

RESEARCH ARTICLE

Challenging the Western stereotype: Do Chinese international foundation students learn by rote?

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Abstract:

The dissonance between Eastern and Western learning approaches is regarded as an obstacle for Chinese students to adjust in Western education environments, and one of the reasons is the lack of an understanding of Chinese learning approaches, i.e., Chinese learners are uncritically perceived as rote learners. This paper investigates Chinese international foundation students' learning approaches when they were in China and here in the UK. Their experiences indicate that, similar to UK students, Chinese students learn with the intention of understanding, they use memorisation only when they fail to understand or have examination pressure. Consequently, Chinese students adjust well to Western teaching styles. Some difficulties they experienced in classrooms

are due to language problems and a lack of understanding of Western cultural backgrounds and expectations. Moreover, similar to UK students who leave home for the first time, the greatest challenge is to develop self-regulated learning. The paper argues that, although Eastern and Western teaching styles are significantly different, students underlying learning approaches can be similar in China and the West.

Keywords: understanding; memorising; learn by rote; Chinese students; academic adjustment

Introduction

For a number of reasons, including rapid economic growth, growing study pressure on children in the Chinese education system and the prestige of a Western university degree in the Chinese job market, wealthier Chinese parents are increasingly sending their children abroad to study. The UK is one of the most popular study destinations in Europe, more than 100,000 students in 2010 (Grzegorzek 2011). Due to the gap between Chinese high school qualifications and UK university admissions criteria, a one-year foundation programme is often a necessary first step for many Chinese students.

Chinese foundation students are usually 17-19 years old and have often left their home country for the first time in order to pursue their course of study. Living and studying abroad is an exciting but often stressful experience due to significant differences in the Western academic environment. The challenge goes beyond having to study a subject in a foreign language and encompasses having to deal with important changes in academic learning style. Such changes include actively participating in discussion, critically examining a particular claim in extensive writing and developing identity as an independent learner (O'Sullivan and Guo 2010, Zhou et al. 2005).

Chinese learners from what are referred to as Confucian Heritage Cultures (CHC) (e.g. PRC, Taiwan, Hong Kong, Korea, Japan) have sometimes been stereotypically characterised, in Western educational settings, as passive rote learners who are primarily concerned with memorisation of material. In contrast, the stereotypical image of Western students can be that of deep learners whose intention is to understand the meaning of the material by Western educational standards.

However, recent literature has challenged the view about the learning approaches and study practices of Asian students (Biggs 1996, Chalmers and Volet 1997, Chan 2001, Chan 1999, Kember 2000, Tan 2011, Tavakol and Dennick 2010). Instead, it is suggested that Chinese international students rote learn whilst using deep and achieving approaches concurrently (Tan 2011). Indeed the Chinese learning style is more complicated than it looks on the surface and it has puzzled many Western educators and researchers who have accorded much attention to it over the past two decades (Rao and Chan 2010). Moreover, while the Western model of learning may be successful in creating a generalised description of 'elite' goals and values of academic culture, little study has been carried out on how the majority of Western students learn (Haggis 2003). Therefore, one may ask whether Eastern and Western students really are learning in fundamentally different ways.

Western misconceptions of Chinese learners

Since the 1970s there has been research into conceptions of learning initiated by Marton and Säljö (Marton et al 1996, Haggis 2003, Tan 2011) which has significantly influenced higher education in the UK. Learning was seen broadly to have two basic approaches: (1) a deep approach, based upon understanding the meaning of course materials; (2) a surface approach, based upon memorising the course materials for the

purposes of assessment. Other approaches, such as strategic learning, have also been noted although more attention tends to be given to deep and surface approaches (Tait & Entwistle 1996). This Western research to approach of learning has outlined desirable and less desirable behaviours and tendencies that are seen to be linked to success and failure at university (Haggis 2003), i.e., deep approaches to learning are more likely to result in high quality learning outcomes and recognised achievement so many seek to encourage it amongst students.

Attempts have been made to apply this model to other cultural contexts such as Chinese learners which has resulted in stereotyping Chinese learners who are described,

“in Western educational settings, as passive: at times displaying a marked reluctance to speak and express their opinions in class; respectful of and expecting structure and hierarchy in the classroom environment; heavily reliant on rote memorization; lacking creative and critical thinking skills: teacher-centred, accepting, largely unquestioningly, the knowledge and authority of the teacher” (Cross and Hitchcock 2007).

