International Teamworking and eLearning Design

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ABSTRACT
This paper focuses on international teamworking issues that arose in the initial pilot projects of the *eChina~UK* Programme. The authors collected a range of data over a 3 year period, including written records of meetings and email exchanges. In addition, they conducted two rounds of in-depth interviews with all the primary team members. This paper presents the findings that are most pertinent to effective teamworking for the design of eLearning courses, particularly in relation to project management. The authors identify important lessons for the effective management of international eLearning design projects that have emerged from their findings.

Keywords
International teams, learning design, China, intercultural communication

INTRODUCTION
Extensive research evidence, especially from the field of international management (e.g. de Dreu 2002; Distefano and Maznevski 2000; Janssens and Brett 1997; Maznevski 1994; Maznevski and Chudoba 2000; Polzer, Milton and Swann 2002; West 2002), has shown that diversity within a team is a double-edged sword: that it has the potential to improve creativity, innovation and performance, but that if it is not managed effectively, it can have an extremely negative and disruptive effect. Recent research in eLearning also points to the major impact that collaboration processes can have on the development of high quality eLearning materials (Conole 2005, personal communication).

When the Higher Education Funding Council for England (henceforth HEFCE) and the Chinese Ministry of Education (henceforth the MoE) established the *eChina~UK* Programme, HEFCE's belief and hope (personal communication from the Chair of the Steering Committee) was that the different experiences and perspectives of the British and Chinese team members would lead to more innovative solutions to the challenges of eLearning design than if the British or the Chinese teams just worked independently. The first set of pilot projects have now been completed, and the *eChina~UK* Programme has been extended because of the richness of the achievements and insights that are emerging. This paper reports findings from the monitoring research that took place into the various teams' collaborations. The research explored British and Chinese team members' accounts of and reflections on the challenges they faced and their strategies for managing them. This paper focuses on the issues that were particularly crucial for effective eLearning design, especially in terms of project management.

METHODOLOGY

eChina~UK Team Members
There were four initial *eChina~UK* pilot projects, and they involved partnerships between three British and three Chinese universities/consortia as shown in Table 1. Since most of the projects entailed the development of several modules, each requiring different academic expertise (e.g. one project developed modules in Educational Psychology, Generic Methodology, and eLearning and Educational Technology), this meant that the teams were often very large. For example, there were about 35 staff at Beijing Normal University, 30 at World Universities Network (Universities of Manchester, Sheffield, Southampton and Bristol) and 20 at the University of Nottingham working on their respective projects. (It is impossible to identify precisely the size of the teams because members varied in the extent to which they were involved and according to the phase of the project.) Moreover, each of the projects had team members that were diverse in a large number of different ways, including: professional expertise (e.g. academics, technologists), subject area expertise (e.g. Applied Linguistics, Educational Psychology), nationality (e.g. British, Chinese, French, American), geographical location (e.g. Britain, China, Austria), linguistic expertise (monolingual speaker, fluent bilingual speaker, limited bilingual speaker), expertise in eLearning (e.g. very experienced, novice), beliefs about eLearning design (e.g. re linearity, collaborative learning, problem-based learning).

Project		Chinese Partners	UK Partners
Generic Pedagogy (Generic Methodology, Educational Psychology, eLearning & educational technology)		Beijing Normal University	World Universities Network (WUN) Led by University of Manchester, with involvement of Universities of Sheffield Southampton & Bristol
eELT Training (English Language Teacher Training)	Secondary school teachers	Beijing Normal University	University of Nottingham
	Tertiary level teachers	Beijing Foreign Studies University	University of Nottingham
CUTE 1: English language for university teachers (non-specialists in English)		Tsinghua University	OU-Cambridge (Led by University of Cambridge with Open University providing consultancy advice)

