高校书法课需求性测量评估

Assessing Needs for a Chinese Calligraphy Course in the University Context

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摘要

　　本文运用项目评估（Program Evaluation）技术对中国书法课在卡内基梅隆大学的需求性进行了测量和评估。方法包括文献研究法、横断研究、质性研究等，其中使用了三角测量法（Triangulation）— 问卷调查、访谈、焦点小组（Focus Group）— 在学生、教师、行政人员中进行了多维度测查。结果显示，（1）书法作为中国文化的核心在中国和海外受到不同程度的喜爱，（2）美国许多知名大学已经开设中国书法课，（3）中国书法课在卡内基梅隆大学学生中存在很高需求。同时，开设中国书法课对卡内基梅隆大学保持其学术竞争性和优势也非常必要。为满足这一需求，本研究制定了相关的行动计划。

　　关键词：需求测量；课程设计；中国书法课；行动计划

　　This study assessed the need to offer a Chinese calligraphy course at Carnegie Mellon University. Program evaluation methods and techniques were used to examine the need from multiple aspects including literature review, cross sectional investigations and qualitative analyses. The results indicated: (1) as the essential form of Chinese culture, Chinese calligraphy is both domestically and internationally loved and practiced; (2) a great number of top universities in the United States have begun offering introductory courses in Chinese calligraphy; (3) a substantial need for the course exists among students of the university. Therefore, it is necessary for Carnegie Mellon University to offer a Chinese calligraphy course to better serve the students' needs and maintain the university's academic competitiveness and advantages. In order to satisfy the identified need, an action plan was developed.

　　Keywords: needs assessment, course design, curriculum, Chinese calligraphy, action plan

1. Introduction and definition

A *needs assessment*, one major type of program evaluation, is a systematic approach to identifying social problems, determining their extent, and accurately defining the target population to be served and the nature of their service needs (Rossi, Lipsey, & Freeman, 2004). It is an effective method to clarify problems and identify appropriate interventions or solutions (Fulgham & Shaughnessy, 2008), which therefore, helps direct finite resources towards developing and implementing a feasible and applicable solution (Altschuld & Kumar, 2010).

This assessment was intended to evaluate the need to offer a Chinese calligraphy course at Carnegie Mellon University and provide rationale for the decision-making process. *Chinese calligraphy* is defined by *Cihai* (an authoritative, comprehensive Chinese dictionary) as "用毛笔书写篆、隶、正、行、草各体汉字的艺术 [the art to write the stylistic scripts of Chinese characters including the seal, clerical, regular, running, and cursive scripts, using Chinese writing brush]". It has been widely practiced both in China and overseas, and has played a very important role in defining and refining Chinese culture. The Chinese calligraphy course of interest was an introductory one intended mainly for undergraduate students who were planning to major or minor in Chinese Studies at Carnegie Mellon University (CMU).

CMU is a globally competitive university with more than 90 academic programs. Chinese Studies is one of the largest undergraduate programs. Every year there are more than 500 students enrolled in various levels of Chinese culture and language courses. Throughout the decades since its establishment, the Chinese Studies program has developed a relatively stable set of curricula. In order for the department to add a Chinese calligraphy course to the existing well-running curriculum, an assessment was required to identify whether or not there was a need for this course. A needs assessment was conducted for this purpose.

Three types of methods were employed in the study including (1) literature and historical research, (2) cross-sectional investigations, and (3) qualitative analyses (Figure 1). The first type was to evaluate the historical and cultural significance of Chinese calligraphy. The second focused on between-university comparison on calligraphy course offering. Finally, the third involved student and faculty surveys. Interview and focus group were also conducted for triangulation purposes (Durst, MacDonald, and Parsons, 1999). The results of needs