More specifically Chinese learners are considered to rely heavily on memorisation, which is strongly associated with surface learning; hence they are more likely to be described as surface learners.

However, there are arguments against this view. Lee (1996) argued that

“there is no lack of stress on the significance of reflective thinking in the process of learning in the Confucian tradition”.

Moreover, Chinese students employ memorisation as an initial process in moving forward understanding rather than rote learning (Kember 2000, Tavakol and Dennick 2010). Increasingly studies have found that Chinese students show little difference from their Western counterparts by being active learners and preferring meaning-based learning strategies and more interactive relationships with their teachers. This suggests

that the traditional Western stereotypes of students from a Confucian heritage could be unfounded (Chambers and Volet 1997, Bigg 1996, Kingston and Forland 2004, Shi 2004, Sun and Richardson 2011) and that the differences between Western and Chinese learners may be more pragmatically contextual, more as a result of the influences of examinations, rather than culturally polar (Cross and Hitchcock 2007).

Chan's (2001) study of Hong Kong Chinese learners found that learning approaches are not inherent in the learners; they could also vary as a function of the learning context. This is strongly supported in Wong's (2004) finding that the longer the students study in Australia the more they are likely to adapt to and adopt the style of teaching and learning there. It would seem therefore that learning styles are not culturally based or fixed but contextual.

An often overlooked factor to consider is the heterogeneous nature of the Chinese-speaking world where customs and cultural habits change significantly from region to region. When we consider 'Chinese students', we should consider the variety of their national, regional, economic, class and cultural backgrounds as well as age, religion and gender (Shi 2004). A Chinese international student's comment that

"I was more shocked by South-North difference (within China) than East-West difference (China/UK)"

underscores this point. As stated by Gerbic (2005),

"a single unified concept of a Chinese learner is conceptually tidy, but open to the dangers of stereotyping."

It would also be unwise to overlook the diversity of modern Chinese education. Although government-controlled public education is still uppermost, other types of schools such as elite and ordinary private schools and vocational schools are booming across the country, especially in the south-east part of China where most of our

department's students are from. As shown by Yang (2009), Chinese students' values are becoming more diverse, less traditional, and more internationally orientated.

Understanding and memorising

One aspect at the centre of Western misconceptions is that it is believed by some Western educators that memorisation does not enhance understanding but, rather, the two are generally considered to be mutually exclusive (Marton et al. 1996). However, Prosser and Trigwell (1999) suggest both deep (by understanding), and surface approaches (only by memorising) "should be considered to be simultaneously present in the student's awareness", rather than "independently constituted", the naming of these elements as separate items seems to result in a process of gradual reification as the ideas move into wider circulation (Haggis 2003).

Chinese students tend to learn through a sequential four-stage process: (a) memorising, (b) understanding, (c) applying, and (d) questioning or modifying (Tweed and Lehman 2002). Haggis (2003) contests that the Western model, which seeks to emphasis deep learning, involves teaching that mainly represents an academic's view of understanding and knowledge acquisition and does not necessarily illustrate Western student's perspective on the issue. Again, this leads us to question whether Eastern and Western students are fundamentally learning very differently.

Chinese students' experience in Western academic environment

Much of what has been written about Chinese students' experience in the UK focuses on difficulties from a Western teacher's point of view in various aspects such as self-regulated learning, verbal participation, group work, assessment, critical thinking, teacher-students relationship (Fan and Yue 2009, Hardie 2009, Hyland et al 2008,

Holmes 2006, Summers and Volet 2008, Turner 2006). It is a common perception that the Chinese learning style does not transfer easily to the Western educational system owing to the culturally implicit nature of Western academic conventions; the students experienced high levels of emotional isolation and loneliness, which affected their academic confidence (Turner 2006).

Cross and Hitchcock (2007) investigated Chinese student perspectives of key differences, difficulties, and potential benefits of studying in the UK and discovered that the greatest difficulty Chinese students have in adapting to UK HE is not knowing what is expected of them. They concluded that teachers need to possess a knowledge and understanding of the educational context which has moulded these students thus far and the skills to facilitate transition from the old to new. Without such knowledge, understanding and skills, transition is unlikely to be anything other than a painful and possibly unsuccessful process.

