

Teaching in China

Teaching Chinese Students in the U. S.

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Abstract

The author had the opportunity to teach for four weeks in the Peoples Republic of China. This exposed a number of interesting differences between the educational culture of China and the USA. These cultural differences also have ramifications for instructors dealing with foreign students. Prior to this trip there had been local problems in reaching Chinese students, which now became much more clear. While not claiming solutions for all problems, the author hopes that exposing the experience and issues will provide benefit to other faculty and administrators.

1 Introduction

In the early days of 2010 an unusual opportunity presented itself to the author. There was an invitation to teach introductory computer science courses for four weeks in a Chinese college in the English language. The institution was Zhejiang Economic and Trade Polytechnic (ZJETP) and is located in Hangzhou, which is just Southwest of Shanghai. ZJETP is a three year school with approximately 8,000 students. Three courses were to be taught, an introductory Java class for freshman and two sophomore level classes, one on Data Structures in Java and one on the language C#. The students in these classes were all enrolled in an international studies program, thus should have enough English.

The rest of this paper describes some of the experiences that stem from such a trip and the educational culture differences and their implications in the classroom. These cultural differences also have implications for instructors who may find foreign students from the Asia in their classes.

2 Classroom

2.1 Prior to Arrival

The semester for this institution started in March, shortly after the Chinese New Year celebration and extended into the first week of July. The guest teaching position started in the middle of May and extended for four week. The final examination period immediately followed. These facts were not immediately obvious. It required a series of emails to confirm these facts as well as the courses and content desired during the appointment time.

The author speaks no significant Mandarin and so the only communication was to be in English. Hangzhou is a vacation area for the Chinese, but not as much for foreign tourists, who are much more common in Beijing or Shanghai. In general the English language proficiency of the citizens of the nation is not what one would expect in Europe or many other areas. Figure 1 is in an example of the level of English seen in public. The country is promoting English language proficiency, but lacks native English speakers, hence the invitation to teach was more about English than Java or C#. However, this lack of competent English caused substantial confusion concerning expectations.

Emails were not always clear, actually they were seldom clear. For example the following sentence was part of an email sent by the author:

Are the textbooks in English or Chinese? I was not planning to bring the three textbooks, but will need to bring them if the textbooks are translations.

The reply was not completely informative:

All the textbooks are English buy from USA, we have prepared for you. You can keep them.

The net effect was the first day of class had its share of anxiety, with an uncertainty about what was expected both in content and delivery technique. It would seem that the faculty had higher regard for the foreign instructor than was deserved or less expectation as to what would happen in the classroom than would be normal in the U.S.



Figure 1: A sign in a tourist area.

The situation of the invitation was also uncharacteristic of America. Imagine a professor being told that the last four weeks of their class was to be handled by guest with good credentials, but with whom the professor was not personally familiar. Although some would enjoy the time of lesser workload many would be annoyed or even outraged by the loss of time to prepare students and the imposition.

2.2 Lectures and Laboratories

The format of the courses was not substantially different than what one might expect in any university. The class periods were 90 minutes rather than 50 or 60. The three classes had one 90 minute lecture and one or two 90 minute laboratories per week. Equipment in either the lecture or lab was not unusual either. Projectors and lectern computers were standard in the lecture rooms and usually there were projectors and instructor computers in the lab setting. Figure 2 shows a typical laboratory session. In each lab each student had a networked personal computer. Work had to be saved under an account on the network. The students occasionally complained of the speed of their laboratory computers, but then again what student has a computer that is too fast? The teacher of record was always present in both lectures and labs.

Conducting a class in English in China was an experience in its own right. There was considerable variance in the quality of language skills of the students. It was clear that all had studied English for some time, but it was also clear they had little exposure to native speakers of English. The sophomore level classes did much better than the freshman class, which was not surprising. They understood written English more easily, but even written laboratory instructions were sometimes challenging. Foreign speakers must be careful to speak more slowly than normal and avoid an extensive vocabulary. This can be challenging in a technical study, such as the programming classes.



Figure 1 A computer lab.

Aside from these points conducting a class in this environment was not very different from what one might see as a visiting professor in any classroom. However, there were a number of subtle differences that were not immediately obvious.

3 Culture

3.1 Questions in Class

There are five good reasons why a Chinese student will not ask questions. Most of these reflect cultural differences.

