Peer interaction: the experience of distance students at university level

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Abstract
This study investigates how university students on distance learning courses experience interaction with their peers. Students on two distance learning courses at The Open University (UK) were interviewed, to investigate learners’ experience of interaction on these courses. The analysis, using a grounded-theory approach, reveals disparities between course designers’ and students’ reasons for integrating computer-mediated interaction within the courses. It draws attention to the significant affective challenges that online students face when working together, and demonstrates a need to pay attention to their problems with self-presentation. The study also reinforces the socio-cultural view that it is important to consider the various contexts in which online learning takes place. Distance students have opportunities to structure their own learning contexts, and this allows them to source face-to-face learning interaction and other forms of support as they engage with individuals in their everyday environment.

Keywords
affect, asynchronous interviews, context, distance learning, interaction, online learning.

Introduction
Learning is increasingly seen as a transformative process which takes place in a social setting (Mezirow 2000). This active view of learning focuses on how people learn together in different groups, including communities of inquiry, communities of interest, and communities of practice (Wenger 1998; Lipman 2003; Jones & Preece 2006). Socio-cultural researchers have demonstrated that thinking and learning together are related processes shaped by culture and context (Wells & Claxton 2002; Mercer 2004; Mercer & Littleton 2007). From this perspective, interaction, in the sense of a ‘sustained two-way communication among two or more persons for purposes of explaining and challenging perspectives’, is inextricably linked with learning; ‘without critical interaction there is no way to facilitate critical learning’ (Garrison 1993, pp. 14 and 16).

Prior to the widespread use of the Internet, distance education lacked opportunities for interaction, being characterized by the near permanent absence of the learning group (Keegan 2002). Today, the use of information and communication technology supports interactivity that ‘goes far beyond the one-way transmission of content and extends our thinking regarding communications among human beings engaged in the educational process’ (Garrison & Anderson 2003). Networking sites are being adapted for social learning, and synchronous media are used to allow students to interact at the same time (Hodge et al. 2008; Walton et al. 2008). Courses with many students are likely to employ virtual learning environments and purpose-built asynchronous conferencing software. These tools provide opportunities for learners to negotiate mutually shared knowledge (Littleton & Häkkinen 1999), interact cooperatively or competitively (Hwang & Arbaugh 2009), or work together as collaborators (Dillenbourg 1999).

The interactive textual environments of asynchronous conferences offer a variety of features that students
value (Haythornthwaite et al. 2000), and that can facilitate the joint construction of understanding. These include the time available to make contributions, the turn taking which the medium assures, and the availability of peer support (Hawkes 2001). Participants are able to assess each other and to develop perspectives together (Lapadat 2002), and the resulting exchanges may be more thoughtful and more extensive than synchronous interactions (Bonk et al. 1998).

Despite these potential advantages, computer-mediated interaction does not necessarily benefit students. It may impede the learning process by imposing extra cognitive load or information overload (LaPointe & Gunawardena 2004; Kear & Heap 2007). Asynchronous conferencing requires effort to express views subtly (Mann 2003), to develop new literacy practices (Ferguson et al. 2010), and to manage argumentative exchanges (Delfino & Persico 2007).

Presence, ‘the perceptual illusion of nonmediation’ (Lombard & Ditton 1997, p. 9), influences online achievement, satisfaction, and motivation (Whitelock et al. 2000). When engaging in mediated interaction, individuals may experience a sense of presence, feeling that they are encountering real people, without being aware of the medium’s constraints. Despite being separated by place and time, and lacking physical cues (Bor-thick & Jones 2000), distance learners may develop this sense; aided by the use of text-based cues such as paralanguage and self-disclosure (Swan 2002). They thus feel that they are interacting directly with others when they encounter them online.

