

Chinese learners and computer mediated communication: Balancing culture, technology, and pedagogy

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Abstract

The modern Chinese diaspora has raised new issues for learning. A recurrent theme within the literature is that technology by itself is insufficient to promote cross-cultural learning, and a new balance must be found between culture, technology and pedagogy. This paper takes a student perspective and reports some research findings about the ways in which Chinese students learn in online discussions, including the influence of the computer mediated communication (CMC) medium and the curriculum. It also makes some comparisons with the local students. A major benefit for Chinese students was their increased participation, which they considered was due to the virtual and text based nature of the medium. Unlike local students, Chinese students did not find the debate with its controversy and argument motivational. Surprisingly, communication anxiety was more problematic for local students. Chinese and local students found that reading and writing messages helped them develop their thinking and understanding, and assessment was a significant influence for them. The importance of integrating the online discussions with the weekly face-to-face classes was identified by both groups.

Keywords

Chinese learners, CMC, blended learning, online discussions

Introduction

Students from many cultures are now studying at universities in New Zealand. This reflects a worldwide trend of population mobility and the development of multicultural student bodies (e.g. Volet & Renshaw, 1996; Pan, Tsai, Tao, & Cornell, 2003). There are now many international students studying in New Zealand universities and waves of contemporary migration have further diversified classrooms. In New Zealand, students have come from different Chinese cultures, with the most recent being that of the People's Republic of China (PRC). For these learners, there are many challenges apart from studying in English. Often there is little correspondence between their prior learning experiences at home and their new university learning, with its emphasis on activities like critical thinking and interactive learning. Many Chinese students have never experienced online learning, or online discussions before and they are not part of their expectations for an on campus course. As students adapt to this new learning environment there are issues of balance — between their own cultural values and perspectives and those of the new learning environment in which they and their families wish them to be successful (Pincas, 2001).

This paper takes a Chinese learner perspective and reports research which investigates the ways in which some of these students learn in online discussions in an on campus setting. Here, the term 'Chinese learner' refers to students from a Chinese Confucian heritage culture (Biggs, 1996). Two main problems arise in research in this area. The first is the benign but somewhat unthinking application of Western paradigms. The second is failing to recognise the diversity of modern Chinese cultures with their different economic and political influences. A single unified concept of a Chinese learner is conceptually tidy, but open to the dangers of stereotyping. The learners in this paper share a common Chinese heritage and all come from the PRC and other nations that include a Chinese/Confucian heritage, for example, Malaysia and Indonesia.

Cross-cultural issues in learning

In both distance and campus-based universities, cross-cultural issues in learning are now widely recognised. Goodfellow, Lea, Gonzalez and Mason (2001) have identified the globalisation of learning that has occurred through the widespread use of communications and information technologies and raise “the spectre of pedagogical imperialism” (2001, p. 66). Pincas (2001) has identified the need for international students to adapt to new communities of practice that have their own expectations and norms and often have different pedagogies. At the same time, universities are establishing their own best practice in online learning, and “by including other cultures and linguistic backgrounds, we may have too quickly arrived at a next layer of complexity that we are not yet ready to grapple with” (Pincas, 2001, p. 34). Other issues that affect learning are the impact of learning in English, which may be based on different thinking styles, and the need for students to develop new literacies, being “standard English literacy, computer literacy and cultural literacy” (Pincas, 2001, p. 41).