- 1) The Chinese have great respect for their elders. Unfortunately, the author has just enough gray hair to trigger this response.
- 2) There is deference for foreigners. Foreign guests are treated with great respect and those foreigners that were present were always treated with utmost politeness, almost to the point of annoyance.

An anecdote about these points might illustrate. During a lab session I got down on one knee to get at eye level with the computer monitor and the student who was seated. It was as if the fire alarm had been activated. The student jumped to his feet and offered me a chair. The regular teacher was on the other side of the room at the time, but hurried over to assist. Having an honored guest do such a thing made them aghast, while in the US this would be normal action.

- 3) Even the local instructors are held in high respect as authority figures. It is uncommon for students to ask questions in many classes, for it is perceived as disrespectful. The students must be encouraged to interact before they will do so.
- 4) Even those people who have reasonable English are self-conscious that their language skills are insufficient. Hardly anyone spoke English to the author without first

apologizing for the quality of their English. This was true of most adults and even more so with students.

5) The universal reason for any student of any culture to not ask a question is that they do not wish to look ignorant in front of the other students.

3.2 Entrance Examinations

The Chinese educational system has more in common with what is found in England or Europe than with the United States, but it is unique in many respects.

At the end of a student's secondary education the student will take the national college entrance examination. This is a locally conducted event of national importance. The acquisition of or construction of suitable facilities for this examination is an item of national importance, with television news coverage. The results of this examination will determine what choice of higher education is available to the students. It is a perilous event for the student in three grueling days their education opportunities will be determined[1,2,3]. It is difficult to score sufficiently well to be admitted to a good institution, only about 65% of students who take the examination are allowed into higher education[3] and this disregards those who do not take the examination. The nation has poured billions into its education system and this is reflected that this percentage has increased from the 4% of the 1970s[4]. Only those families with some means may send their children abroad for a highly coveted foreign education. Some of these are now skipping the entrance examination altogether in favor of applying initially to western universities[5].

Although the preparation for the entrance examination is very difficult, dominating the students last years of secondary education, things change dramatically when the student enters higher education within China. However, once the student is admitted to their institution there is a very small chance of not graduating. This is completely different than most western nations.

3.3 College Experience

The college experience is largely different for Chinese students than American students. These differences will be seen in various ways such as scheduling, grading and stress.

Students of the same major will generally have the same fixed schedule. The class registration process familiar in the North American colleges is largely absent. Thus, each student will be in every class with exactly the same set of students. Not surprisingly they will get to know each other very well. They will tend to rely on peer help more than instructor help and will always know nearly everyone in their classes. What Americans would consider plagiarism will be the normal cultural cooperation.

Chinese culture has been strongly shaped by Confucianism[6]. One of the aspects of this is the strong group orientation. In contrast to this is western culture, especially in the U.S., where individualism is normal. Except for rigidly structured examinations, every project is a group project.

Grading is often similar to the entrance exam systems, with very little grading during the term, in favor of a set of examinations at the end of the semester. At ZJETP, among other institutions, there are typically two examinations, the “A” and the “B.” If satisfactory marks are earned on the “A” examination, the student passes. Only those who do poorly on this one are required to take the “B” exam. As mentioned earlier, almost every student will pass one or the other. This cannot be seen in a lecture, but laboratory sessions are very lightly monitored.

Classes were often more like a high school class rather than a class. Some buildings were equipped with bells marking the hours. It was definitely not acceptable to let students out of a class early. Attendance was also taken, usually by one of the students.

What would amount to academic career ending plagiarism did not raise eyebrows, because lab exercises were not graded. It is questionable to consider it cheating when an exercise will not be graded, but plagiarism was widespread. In one exercise in the Java class, twenty five programs were turned in. At least five of these programs had one or more obvious duplicates. One of these had three copies of the original.

The level of expertise is somewhat lower than one might expect. The aforementioned Java project had at least one program which was just empty, that is the public class statement generated by Eclipse. Another had serious syntax errors. The plagiarism itself suggests the problems in the class. The class at this time was three months into its term. This is less than would be considered normal in a class conducted within the United States.

3.4 Motivation

Any experienced classroom instructor has seen a large variance in the students of a class in regards to talent and motivation. This is particularly the case in the Chinese classroom. There are those who are bright and motivated – the joy of the instructor. Alas, there are also those who are at the other end of the spectrum.

