人员和其他员工：

我们邀请西亚斯的每一位员工参与此次关于西亚斯组织氛围的保密调查问卷。大家可以借此机会分享您对西亚斯校园职能的最主要的四个大的方面的感受，这四个大的方面包括：管理机构、上司与员工关系、团队精神和以学生为中心。调查问卷设置的问题是为了鼓励大家给出您对西亚斯组织氛围的每一个小方面的真实感受，您的答案没有正误之分。我们将对每一份单独的调查问卷严格保密，同时会将收集到的所有调查问卷放在一起以保证机密性。调查问卷的最后还有两个开放性的问题，您可以选择用中文或英文详细阐述您对其中某些方面的感受，也可以选择不回答。

该调查问卷是我的博士论文研究的一部分，您的参与不是强制性的，但还是特别欢迎和感谢您能抽出宝贵的时间分享你对西亚斯组织氛围的最真实的感受，你提供的信息将会非常宝贵而且会严格保密。您可以把完成的调查问卷放在我们提供的信封里，然后把信封交到您所在的部门或者送到我的宿舍。我个人将收好所有问卷和数据以确保它们的保密性。

相信这份问卷会有助于西亚斯组织氛围的完善，再次感谢您的参与。我们的截止时间是 2012 年 6 月 16 日。如果您有任何问题，请跟我联系，我们可以私下交流。联系电话：18703820790. 邮箱地址：lfj@globalvisionstrategies.com。

Ji Linda Jacobsen，陈肖纯（理事长）
2012 年 6 月 1 日

APPENDIX B: Bilingual Version of NILIE-PACE Instrument

English/Mandarin Version

Personal Assessment of the College Environment

Read each item carefully and select the response that most closely describes the extent to which you are satisfied with the environment at your institution.

☒ ☑

请认真阅读每条对工作环境的描述，然后根据您所在单位的情况选择相应的满意程度。

The extent to which... 满意程度

	The extent to which... 满意程度	Very Dissatisfied 非常不满意	Dissatisfied 不满意	Neither Satisfied nor Dissatisfied 一般	Satisfied 满意	Very Satisfied 非常满意	Not Applicable 不适用
1	...the actions of this institution reflect its mission 学校的行为反映了它的使命	☐	☐	☐	☐	☐	☐
2	...my supervisor expresses confidence in my work 我的上司对我的工作有信心	☐	☐	☐	☐	☐	☐
3	...there is a spirit of cooperation within my work team 工作团队有合作精神	☐	☐	☐	☐	☐	☐
4	...decisions are made at the appropriate level at this institution 学校能有合适的管理层做出决策	☐	☐	☐	☐	☐	☐
5	...the institution effectively promotes diversity in the workplace 学校能有效地推进员工多样性	☐	☐	☐	☐	☐	☐
6	...administrative leadership is focused on meeting the needs of students 行政管理是为了满足学生的需求	☐	☐	☐	☐	☐	☐
7	...student needs are central to what we do 学生需求是一切工作的中心	☐	☐	☐	☐	☐	☐
8	...I feel my job is relevant to this institution's mission 认为自身的工作与学校的使命相关	☐	☐	☐	☐	☐	☐