The aim of this study is to investigate modern Chinese international students' learning approaches when they were in China and are here in UK as well as academic adjustment from students' perspectives. The questions to be answered included: What is the preferred learning approach when studying in China, understanding or memorising or both? Did learning approaches change since studying in UK? How were they adjusting to different teaching approaches? Are they achieving as well as home students in foundation centre learning?

Methodology

The case study took place over the course of one and a half years, 2010-11, and involved 21 students from academic year 2010 and 2011 who had left their homes in

mainland China for the first time to study a Foundation programme: seventeen studied social science programmes and four science programmes. They were part of a cohort of Foundation students of which 30% were international students from more than 10 different countries.

The study aimed to explore students' learning experience; it was considered more appropriate to adopt an in depth qualitative approach. This was achieved by the use of one focus group, interviews and narrative methods supplemented by particularly students' exam results.

Within Chinese culture, the development of conditions of trust is an important prerequisite for achieving openness in any social interaction (Tsui, Farh and Xin 2000, cited in Turner 2006), therefore it is particularly important to establish personal trust with the participants. This was achieved through various social contacts and the investigator as a Chinese speaker also had advantages to set them at ease to express their thoughts during the focus group meeting and interviews.

Focus group

A focus group to initiate discussions was held in February 2011; it was used as a preliminary study to explore ideas of research. Verbal consent to tape-record was obtained from each participant. Interaction between participants was encouraged and confidentiality assured. The discussion was held in Chinese to help students talk more freely about their feelings and opinions. A topic guide was used to initiate and direct the focus group conversation. At the end of the discussion, a feedback sheet was given out which allowed them to include additional comments they may have felt unable to share in the group or which time had not allowed them to express.

Interviews

The focus group opened up students' willingness to talk about their personal experience in China and in the UK; it also developed the more specific aim of study, i.e. to investigate students' learning approaches and academic adjustment. Therefore further interviews were carried out to explore their academic experience in detail. These were held through April and May at the end of academic year of 2011, and more interviews were carried out with new cohort of Chinese students in November 2011. The interviews were semi structured to encourage students to reflect their learning experience in depth. Students were asked to describe in great detail their daily school life, their learning approaches to various and interaction with teachers and students both in China and here in UK. The interviews were audio-recorded, conducted in Chinese and later translated into English; again with the assurance of anonymity. Interviews lasted between 30 – 90 minutes.

Analysis of examination results

It is not useful in this study to analyse students' end of year results since all students have chosen different modules depending on their progression route to undergraduate degrees. Careful considerations were given to selecting a subject to compare Chinese and UK students' exam performance. The exam results of the Psychology module for the period 2008 – 2010 was chosen for the following reasons.

1. It is a subject that large numbers of Chinese and UK Foundation students have chosen.

2. The assessment of the module includes both closed book test and project report.
3. It is a subject new to both Chinese and UK Foundation students; hence, it can be assumed that students started at similar level.

Results and discussions

Education experience in China

A school day life

All of our students are from cities where schools are in close competition to achieve a high education profile, often measured by the number of students entering universities. A few students mentioned that each tutor has been allocated a target for the number of students going into universities and their salary is related to this. Most of them went to government funded schools and their descriptions about previous education are similar. The school life is tough and more like a military style, strictly managed by teachers. A day normally starts at 7:30 am and finishes about 10:00 pm. A student had to get up 5:00 every morning because his home was in another part of the city. There are 7 to 8 lessons a day, 45 minutes per lesson, plus 3 hours evening class in which students do a day's homework and practice questions. The classroom environment is typical of what has been described in the literature in that teachers deliver and occasionally check students' understanding by asking questions, normally answered by clever students in the class. However, students can have plenty of help after class or during evening classes where they can ask teachers questions or work with other students. To most of them evening class is an important time for them to solve any problems they did not understand and consolidate a day's learning.

There is not much time to do independent work or self-study because of too much home work set by teachers every day.