There are a number of issues that tend to dampen the motivation of Chinese students. The environment may be the foremost. If there is the certain knowledge that graduation is all but guaranteed, then the desire to go beyond the minimum requirement is suppressed. The minimum itself is rather low. The attitude is that a student has to work hard to get into higher education but can take it easy once accepted.

The Chinese system has another problem that exerts negative influence. The examination system tends to favor those who are better at rote memorization. It is much easier to write an examination question that queries a fact than to determine the presence of higher order thinking. Since the entrance examinations are so crucial secondary teaching is often directed towards taking the test, which only compounds the problem. Computer science, like many other disciplines, needs that higher order thinking, so suffers from the entrance exam syndrome.

The author observed this effect in a variety of ways, but one example will be noted here. Students that had been given a laboratory assignment expected the solution to somehow

conform to the examples given in the book. To some of them the problem could be magically solved using cut and paste from existing examples. This is an excellent indication that they did not know what they were doing. Yet they were able to pass a written examination concerning Java!

Parental pressure also cannot be underestimated. Culturally parents are the same everywhere – they love their children and want the best for their children. However, in the western culture it is not unusual for a student to adopt a plan of study that his or her parents do not appreciate. Parents in the U.S. are more likely to put the child's happiness above their own desires. The Chinese respect for age and ancestors does not allow much freedom in this regards. This is complicated by the fact that most parents of college-age students remember extremely difficult economies in China. These parents have similar attitudes as those who those in the U.S. who lived through the Great Depression. They are very concerned that whatever area their children enter has an excellent chance for resulting in a lucrative position. This forces many students into areas to which they have little interest. The fact that they were able to pass the entrance examination usually signifies some aptitude, but aptitude without interest does not go very far.

There seems to be a motivational issue with instructors as well. The realities of the system are not lost on them, so they know what may or may not be accomplished. However, unlike visitors, they often have nothing else to which to compare the Chinese system. If the instructors are not demanding the best from the students, there is little reason to expect that they will perform to their highest level.

The instructor motivation may also be affected by the younger average age of the faculty. The number of Chinese institutions of higher learning nearly doubled from 2000 to 2008[7]. The increase in number of institutions should lead to a corresponding increase in the faculty. The author's observation was of a very young faculty at ZJETP. The more elite and older institutions should have a higher average age. The normal expectation is that the older faculty should influence the younger. The Chinese respect for elders would accentuate this, but it has little effect if there are few elders at the institution.

The preparation of the faculty is also in question. A three year college should have many more master's degrees than doctorates. However, the scarcity of doctorates at ZJETP is much greater than expected at even a community college in the U.S. Moreover, very few of the faculty had industry or business experience except as a student. There is no evidence to believe that a master's degree is less rigorous there, but the faculty preparation seemed somewhat shallow. This seems symptomatic of a rapid build-up of higher education capacity.

The faculty also had the following difference from what is familiar here: a much larger percentage of women. This is not a criticism, merely an observation. The faculty of technology and business departments alike had many more women than men. The refreshing side of this was at the student level. Computer science classes were usually equally split between men and women. At the higher levels of administration men were in the majority but women were conspicuous.

One thing that contributes to good student motivation is the current economic situation of the nation. A three or four year college degree no longer means guaranteed employment. An estimated 700,000 university graduates were still unemployed nearly a year after

school ended in 2008[8]. The students know this and it motivates them to do well in the entrance examinations so that they can enter the better schools, as well as to do well in whatever institution they attend.

Any business environment expects a certain amount of inexperience in college graduates. Chinese businesses seem to do a better job of mentoring their new employees and filling in the deficiencies than what is routinely expected in western countries.

3.5 Corporate Approach

Colleges in China have a different attitude than is usually seen in this country. These are governmentally supported but act more like private companies. The Hangzhou area has many colleges and universities, most of which have their main campus in a single district. Most of these have a spacious campus that usually includes some surrounding area containing housing and businesses. Figure 3 shows part of the campus of ZJETP. ZJETP for example has both dormitories and apartment buildings. It is in the process of building a hotel on its campus. It also owns a grocery store and other similar businesses. Students of appropriate majors work as interns in these businesses as part of their education.