achieved by applying these approaches at CMU were used to develop an action plan.
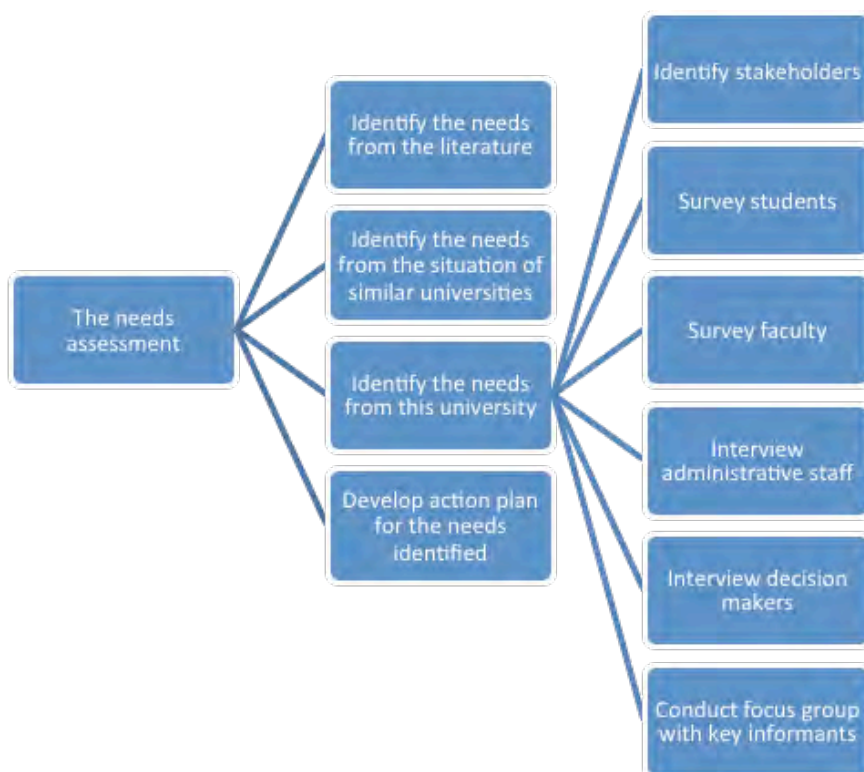

Figure 1. Roadmap of the assessment procedure

2. Needs from the literature – to promote this treasure of Chinese culture and tradition to the whole world

2.1 Chinese calligraphy as a carrier of Chinese history and culture

Chinese calligraphy "began with the creation of Chinese characters" (Qian & Fang, 2007, p. 100). It has existed in China for at least three thousand years (Li, 2009; Qiu & Mattos, 2000). Before regular modern pens and computers were invented, calligraphy was used as a primary way of record-keeping and communication. Therefore, it was a key component in people's daily lives. Starting from the Han dynasty (208 BC – 220 AD), as new and different scripts were developed, calligraphers began to study how to write calligraphy more aesthetically and artistically. It was then that calligraphy was first regarded as an art form of writing Chinese. This made people realize and appreciate the aesthetic value of calligraphy.

From the Sui dynasty (581-619 AD) to the Qing dynasty (1644-1911 AD), the Imperial Civil Service Examination System was set up and employed to select knowledgeable and talented individuals for civil services in China. During this long period of Chinese history, calligraphy served as a requisite for all candidates to be qualified for a government position. Therefore, it was widely understood that calligraphy was a crucial course that students and trainees were required to take. As a result, calligraphy became one of the four most important skills (i.e., musical instrument playing, chess playing, calligraphy writing, and painting) when evaluating a person's scholarship.

To learn calligraphy, one must learn the rules. Over several thousand years, Chinese calligraphy has developed five primary scripts (Seal, Clerical, Regular, Running, and Cursive) as well as Lesser scripts. All these scripts share basic calligraphy rules, although each has its unique visible appearance. These rules cover stroke writing, component layout, character shaping, composition of the entire work and others. This makes performing calligraphy writing similar to drawing or painting. To make or evaluate high-level calligraphy works, extra rules were also established. Based on these rules, for example, good calligraphy should be able to express the essence of the content and convey the calligrapher's mental and emotional state. To apply these rules, or in other words, to produce good calligraphy work, calligraphers need to apply their technical skills and talents in the stroke/character/component sizing, lining, spreading, coloring, coordinating, and (writing) pacing. From the audience's perspective, however, a piece of calligraphy cannot only be viewed by the techniques and physical attributes. Another important dimension is the hidden insights, which may include the dynamics, rhythm, emotion, and even the calligrapher's personality. The beauty and complexity of Chinese calligraphy has developed this art form to be called 无言之诗，无形之舞，无图之画，无声之乐 [wordless poetry, figureless dance, imageless picture, and soundless music] (Liu, 2012). Western scholars have given praises to Chinese calligraphy that it contains the beauty of an image in painting, the beauty of dynamism in dance, and the beauty of rhythm in music (Guo, 1995). Additionally, the calligraphy writing techniques must be directed by traditional Chinese philosophical ideas such as the balance between Yin and Yang from Taoism, and the golden mean from Confucianism (Qian & Fang). Calligraphy

requires additional effort from both the performer and the evaluator, such as *qing* [mood, emotion], *qi* [energy, vital force], *shen* [spirit], *jing* [realm, standing], *yun* [elegance], *fa* [discipline], *yi* [expressiveness], *fengge* [style], and *qidu* [manner] (Ni, 1999). Therefore, Chinese calligraphy is the quintessence of Chinese culture (Chen, 2003).