This makes the sustained interaction that facilitates critical learning (Garrison 1993) possible, but it can also result in interaction which impedes learning because of affective factors. Strong positive emotions such as pride and enthusiasm may be induced by online interaction, but such interaction can also provoke strong negative emotions including anxiety, distrust, fear, shame, and suspicion (O’Regan 2003; McConnell 2005). Students have been shown to use their messages for social comparison, establishing where they stand in the social hierarchy (Light et al. 2000). This can result in an unwillingness to post critical comments. Groups of learners may also be disrupted by some members contributing little or nothing (Underwood 2003; Mitchell 2007). Students therefore find collaborative work easier when there is mutual respect and trust (Littleton & Whitelock 2005).

Despite the potential of computer-mediated technologies to support learning by providing opportunities for sustained two-way communication, they are not always successfully used to promote interaction, nor are they necessarily integrated with the needs and objectives of students. There is also the possibility that a focus on the ways in which they can support interaction with peers, instructors, and content (Moore 1989, 1993; Northrup 2002) may obscure other opportunities for interaction within the social and environmental contexts of individual distance learners (Luckin et al. 2008).

Research questions

Littleton and Häkkinen (1999) called for ‘a fuller understanding of the cultural context of peer interactions and learners’ social perceptions and emotional responses’. Jones and Issroff (2005) also identified a need for more research into social and affective factors in online education. These factors have been shown to have a strong influence on both students’ engagement on a course (Wosnitza & Volet 2005) and their success or failure (Wegerif 1998). It is therefore important to find out more about students’ experience of interaction with their peers on distance courses.

This study investigates university students’ experience of using asynchronous computer-mediated interaction with their distance-learning colleagues. It also asks whether computer-mediated interaction is the only form of sustained two-way communication available to these students, or whether they find other ways of working with others to construct course-related knowledge.

Sample

To investigate the experience of distance education students at university level, two vocational courses, Business1 and Education1, were selected from The Open University, a distance learning institution based in the UK with considerable expertise in running both online and offline courses. The courses were selected for study using Thorpe’s classification of course interaction levels (Thorpe 2004, 2005; Thorpe et al. 2009), which was developed as part of a wider study of the impact of interaction and integration in computer-mediated higher education (ICHE). Courses at the
university were classified as having high or low interaction according to their use of computer-mediated technologies, and their potential for student interaction with content, tutors, and other students. The integration of this interaction was rated either low or high, based on an examination of the relation of interaction to course materials, tuition, and assessment. For example, an online student conference where structured and proactive tuition/tutorial support was given would be rated ‘high’, while impersonal posting of information on a conference notice board would be rated ‘low’. Business1 was rated as having high levels of computer-mediated interaction highly integrated within the course, while Education1 was rated as having low levels of computer-mediated interaction and little integration of this interaction within the course. The ICHE project focused on 36 undergraduate courses. Two of these were selected as case studies for the study reported here because they were very different in terms of their use of computer-mediated communication and would therefore enable the exploration of a range of student experiences of interaction with their peers.

Business1 was an advanced undergraduate course forming a compulsory part of two of The Open University’s business degrees. The majority of students had experience of study at university level; 89% had already studied at The Open University. The course materials detailed various ways in which asynchronous conferencing was integrated within the course, including: discussion of academic issues by students and tutors, supply of administrative information, sharing of suggestions and concerns, and discussion of thoughts and ideas (Rumbelow 2003).

In contrast, Education1 was an introductory distance learning course that formed a compulsory part of two education qualifications. Three-quarters of its students had been studying with The Open University for 1 year or less, so they had limited experience of higher education. Asynchronous conferencing was less integrated within the course structure than on Business1; course materials stated that it ‘will help you to feel part of the course by providing opportunities for you to exchange ideas and discuss different approaches with other students’ (Open University 2004). See Table 1 for a more detailed comparison of the two courses.

<table>
<thead>
<tr>
<th>Table 1. Comparison of courses.</th>
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<tbody>
<tr>
<td><strong>Education1</strong></td>
</tr>
<tr>
<td>Undergraduate level</td>
</tr>
<tr>
<td>Number of students</td>
</tr>
<tr>
<td>Interaction rating</td>
</tr>
<tr>
<td>Integration of interaction</td>
</tr>
<tr>
<td>Previous higher education qualification</td>
</tr>
<tr>
<td>Questionnaires sent</td>
</tr>
<tr>
<td>Questionnaires returned</td>
</tr>
<tr>
<td>Students interviewed</td>
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</table>

The impact of interaction and integration in computer-mediated higher education questionnaire sample sizes varied according to a course’s integration and interaction ratings.