This approach is not restricted to their main campus. ZJETP also owns an apartment building in downtown Hangzhou which is reserved primarily for faculty and staff. The housing is neither free nor largely subsidized, but rents for approximately market rate. However, a bus transports the faculty and staff who live there to campus and back once a day. The author did not live in this apartment but in a nearby hotel. Similar apartment buildings also exist elsewhere.

The college was also housed at least two private enterprises. Chinese higher education is expected to contribute to economic development. This is not dissimilar to what might be found in the United States, but there was a difference as well. In the U.S. companies on campus are much more likely to be startups in a institutionally administered incubator. The usual policy is that profitable corporations move out of the incubator into their own quarters. In China, even the profitable or large corporation that is on campus is paying rent for the facilities. Such a corporation intends to recruit students for internships and graduates who have shown promise as interns. At least in publicly funded higher education in the U.S. this is seen as public favoritism to a private corporation with the attendant protests. As of yet that is not an issue in China.



Figure 2 A view of ZJETP campus

3.6 Disclaimer

This is not a systematic study of the Chinese educational system, nor were there any objective experiments carried out or surveys given. Clearly, four weeks of experience does not make the author an expert. Nor is it safe to generalize the observations of one school towards the entire system.

However, the need for reform is clear to large numbers inside and outside of China[3,5,9]. They have the similar concerns as many other countries. North America and Europe are educating foreign students, many of whom will not return to their native lands. It is estimated that only 27% of Chinese students of 2008 returned[5]. This is a tremendous waste of resources. Perhaps more importantly their system is not producing the educated citizens needed in the economy of the 21st century.

This paper is not intended to criticize the education system of China, nor ZJETP. The system has come a long way in a short time. In 1949 literacy was about 20%, yet by 2002 it was approximately 90%, with higher rates among those less than 25 years of age. Most of the significant gains are since the 1980s[7]. Should Chinese professors come here, it is reasonably clear they would perceive many characteristics of western education not only different but also in need of reform. The outside expert can see things that the locals cannot. The intent is to show the cultural background that Chinese students will carry to the west and how this will impact U.S. classrooms.

4 Suggestions

There are institutions that are not operating at capacity, especially in areas of decreasing demographics. For such colleges attracting Chinese students has substantial allure. The most obvious attraction is money. These students will pay tuition like every other student. If the institution is publicly funded that tuition will be the most expensive and thus will more closely match actual expenses. In areas with lesser Asian populations, Chinese

students will greatly help the cultural diversity. Colleges from largely rural areas often have issues from the Higher Learning Commission on cultural diversity.

Any student who is sufficiently intelligent and motivated will succeed despite the educational system. However, transporting students from one system to another is preparing them for failure. This not even accounting for language and general cultural differences.

Normally an institution should have an office in charge of international students. This contact should arrange an orientation for all incoming students, not just those from the Asia. However there is still a need for the classroom instructor to have some knowledge in this area. What, then, should a classroom instructor do to allow the students to prosper at their new location? Consider the following suggestions.

An instructor should actively engage these students in and out of the classroom. Classroom engagement is always important regardless of the student's culture. However, the Chinese students in particular have not usually experienced abundant instructor accessibility. They need to be told that it is different here and encourage them that seeking help from the instructor is a normal expectation. Questions from students are often discouraged directly and indirectly in the Chinese system, so the students presume it is the same here. The students who will make this transition are intelligent and will perceive the change in the system.

Make extremely clear that evaluation is an ongoing process. These students are used to a system where all tests occur at the end of the term. They will tend to underestimate the importance of daily or weekly assignments, because such things were only lightly graded. In many courses in this country the final examination may adjust the grade a letter in either direction, but no dramatic change is the norm.

State clearly the penalties for plagiarism, but with other synonyms. Many of the cultural values of China are inherited from Confucianism. In that system it is much better to be right than original. The Chinese system penalizes cheating on tests when it is detected, but the practice of lightly examined assignments tends to promote copying before the final examination.

Another place to be clear is on the importance and grading of assignments. The Chinese students may customarily discount the importance of such tasks. Sometimes American instructors phrase requirements as if they were suggestions. The Chinese are not afraid or unfamiliar with hard work as long as they understand its importance.

If at all possible, record class sessions. Typically foreign students must pass a minimum test of English comprehension. Despite this, native speakers will speak more rapidly than to which the foreign students are accustomed. A recording allows the students to review the material and catch that which they missed the first time. This is a desirable technique for the local students as well.

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