“Some students can’t finish the homework in the evening class so they have to use extra time to do it in the dormitory (after 11:00 pm when the light is off). However, you don’t want the teacher in the corridor to find out so they do it under their duvets (using torch).” (Student 2)

However, it did not mean there is no private study outside schools because many students bought extracurricular books recommend by teachers and study at weekend or in the evening if the school finishes early. Student 17 talked about how she did not understand the physics teacher so she had to buy a text book and taught herself by reading examples, practicing questions and checking solutions.

Some of them have experienced a few years of private education where the learning environment is similar to a Western school and students are taught by both Chinese and Western teachers. The class size was smaller with 30-40 students, and students were more active in verbal discussions, the atmosphere was very relaxed and more outside class activities are provided.

Understanding and memorising

When students were asked why they liked a subject and how they learned, they all responded with “It is interesting.” “It is easy to understand.” “I am good at it.” and “Don’t need to memorise much.”, moreover, they talked about how understanding made learning interesting. Their learning approaches on the subject they enjoyed can be categorised as three themes.

1. By practicing, thinking and enquiring.

Student15: Maths, I felt I understood fast, if don't understand just ask teacher, then do exercise then check my answer, if not right , I think about it why it is not right, if still don't get it then go to ask teacher.

Student 3: Good students think more; try to find out why an event occurred, what is the connection between various events.

Learning by practising and thinking then asking teachers or classmates is routinely used as a way of learning among Chinese students who study science subjects; there is no lack of thinking for understanding in their learning because practicing is not just an activity of memorising an example but thinking process. On the other hand students who enjoy social science subjects learn by reading. "I get 40% from teachers, 40% from reading and 20% by thinking."(student 10)

A student commented that although she sometimes had to learn by memorising, for social science subjects, she needed to understand the material before she could remember it. In History, for example, she learned by making connections between a few historic events or understanding their impacts.

Another student felt strongly about the importance of understanding.

Student 17: In fact when many Chinese children learn Olympic Mathematics they just remember and practice, how can they understand at that age? When I grew up I start to understand first then I remember them but when I was little I use memorising most of time and rely on practice.

She also commented,

When you learn something you understand it by thinking through it, once you understand it you don't need to memorise it because it is dissolved into your blood (融化到血液中). It turns a very natural thing to you.

2. By relating to oneself and the real world.

Many students made similar comments on how a subject is interesting because it has meaning to them.

Student 16: I like Biology, it is interesting. You do a lot experiment. It is related to ourselves, you are reading our bodies.

Student 10: I like Geography; it makes you understand the world. When you learn the world climate, geographical environment, geographic location of a city, you can link them to the city planning and it is very interesting. It helps you to understand why our houses are built here not there....

3. By applying to the real world.

Some students use memorisation only because it is useful for practical application. By memorising and applying the context to a real world they see the "meaning" of knowledge.

Student 21: I like English; I don't make much effort to remember it apart from grammar. I just use it when I speak to my English friend.

Student 10: I like politics because I like debate (on current affair) and I can use it for the debate, my head is very clear when I think about politics.

It is found that students do use rote learning on some subjects; however, it is when they failed to understand them. Therefore, it is not surprising that students described the experience of learning the subjects they disliked with “It is boring.” (students 18, 20, 21) “I do not understand it.” (students 11, 12, 19, 20) and “I have to memorise it like madness (狂背).” (student 12). The interviews show that none of the students enjoyed memorising without understanding. “It is very hard to memorise something if you don’t understand.” (student 2) “I hate rote learning.”(student 19). As a result, some students either give up preparing for exam on the subject they dislike or just spend days before the exam to memorise it in order to pass it and then forget about them.

Student 12: I don’t know why I can’t understand history so I just memorise things the day before exam, mark is not too bad. It is very hard to memorise a thing if you don’t understand.

Student 17: After exam if I think about in which subject I have learned something, it has to be chemistry and physics... but don’t remember anything about politics...rote learning is not reliable. You may know that it can go from A to B but not necessary know if it can go from B to A or not, because you don’t know the logic. If I don’t understand I may just know $1 + 1 = 2$ (meaning simple questions), as soon as the question changes I am a dead person.

This student dislikes the rote learning because it does not offer the “capacity to respond flexibly in different situation” (Newton 2000) powered by understanding.