As time went on, calligraphy fully developed its form by absorbing components from other cultural forms including Chinese language, ideas on aesthetics, and philosophy (Qian & Fang). According to Peveto (2010), Chinese calligraphy "began at the dawn of China's history and has continued throughout the centuries to the present, remaining a significant element in Chinese culture," so "understanding its role in history and society allows a glimpse into China's past and its present" (p. 44). Therefore, by studying and practicing calligraphy, people can learn those components and deepen their understanding of Chinese culture. This is especially true for students of Chinese language and culture.

2.2 Benefits for personal development of morality, personality, and health

In addition to seeking deeper understanding of Chinese culture and enjoying its beauty, people treat calligraphy as a means of developing good morality, personality, and improving physical and mental health. This benefit is supported by multiple research studies. A longitudinal study conducted by Zhou, Liu, and Sang (2005) showed that calligraphy practice had a significant positive effect on 13 personality factors such as warmth, reasoning, and emotional stability. Another study conducted by these researchers (2009) also indicated that children with calligraphy experience showed positive emotional intelligence development. Kao (2006) studied Chinese calligraphic handwriting for health and behavioral therapy. Positive effects were found on multiple dimensions related to health such as (1) cognitive improvements in reasoning, judgment, facilitation, and hand steadiness in children with mild retardation, and (2) enhanced memory, concentration, spatial orientation, and motor coordination in Alzheimer's patients. Findings also included positive behavioral changes in individuals with autism, Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), psychosomatic diseases of hypertension and diabetes, as well as mental diseases of schizophrenia, depression, and neurosis. In addition, practicing Chinese calligraphy is commonly accepted as a contributing factor to longevity. Kwok et al. (2011)

investigated the effects of calligraphy therapy and proved that it was effective for enhancing cognitive function in older people with mild impairment. Ni (1999) also reported the moral development benefits from practicing calligraphy. It is very likely that practicing Chinese calligraphy has additional benefits yet to be discovered.

2.3 Influence and impacts in the world

Chinese calligraphy has not only borne great significance domestically, but also produced great influences internationally. In Asian countries such as Japan, Korea, and Singapore, calligraphy is widely practiced and highly valued. In Korea, Chinese was used as the official script even after the invention of Hangul in 1447, until the 19th century (Encyclopedia Britannica).   Calligraphy is also widely practiced in Japan and has been incorporated in the current school curriculum (Department of Education, Culture, Sports, Science and Technology of Japan) (see http://www.mext.go.jp/b_menu/shingi/chukyo/ chukyo3/004/siryo/05081601/005.htm). In the West, Picasso was fascinated by the interplay of Chinese characters, the strengths and economy of their construction, and stated, "If I were born Chinese, I would not be a painter but a writer. I'd write my pictures" (Claude Roy, 1956) (see http://www.cipherjournal.com/html/picasso_notes.html). Additionally, traces of Chinese calligraphy can also be easily recognized in the paintings of another famous European artist, Henri Mattise (Li, 2009). Hence, it can be said that the beauty and significance of Chinese calligraphy has been recognized and appreciated around the world for many years.

3. Needs perceived from the course offerings in the United States universities

In 2012, a cross sectional study was conducted to examine whether a Chinese calligraphy course was offered in the top 50 U.S. universities (CMU was ranked 24th). The reason for this sampling method instead of a random sample was to obtain universities comparable in competiveness. Newsweek's 2011 list of top universities was used. The data was obtained by checking the course listings of each university, spanning the Fall 2011 to Spring 2014 school years. These three consecutive years covered all the recent courses offered on a termly, yearly, or biyearly basis.

The result showed that about half of the upper 25 universities (48%) offered such a course as well as another 6 of the lower 25. The percentage itself is not a big one. However, a need still existed because Carnegie Mellon University was aiming to sustainably develop its competitive advantage in the United States and in the world. This competitiveness included not only computer science and engineering but also foreign languages and culture.

4. Needs identified from Carnegie Mellon University

A faculty member who ran CMU's Chinese Calligraphy Club decided to start a needs assessment in the spring of 2011. Because club flyers were only given to students that were taking Chinese classes, no more than six students were expected during the club's opening day. Surprisingly, a total of eleven students registered for the club, and it was suggested that more would have been present if students could take this class for credit. During a faculty program meeting, there was encouragement to design new courses that would meet the needs and interests of student learning. This triggered the current study design.

An expert on curriculum quality control was consulted with the preliminary ideas of the new Chinese calligraphy course offering. Nine critical questions were generated from the communications:

(1) Would it be desirable to offer such a course for credit?