Personal Assessment of the College Environment

	The extent to which... 满意程度	Very Dissatisfied 非常不满意	Dissatisfied 不满意	Neither Satisfied nor Dissatisfied 一般	Satisfied 满意	Very Satisfied 非常满意	Not Applicable 不适用
9	...my supervisor is open to the ideas, opinions, and beliefs of everyone 我的上司能接受他人的想法、观点和信念	☐	☐	☐	☐	☐	☐
10	...information is shared within this institution 在学校内部，信息能够共享	☐	☐	☐	☐	☐	☐
11	...institutional teams use problem-solving techniques 学校团队能用一定的技巧解决问题	☐	☐	☐	☐	☐	☐
12	...positive work expectations are communicated to me 积极的工作期望能传达给我	☐	☐	☐	☐	☐	☐
13	...unacceptable behaviors are identified and communicated to me 不可接受的行为能被指出并传达给我	☐	☐	☐	☐	☐	☐
14	...my primary work team uses problem-solving techniques 我所在部门人员能用一定的技巧解决问题	☐	☐	☐	☐	☐	☐
15	...I am able to appropriately influence the direction of this institution 我能在一定程度上影响学校的发展方向	☐	☐	☐	☐	☐	☐
16	...open and ethical communication is practiced at this institution 员工能进行公开的道德的沟通	☐	☐	☐	☐	☐	☐
17	...faculty meet the needs of the students 教师能满足学生的需求	☐	☐	☐	☐	☐	☐
18	...student ethnic and cultural diversity are important at this institution 学生的种族和文化多样性很重要	☐	☐	☐	☐	☐	☐
19	...students' competencies are enhanced 学生的能力有所提高	☐	☐	☐	☐	☐	☐
20	...I receive timely feedback for my work 能及时收到对我工作的反馈	☐	☐	☐	☐	☐	☐

Personal Assessment of the College Environment

	The extent to which... 满意程度	Very Dissatisfied 非常不满意	Dissatisfied 不满意	Neither Satisfied nor Dissatisfied 一般	Satisfied 满意	Very Satisfied 非常满意	Not Applicable 不适用
21	...I receive appropriate feedback for my work 能收到对我工作的恰当反馈	☐	☐	☐	☐	☐	☐
22	...this institution has been successful in positively motivating my performance 学校能调动员工工作的积极性	☐	☐	☐	☐	☐	☐
23	...non-teaching professional staff meet the needs of the students 非教师类员工能满足学生的需求	☐	☐	☐	☐	☐	☐
24	...there is an opportunity for all ideas to be exchanged within my work team 团队内部有交流想法的机会	☐	☐	☐	☐	☐	☐
25	...a spirit of cooperation exists at this institution 本校有团队精神	☐	☐	☐	☐	☐	☐
26	...my supervisor actively seeks my ideas 我的上司能认真听取我的想法	☐	☐	☐	☐	☐	☐
27	...my supervisor seriously considers my ideas 我的上司能认真考虑我的想法	☐	☐	☐	☐	☐	☐
28	...classified personnel meet the needs of the students 人事分配能满足学生的需求	☐	☐	☐	☐	☐	☐
29	...institution-wide policies guide my work 学校政策能指导我的工作	☐	☐	☐	☐	☐	☐
30	...work outcomes are clarified to me 很清楚自己的工作成果	☐	☐	☐	☐	☐	☐
31	...students receive an excellent education at this institution 本校学生能接受良好的教育	☐	☐	☐	☐	☐	☐
32	...this institution is appropriately organized 本校的组织机构合理	☐	☐	☐	☐	☐	☐

Personal Assessment of the College Environment

	The extent to which... 满意程度	Very Dissatisfied 非常不满意	Dissatisfied 不满意	Neither Satisfied nor Dissatisfied 一般	Satisfied 满意	Very Satisfied 非常满意	Not Applicable 不适用
33	...my work team provides an environment for free and open expression of ideas, opinions, and beliefs 所在部门的员工能自由表达自己的思想、观点和信念	☐	☐	☐	☐	☐	☐
34	...my supervisor helps me to improve my work 我的上司帮助我提高工作能力	☐	☐	☐	☐	☐	☐
35	...this institution prepares students for a career 学校能为学生提供职业准备	☐	☐	☐	☐	☐	☐
36	...my work team coordinates its efforts with appropriate individuals and teams 所在部门能与其他部门或个人互相协作	☐	☐	☐	☐	☐	☐
37	...this institution prepares students for further learning 学校能启发学生，让他们对将来的深造有所准备	☐	☐	☐	☐	☐	☐
38	...I have the opportunity for advancement within this institution 学校内部有进修的机会	☐	☐	☐	☐	☐	☐
39	...I am given the opportunity to be creative in my work 我在工作中能发挥创造性	☐	☐	☐	☐	☐	☐
40	...students are assisted with their personal development 学生在自我发展方面能得到帮助	☐	☐	☐	☐	☐	☐
41	...I receive adequate information regarding important activities at this institution 我能收到关于重要活动的通知	☐	☐	☐	☐	☐	☐
42	...students are satisfied with their educational experience at this institution 学生对在本校的教育经历满意	☐	☐	☐	☐	☐	☐