Table 1: The *eChina~UK* Pilot Projects and their Team Partnerships

Data Collection and Analysis

The large size of the teams, as well as their diversity, had major consequences for both the management of the projects and for the teams' collaboration and communication processes. These, in turn, affected the eLearning design process. The *eChina~UK* programme manager in the UK (Helen Spencer-Oatey), who was responsible for the management of all the projects on behalf of HEFCE, kept regular and systematic written records of the management, collaboration and communication issues. In addition, she and Tang Min (a project manager at Beijing Normal University) collected interview data specifically for research and monitoring purposes. Two rounds of in-depth interviews were carried out with all of the main *eChina~UK* team members: the first round took place after the first 6–9 months of collaboration (in the spring of 2004), and the second round took place towards the end of the project (which ranged from the autumn of 2004 to the spring/summer of 2005). In all, 27 Chinese and 21 British team members were interviewed, and were asked in detail about the following issues:

- Their understandings of the goals of the collaborative project
- Their roles in the project
- Their motivations and goals for participating
- The collaboration mechanisms and procedures used, and evaluations of their relative effectiveness
- The issues that required the greatest amount of negotiation
- Issues/aspects where lack of local background knowledge/contextual understanding of other team members had an impact
- Pedagogic issues where there were noticeable similarities and/or differences among the team members
- The challenges and benefits of participating in the collaborative project, both at a personal level and at a departmental/institutional level

The interviews with the Chinese team members were nearly all carried out in Chinese by the main Chinese researcher; a few additional interviews were conducted by the main British researcher (during the first round of interviews), and these were either in English or in Chinese, depending on the preference of the interviewee. All of the interviewees were told that the purpose of the interviews was to reflect on the collaboration processes, so that generic lessons could be learned from their experiences. They were assured that all of their comments would be treated confidentially, and that any quotations in research papers and reports would be anonymised. All of the interviews were audio-recorded and transcribed shortly afterwards; then they were given back to each interviewee, so that they had the opportunity to correct, modify and/or delete any of their comments. The Chinese transcriptions were translated into English, and checked for accuracy by another researcher. The

transcripts were analysed with the help of proprietary qualitative data analysis software, and the findings were compared with the existing research literature on international teamworking and on comparisons of Chinese–British and/or Western educational practices.

FINDINGS

Organisational Compatibility

British and Chinese universities differ noticeably in the way in which they handle eLearning from an organisational structure point of view. In China, the MoE has approved 68 universities to pilot distance eLearning, and most of these universities have set up their own Online Institutes to handle distance eLearning courses. The Online Institutes commission, produce, manage and gain income from their eLearning operations. They do not usually (although there are exceptions to this) have any academics on their staff with subject area expertise, and so academics from other departments in the university are paid to produce and tutor the online modules. These online courses, however, remain within the remit of the Online Institute, and are not part of the academic department's core activity. In Britain, although all universities have a unit that assists academic staff in the production of eLearning material, usually it is the academic departments that decide which programmes they want to offer in eLearning mode. These programmes then form a key part of that department's activities.

These organisational differences had a significant impact for several of the teams on the early planning of their projects, and they also had ongoing management implications. When the joint teams first met to agree exactly what their particular project should focus on, the British teams were expecting to meet with their academic counterparts. However, in several cases they were unable to meet with them until the Online Institute managers had negotiated and agreed with them what the project should focus on. This was unsettling for everyone.

During the development stage of the project, the Chinese partners needed to manage effectively the involvement of academics from other departments. This sometimes led to internal differences, since the academics were research oriented whilst the commercially-based Online Institute were market oriented. One Chinese academic developer thus commented as follows:

> 'The orientation of the two schools are different. … Their orientation [the Online Institute] was student enrolment. They wanted to expand the scope of their education by enrolling students under the name of a China-Britain joint programme. I've got the feeling that they thought it would be best if they could enrol students right after the project had been launched!'
>
> Chinese academic developer

Goals and Goal Priorities

The aims and objectives of the *eChina~UK* Programme were laid down for the project teams by the strategic stakeholders: HEFCE and the MoE. They were identified in HEFCE's call for bids as shown in Table 2. Initially all of the teams focused on objective (b) (the development and piloting of distance education courseware) and agreed among themselves which courses they would jointly develop. However, after a while, largely because of financial and time constraints, a number of goal-related tensions emerged for some of the teams. These are shown in Table 3. For the Chinese partners, who needed to recoup their financial outlays, the speedy development of full courses that could bring financial returns was a top priority. All three Chinese universities had to find most of the funding themselves, and so they were under genuine financial pressure. For the British partners, on the other hand, research and innovation were of greater importance. The British teams had received significant funding from HEFCE, and so they were under no immediate pressure to earn money from the project outputs. They thus preferred to develop smaller amounts of high quality, innovative courseware and to pilot its effectiveness than to develop larger amounts of more 'traditional' courseware with minimal piloting. Unfortunately, time and finance did not always allow both aspirations to be met, and for some of the projects, these tensions were never fully resolved.