Data collection

The published course materials for Business1 and Education1 were used to identify stated learning objectives and details of assessment which contextualized the student experience. Relevant data gathered by ICHE researchers were also analysed. These researchers had distributed a survey to students on Business1 and Education1, including three multi-part, open-ended questions relating to Open University courses and their provision of computer-based media:

1. Does the course include the opportunity to engage in on-line conferencing email? If so, what, if any, positive contributions did conferencing and/or email make to your study? If so, what, if any, negative contributions did conferencing and/or email make to your study?
2. Does the course include the opportunity to use software, CD-ROMs and/or the Internet? If so, what, if any, positive contributions did these make to your study? If so, what, if any, negative contributions did these make to your study?
3. Do you have any other comments on this course or studying with the Open University in general, or about this questionnaire?

ICHE researchers received responses to these questions from 64 Education1 students (5% of the students on the course) and from 61 Business1 students (19% of the students on the course). Responses varied in length from 1 to 450 words.

Both these pre-existing sources of data were pertinent to this study, and the answers to the open-ended questions were analysed in detail, but further data collection was necessary in order to address the research questions. Asynchronous interviews were carried out by
email to investigate students’ perceptions of interaction on their courses. This method allowed extended, in-depth interviews, offering flexibility and the potential to investigate motives and feelings, seek new viewpoints, clarify responses, and follow up ideas.

Asynchronous interviews allow both the interviewer and respondent to select a suitable interview time, provide time to consider questions and responses, allow an extensive geographical reach, and eliminate the need for transcription. In addition, the method allows the researcher to conduct a number of interviews simultaneously, so data from one interview can be tested in or used to develop other interviews. In some cases, the need for computer skills and access could produce a biased sample, but that was not the case here as all Open University students are required to have access to email.

Asynchronous interviews may be carried out over days, weeks, or even months (Debenham 2001; Kivits 2005). The extended, textual nature of these interviews can provide rich data because of an increased use of narrative (James & Busher 2006). In this case, the interviews concentrated on one issue at a time, supporting thoughtful exchanges in which both participant and researcher had time for reflection (Kivits 2005; Debenham 2007; Ferguson 2009). Overall, the method was found to support the collection of rich data from distant respondents. The extended, textual nature of the interaction offered significant benefits, particularly by providing time and opportunity for reflection and by prompting respondents to be explicit.

The asynchronous interview is a developing form and may use the conventions of face-to-face interviews, telephone interviews, email communication, or a combination of these, depending on the situation. In carrying out this research, the interviewer therefore set the pattern for the formality of the interview, using the format to organize and facilitate talk rather than to constrain it. Respondents were aware from the start that they would be asked 10 questions, that the interview timing would be controlled by them up to a 6-week limit, and that they could choose whether to add attachments and whether to give spontaneous or researched responses.

Twelve in-depth asynchronous interviews were carried out; six for each course, based on a random sample of students. Those who formally consented to be interviewed were sent more details of the interview, together with the first question. Questions followed an interview protocol which provided a degree of standardization within a semi-structured interview framework, ensuring that the main questions were always phrased in the same way and asked in the same order; and increasing reliability by ensuring consistency between respondents and courses. Questions were asked singly to allow themes to develop. The interview questions make up Table 2.