Personal Assessment of the College Environment

	The extent to which... 满意程度	Very Dissatisfied 非常不满意	Dissatisfied 不满意	Neither Satisfied nor Dissatisfied 一般	Satisfied 满意	Very Satisfied 非常满意	Not Applicable 不适用
43	...a spirit of cooperation exists in my department 我所在部门具有团队精神	☐	☐	☐	☐	☐	☐
44	...my work is guided by clearly defined administrative processes 工作流程明确	☐	☐	☐	☐	☐	☐
45	...I have the opportunity to express my ideas in appropriate forums 有机会在合适的论坛表达自己的观点	☐	☐	☐	☐	☐	☐
46	...professional development and training opportunities are available 有职业发展和职业培训的机会	☐	☐	☐	☐	☐	☐

Personal Assessment of the College Environment

47: Considering the questions you have answered on this climate survey, please expand on the areas you find least favorable. You may give examples and explanation, but please refrain from identifying specific individuals. This is a confidential survey.

您已经回答了这份有关组织氛围的调查问卷的所有问题，请详细阐述您认为最不满意的方面。您可以举例说明，但请避免明确地提到某个人。本调查是保密的。

48: Considering the questions you have answered on this climate survey, please expand on the areas you find most favorable. You may give examples and explanation, but please refrain from identifying specific individuals. This is a confidential survey.

您已经回答了这份有关组织氛围的调查问卷的所有问题，请详细阐述您认为最满意的方面。您可以举例说明，但请避免明确地提到某个人。本调查是保密的。

Your responses are important and have the potential to contribute to research about organizational climate in universities in China.

您的回答非常重要，因为它将对我们研究中国高校的组织氛围有很大帮助。

Personal Assessment of the College Environment

The National Initiative for Leadership & Institutional Effectiveness (NILIE) would appreciate if you would fill out the following demographic questions in order to assist us in our research efforts. Again, this information is strictly confidential and will not be associated with you in any way. Information that is collected below will not be reported to Sias. Your responses have the potential to contribute to research about organizational climate in universities in China and other nations.

如您能填写以下个人信息来帮助我们的调查，我们将不胜感激。同时我们保证这些个人信息将会严格保密，不会以任何方式与您产生联系，也不会透露给西亚斯国际学院。您的回答将对我们研究中国和其他国家高校的组织氛围有很大帮助。

Your personnel classification: 您是？(Please circle one) 请在符合的选项上画圈。

Faculty 教师

Administrator 管理人员

Staff 其他员工

Please CIRCLE the nationality that describes you: 请在符合您国籍的选项上画圈。

Chinese 中国

Non-Chinese 其他国家

Please list your title or rank at Sias: 请写出您的职称或者职位。

_____

What is the highest degree you have earned? 您获得的最高学历？

(Please circle one) 请在符合的选项上画圈。

No diploma or degree 没有学位

High School 高中

Associate's degree 副学士

Bachelor's degree 学士

Master's degree 硕士

Doctoral degree (Ph.D.) 博士

First Professional degree (M.D., J.D.) 职业博士

Personal Assessment of the College Environment

How many years have you worked at Sias? (If less than one year, please put zero)

您在西亚斯工作几年了？（如果少于一年，请填写零年）

_____

How many years have you worked in higher education? (If less than one year, please put zero)

您在高等教育机构工作几年了？（如果少于一年，请填写零年）

_____

What gender are you? 您的性别是？(Please circle one) 请在符合的选项上画圈。

Male 男

Female 女

Thank you *very* much for your participation! Your responses are important and have the potential to contribute to research about organizational climate in universities in China.