Academic experience in UK

The information from the focus group and interviews about students' academic experience was categorized into themes such as learning activities in class and assessment including writing essays and exams. Their exam performance at end of academic year is also analysed.

Learning activities in class

Students believe that not all teaching styles are different from what they have experienced in China. The teaching style in maths is similar, i.e., teaching and practicing solving questions, however, the teaching pace here is slower so students have time to interact with teacher or students.

Student 10: I did not like maths in China, it was too fast, I did not understand in class and did not have time to ask teacher, I was gradually lagged behind. Here you learn and then practice and ask in class, I enjoy it much now.

More practical and analytical skills are learned in science subjects. For example, students are asked to write a report after an experiment, logically present the results and discuss the implications of the results.

Student 5: Here teachers teach a lot of practical skills, emphasis more on how to analyse your experiment results. In China we skip this part, we are required to memorise experiment procedure. We don't have practical session in Physics and just a few sessions in Chemistry.

Due to high cost of running experiments in physics and chemistry only few key schools in the capital city of a province in China can afford to run laboratories.

This student thinks learning practical skills are beneficial because this makes him think critically about what he was learning.

Student 5: In Key Skills you learned how to process the error, how to write an essay. In China you only have a chance to do creative writing, never have an opportunity to write any report. Here in Chemistry we have to write two reports and in the Key Skills we have to write research report, so this time I have been to library most times in my life.

Social science students experienced learning styles which involved verbal participation, group discussion, presentation and the use of multimedia. They preferred group discussion to verbal participation, enjoyed group activities and the use of multimedia for various reasons.

Firstly, these activities can break up a three hour long session. Learning in a second language has already been a challenge especially in subjects where they have no background knowledge. Initially they felt they easily got lost in lectures while busily finding out what every terminology means in the particular subject.

Student 6: In China a teacher talks through whole lesson, even it is boring it is not too bad because it is just 45 minutes lesson. But here it is a 3 hours lesson. After an hour I felt I couldn't take any longer, I started to put my head down, I felt my eyes were tired, head got bigger. Use film and discussions to break up lessons is a good method.

Secondly, group discussions have provided them the opportunity to ask their peers questions they do not understand and share ideas with other students, and some students feel more comfortable asking other students instead of teachers. When grouped with UK students they seem not bothered by not being able to participate verbally but listen tentatively, however, they often speak more when with other international students than with UK students because they feel their English level is similar.

Student 7: In group discussion, those UK mature students just like teachers, they take responsibility to explain to you things, I felt I understood better in the group.

Student 2: It is not like you are thinking on your own; we share ideas and more ideas coming out through discussion, and brain works faster. So don't feel nervous, it is fun specially when there is a competition, like playing game.

Often Chinese students are perceived by Western educators as very shy in class; they do not join whole class verbal discussions. This is considered as a significant problem by Western teachers who expect spontaneous interaction in class. The study found that it is due to many reasons, including language inefficiency, inherited habit from Chinese classroom, unfamiliarity with Western educational context and culture, and avoid losing face.

Student 7: In one class I just prepared an answer but those foreigners (home student) have already answered the question.

Student 1: I am used to be quiet in class, in China we never voluntarily answer question. It is a showing off. How can you expect us to change the habit in such a short time? Now I start to get to use to it but it takes time. I must get to use to it because there are often discussions, I have no choice. I feel I have made progress.

Student 4: Of course they (Home students) know more than us because it is about English history. Even for the topic about World War II, it is from English point of view, we have no knowledge of it.

Some students tried hard to come out of their comfort zone to overcome this psychological barrier.

Student 6: I know that some students worry about the answer is wrong, so other people would laugh at you, and so you lose face. But in fact once you break this (psychology) barrier you feel ok. If you never want to break this barrier you will never have a chance (to speak). Some people I know that their English is good but don't dare to speak in class, but they wrote beautiful English. When they really spoke in class they were good, not like me making a lot mistakes, even the teacher sometimes don't understand me. I feel if you lose face a few times you feel it does not matter anymore.

Student 2 believed “speak less gain more” because students like her were “using every ounce of their energies in trying to keep up with what is happening” (Carroll 2005) at early stage of their learning in UK. On the other hand, once students are familiarised with new teaching style they do enjoy speaking out if encouraged. A student was every excited when he was talking about his account in a classroom “She asked me about my opinion...”