Aim: The aim of the Sino-UK e-Learning in higher education programme is to strengthen collaboration between China and the UK in the use of information and communications technology (ICT), and particularly the internet, for distance and flexible learning in specified areas of higher education.

Objectives: The objectives for the programme are:

a. To pursue the further development of ICT and the use of academic electronic networks in their application to learning and teaching in higher education, in both countries.

b. To develop and pilot innovative distance education courseware materials, in the selected areas, capable of being delivered through the Internet in the two countries. These national pilot projects will explore:
   - the development of new course materials
   - the compatibility of Chinese and English platforms
   - mode(s) of delivery
   - quality assurance
   - learning management environments
   - student support.

c. To disseminate the generic lessons drawn from the pilot projects, including the benefits and issues of pedagogy, working cross-culturally, and of publishing and intellectual property rights, bearing in mind the desirability of a future agreement on mutual recognition of academic qualifications and credits.

d. To inform the development of national policy initiatives on eLearning in higher education in both countries.

e. To support HE staff in developing their competence in the use of internet-based learning and teaching.

HEFCE Circular Letter, June 2002, p.10. Available at:
http://www.hefce.ac.uk/pubs/circlets/2002/cl14_02.htm

Table 2: The Aims and Objectives of the *eChina~UK* Programme, as identified by HEFCE

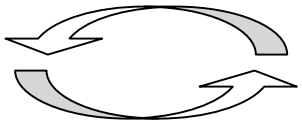
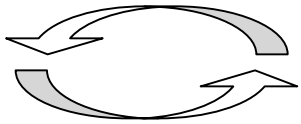
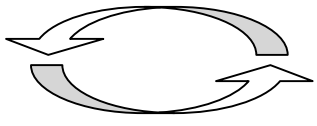
Development of course materials as an end in itself		Development of course materials as a means of conducting applied research and of gaining generic insights
Development of a full course/module		Development of innovative samples
Design that is suited to Chinese learners' current study preferences		Design that helps implement China's educational reform by giving more emphasis to student-centred learning and self-study

Table 3: Goal-related Tensions needing to be Balanced

Later, when the pilot projects were nearing completion, another issue emerged. The teams needed to start identifying the generic insights they had gained from their collaborations (objective c). In their initial project plans, limited time had been allowed for this. In fact, though, this turned out to be an extremely complex and time-consuming process. The large scale of the projects, and the complex interconnection of numerous issues, meant that all the teams needed considerable time for analysis and reflection. Unfortunately little time had been

allocated for this, and the teams were required to submit proposals for continuation funding (for follow-up projects) before they had fully digested their experiences from the initial collaborations.

For 'grassroots' team members in the larger projects, there were also problems with understanding the goals of their project. For example, one Chinese team member commented as follows:

> 'We had no idea of the ultimate goal of this project. Probably project managers or top administrators do, but they should have clarified it to us. The goal is a kind of motivation, if they members have a clear idea of their goal, they will work with all efforts towards this direction and they will come up with some really good ideas. But our team members, including myself, had no idea of what our module was for.'
>
> Chinese academic developer

Collaboration Procedures

Across the joint teams, two different collaboration procedures were used. Two of the joint partnerships used 'extended stay', whereby a member of the Chinese team came to Britain and worked with the British team for 6 months (in one case) or for one year (in the other case). This provided the opportunity for extended, in-depth collaboration, yet at the same time, it reduced the breadth of contact between the British and Chinese team members. This was because the 'visitor' acted as a go-between between the British team and other Chinese team members, and there was a smaller amount of multiple interchange between British and Chinese team members. In addition, if the British team members could only spend a limited amount of time on the *eChina~UK* project (because of other responsibilities), it could be very frustrating for the visitor, when s/he was concentrating on it full-time.