十分感谢。您的回答非常重要，因为它将对我们研究中国高校的组织氛围有很大帮助。

APPENDIX C: Additional Statistical Tables

Pattern Matrix (Chinese Faculty only)

	Component				
	1	2	3	4	5
Q38	.660				
Q46	.642				
Q41	.418				
Q10					
Q45					
Q26		.914			
Q9		.912			
Q27		.910			
Q34		.805			
Q33		.621			
Q43		.587			
Q24		.500			
Q14		.423			
Q21		.412			
Q3		.409			
Q44					
Q19			.823		
Q18			.730		
Q35			.671		
Q31			.668		
Q39			.647		
Q17			.646		
Q37			.645		
Q42			.645		
Q40			.589		
Q30			.578		
Q20			.403		
Q15					
Q36					
Q5				.770	
Q1				.768	
Q4				.754	
Q6				.695	
Q12				.656	
Q11				.643	
Q8				.557	
Q22				.534	
Q28				.494	
Q13				.477	
Q7				.476	
Q29				.471	
Q32				.470	
Q25				.423	
Q23				.422	
Q2		.419			.522
Q16					

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
a. Rotation converged in 29 iterations.

Eigenvalues for Chinese Faculty Matrix

Total Variance Explained (Chinese Faculty only)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	23.773	51.680	51.680	23.773	51.680	51.680	9.171
2	2.294	4.987	56.668	2.294	4.987	56.668	15.903
3	1.709	3.715	60.382	1.709	3.715	60.382	17.723
4	1.291	2.807	63.189	1.291	2.807	63.189	18.101
5	1.161	2.524	65.713	1.161	2.524	65.713	1.526
6	.951	2.068	67.781				
7	.914	1.988	69.769				
8	.795	1.729	71.498				
9	.790	1.717	73.214				
10	.747	1.624	74.838				
11	.659	1.432	76.270				
12	.634	1.379	77.649				

Extraction Method: Principal Component Analysis.

	Listwise			Pairwise		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Q1	3.68	.821	678	3.66	.827	918
Q2	4.03	.810	678	4.03	.803	933
Q3	3.88	.902	678	3.87	.895	934
Q4	3.46	.966	678	3.40	.985	925
Q5	3.47	.912	678	3.41	.912	925
Q6	3.45	.970	678	3.40	.967	914
Q7	3.72	.921	678	3.66	.959	923
Q8	4.01	.779	678	3.98	.788	930
Q9	3.88	.927	678	3.86	.920	938
Q10	3.64	.913	678	3.56	.951	940
Q11	3.55	.878	678	3.49	.892	932
Q12	3.65	.826	678	3.59	.857	939
Q13	3.54	.821	678	3.52	.828	918
Q14	3.84	.808	678	3.82	.832	932
Q15	3.16	.947	678	3.11	.990	861
Q16	3.41	.948	678	3.33	.972	933
Q17	3.69	.823	678	3.67	.836	922
Q18	3.88	.821	678	3.89	.822	908
Q19	3.86	.757	678	3.85	.767	928
Q20	3.59	.914	678	3.54	.933	936
Q21	3.53	.851	678	3.48	.866	933
Q22	3.31	.994	678	3.21	1.039	941
Q23	3.50	.884	678	3.48	.888	896
Q24	3.69	.868	678	3.67	.888	940
Q25	3.63	.899	678	3.54	.924	939
Q26	3.83	.918	678	3.82	.915	933
Q27	3.75	.930	678	3.75	.926	935
Q28	3.45	.850	678	3.41	.852	893
Q29	3.56	.877	678	3.51	.900	934
Q30	3.90	.749	678	3.86	.775	932
Q31	3.76	.814	678	3.71	.843	933
Q32	3.44	.986	678	3.34	1.012	930
Q33	3.58	.934	678	3.53	.961	933
Q34	3.78	.899	678	3.75	.914	935
Q35	3.68	.810	678	3.64	.814	922
Q36	3.60	.865	678	3.56	.888	931
Q37	3.72	.818	678	3.71	.816	929
Q38	3.49	.946	678	3.42	.981	928
Q39	3.72	.812	678	3.73	.832	936
Q40	3.77	.763	678	3.75	.771	924
Q41	3.94	.856	678	3.92	.908	935
Q42	3.65	.779	678	3.62	.791	898
Q43	3.89	.814	678	3.85	.854	938
Q44	3.74	.882	678	3.68	.917	937
Q45	3.46	.918	678	3.38	.933	926
Q46	3.41	.991	678	3.31	1.026	931