It is important to understand that not participating in discussion does not necessarily mean students are not engaged, like Bond and Scudamore (2011) point out it is also possible that being silent in class is a mean of actively demonstrating concentration; a preference for discussion based on considered reflection more than immediate response. In the focus group students also talked about how much they liked a teacher who has good rapport with them. Shi (2004) studied 400 Chinese middle-school students' of learning English in 2003 and data analysis of the questionnaire indicates that students were more in favour of a friend-friend relationship with their teachers than a parent-child one.

Student 2: She (the teacher) saw we were eating Chinese biscuit (during the break time), and came over and asked what we were eating, and said next time we could share some interesting food.

These students think a good teacher should be enthusiastic and sensitive about students' language abilities. They highly regard teachers who they believe are knowledgeable and give great encouragement in class.

Student 2: She always checks if we understand in her session and if we don't she will go over them again using even simpler language.

Student 6: Every time you say something, she will say 'yes, yes, you are right'.

Student 8: She gives very good examples, she puts a lot effort, and she knows a lot, she takes lesson very seriously, makes a lot effort.

Assessment - writing essays

It is not surprising that writing an essay is an enormous challenge to Chinese students (Murphy 2011), therefore it is understandable that they easily get stressed when an essay is set. “Every time there is an essay I felt there is something in my heart, I start to worry about it.” (student 3)

The most difficult part of writing is finding right references; students feel they spend a lot time reading papers and then realise they are not useful, not realising this may be a part of the learning process. One student argued about plagiarism,

“Teacher says every thought is from somewhere such as books or outside sources and we should reference it, but if it is a very simple and obvious thought, how do I reference it?”(student 4).

As Murphy (2011) found that citation/reference/avoiding plagiarism is perceived a very significant barrier to Chinese students.

However, they believe learning how to write an essay is the most significant achievement in the foundation year.

Student 3: It is more like a research, using more brain, spending more time thinking.

Student 4: At the beginning I felt it was very difficult to write 1500 words, then later when I was able to write 3000 words essay, 1500 words essay is not a big deal.

Student 5: It was very new learning curve from not understanding how to write an essay to know how.

Assessment – tests and exams

It is believed that as the competition to succeed has increased, Chinese education has tended to become test-oriented resulting in a focus on memorisation and rote learning (Holmes 2006). However, it is also argued while timed exams encourage memorizing, this is not necessarily rote memorizing or surface learning. Whether it is or not depends on students' typical approaches to learning, and on what they expect the exam questions to require (Biggs 2003). Therefore it is unsound without further research to conclude that Chinese students learn by rote. The Chinese students interviewed felt that it is easier to pass exams than they expected because they are able to access past exam papers and mock papers and there are no surprising questions.

Student 1: The purpose of exam here is to let you pass, because once you have revised the given materials you are confident you will pass. It is a big contrast to Chinese exam where the teacher set questions so hard that it looks like they are happy if no one can answer the questions. Here the teachers want you to find problems before the exam, but in China after exam. Here teachers test you how much you know, but in China, teachers test you to find out how much you don't know.

However, a student commented on how making past papers available encouraged them to learn by rote.

Student 7: The teacher listed reading list but I read none. Even I read it; it won't be in the exam anyway. The exam content is in the power point and it is nothing to do with the book.

Further investigation is need on how exams affect Chinese student's learning approach.

Exam performance

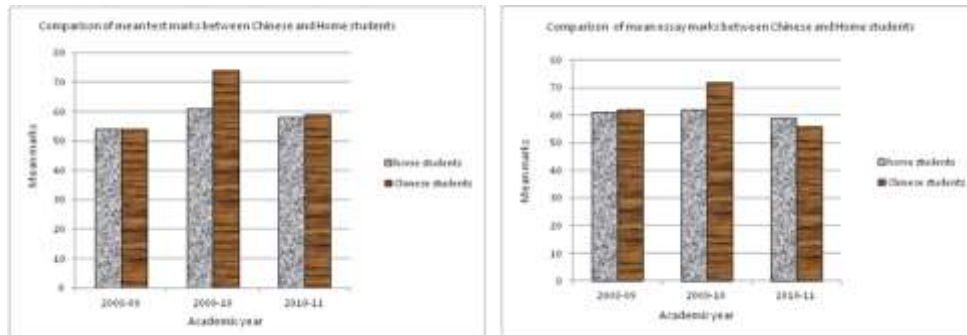
To examine the success of Chinese Foundation students' academic adjustment their exam performance in our Psychology module is compared to that of UK students using assessment results from the last three years. The reasons for choosing the Psychology module have been discussed in the methodology. Table 1 shows the number of Chinese and UK students who completed the Psychology module for the last three years from 2008. It can be seen that the number of Chinese students fluctuated with a minimum of three students in 2009, therefore their results should be considered with caution, nevertheless the comparison has a significant meaning.