The other projects used 'exchange visits', whereby small teams of people visited the other country for one or two weeks on a fairly regular basis. In addition, some of the Chinese team members stayed in Britain for longer (1–3 months) on a number of occasions. This collaborative method entailed periods of very intensive work, which were very demanding on the teams (especially the host teams, who simultaneously had to handle their ongoing responsibilities), and usually these were extremely productive. On the other hand, there was a tendency for things to 'go dead' between visits, and it required a lot of pro-active effort by the project directors to keep things moving on.

Communication

Communication turned out to be one of the most challenging issues for all of the projects. This involved several aspects: managing the different modes of communication, developing effective social communication networks, managing language proficiency issues, and ensuring common conceptual understanding among the team members. Most of the team members found face-to-face communication particularly effective. They also found email extremely useful, but writing ideas clearly can be quite demanding, especially for non-native speakers. People's experiences of video-conferencing was less positive, perhaps partly because of the poor connection quality; for example, one senior Chinese team member commented as follows:

> 'In some circumstances, when a face-to-face meeting is impossible, video-conferencing is also good. But there is one problem with video-conferencing. That is, when many sides are taking part in the video conference, it is not easy to communicate things in depth. … It doesn't work very well for multilateral talk, because some things need to be discussed by two partners. In video conferencing, there is less room for emotional interchange, it is more like talk only for the sake of talk. I don't think it is very effective.'
>
> Chinese academic director

One of the module teams within one of the projects used a collaboration platform to discuss topics, assign work, to send out notices and to manage files and work diaries. They found this worked extremely effectively, but since it was all in Chinese, the British partners were unable to participate. This raises the problem of language.

All of the British teams initially relied almost exclusively on the Chinese partners' abilities to speak English. None of them had any Chinese-speaking team members at the start of the project, and so the burden of interpreting and translation fell almost entirely on the Chinese partners. For one of the projects in particular, this was a heavy burden. Language affected not only team interaction but also course development and mutual exchange and evaluation of each other's materials. (This course was aimed at middle school teachers who are non-specialists in English, and so much of the final courseware needed to be in Chinese. Everything had to be translated from English to Chinese, and from Chinese to English, so that the Chinese and British academic

developers could give feedback on each other's work.) This was problematic and unfair on the Chinese partners, and some of them felt quite strongly about this:

> 'I think we should show consideration for each other in terms of language. China is now developing very fast; they should know some Chinese to communicate with us…. We have learned a lot of English, it's their turn to learn some basic Chinese, as it is two-way communication. I find it weird that they don't know even a word of Chinese.'
>
> Chinese academic developer

As the projects progressed, most of the British teams realised the importance of having a Chinese speaker to work with them in Britain, and so identified suitable people to bring in on an ad hoc basis. In addition, several of them started to take Chinese language lessons.

All of the teams found that it was vital to spend considerable time reaching a common understanding of terms and concepts. This was not a language proficiency issue; it was equally important among native speakers. At first, teams needed to clarify use of terms like *course, module, unit, chapter*, and even something like this could be emotionally challenging, as one of the British academic developers commented

> 'When I first joined, I spent weeks if not months on a simple practical confusion as to what is a unit, module, what was the other one? There was no standard definition, so I was like blocked at the first hurdle, and so I wasn't quite sure how much material I'd got to write, because we were given this notion of how many hours the student would spend, I wouldn't know in which box those hours fitted. ... I thought I don't understand this, I can't do this.'
>
> British academic developer

The process was never-ending: finding out the nuances of meaning associated with each person's use of a word, and then developing joint working definitions. There was a continual stream of words and concepts to discuss; for example, blended learning, online learning, formative assessment, summative assessment, forum, e-portfolio, student workspace, evaluation, reflection, criticality, and so on. There was no alternative but to spend considerable lengths of time talking with each other, and gradually building up a common understanding and common language.