Communalities

	Initial	Extraction
Q1	1.000	.563
Q2	1.000	.614
Q3	1.000	.571
Q4	1.000	.676
Q5	1.000	.589
Q6	1.000	.577
Q7	1.000	.516
Q8	1.000	.568
Q9	1.000	.725
Q10	1.000	.658
Q11	1.000	.672
Q12	1.000	.612
Q13	1.000	.542
Q14	1.000	.595
Q15	1.000	.550
Q16	1.000	.605
Q17	1.000	.473
Q18	1.000	.550
Q19	1.000	.626
Q20	1.000	.657
Q21	1.000	.657
Q22	1.000	.683
Q23	1.000	.524
Q24	1.000	.614
Q25	1.000	.702
Q26	1.000	.779
Q27	1.000	.740
Q28	1.000	.639
Q29	1.000	.643
Q30	1.000	.626
Q31	1.000	.708
Q32	1.000	.676
Q33	1.000	.610
Q34	1.000	.671
Q35	1.000	.642
Q36	1.000	.574
Q37	1.000	.681
Q38	1.000	.601
Q39	1.000	.646
Q40	1.000	.662
Q41	1.000	.726
Q42	1.000	.646
Q43	1.000	.677
Q44	1.000	.593
Q45	1.000	.634
Q46	1.000	.698

Extraction Method: Principal Component Analysis.

Cronbach's Case Processing Summary

		N	%
Cases	Valid	678	71.9
	Excluded[a]	265	28.1
	Total	943	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.977	.977	46

Component Correlation Matrix

Component	1	2	3	4	5
1	1.000	.596	.601	-.390	.180
2	.596	1.000	.524	-.302	.158
3	.601	.524	1.000	-.342	.196
4	-.390	-.302	-.342	1.000	-.141
5	.180	.158	.196	-.141	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	164.49	769.299	.667	.977
Q2	164.15	774.284	.564	.977
Q3	164.29	767.737	.636	.977
Q4	164.71	760.340	.734	.977
Q5	164.70	764.303	.699	.977
Q6	164.73	763.889	.663	.977
Q7	164.45	767.486	.627	.977
Q8	164.16	773.307	.611	.977
Q9	164.29	766.947	.634	.977
Q10	164.53	766.657	.651	.977
Q11	164.62	763.430	.746	.976
Q12	164.52	766.312	.729	.977
Q13	164.63	768.594	.683	.977
Q14	164.33	768.213	.704	.977
Q15	165.01	765.917	.640	.977
Q16	164.76	761.068	.734	.977
Q17	164.48	773.254	.578	.977
Q18	164.29	772.025	.607	.977
Q19	164.31	772.183	.656	.977
Q20	164.58	763.390	.715	.977
Q21	164.64	764.709	.742	.977
Q22	164.86	759.289	.732	.977
Q23	164.67	765.720	.692	.977
Q24	164.48	763.963	.743	.977
Q25	164.54	759.209	.815	.976
Q26	164.34	763.596	.708	.977
Q27	164.42	764.498	.680	.977
Q28	164.73	764.300	.752	.976
Q29	164.61	763.015	.755	.976
Q30	164.28	773.122	.641	.977
Q31	164.41	765.763	.753	.976
Q32	164.74	757.769	.767	.976
Q33	164.59	763.613	.695	.977
Q34	164.39	765.298	.689	.977
Q35	164.49	767.736	.713	.977
Q36	164.57	765.628	.710	.977
Q37	164.45	767.045	.720	.977
Q38	164.68	767.986	.601	.977
Q39	164.45	768.632	.690	.977
Q40	164.40	769.959	.704	.977
Q41	164.23	772.991	.560	.977
Q42	164.52	768.841	.716	.977
Q43	164.28	768.596	.689	.977
Q44	164.43	764.922	.711	.977
Q45	164.72	763.681	.707	.977
Q46	164.77	763.022	.664	.977