A continuous theme is the intertwined nature of culture and learning, for example, Gunawardena, Wilson and Nolla (2003). However, with regard to technology, there are many caveats. McLoughlin and Oliver (2000) say that technology is not culturally neutral and Collis (1999) says that technology alone is not sufficient to deal with cultural issues. Wilde and Henderson (1997) considered that culture has probably operated “unknowingly” (p. 184) in the design of instructional materials. They identified a mismatch between current designs, which are often derived from a dominant single culture, and new learners from other cultures who find it difficult to connect with these designs, especially those based on flexible learning concepts. Henderson (1996, in Wilde & Henderson, 1997) has developed a multiple cultural model that emphasizes multiple cultural values and perspectives. Collis (1999) has identified dimensions of computer related learning resources that might be culturally sensitive and developed *Design guidelines for culture — Related flexibility*. Here, there is a strong emphasis on variety, especially in communication and the suggestion that cultural considerations establish the amount and kind of communication, as well as its style and tone. McLoughlin and Oliver (2000) have discussed their application of the multiple cultural model in a new online course design and reported the development of ten design principles for culturally inclusive instructional design. However, despite the widespread incidence of multicultural classes, cross-cultural issues and online learning have received little research attention.

Chinese learners and learning

Running parallel with the discussion about design issues is another literature about Chinese learners. There appears to be a diversity of viewpoints about the ways in which Chinese students learn. One of the most quoted works is that of Ballard and Clanchy (1991). They described Asian students as being focused on reproduction and rote learning, and less capable or interested in questioning and critical thinking. They regarded them as highly assessment focused, reluctant to disagree with the teacher and lacking understanding in referencing conventions. The deeply rooted influence of Confucian philosophy and values on learning has been discussed by Brookes (1997). He has confirmed the hierarchical nature of learning with the teacher as the formal authority and the student as the respectful listener, and considered that a dialogic or student centred approach would be viewed as a heresy and evidence of an incompetent teacher (p. 14). However, he has noted that rote learning or memorisation in China is used to build understanding by addressing detail first in order to establish relationships, structure and deep understanding of the whole concept. Jin and Cortazzi (1998) have documented PRC students as active and intent listeners in classrooms that were teacher controlled, but used teacher–pupil dialogues to scaffold learning and extend students into new learning in a Vygotskian fashion. Using Chinese sources as much as possible, Robinson (1999) comments that in the PRC, Confucian influence has been strong, but this has been modified by Soviet Union and Communist philosophy. She describes learning as highly centralised, heavily controlled, and with little teacher and learner autonomy. Individual needs are less important and there is a focus on the market economy and ‘modernization’. The emphasis is on content and not thinking skills, and there is more use of synthesis and less use of analysis. Memorisation is important, and so are exams. Respect for the teacher is shown by silence, and questions are regarded as rude.

A major source of research on Chinese learners has come from Biggs (1996; 1998) and his work in the Hong Kong context. He refers to the paradox of the Chinese learner (1998) i.e. students from Confucian heritage cultures continuously outperform Western students despite their learning culture which appears to be characterised by large classes, authoritarian and didactic teachers, docile students, rote learning and close attention to exams. Drawing on his and other’s research (e.g. Kember, 1991; Marton et al., 1996); he argues that much of Chinese learning is misinterpreted by the West.

Repetition is not carried out for the superficial purpose of rote learning but in order to understand, or as a contextual response to the critical need to pass exams. Even though teachers are highly authoritarian, they are student centred and constructivist, providing one on one comment in class and discussion away from the class. Success is very much a family or community rather than an individual matter and comes from effort and persistence rather than ability. There is a preference for working collaboratively and cue seeking, especially with regard to assessment, is an important activity. Biggs points out that many of these behaviours are highly adaptive and therefore provide a good base for success for Chinese learners in Western systems.

Volet and Renshaw (1996) support Bigg's view of this negative Chinese learner stereotype. Labelling it as a deficit model, they say that the stereotype does not consider the behaviour as a response to a context and ignores the demands for adaptation when Chinese learners come to the west. Chinese learners are also not compared adequately with local students who may also exhibit some of these behaviours, and the fact that Chinese students often do very well academically is ignored. Their research has investigated Singaporean Chinese students (to reduce the impact of English language issues) studying in Australian universities. They found that these students were highly responsive to their new context and were influenced by their perceptions of courses in much the same way as Australian students. Achievement was highly motivational and these students were described as "deep achievers" because of the significant relationship between deep and achieving strategies, which the researchers found was absent in Australian students. Lastly, the researchers found no difference between the quantity and types of participation in a first year economics tutorial. In terms of participation, local students were the noisiest and the quietest, with Singaporean students appearing in the middle.