Needs Analysis

All of the teams needed to find out as much as possible about the target trainees. For one of the projects, a batch of trainees was identified at the beginning of the collaboration, and the joint team was able to conduct a detailed analysis of their needs, using a variety of procedures (a needs analysis questionnaire, a piece of writing by each trainee, individual interviews and focus group interviews). The team kept in touch with the trainees during the courseware development process, piloting elements with them and obtaining various types of feedback.

However, for all the other projects, the target trainees were identified only rather generically (e.g. middle school teachers of English in China who have followed a 3-year training programme but do not yet possess a BA degree). Most of the teams tried to conduct formal needs analyses (e.g. with questionnaires and interviews), but with limited success.

For the British teams, it was important to gather baseline data about the target trainees' beliefs and attitudes towards things like learner centredness, learner autonomy, teacher autonomy, and so on:

> 'It was also part of what we saw as our baseline research. Establish what is going on in relation to current practice, status quo, attitudes and beliefs and so on, and then you can come back to that some time later and you can say something about impact.'
>
> British academic developer

However, two Chinese partner institutions found it very problematic to gather the needs analysis data, and at least one partner did not believe it was either necessary or realistic, arguing as follows:

> **It makes almost no sense to implement such a survey since we develop such an online courseware for a so diverse population that it is not possible to find any samples which can stand for the all in terms of their characteristics**; … You can not measure the whole population based on a survey made in any region in China because of the great regional difference and even the difference between schools in urban and rural area of the same region e.g. in the capital of Beijing. To design and plan such a project we

> in China follow different principles than you in UK, here in China better expert-directed than user-oriented. … **I think what we should do is just to develop the learning materials based on what a professionally qualified school teacher for English in China should - required by the educational authority - be capable to do.** For a success of the work on this step, the more important and decisive factor is the knowledge of the expert teacher trainers about what a qualified teacher SHOULD be or how s/he SHOULD organize his/her class practice rather than what their REAL Status is.
>
> Email from Chinese project manager [bold in the original]

In actual fact, the British teams found it particularly illuminating building up their experiential understanding through a variety of means, such as visiting Chinese schools, talking with teachers, attending teacher training conferences, discussing with Chinese colleagues and interviewing Chinese teachers currently studying in Britain. Some found such visits even more enlightening than the results of the questionnaire that their evaluation team had administered:

> One of the best things for me in understanding who our learners would be was when we went to the schools. Even though the needs analysis was useful, that experience of going to the schools and hearing the teachers talking about what they were looking for was tremendously illuminating.
>
> British academic developer

LESSONS LEARNED AND RECOMMENDATIONS

We have learned some key project management lessons from the initial pilots.

- At an early stage in the collaboration, team members should seek to understand the organisational set-up in each other's institution and identify who is responsible for what.
- International teamworking is much more time-consuming than local teamworking. Reducing the timescale of projects in order to save money is counterproductive; it may well shipwreck the collaboration completely.
- The goals and goal priorities of the stakeholders and project teams need to be discussed thoroughly at the beginning of a project, so that people understand them properly, and so that if significantly different priorities exist, these can be acknowledged and addressed as effectively as possible
- Project managers need to ensure that all team members understand the project goals and goal priorities, and to update them if there are any changes
- In bilateral collaborations, it is essential that both parties have bilingual speakers as members of their teams
- Sustained, good quality communication is vital and needs to be promoted actively. Despite advances in technology, regular face-to-face meetings are essential for complex discussion and negotiation, and for relationship building (which is fundamental to the success of any collaboration) (see Maznevski and Chudoba 2000 for research into communication strategies used by global virtual teams).
- Extended exchange visits by key team members is cost-effective and fruitful. However, it can have a gatekeeping effect by limiting the breadth of contact with the partner institution.
- The handling of pre-production analyses, such as analysis of the target trainees' needs, needs to be discussed openly by the teams, so that they can agree on the most effective ways of ensuring that the design of the eLearning materials is appropriate for the target learners.

International eLearning design projects will only be successful when such issues are managed effectively.

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