Component Matrix[a]

	Component				
	1	2	3	4	5
Q25	.828				
Q32	.782				
Q29	.771				
Q31	.770				
Q28	.767				
Q11	.759				
Q24	.758				
Q21	.755				
Q16	.749				
Q4	.747				
Q22	.747				
Q12	.744				
Q37	.738				
Q42	.734				
Q20	.732				
Q35	.730				
Q36	.727				
Q44	.727				
Q40	.722				
Q45	.722				
Q26	.721	.505			
Q14	.719				
Q5	.714				
Q33	.710				
Q39	.709				
Q23	.707				
Q43	.705				
Q34	.703				
Q13	.699				
Q27	.694	.500			
Q1	.683				
Q46	.680			-.423	
Q6	.678				
Q19	.675				
Q10	.665				.404
Q30	.659				
Q15	.658				
Q3	.652				
Q9	.649	.539			
Q7	.644				
Q8	.629				
Q18	.627				
Q38	.618				
Q17	.598				
Q2	.580	.450			
Q41	.579				.524

Extraction Method: Principal Component Analysis.
a. 5 components extracted.

Component Score Coefficient Matrix

	Component				
	1	2	3	4	5
Q1	.115	-.011	.024	.128	.038
Q2	-.028	.141	.062	.162	-.023
Q3	.016	.117	-.014	.079	.011
Q4	.140	.004	-.053	.075	.066
Q5	.121	-.018	-.010	.049	.003
Q6	.126	-.016	.000	.127	.100
Q7	.060	.013	.087	.172	.049
Q8	.015	.036	.150	.193	-.044
Q9	.002	.163	-.053	.084	.055
Q10	.106	-.010	-.085	.033	.337
Q11	.123	-.010	-.059	.001	.079
Q12	.097	.030	-.039	.017	-.031
Q13	.093	.029	-.046	.019	.009
Q14	-.010	.096	.035	.039	-.020
Q15	.069	-.026	.038	-.075	-.245
Q16	.072	.001	.003	-.057	-.124
Q17	.017	-.013	.141	.054	-.161
Q18	-.004	-.018	.163	.105	.055
Q19	-.014	-.027	.182	.047	-.060
Q20	.050	.007	.059	-.053	-.290
Q21	.048	.043	.017	-.045	-.227
Q22	.107	-.018	-.043	-.103	-.151
Q23	.075	.016	-.004	.009	-.037
Q24	.004	.072	.006	-.050	-.062
Q25	.062	.001	.011	-.041	-.005
Q26	-.001	.156	-.049	.037	.009
Q27	-.006	.154	-.057	.003	-.019
Q28	.082	-.025	.023	-.032	-.069
Q29	.064	-.031	.044	-.016	.028
Q30	-.055	.048	.135	.114	.204
Q31	.002	-.023	.147	.036	.020
Q32	.086	-.036	.012	-.031	.034
Q33	-.020	.098	-.034	-.100	-.022
Q34	-.045	.130	-.031	-.083	-.001
Q35	-.045	-.007	.106	-.088	.062
Q36	-.019	.033	.022	-.140	-.057
Q37	-.038	-.024	.136	-.070	.013
Q38	-.002	-.029	-.049	-.264	.087
Q39	-.084	.038	.101	-.159	-.114
Q40	-.053	-.013	.102	-.110	.096
Q41	.002	-.013	-.010	.011	.529
Q42	-.022	-.027	.093	-.104	.042
Q43	-.086	.118	.020	-.063	.128
Q44	-.020	.039	.005	-.074	.182
Q45	-.009	.015	-.030	-.221	-.003
Q46	.005	-.017	-.071	-.286	.062

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
Component Scores.