Online discussions

There has been a modest amount of discussion in the literature about the role of computer-mediated communication (CMC) in a cross-cultural context. Warschauer (1997) has cited research which reported various benefits of online discussions in the ESL context, including increased participation, more student to student activity and improvements in writing and speaking skills. Gunawardena et al. (2003) have identified these benefits in a multicultural context saying CMC "can free people from the bonds of physical appearances and enable communication at the level of ideas" (p.760), but it lacks contextual cues and this makes resolving differences more difficult. Pincas (2001) endorses the latter point and notes that written talk can conceal cultural differences because visual and aural cues are missing.

There are some studies that report CMC in the context of Chinese learners. Chester and Gwynne's (1998) small-scale study investigated the use of pseudonyms in online discussions by 20 undergraduate students in Australia, including 4 Asian students. These students reported greater participation by the Chinese students than in face-to-face classes, possibly because there were no expectations about their online behaviour. However, it was more difficult for some of them to communicate in the written medium. It also appeared that the absence of visual cues helped to ease communication, although the impact of the alias also has to be considered. Chen, Mashadi, Ang and Harkrider (1999) reported research into the use of CMC in Singapore where ethnic diversity means that multicultural approaches are essential. In one of the projects, novice teachers successfully used synchronous chat and email to support reflective inquiry. Success was attributed to the design and delivery of a culturally sensitive course but also to trust building, responsiveness to the issues of individual students and commitment towards a shared vision of learning.

In an early report on their longitudinal study into the impact of technology for Asian student learners, Pan, Tsai, Tao and Cornell (2003) noted the reluctance of their Asian students (mostly from Taiwan and PRC) to participate in online discussions. Their view was that these activities require "self efficacy, assertiveness and being at ease when speaking to one's peers" (p. 321) and these are alien ideas for Asian learners. Such learners are therefore at a disadvantage when technology is included in their courses, because operating in that environment contradicts their traditional pedagogical values and experience.

Yildez and Bichelmeyer (2003) report findings of a comparative study into participation in face-to-face and virtual classrooms by different kinds of English language speakers. The study of 36 students included five international students and three of these were Taiwanese students. The results indicated that international students participated more in the web-based discussions because they did not have to worry about facets of face-to-face discussions like listening, understanding, making a comment on the spot, pronunciation and turn taking. They could therefore voice their opinions online with less anxiety. However, time was needed to read and comprehend the postings, and to respond in English, with the need to check grammar and spelling. International students were unused to peer discussions as a way of learning and tended to avoid questioning, challenging and disagreement, because they were regarded as impolite. The researchers conclude that while there was an improvement in participative equality, with more interaction between the American and international students, there were still linguistic and cultural barriers.

Chinese learners often experience a gap between their Confucian based learning and what they encounter in the West. The literature indicates that the size and nature of the gap varies, depending on the student's country of origin, and the use of Western paradigms to interpret behaviour. However, the success of Chinese learners worldwide indicates that they are adaptable and responsive to new learning contexts. Research into Chinese learners and online discussions is in an emergent phase, but there are some indications that the CMC environment may enable Chinese learners to participate more in online discussions, especially cross culturally. Further research is needed to establish how this might occur, and this paper is a contribution to that endeavour.

The current study

This research is part of a larger project that has been investigating how undergraduate business students learn in online discussions in a blended environment (a mixture of face-to-face and online elements in an on campus course). The project takes a learner perspective and focuses on:

- the influence of the CMC environment, particularly writing, and peer interaction
- the influence of the curriculum design e.g. the learning activity, assessment.