(2) Where might this course best fit in the Chinese Studies curriculum?

(3) How and why would this be seen as the appropriate level? Would this be envisioned as an elective for Chinese Studies majors and minors?

(4) What might be the goals, nature and learning outcomes of this course? What would it include? For how many credits?

(5) Will the course cover learning and practicing the art of calligraphy, and history/cultural content related to the topic?

(6) What kinds of assignments, activities, and assessment would be built into the course?

(7) Would/could the course be conducted in Chinese?

(8) Would one envision pre-requisites for this course? If so, what would they be?

(9) If there would be "lab" or materials fees for the course, would there be a need to consult with the human resource manager about this, and perhaps others who have this experience?

Two suggestions were also made by the expert:

(1) To communicate with the program's key faculty members in a more substantive way about this possible addition to the curriculum;

(2) To gather information about the calligraphy course offered by the School of Design and have a conversation with the instructor.

These questions and suggestions were all considered in the instrument design and action plan development stages.

4.1 Identification of stakeholders

Stakeholders are entities or individuals that are affected by the program to be established, closed, changed, or operated. They normally include program funders, clients, non-client community members, and program managing staff. According to this definition, the stakeholders in this study were identified as

(1) the target students of the course,

(2) faculty of Chinese language or culture,

(3) department administrative staff, and

(4) the Department of Modern Languages and the Chinese Studies program.

Students were identified as the "clients" of the course offering. Whether the course would be offered or not mainly depended upon the degree of the students' need. If the course was ultimately offered, many factors, such as syllabus, course contents, amount of credits available, and course level, would have direct influence on the students' likelihood too take the course. Since this course was designed for students of Chinese language and/or culture, it is targeted to a total of 298 students that are currently taking any Chinese course.

The second group of stakeholders referred to faculty members of Chinese language and culture. Through their daily interactions and research, these instructors clearly knew

their content areas and were familiar with the needs for other subject areas that could help their students build a better scheme of knowledge. Also, the new course would need instructors and assistants, who had the ability to share some of the resources from other courses of the program. With a strong understanding of the potential impacts from the calligraphy course, these faculty members could evaluate the necessity or importance of this course. Since there are only a small number of instructors in the Chinese Studies program and everyone has their own perceptions of the relative content areas, all of them were included in the study as informants.

Another group of participants was the administrative staff in charge of the registration, teaching, and quality control of the course. This group was small but very important because they were very sensitive to the feasibility of any course in terms of course level, cost for the department, facilities involved, and appropriateness in the broader view of all languages courses. They would need to find a time period for the new course, calculate the cost and expenses, evaluate the budget, and make arrangements for facilities and materials needed. To involve them in the study was a must. A total of two staff members were included in the study.

The department and the program would have the final decision for whether to add this course, since they would ultimately fund and host this course. Specifically this group had two participants, the head of the department and the coordinator of the Chinese Studies program, and upon conclusion of the needs assessment the data and suggestive report were submitted to them for final approval.

4.2 Research questions and instruments

This research was intended to answer four main questions:

(1) Are there enough potential students to take the course?

(2) Is the course essential and/or necessary for the curriculum development of the program and the department?