Table 1. The number of Chinese and UK students who completed Psychology module last three years since 2008

Academic year	2008-2009	2009-2010	2010-2011
Number of Chinese students	18	3	19
Number of UK Home students	57	39	39

Figure 1 shows the comparisons of the mean marks between Chinese and UK students in their tests and essays. There is little difference in average assessment marks in 2008 and 2010 between Chinese and UK home students. It indicates that Chinese students have performed equally well to UK students in both types of assessments, i.e. test and essay writing. Chinese students have adjusted well academically in Western education system.

Figure 1 A Comparison of mean marks between Chinese and UK students.



Difficulties in adjustment

It is common for international students to understand just a fraction of a lecture initially due to difficulty in adjusting to teachers' speaking styles and their accent. Often they wonder why a word they learned doesn't mean the same anymore, why their English friends' English is not same as what they have learned in English text books. All these suggest that slowing down pace to ease international students into a new environment is very important.

As mentioned earlier understanding the importance of referencing and avoiding plagiarism is very challenging to students who has never experienced essay writing even in Chinese. Another difficulty is learning a subject without as much as background knowledge as UK students such as in culture or history related subjects. Tange and Kastberg (2011) argued that a truly international curriculum will have to acknowledge and build on the resources represented by students from different knowledge systems. Careful consideration should be made when choosing a subject material in order to encourage inclusive learning.

Focus Group: Some topics need us to have the cultural background.

Student 2: It is better if Chinese examples are used.

The most difficult challenge is time management and independent learning. As mentioned earlier learning activities are always managed by teachers at school in China. The unexpected responsibility of managing study on their own makes them feel they are lost.

Student 2: On many occasions I had nothing to do after coming back to flat, don't have homework every day, even if there is an assignment, you don't need to finish it until a few weeks later, plus you don't want to start immediately. So (you) have nothing to do. Normally go on to internet and chat with friends.

Additionally, many students have no experience of being independent in both living and learning; hence they were shocked initially when they found out that they have to make many decisions and learn by themselves.

Student 8: Here if you ask a question or help which is not within the tutor's knowledge he or she will say 'don't know' and that is it, not like Chinese teacher, very warm hearted.

Student 7: Here the teacher teaches you into a topic but the topic may have many branches so I don't know what to study.

The belief that learning is not just an activity in the classroom but also self-regulated independent exploration of the knowledge they are interested in without teacher's guidance is a great challenge. However, some students have developed this belief gradually. Towards the end of the academic year many students started to appreciate self-regulated learning, but resistance to independent learning still exists among some students who believe it is not useful for exams.

Student 5: What I have gained most is that I am more independent in my daily life and academic study. I think more independently, not like before just rely on teacher.

Student 7: Teacher listed reading list but I read none. Even I read them it won't be in the exam anyway.

Limitations of the study

The study is limited in generalizability because it used a small number of students in one Foundation Centre. All the students are 17-19 years old and graduated from schools in large cities in China where good educations are widely provided. Many of them have similar family backgrounds, i.e. they are all well supported financially both in China and in the UK. The results should not be broadly generalised without further investigation to the larger population of Chinese international students of various ages and family background, such as Chinese postgraduate students or younger Chinese students studying in private schools in a Western country. However, Western readers working with Chinese students may relate the findings to their situation and should be cautious about assuming that Chinese students (and Western students) form a

homogenous group and learn in the same way. Furthermore, they may find it beneficial to give attention to contextual factors which could shape learning in all their students.