This paper focuses on Chinese students as a subgroup of participants in the project and presents their perspectives on the research questions. Where relevant, comparisons will also be made with Kiwi (a term commonly used by Chinese students to describe students of local New Zealand origin) participants.

Context

The research is sited within a course that is compulsory in a business degree, and is generally regarded as challenging by students. It requires the application of principles to real world situations and the development of reasoning skills. The course team had recently developed the paper for flexible mode, which comprised a two-hour face-to-face class each week and online activities. The weekly class (25–30 students) introduced various topics and theories and included activities like case studies and discussions. This was followed by online activities including readings, quizzes, case studies and a discussion space. The course was supported by a website which included resources, weblinks and course materials.

During the semester, the online discussion space was used for a debate, which ran over two weeks of the semester and the intersemester break (two weeks). It was assessed at 15% of final grade. Details can be found in Table 1 below.

Table 1: Online discussion activity

The task: Students read a short article and then debated the following quote from it:

"It is wrong to live well without giving substantial amounts of money to help people who are hungry, malnourished, or dying from easily treatable illnesses like diarrhoea" (Singer, 2001, p. 119)

Structure: Students were required to make three postings comprising:

- a) An initial response to the question
- b) A reply to another student's initial response; and
- c) A final response- either an additional comment or a reply to another student's posting response.

Guidelines: Were provided on effective participation, incorporating other readings, classwork etc, writing a critically reflective and informed response and referencing.

Marking: Students were given 15%, 10%, 5% or 0% for work submitted within the timeframe, on the basis of the following criteria:

- Recognition of multiple defensible positions about the issues.
- Thoughtful and informed responses with clear reasons given for positions taken and views expressed.
- Accurate and appropriate reflection of course readings, classwork and online work.
- Evidence of engagement at a more than superficial level with the issues raised by the posted question.
- Clearly and concisely expressed responses using accurate grammar and spelling.
- Referencing (where required) appropriately and competently done in APA style.

Research design

A case study approach was adopted because of its potential for examining learning in a way that is “strong in reality” (Adelman et al., 1976). The whole area of student learning in online discussions in blended environments is under-researched and only now are substantive reports starting to emerge (e.g. Aspden & Helm, 2004). In these circumstances, case studies can provide descriptions of what is occurring, illuminate interdependencies, and address situational complexity in depth (Adelman, Kemmis, & Jenkins, 1976).

Four sources of data have been collected for this case study being:

- systems data from the online platform.
- transcripts of the online discussions. An analytical framework was designed to identify deep and surface approaches to learning (Gerbic & Stacey, 2005) and applied in a content analysis.
- interviews with students, on their views and strategies.
- course and performance data.

Twenty five students from six classes agreed to participate in this case study, including nine Chinese students, and it is their perspective that is presented in this paper. They are described below in Table 2.

Table 2: Participant descriptor (pseudonyms)

	Ethnicity	Citizen-ship	Final Grade	Age	Course Stage	Online Exp*1	Online Discussion Exp	Working hours
Cath	PRC	NZ	C	35–40	2nd year	None	Occasionally	None
Fiona	PRC	other	B	20–24	2nd year	Experienced	Occasionally	None
Fran	Chinese	other	C	20–24	3rd year	Experienced	Often	11–20
Ivan	PRC	other	C	20–24	2nd year	Novice	None	<10
Lee	PRC	other	C	25–30	3rd year	Experienced	Often	21–30
Maya	Chinese	NZ	B	31–34	2nd year	Novice	Occasionally	31+
Mike	PRC	NZ	B	35–40	2nd year	Novice	Often	21–30
Paula	Chinese	other	D (fail)	20–24	2nd year	Experienced	Often	21–30
Toni	PRC	NZ	C	31–34	3rd year	Experienced	Occasionally	none

*1 Novice = 1–2 papers; experienced = 3–5 papers

For all of the participants, English was an alternative/second language. Six of the students came from the PRC and four of the students had become NZ citizens, thus reflecting two common trends in Auckland. Compared with the sixteen Kiwi learners, the Chinese participants were slightly older, and more advanced in their courses. They obtained more C grades and less A grades, with one student failing the course. They worked less than Kiwi students, probably because of visa restrictions. None of the students had taken part in online learning before enrolling in the degree and they reported less experience with online learning than Kiwi students.