(3) Will the resources (e.g., instructors & facilities) and policy allow for the course offering?
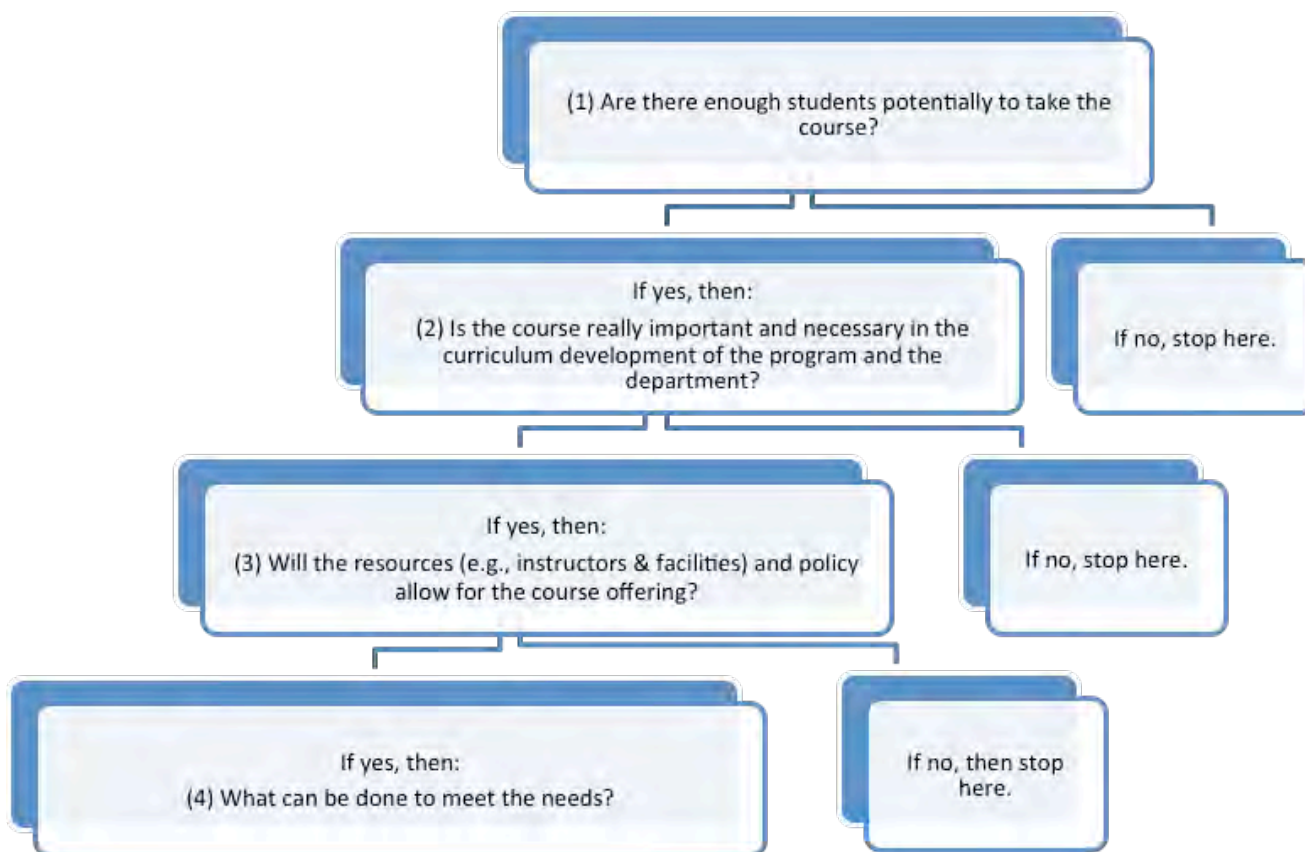
(4) What can be done to meet the needs?

Figure 2. Research questions and addressing sequence

Figure 2 shows the sequence and condition for the questions being addressed. The first question was used to determine if there was a need among students and the size of the need. If there was no need at all, or if the need was very small, it would not make sense to continue with this assessment. If the need was large enough, the assessment would move on to address the second question of whether or not it complements other Chinese courses or other subjects in the department curriculum. Next, the course would need sufficient logistical resources, which included but were not limited to, instructors, teaching materials, classrooms, class time, and budget. Finally, provided that the course proves to be useful, necessary, and feasible, an action plan would need be developed to produce an official course offered to students.

For the above questions to be answered, two surveys and two interview protocols were employed. The first survey was for students and contains six items (see Appendix A). Item 1 was gathering the students' knowledge of Chinese calligraphy. It could potentially be used to correlate with their willingness to take the course. Items 2 and 3 were the key questions uncovering the need for this course. Item 4 aimed to address the required vs. elective course attribute for Chinese major, minor or other types of students. Item 5 and 6 were used to collect the students' suggestions on class frequency and contents to be covered. In addition, there were two demographic items identifying students' course level and major/ minor status (see Appendix A for the survey format and detailed information).

The second survey was for the instructors of Chinese language and/or culture. Similar to the survey for students, this survey also contained six response items (see Appendix B) and two demographic items. The response items addressed the instructor's perception of the course offering's necessity and importance (Item $1-3$), academic credit of the course based on the estimated workload (Item 4), and the contents to be covered (Item 5). The last item checked how the faculty might be engaged when the course is offered (Item 6). One demographic item identified the course level(s) the instructor teaches, and the other was an open-ended question asking the instructors to provide any other comments. The purpose of this survey was to assess the course necessity from the instructors' perspectives, and how the course fits into the program-wide course curriculum (see Appendix B for the survey format and detailed information).

The first interview question list was designed for the administrative staff, and contained five open-ended questions (Appendix C). These questions checked whether there were sufficient teaching materials for a new course, and if the future budget could sufficiently support the course offering. Also, the staff checked the available times of classrooms, as well as instructional equipment and student/instructor schedules. In addition, the questions required the interviewees to think about any possible barriers that may or may not be detrimental to the course offering. After consideration of all these factors, the staff would have a clear idea about the feasibility of the course.