Summary and discussion

The stimulus behind this case study was a desire to gain a more comprehensive knowledge and understanding of younger Chinese students' approaches to learning and experience in adjusting to a UK university. This study can be summarised as follows.

Chinese students are often portrayed as rote learners compared to Western students in terms of how they acquire knowledge (Chalmers and Volet 1997). However, this study indicates that this may not always be the case. Similar to Western students they approach learning with the intention of understanding, however, due to fast teaching pace in class, the process of understanding knowledge starts in class but more importantly continues in evening class and sometimes outside school where they practise questions, read relevant books, think through problems, seek personal meaning and apply their knowledge. This finding supports the claim that, whereas Western students typically see understanding as usually a process of sudden insight, Chinese students tend to think of understanding as a long process often requiring considerable effort (Dahlin & Watkins 2000). The survey also demonstrates how much students dislike memorising without understanding. The students only resort to memorising when under exam pressure. The misconception that Chinese students are rote learners could be due to the fact that the Western education theory, when being applied to other cultural contexts such as Chinese learners, has resulted in stereotyping Chinese learners, i.e. Chinese students who are educated in a restrictive pedagogical climate will be passive, uncritical, and use a reproductive mode of learning (Biggs 1996).

In a Western learning environment Chinese international students actively adopt those new learning strategies which help their understanding, for example, they enjoy doing experiments, make effort to take part in verbal discussion and learn to think critically. They strive to be competent learners therefore are willing to risk taking on the emotional challenge of moving outside their “zone of comfort” in order to adapt to the Western learning style.

The study also indicates that they are reflective learners, willing to accept their own responsibilities. Many of them have realised the importance of time management and independent study, and some of them have decided to be more proactive in class in the coming year. They also advise the following year’s Chinese students to use email to communicate with tutors and friends, a custom not known to international students in some countries.

Chinese students are positive about their learning experience in the Foundation year; the comparison of Psychology module results between Chinese and UK students has shown that Chinese students are doing as well as their UK counterparts academically, and indicates that Chinese students are not rote learners. However, adjustment to Western learning style is not uniform. Anecdotal evidence shows that those more mature and intrinsically motivated students seemed to fully appreciate the benefit of Western learning styles while others still have difficulties in particular in with time-management and independent learning, hence more support and guidance would be needed to help them develop learning autonomy. This should not be a surprise because to develop self – regulated learning and intellectual capacity of university students has always been the focus of higher education and other Western universities (Entwistle 2000).

If a university wishes to improve its teaching of international students, it is necessary to empower lecturers with knowledge concerning cultural learning style. Good teaching in

an international context should be culturally inclusive and language level appropriate, often requiring simple modifications such as the need for slow paced teaching, giving unambiguous instructions, using cross-cultural examples and increasing thinking time. A good teacher should be not only enthusiastic about her/his subject but also have ability to make a good rapport so as to manage a culturally diverse group. To help students' adjustment, academic tutors should be aware of the challenges students face in the specific context, such as problems students may encounter during induction, time management, self regulated learning skill.

Overall this study supports the evidence that Chinese international foundation students are not just rote learners. Although Eastern and Western teaching styles are significantly different, students underlying learning approaches can be similar in China and the West. Culturally stereotyping Chinese students (and western students) as homogenous rote learners will fail to understand a student in a changing context, therefore as Biggs (2003) suggested, lecturers should adopt a contextual approach to teaching and should be focused on what the student is doing instead of what the students is.

Authors' Biographies

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After teaching in school, Douglas P. Newton became a Lecturer, Senior Lecturer, Reader and Professor at Newcastle University where he trained teachers, taught higher degree courses and was Director of the Doctorate in Education course, founded the Teaching and Learning journal and established the Collection of Historical Science Textbooks. Professor Newton now teaches and researches at Durham University, where he mentors early-career researchers, teaches on higher degree courses, and trains teachers, mainly in Science and Technology Education. His research has largely centred on Teaching with Text, Effective Communication, and Teaching for Understanding. Current interests are in Creativity in the Classroom, Engagement in Learning, Fostering Productive Thought, Peer Review and Characteristics of the Productive Researcher. His mentoring work has been described as a 'model of good practice' and he has contributed to the University's resources for mentor development.

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