Complete Listing of Least Favorable Climate Comments

Q 47 Code	Meaning of Code	Count	Rank
OE	Organizational Effectiveness	91	1
COM	Communication	81	2
FT	Further Training or Study	76	3
BWC	Benefits & Working Conditions	61	4
ORR	Overly Rigid Regulations	56	5
SAL	Salary	56	5
AF	Academic Freedom	41	7
AIQ	Academic Integrity & Quality	35	8
MRL	Morale	31	9
IDC	Interdepartmental Cooperation	23	10
OA	Organization Administration	23	10
COR	Corruption	22	12
FAV	Favoritism	18	13
RT	Respect for Teachers	18	13
NAF	Non-Academic Focus	16	15
LDR	Leader(s)	14	16
POL	Policy	13	17
TQ	Teacher Quality	13	17
WL	Workload	13	17
PWR	Power	11	20
CP	Career Planning	9	21
CS	Customer Service	8	22
FF	Foreign Faculty	8	22
HSG	Housing	8	22
SCP	Student Career Planning	8	22
SD	Student Development	8	22
INTL	International	7	27
SQ	Student Quality	7	27
SS	Safety & Security	6	29
GR	Grading	5	30
OFA	Opportunity for Advancement	5	30
PD	Personal Development	5	30
EQ	Equality	4	33
FP	Fingerprint Mandate	4	33
FS	Food Service	4	33
XCC	Cross-Cultural Communication	4	33
CNC	Climate & Culture	3	37
CUR	Curriculum	3	37
EVAL	Evaluation	3	37
FEAR	Fear	3	37
ACT	Activities on Campus	2	41
CH	Cheating	2	41
EQP	Equipment	2	41
SJP	Student Job Placement	2	41
STR	Student-Teacher Ratio	2	41
AE	Academic Emphasis	1	46
FG	Faculty Governance	1	46
GNDR	Gender	1	46
LQ	Leadership Quality	1	46
OD	Organizational Development	1	46
OFD	Opportunity for Development	1	46
PS	Professional Satisfaction	1	46
RANK	Rank	1	46
TVAL	Teacher Evaluation	1	46
TECH	Technology	1	46
TO	Turnover	1	46
TP	Teacher Preparation	1	46

Complete Listing of Most Favorable Climate Comments

Q 48 Code	Meaning of Code	Count	Rank
SD	Student Development	60	1
FATM	Free Atmosphere	58	2
COM	Communication	50	3
BC	Beautiful Campus/Environment	48	4
CNC	Climate & Culture	45	5
LQ	Leadership Quality	39	6
ACT	Activities on Campus	37	7
INTL	International	36	8
FT	Further Training or Study	33	9
OE	Organizational Effectiveness	28	10
PD	Personal Development	27	11
IDC	Interdepartmental Cooperation	23	12
FOS	Freedom of Speech	22	13
AF	Academic Freedom	20	14
HARM	Harmony	19	15
BWC	Benefits & Working Conditions	18	16
TQ	Teacher Quality	16	17
MRL	Morale	14	18
FF	Foreign Faculty	10	19
AIQ	Academic Integrity & Quality	9	20
PS	Professional Satisfaction	8	21
CH	Cheating	7	22
SQ	Student Quality	5	23
OFA	Opportunity for Advancement	4	24
TECH	Technology	4	24
EQP	Equipment	3	26
OR	Overly Rigid Regulations	3	26
CUR	Curriculum	3	26
FAV	Favoritism	2	28
FS	Food Service	2	28
OA	Organization Administration	2	28
XCC	Cross-Cultural Communication	2	28
COR	Corruption	1	33
CS	Customer Service	1	33
HSG	Housing	1	33
SCP	Student Career Planning	1	33
SJP	Student Job Placement	1	33
TVAL	Teacher Evaluation	1	33
TP	Teacher Preparation	1	33