Results

Systems data

This indicated full participation by the students, with 80–100 postings per class. No data was available on the reading levels of the participants, but 68% of the participants’ messages were read 13–50 times. While many students choose to disagree with the debate statement, a greater proportion (two-thirds) of the Chinese students disagreed with other students’ positions in the online debate.

Content analysis

This activity sought to describe the students' online discussions (using deep and surface approaches to learning) rather than measure its quality. Analysis indicated that 94% of the units of meaning were coded to deep approaches and 6% coded to surface approaches. The most common activities by all students were maximising understanding, evaluation and critique, asking questions, applying theory, justification and relating to other comments. Analysis of the course documentation indicated that most of these were required by the task itself, or stated in the marking criteria. Surface approaches to learning were mostly categorised by repetition, uncritical acceptance of ideas, concluding with little evidence and confused statements. Further analysis of the surface codes indicated that none of confused statements or unevidenced conclusions came from the Chinese students and most of the repetition (81%) and uncritical acceptance (62%) came from the Kiwi students.

Interviews

At times, there were cross cultural and language issues. The participants were often very polite and reluctant to comment negatively. The willingness of the students to participate in an entirely novel experience may indicate their openness to new dimensions of learning and university cultures.

Views of learning and knowledge

Knowledge was perceived by most students as a practical matter in the sense that it was viewed as real world or career connected, and comprising both knowledge and skills. Most of the Kiwi students liked to learn through activities like discussions, but only four of the Chinese students indicated this and the rest were ambivalent. They acknowledged that learning in New Zealand was very different, especially with activities like group projects, critical thinking and online learning. For most of the Chinese students, the classroom and the teacher were very important. The teacher was the authority, and class provided quick feedback and assistance, and this made the subject easier to learn.

CMC environment

Almost all of the Chinese students said the online discussions helped them to learn, with one student expressing a strong dislike of them. The most common reasons related to the text based nature of the CMC environment. The record was available for revisiting and reading the postings motivated them to start thinking. Students could clarify their own position, develop understanding through reading and discussing the different points of view, and get feedback, including that from other cultures. Some students said they were too shy and lacked confidence to talk in class and the online discussions gave them a chance to have discussions with their peers which they liked. Students also said that the need to write a posting which would stand up to their peers' scrutiny also made them think more. This related firstly to their internal thinking, because making a posting in the debate meant they were required to take up a position and this needed selection and clarification of ideas, summarising their reading and ordering thoughts. The second dimension to writing was wanting to communicate their ideas to their peers. This motivated them to review and improve their writing, for example, through editing, to persuade others. They reported taking longer to do their postings than Kiwi students. Nearly half of the Kiwi students expressed concern about other students reading their postings, and possible misunderstanding, ridicule or offence. This was either due to the permanent record or the absence of visual or aural cues. This was only an issue for two of the Chinese students.

The curriculum

The greatest motivational factor for all the students was being assessed. The Chinese students accepted this as quite normal and they were less expressive about the ways in which assessment might have influenced their behaviour. The opinion of some Kiwi students was that assessment forced engagement because everyone was required to have an opinion, to make a rational and evidenced argument and therefore to do some learning.

The debate activity and the topic itself were highly motivational for most of the Kiwi students. It created heated argument, and it was highly discursive and produced multiple viewpoints. Students considered that participation needed carefully constructed reasoning. They described preparatory activities relating to deciding and developing their own position, selecting relevant theories, reading the textbook, researching on the Internet and library and talking about the topic with friends. All of these factors tended to raise the overall quality of the debate. The requirement to respond to another student was also influential. This meant that students wrote their postings carefully, because they knew they could be challenged, evaluated postings in order to make a choice and then carefully constructed a reply.