**Table 2. Asynchronous interview questions.**

<table>
<thead>
<tr>
<th>Question</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Could you tell me a little about why you chose this course?</td>
<td>Have you been encouraged to interact with other people while doing this course? How was this done?</td>
</tr>
<tr>
<td>Have you been encouraged to interact with other people while doing this course?</td>
<td>How was this done?</td>
</tr>
<tr>
<td>In what ways have you interacted with other people as a part of this course?</td>
<td>If you have interacted with other people while doing this course, in what ways did you find that helpful?</td>
</tr>
<tr>
<td>If you have interacted with other people while doing this course, in what ways did you find that helpful?</td>
<td>What has put you off interacting with other people while on the course?</td>
</tr>
<tr>
<td>What has put you off interacting with other people while on the course?</td>
<td>How has the Open University supported your interactions with other people while on the course?</td>
</tr>
<tr>
<td>How has the Open University supported your interactions with other people while on the course?</td>
<td>How has interacting with other people helped you with the TMAs (tutor-marked assessments) on this course?</td>
</tr>
<tr>
<td>How has interacting with other people helped you with the TMAs (tutor-marked assessments) on this course?</td>
<td>Do you think the course designers made the right choices about interaction on the course? What were the main things they got right or wrong in this respect?</td>
</tr>
<tr>
<td>Do you think the course designers made the right choices about interaction on the course? What were the main things they got right or wrong in this respect?</td>
<td>Can you tell me about another course you have studied which has involved interaction? How was that different to this one?</td>
</tr>
<tr>
<td>Can you tell me about another course you have studied which has involved interaction? How was that different to this one?</td>
<td>Are there any aspects of interaction on this course that you feel we haven’t covered?</td>
</tr>
</tbody>
</table>

**Ethical issues**

Asynchronous interviewing raises specific ethical issues. As King (1996) notes of research interviews: ‘Even when they are given clearly presented guidelines, it is unlikely that interviewees will have been in a similar situation before’. Asynchronous interviews have the potential to become indistinguishable in a respondent’s view from other online exchanges. Emails from the researcher were therefore formally laid out using a consistent style that always contained a numbered question, a title that drew attention to the research, and full contact details. Interviewees were assured that issues of anonymity, confidentiality, and privacy in online environments (Joinson 2003) had been respected and that pseudonyms would be used (as they are in this article) if their responses were quoted. These points were
included in the initial contact email and were also included on a web page to which every email from the interviewer contained a link.

Quoting from asynchronous interviews is also problematic. Responses from interviewees could be quoted verbatim, giving direct access to the data. In many cases, however, unusual spacing, multiple line breaks, and changes of font and colour make such direct quotation difficult within an academic text unless the focus is on these visual aspects of the dialogue (Jewitt & Oyama 2001). Many people write and send emails quickly, devoting little thought to conventional spelling, punctuation, or proofreading (Baron 1998). As in a spoken interview, there are hesitations, contradictions, mistakes, and awkward pauses. These are, in most cases, tidied out of transcribed audio interviews. Similarly, the transcriptions included in this paper are not exactly as they appeared on the computer screen. To focus attention on the message content, typography and spelling have been standardized throughout.

Analysis

Analysis was carried out using the grounded approach outlined by Strauss (1987). The aim was to identify, and classify student comments into, themes relating to perceptions of course-related interaction. The codes were not pre-defined but were grounded in the data. Collection and analysis of the data took place simultaneously, driving both the collection of further data and the generation of theory. Open coding of the data using NVivo began when the first interview had been completed. The interviews were based on 10 central questions, but their asynchronous nature and conversational style meant that issues raised by the coding could feed into the data collection. Although the coding was carried out by one researcher, it was thus tested against the reported experience of the students interviewed as well as against the findings of the broader ICHE project (Thorpe & Godwin 2006; Godwin et al. 2008). Once coding categories had been generated by open and axial coding of the interviews, the open-ended survey questions were coded. The coding was then divided by course, to highlight similarities and differences. The core coding category that emerged from the data was ‘reasons for communication’.