The second interview question list contained five open-ended questions constructed for both the department head and the program coordinator (Appendix D). They provided insight into whether the department and program policies support the content of the new course, whether the program or department will be better off with the new course, whether the instructors met academic qualifications, and whether there were any potential risks to the improvement of the program/department.

4.3 Method and procedure

The surveys were emailed to the faculty members, while the instructors forwarded the surveys to the students that were currently taking any Chinese courses. In the email, an emphasis was placed on honest responses in order to produce results that best meet their needs. Students were informed to turn in their response either through email or in class. For students who chose in-class submission, the instructors collected all the responses and delivered them to the researcher.

Face-to-face interviews were conducted. There were a total of four interviewees in this study. The department registrar and the human resource manager represented the administrative staff population. The program coordinator and the department head represented the decision holder population. A week before the interview, an email was sent to each of the interviewees introducing the purpose of the study and interview, its format, and the expected date and time. In the email, the interviewees' offices were suggested as the interview location for convenience. Since the department head was very busy during that period of time, she emailed her response. All other participants attended the interview in person.

After the data was collected and analyzed, a focus group was held between the two potential instructors and program coordinator to discuss all the important topics identified with an aim to sketch a rough framework for the course. Topics discussed covered the nature of the course, target students, frequency of the course, basic content to teach, and difficulties that may exist. The result of the analysis was reported, and an action plan was drafted.

4.4 Result

4.4.1 Needs of students

Based on the department policy, a language course can be offered if there are at least 8 students registered. The Chinese language/culture course's early dropout rate (before the add/ drop deadline) is roughly 25% on average in some sample classes, according to yearly observations. Technically, 11 (obtained by 8 + 8 x 30%) registered students are needed to reach the minimum number required to offer a course.

In this study, degrees of needs will be defined as follows:

(1) Fair need: 11 – 20 students willing to register

(2) Moderate need: 21 – 30 students willing to register

(3) High need: 31 or more students willing to register

Ninety-nine students, out of a total of 289, have returned complete and valid responses, resulting in a response rate of 34.3%. Although this rate is not high, the main interest of this study was to quantify the absolute number of potential students. Among the respondents, 51 students (50%) reported that they would definitely take the course if it was offered, and another 31 (30%) said they would most likely take it. The result shows a very high need for the course among the students. In addition, 45.5% of the students suggested that it be offered on a semester basis, while another 46.5% suggested a once-per-year offering. The majority of students, 92.9%, prefer that the calligraphy course be offered as an elective, and 95% would like the course to cover the history, culture, and philosophy behind Chinese calligraphy, and writing skills and practices.

4.4.2 Feasibility from the faculty and administrative staff

All of the 10 faculty members returned complete and valid responses. Every faculty member believed that a Chinese calligraphy course was important and necessary for students majoring or minoring in Chinese. Two faculty members offered to be instructors for the course, while the rest indicated willingness to serve as supporting staff. Regarding the teaching content, all agreed that it should cover the history, culture, and philosophy of Chinese calligraphy, as well as writing practices, which is the same content as the students' responses. However, there was no agreement on the number of course units and course level.

The administrative staff considered the operational system of the department. They reported that the course could fit into the current course system. There were course numbers

available at multiple levels, classrooms that could be reserved without any difficulty, and several dates and times that were also available. Class information could be posted very quickly for students. The human resource manager reported that there was no considerable concern from a budget standpoint due to an estimated expense of only $100 for the teaching materials needed.

4.4.3 Responses from the decision holders

Based on the result of the interviews and the focus groups' survey, both the program coordinator and the department head agreed that a Chinese calligraphy course should be offered. They did not have any concerns but suggested that the course be well designed with rich cultural content. They believed that the instructors that offered to teach the course were qualified and were authorized to begin developing the course. The final decision was to be made and announced once a curriculum report was submitted and approved.

4.5 Action plan

Based on the needs identified from multiple aspects, it was decided that the Chinese calligraphy course was to be offered in the fall semester of 2013. To make this realized, the following action plan was developed.

(1) Vision and mission of the course

Vision: Students would not only be trained to have a good understanding of Chinese characters and their cultural and philosophical background, but also be able to appreciate the art and beauty in Chinese calligraphy.

Mission: To help students gain knowledge of the history, culture, and philosophy, build up basic skills of calligraphy writing and analysis, and obtain benefits in the development of morality, personality, intelligence, and health from learning and practicing Chinese calligraphy.

(2) Course design

The Chinese calligraphy course was designed as a nine-unit elementary-level language related culture course. It covered topics on calligraphy history, language development, Chinese philosophy, styles and genres, basic writing methods, writing practice, and analysis and appreciation of calligraphy works. It would be offered twice a

week, each lasting 80 minutes. Two instructors would co-teach this course for the first

year.