The Chinese students didn't express much support for the debate. Few of them liked the topic or the debate activity. Some of these students expressed concern about disagreeing, for example, it was difficult to disagree because there were many comments based on personal experience and it would be offensive to disagree with those. Two students agreed in class to respond to each other online. Two other students said they responded, not by disagreeing, but by finding a new or interesting point and developing it further. However, surprisingly, six of the nine Chinese students made responses that disagreed with other students. This was a much greater percentage than that of the Kiwi students, where 6/15 students made responses that disagreed with another student.

Relationship to the face-to-face classes

Differences between the face-to-face and online discussions and their role in learning were discussed with the students. This was difficult for Chinese students. While a quarter of the Kiwi and Chinese students had clear preferences for face-to-face discussions, the rest of the students recognised that the two media were quite different, but complimentary and could see the value of both media for their learning. Chinese student views, (where they were expressed) were:

- *Reading/writing and listening/talking modes.* Writing was easier than speaking, reading was easier than listening, and a dictionary could be used. There was a record, so postings could be read again, and there was time to read and understand.
- *Virtual and physical presence.* Virtual discussions seemed to have advantages, for example, there was no need to worry about others' reactions. It was ideas, not identity that was important. It was easier also to disagree. One student preferred a physical presence because in the online discussion she had been mistaken for a man and that was annoying and embarrassing for her
- *Instant and delayed communication.* The slower speed of the online discussions gave Chinese (and Kiwi) students time to think, to structure their responses, consider theory, do some research, make their argument and establish their reasons. This was recognised as improving the quality of the discussion.
- *Having a say.* The online discussions were strongly supported by the Chinese students because they could join in the conversation, prepare their discussion points, participate more actively and respond to people which was motivational, whereas with face-to-face discussions, most Chinese students were too shy, could not express their idea fluently and were afraid that others would make fun of their comments. A number of Kiwi students felt the same way.

The relationship between the weekly face-to-face classes and the online discussions was explored with the students. Almost every Chinese student thought that the two activities were connected. The main kinds of linkages for Chinese learners were: (1) the class topics, which then formed the basis of the online discussion; (2) the class activities, for example, problems and cases that enabled students to understand and apply the theories underlying the debate; and (3) comments by the teachers, who explained the task and made comments as the debate progressed.

Discussion

Approaches to learning

Overall, the online discussion forum showed a very high incidence of deep approaches by all students. Entwistle and Ramsden (1983) state that approaches to learning are relational and are a response to the learning context and not a consistent expression of the person or their personality. Some possible reasons for deep approaches include a positive influence of the CMC environment, assessment or other curriculum features, and they are discussed next. The other important factor is the student's conceptions of learning (Ramsden & Entwistle, 1983). Here, all of the students recognised the value of active modes of learning, like projects. However, the Chinese students were quite ambivalent about the value of peer discussions. The low levels of surface approaches by them suggest that despite their ambivalence, they accepted the role of the online discussions in the course and were able to adapt to them. Volet and Renshaw (1996) found that Chinese students, like other students, are highly responsive to new learning contexts, and will engage in deep approaches if they perceive that such approaches are required by the course. The high levels of deep approaches are a little different from Smith et al's (2005) analysis. They found that Chinese students made less intellectual (as opposed to social and organisational) contributions in their online discussions. That course was similar to this one in that the activity was assessed and the teacher did not contribute to the discussions.

The researchers suggest that language ability operated as a constraining influence, resulting in less posting in the most cognitively challenging kinds of messages. Other factors noted in the study included the student's lack of comfort in the electronic environment and their anxiety about the course requirements.