### Table 3. Reasons for interaction cited by students.

<table>
<thead>
<tr>
<th>Reason for communication</th>
<th>Times mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share thoughts/views/discuss</td>
<td>31</td>
</tr>
<tr>
<td>Access tutors</td>
<td>30</td>
</tr>
<tr>
<td>Contact students/avoid isolation</td>
<td>19</td>
</tr>
<tr>
<td>Ask for/give/receive support</td>
<td>19</td>
</tr>
<tr>
<td>Assignments/assessment</td>
<td>17</td>
</tr>
<tr>
<td>Access up-to-date information</td>
<td>17</td>
</tr>
<tr>
<td>Encounter different points of view</td>
<td>15</td>
</tr>
<tr>
<td>Work together</td>
<td>13</td>
</tr>
<tr>
<td>Make comparisons</td>
<td>12</td>
</tr>
<tr>
<td>Develop understanding/clarify ideas</td>
<td>10</td>
</tr>
<tr>
<td>Replace/enhance tutorials</td>
<td>10</td>
</tr>
<tr>
<td>Negative reasons: to wade in/ moan/show off</td>
<td>6</td>
</tr>
<tr>
<td>Receive feedback</td>
<td>6</td>
</tr>
<tr>
<td>Chat</td>
<td>5</td>
</tr>
<tr>
<td>Solve problems</td>
<td>3</td>
</tr>
<tr>
<td>Develop communication skills</td>
<td>1</td>
</tr>
</tbody>
</table>

**Students’ reasons for interaction**

On both Education1 and Business1, printed course materials outlined the expected uses and benefits of interaction. These included: discussing academic issues, receiving administrative information or details of information sources, contacting the team of staff working on the course, sharing ideas, supporting revision, working together, and feeling part of the course. Students were aware of these reasons for interaction but Table 3, based on the 12 asynchronous interviews and 125 survey responses, shows they had additional reasons of their own. They wanted to avoid isolation, to make comparisons, and to be able to ask for, give and receive help.

Business1 students were required to use asynchronous conferencing and were assessed on that use. They identified many advantages of interacting with their peers and their tutors in this way. Online collaboration formed part of their coursework, and the online environment provided them with useful information, allowed them to obtain feedback, and provided different viewpoints. Some noted that it helped them to bond or empathize with other students. They had used it to chat with friends, and had used email to invite other students to join the conference. Some referred to previous positive experience of conferencing, noting a good support network, good rapport, staff enthusiasm, and prompt tutor responses on other courses.
Education1 students, on the other hand, were not required to use conferencing and had few positive things to say about it. Their main comment was that they did not use the conferencing facility. This was often explained in terms of lack of time or technical knowledge, but they also identified features of conferencing that they actively disliked. These criticisms suggested that they were unclear about how a conference could be used to support collaboration.

Perceptions of fellow students

Students’ bitterest criticism of conferencing related to their fellow students. Two-thirds of those interviewed were negative about fellow students online; this criticism was equally divided between Education1 and Business1 students. Their comments were sometimes forcefully expressed. Business1 student Carol (all names are pseudonyms) wrote,

I find conferences a bit creepy. Personal emails are okay (even group emails are fine), and private chat is excellent, but I find conferences uncomfortable. . . . Conferences give me a real feeling of vulnerability that I’ve not experienced anywhere else. I don’t use open chat rooms for the same reason. I know conferences are technically closed, but you still never know who is there, and that’s the bit I don’t like.

Combining survey and interview data showed that Business1 students criticized their fellow students in three main areas. The first was in the field of personal relations: fellow students were variously described as scathing, critical, rude, irritating, ignorant, or disrespectful. Rather than welcoming discussion of ideas, disagreement was perceived as personal criticism. The second area concerned other group members, who were criticized for being difficult to work with, undisciplined, unresponsive, or not team workers. Finally, they were criticized as fellow students, for being incoherent, misleading, or off subject. It was clear that many students did not have the skills to use the environment to develop mutual understanding.

Personal criticism from the Education1 group concentrated on ‘whingers’ who came to the conference to moan. There was little criticism of their peers’ performance as group members, just a single complaint about students taking information without reciprocating. Complaints about fellow students related to them being disinterested, confusing, or misleading.