(3) Agenda and timelines

The instructors would submit the assessment report within two weeks. Within one

week after the report was approved, instructors would begin designing the course. Detailed

course design needs to be worked out as soon as possible because it would involve a complex

process, with multiple iterations. Working agenda is shown in Table 1.

Table 1. *Agenda of Chinese calligraphy course offering preparation*

Deadline	Task finished
March 31	Course description drafted (learning goals, course format, teaching methods, course content, and learning outcome assessment method)
April 30	Course description finalized and posted (course number, class date/time, classroom, syllabus, textbook information); and course registration available
May 31	Teaching materials purchased or ordered (textbooks, writing brushes, paper, ink, practice books)
June 30	Teaching plans drafted
August 15	Sufficient number of students registered; teaching plans finalized

This agenda was aimed to fill the gaps in needs for a calligraphy course identified

from the needs assessment. Although the deadlines were established, it would still have been

better if the tasks were completed earlier to accommodate any unexpected issues that may have

arisen. In addition, this action plan needed to be revised accordingly based on actual situations

and new concerns that arose. Regular meetings were arranged between the instructors and

other related members to address these situations.

5. Conclusion and discussion

Chinese calligraphy, as both a historical method for documentation and

communication, as well as a form of artistic expression, has produced great influences both in

China and in the world. It is a great cultural treasure not only for China, but also for the world.

Both historical and empirical evidence clearly demonstrate a compelling necessity to pass on

this knowledge and skill from generation to generation through teaching and training. This assessment specifically concluded that a Chinese calligraphy course was both highly needed and feasible to be offered at Carnegie Mellon University.

In the UNESCO Universal Declaration on Cultural Diversity (2001), different cultures are no longer regarded as national properties, but rather as the common heritage of humanity. To promote an awareness of the positive value of cultural diversity, the declaration encourages all levels of education to take actions on both curriculum design and teacher education. This research was an attempt to fulfill the encouragement by conducting an assessment and a course offering trial.

The role of the needs assessment was to engage a broader range of stakeholders rather than just students, encourage fairness of evaluation, and produce useful and valid results (Bloom, 2010; Weaver & Cousins, 2004). It was intended to reflect these merits involved within this approach. However, it is possible that some unidentified stakeholders were missed, which may have affected the validity and other dimensions of the assessment. This weakness should be avoided through learning from other research studies and continuing to improve the design of the needs assessment.

Adding a new course in a higher education institution through a needs assessment is a leading trial in this field. There is currently a lack of established methodology, as well as research for this application. Some tools employed such as the survey and interview questions may not have been able to reflect the reality (i.e., needs) and other situations. Other methods may need to be employed to supplement the evidence obtained. The procedures should be standardized and researchers trained to reduce any inconsistencies in the results.

Finally, since this assessment was conducted within one department, just a small number of faculty and staff were available to provide data. Therefore, information collected may not have been representative enough. Other ways need to be explored to rectify the potential bias that may exist. A process evaluation may be conducted to check the performance of the teaching and learning to see if the needs were accurately identified and sufficiently satisfied.

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Appendix A

Survey of the Needs of a Chinese Calligraphy Course for Students

Dear All,

This survey is used to assess the needs for a Chinese calligraphy course at Carnegie Mellon University. Please take a few minutes to provide your opinion by choosing the best option for the following survey items, and return your finished survey to your instructor. Your response will be kept in strict confidentiality. If you have any questions, please contact Professor Li, principal researcher, by email (haven@andrew.cmu.edu). Thank you for your time and cooperation!

Please circle the choice that best matches your situation.

1. I have _____ about Chinese calligraphy before.
   ① heard a lot   ② heard a little   ③ never heard

2. Chinese calligraphy, as a course, would be _____ to me.

very interesting	somewhat interesting	moderately interesting	somewhat uninteresting	very uninteresting
①_____	②_____	③_____	④_____	⑤

3. If the University offers a Chinese calligraphy course from next semester on, I would _____ take it.

definitely	most likely	likely	less likely	definitely not
①_____	②_____	③_____	④_____	⑤

4. I suggest that Chinese calligraphy should be _____. (Check all that apply)
   ① a required course for Chinese majors
   ② an elective course for Chinese majors or minors
   ③ an elective course toward GenEd requirement
   ④ offered to no students.

5. Chinese calligraphy course should be offered _____ .
   ① once every semester
   ② once every year
   ③ once every two years
   ④ other (please specify):_____

6. The Chinese calligraphy course should teach _____. (Check all that apply)
　①　the relevant history
　②　how to write
　③　the relevant culture
　④　other contents such as (Please list one or
two):_____

Please answer the following questions about yourself.