Influence of the CMC environment

Some features of the CMC environment contributed positively to the Chinese student's learning. Their generally lower course grades may be symptomatic of the language and cultural issues that they encountered. It appeared that the CMC environment may have assisted with some of the language and communication obstacles.

Text-based nature

The text-based nature of the medium meant that all of the students did a lot of reading and this promoted further thinking as they considered others' ideas against their own ideas. Guzdial and Carroll (2000) have identified the role of reading messages in learning when it makes students start to reflect and determine their own position. Writing contributed to learning as a vehicle for the internal development and clarification of ideas and the external communication of those ideas to peers in a way that was defensible and persuasive. This research illustrates Garrison and Anderson's (2003) notion of the connection between writing and thinking and the value of having to move from the implicit or tacit understanding to explicit communication of ideas. In this respect, Chinese students were quite similar to Kiwi students in recognising this benefit to their learning; however, this has to be balanced against the increased time that participation in English required. Chester and Gwynne (1998) also identified this difficulty and Yildiz and Bichelmeyer (2003) regard this as a linguistic barrier.

Garrison and Anderson (2003) point out that writing has an individual (private) as well as a collaborative (public) dimension in the sense that writing is a vehicle for determining one's own meaning but also for communicating this to others. There was widespread recognition of this public dimension, with most students paying attention to writing in such a way that would facilitate understanding, and avoid judgement, ridicule and/or offence, especially in a multiracial class. It is interesting that few Chinese students expressed concern about this and that more Kiwi students were affected by communication anxiety. Tu (Tu, 2001, in Smith, 2005) notes the importance of 'maintaining face' in Chinese cultures. It may be that for Chinese students, this is not such an issue in the CMC context because it is subsumed into a more general concern about communicating in English everyday in the course.

Peer interaction

Chinese students liked the increased peer interaction that arose in the CMC environment. They often felt closed out of face to face or class discussions because the pace of them was too fast and they lacked general confidence to join full class or even often small group discussions. Reading and writing as a discussion medium was easier for these students. Also, the absence of visual cues seemed to help Chinese students communicate better and let them and others focus on their ideas, rather than their identity. In this way, the CMC environment may help Chinese students more easily join new learning communities, by facilitating their entry and participation. In their study, Chester and Gwynne (1998) observed that intercultural communication was easier in the CMC discussions, and consider that this may have been so because cultural indicators weren't as obvious in the text medium as they would be in a visual medium. The CMC environment also improved the quality of their participation because they had time to think and prepare their discussion points, with the assistance of editing and dictionaries. Yildiz and Bichelmeyer (2003) made a similar finding with their international students.

While the CMC medium enabled the Chinese students to participate in the discussions, they responded because they were required to do so. A number of researchers, for example, Pena-Shaff and Nicholls (2004) have pointed out that dialogic activities do not occur naturally in the CMC medium. Here, if the students weren't required to participate, then it is likely that peer interaction would have been much less intense. Unlike face-to face discussions, this is a disadvantage of the CMC medium, which may be rectified by careful curriculum design, so that students have to go beyond their own internal conversations and start to test their ideas out with their peers.

Influence of the curriculum

Assessment

The most influential factor for both the Kiwi and Chinese students was the assessed nature of the debate. This posting requirement created a good-sized body of messages to fuel the debate and communicated the importance of the online discussion to students. This illustrates the general view in the literature that students' perceptions of what is valued are closely aligned to that which is assessed (Ramsden, 2003). The central role of assessment in their prior education was a belief that was readily transportable to the new university environment and provided some stability when so many other facets of their learning were so different.