As well as general unease with strangers, especially unresponsive strangers, in the conference, the opportunity for making comparisons also produced problems. One of the reasons students gave for interacting was social comparison, to compare themselves, their understanding, or their progress with those of other students. Five of the six Business1 students interviewed wrote that they found the opportunity to compare understanding, experience, and/or emotions useful, as did four of the six Education1 students interviewed. However, on each course one of the students interviewed reported that the opportunities for comparison had had a negative effect. Business1 student Jennifer avoided the conference because she was depressed to see that her fellows were progressing more quickly than her. Education1 student Yvonne also found the claims of her fellow students depressing:

Everyone on this course seems to be doing at least 2 other courses at the same time, whilst working full time, raising a family and doing volunteer work as well!! Perhaps I am idle!! When they use the website it usually is because they want to know about the course they have chosen for next year or to tell everyone about the wonderful marks they got [. . .]!!!

Self-presentation

Half the Business1 students interviewed expressed dissatisfaction with their online persona. Carol reported feeling shy and vulnerable and Jennifer felt she appeared inadequate in comparison with others. Zoë’s complaints indicated unease about the enduring nature of conference postings:

The main method of communicating seems to be via the conferencing centre which I really dislike contributing to for the fear of looking stupid! I sometimes think that my questions/queries will look silly to other people. I also fear that my contributions are maybe incorrect or misleading and, again, I don’t want to look silly.

This dissatisfaction was not reported by Education1 students, perhaps because of a lack of experience of the medium. Of the six Education1 students interviewed, one had not used the conference because of time pressure, and a second logged on to read other people’s contributions, but not to post.

Forms of interaction

Opportunities for face-to-face interaction were highly valued by students. All but one of the 12 students
interviewed identified people with whom they discussed the course, either face to face or by phone. These were most likely to be friends, colleagues, or people encountered at work. Business1 student David described how this interaction had supported his learning:

Bouncing ideas off my manager has helped because he has been able to relate some of the theories to our business, therefore making it easier to understand.

Education1 student Linda reported similarly positive experiences:

I found discussing this course with work colleagues and friends the most helpful, they were able to help me relate the assignments to my job and gave alternative suggestions and their varied opinions help to widen my view.

Education1 students referred positively to mentoring, which is commonly used in the training of UK teachers and support staff. One referred to her experience when training as a specialized teaching assistant.

We were mentored throughout the course by a chosen member of staff and time was given over to meetings to discuss options for the course assignments and for our mentors to observe us completing tasks then to give us feedback. . . . I wonder why mentoring was not included somewhere in [Education1]?

In fact, although mentoring was not a part of either course, 11 of the 12 students interviewed had adopted unofficial mentors. This was a role in which they placed their friends and colleagues, seeking someone who could act as a sounding board and provide support, ideas, and guidance.

Face-to-face interaction

Mediated interaction was not the only form of sustained two-way communication provided by the course for students on Education1. This course was aimed at practitioners working in Early Years care and education settings. Most students were therefore already part of a group of learners, and often worked alongside several people who could play a mentoring role. The course designers took advantages of these pre-existing facilities and the course’s assessed material explicitly required workplace interaction. Students were encouraged to make use of any practical experience and support, together with different perspectives and opportunities to discuss and share ideas. They were given the opportunity and the tools to construct their own knowledge, and there was a great deal of flexibility in the assessed activities. This integration of face-to-face interaction in the workplace is clearly suited to a vocational course and the data suggest that it would also have worked well if it had been integrated in Business1. Business student Wendy wrote: ‘Interactions with my customers have allowed me to gain my own real-life case studies/examples’ and her fellow student Zoë reported:

I’ve also used work colleagues when I’ve been researching an area and have found that the knowledge and experience they have has sometimes helped me understand something better or highlighted areas I hadn’t previously thought or known about.

Students on both courses preferred face-to-face interaction. When suggesting course improvements, they often suggested increasing this element. Online discussion was seen as a means of supplementing and extending the course’s few face-to-face tutorials. Business1 student Andrew wrote:

The issue of face to face meeting in this kind of distance education is paramount in my view and I welcome any opportunity to meet fellow students/tutors in a classroom setting.