1. You are _____.
　①　a Chinese major
　②　a Chinese minor
　③　an undergraduate of another major
　④　a graduate student

2. You are taking _____ Chinese course(s). (Check all that apply)
　①　100-level (elementary)
　②　200-level (intermediate)
　③　300-level (advanced)
　④　400-level (advanced)

Thank you for answering the above questions!

Appendix B

Survey of the Needs for a Chinese Calligraphy Course for Faculty of Chinese

Dear All,

This survey is used to assess the needs for a Chinese calligraphy course for undergraduate students at Carnegie Mellon University. Please take a few minutes to provide your opinion by circling the best option for the survey items, and return your finished survey to Huiwen Li (principal researcher) in any of the following three ways.

(1) Put it in my mailbox in our main office;
(2) Highlight your answer and email the survey back to: calligraphy.course.design@gmail.com;
(3) Hand it to me.

Thank you for your time. Your early response is greatly appreciated!

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1. It is _____ to offer a Chinese calligraphy course to students **in Chinese major** at the University.

very necessary	somewhat necessary	moderately necessary	somewhat unnecessary	very unnecessary
①	②	③	④	⑤

2. It is _____ to offer a Chinese calligraphy course to students **in Chinese minor** at the University.

very necessary	somewhat necessary	moderately necessary	somewhat unnecessary	very unnecessary
①	②	③	④	⑤

3. It is _____ to offer a Chinese calligraphy course to students **in NON-Chinese major or minor** at the University.

very necessary	somewhat necessary	moderately necessary	somewhat unnecessary	very unnecessary
①	②	③	④	⑤

4. In terms of the workload in your mind, Chinese calligraphy most likely is a _____ unit course.
   ① 0
   ② 6
   ③ 12

5. The Chinese calligraphy course should cover _____. (Check all that apply)
  ① the relevant history
  ② the relevant culture
  ③ how to write
  ④ other (Please specify):_____

6. I would like to _____ of the Chinese calligraphy course:
  ① be an instructor of
  ② be a supplementary helper of
  ③ be some other supportive resource of
  ④ do nothing for

Please answer the following questions about yourself.

1. You are teaching _____ Chinese course(s). (Check all that apply)
  ① 100-level (elementary)
  ② 200-level (intermediate)
  ③ 300-level (advanced)
  ④ 400-level (advanced)

2. If you want to have a further discussion with me, please provide your contact information below:

Thank you for answering the above questions!

Appendix C

Interview Protocol for the Administrative Staff

Place of Interview: Date of Interview:
Job Position of the Interviewee:

Hello! We are developing a new Chinese calligraphy course for undergraduate students at Carnegie Mellon University. In order to assess if the course is needed, important, and offerable, we have designed a number of questions for students, faculty, and relevant staff members. Here we have five questions for you to answer. Please provide your opinion and thoughts honestly. Thanks for your great support!

Questions:

(1) From your official perspective regarding teaching materials, classrooms, class time, and budget, how feasible is it for Modern Languages Department to offer a Chinese calligraphy course to the undergraduate students?

(2) What concerns are there in your mind if this course to be offered?

(3) What concerns are addressable on your side?

(4) What are the hurdles that may not be overcome temporarily or permanently?

(5) How will the issues not addressable affect the course offering?

Thanks for answering these questions. If you have other concerns, you can reach us at haven@andrew.cmu.edu.

Appendix D

Interview Protocol for the Program Coordinator and the Department Head

Interview Place: Interview date:

Interviewee's job position:

Hello! As you know, we are developing a new Chinese calligraphy course for undergraduate students at Carnegie Mellon University. In order to assess if the course is needed, important, and offerable, we have designed a number of questions for students, faculty, and relevant staff members. The preliminary analyses show a substantial need for the course among the undergraduate students in Chinese major or minor. Here we also have four questions for you to answer. Please provide your opinion and thoughts honestly. Thanks for your great support!

Questions:

(1) From your official perspective regarding the course fitfulness for the curriculum system, program or department policy and operation, and instructor qualification, how feasible is it for Modern Languages Department/Chinese Studies program to offer a Chinese calligraphy course to the undergraduate students?

(2) Will the department or program be better off with the new course to be added?

(3) Two instructors, A and B, offered to teach the course. According to your knowledge, how academically qualified are they?

(4) What potential risks do you see that may impede the improvement of the program and/or the department?

(5) What concerns do you have?

Thanks for answering all the questions! Please contact me by email if you have any concerns or other thoughts.