Activity and role of the teacher

Participating in the debate meant that students had to engage in critical and relational thinking and reasoning, so the task requirements themselves required engagement. The activity was highly dialogic and based on the concept of using controversy and dissonance as a learning activity, and this was much enjoyed by the Kiwi students. However, the Chinese students did not like the debate activity and expressed concerns about disagreeing with the statement and especially other students. This may be connected to their conceptions of learning, which were focused around teacher direction, a structured approach and respect and harmony in learning. It was therefore difficult to feel at ease with argument and controversy. Pan Tsai, Tao and Cornell (2003) consider that Asian students are disadvantaged with these kinds of activities because they conflict with their Confucian values.

The teachers did not participate in the discussions because they were designed as a student activity and they were being assessed. They made sure that everyone understood their expectations for the online discussion, monitored the debate, made comments and gave feedback in the weekly classes. Dysthe (2000) found that the absence of the teacher created more dialogic activity, although here, the impact of assessment cannot be overlooked. The students' emphasis on the importance of learning with the teacher and not from other students reflects Confucian concepts. While there seems to be some evidence of student centred learning in classrooms in Chinese cultures (e.g. Biggs, 1998), it may take a rather different form, for example, Chen et al. (1999) where a mentor facilitated the online discussions. The absence of a teacher will therefore introduce a significant difference for Chinese students, and this will require adaptation, but this is also the case for many Kiwi students who prefer to learn in a more teacher directed environment. The fact that a far greater percentage of Chinese students disagreed with other students may indicate their responsiveness to new environments, despite their discomfort in it.

Connection to face-to-face classes

The other influential factor here was the strong connection of the online discussion to the weekly classes and course in ways other than assessment. All students, Chinese and Kiwi agree about this, and for blended courses, this could be regarded as essential. Aspden and Helm (2004) emphasize the need for online discussions to compliment or add value to face-to-face settings and Pena-Shaff and Nichols (2004) endorse integrating online activities with classes. It was also clear that all students understood the complementary roles of online and face-to-face discussions, but as discussed earlier, Chinese students probably may have found the online discussions more beneficial.

Future developments

So far, the discussion in the cross-cultural literature has occurred around broader approaches to entire learning environments, rather than the specific context of CMC. What is important is that any developments do not approach Chinese learners from a deficit perspective, and Henderson's model based on multiple cultural perspectives could provide good starting point. The debate topic itself appeared to balance the western subject matter against multicultural perspectives because all students, Kiwi and Chinese seemed to be able to draw on their own cultural heritages in their responses. This might be more difficult in some subjects that are technically based or less discursive. However, Chinese unease with the structure of the activity, including the absence of the teacher, indicates a tension between different pedagogies. Perhaps the way forward lies in building a shared view of learning. Again, this is not entirely a cultural issue, and some Kiwi students also difficulties adapting to more student centred approaches. Dysthe (2000) advocates preparing students by discussing the role of dialogue and interaction in learning with them.

Conclusion

The major limitations of this study lie in the accuracy of the data as a correct representation of the student's ideas and its interpretation according to various Western paradigms. However, this study indicates that there are similarities and differences in the ways in which Chinese and Kiwi students go about learning in online discussions. In the context of the assessed online debate, both groups of students demonstrated deep approaches to learning, and there were less surface approaches by the Chinese students. The text based nature of the CMC environment helped both groups of students to think more deeply about the topic, with Chinese students showing less communication anxiety than Kiwi students. A major benefit for the Chinese students was their increased participation, which they considered was due to the virtual and text based nature of the medium. Both groups of students were motivated by the assessment of the activity. While the Kiwi students were highly motivated by the argument and controversy of the debate, this was not so for the Chinese students. This may be related to their ideas about learning that emphasize a leading role for the teacher, or different views on the place of conflict. Both groups of students confirmed the value of high levels of integration with classroom activities. From the Chinese perspective, the CMC environment enabled the students to overcome some obstacles that they perceive to be centred mostly on their language capability. Their success in this learning environment also indicates that they have recognised and responded to the demands of new technology and pedagogical expectations. This case illustrates that for Chinese students, learning is relational and that technology may have a positive role to play in multicultural settings.

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