Problems with mediated interaction

Small numbers of students on both courses reported that their interaction via FirstClass conferencing was limited by a lack of technical expertise or by being unwilling to adapt to an unfamiliar system. Others were limited by time, although this was not invariably the case, and two students reported that conferencing limited the time problems by speeding up information searches. One Business1 student said in the survey: ‘Cannot always find the time to participate and tend to feel guilty if I can’t’ and another reported: ‘FirstClass is very time consuming to use. There is a lot of irrelevant “chat” to sort through’. Students resented the time it took to set FirstClass up or to log on. An additional problem was timetabling, particularly for Business1 students, who were required to use the conference for two assignments. ‘Students had to log on at very different times and it is sometimes difficult to keep up to speed on discussions’, reported one student surveyed. Business1 student Carol wrote,
I’m usually also well behind, which means that everyone has moved on. Often I don’t get much response, as the conference focus has moved well past the bit I’m on.

Overall, 7 of the 11 students interviewed and who had used the conferencing facility reported negative experiences of it. Social presence particularly was experienced in a variety of negative ways, particularly on Education1, where conferencing was not integrated within the course and judgments had to be made based on a limited number of postings. It was also a problem on Business1 when conferencing was assessed, making students reliant on peers they had only encountered online.

**Discussion**

Analysis showed that students’ experience of interaction with their peers on distance courses had strong affective and social elements that sometimes limited engagement with fellow students and course resources. Learners identified several advantages of interaction with their peers, all of which could be supplied by mediated communication. However, some of the advantages of interaction which students considered important appear to have been passed over by the course designers. Students meeting face to face have opportunities to chat, to moan, to seek help, and to compare themselves with others. To create a learning community rather than a task-based environment, they need to be able to meet these needs online.

Students on both courses identified many benefits of access to computer-mediated interaction with their distance learning colleagues. They valued it for a variety of reasons, many of which were outlined in the course guides. Conferencing allowed them to share and discuss their thoughts and views, to ask for and offer support, to access tutors and information, and to work together. Not mentioned in the course guides, but important to students, were affective elements: opportunities to avoid isolation, to compare themselves with other students, and to share frustrations about the course. The First-Class conferences had not been structured with these elements in mind, and none of them was described in wholly positive terms.

The disadvantages of online interaction identified by students related to affective issues, far more than to the cognitive challenges on which educational researchers often focus. Conferencing had the potential to reduce isolation, but it could also make students feel more isolated because they were out of step with other students on their course. The opportunity to compare themselves with fellow students could keep them on track with their work, but it could lead to feelings of insecurity and inadequacy. Venting feelings was possible, but this led some students to feel that the conference was an unappealing and negative place.

Students in both groups reported negative feelings about their peers. Both Business1 and Education1 students had criticisms of others concerning personal relations and their performance as fellow students. The business students were assessed on group work they had carried out with their online colleagues and this introduced a fresh area of tension because they were reliant on their peers for part of their final mark. This tension was reflected in the criticism by Business1 students of their peers as group members – a criticism which was expressed only once by an Education1 student.

The two groups of students also varied in terms of self-presentation. No Education1 student expressed any concern about the image he/she was putting over to his/her peers; this may have been because the Education1 students’ use of the conferencing facility was purely voluntary and many had chosen not to use it. By contrast, Business1 students were required to use the conferencing facility, but its public nature and the opportunities for comparison left some feeling that they could not present themselves well in such a forum. Half of those interviewed expressed concern about the image they were projecting, and this aligns with Mann’s (2003) participant-observer investigation of an asynchronous conference. These strong negative reactions reduced these students’ motivation to engage in online interaction, and hence in collaborative learning with fellow students. Two Business1 students reported that anxiety about the image they were projecting had limited their participation in the assessed elements of the course.

Distance education literature has traditionally focused on learners’ interaction with instructors (see, for example, Moore 1993), in part because of a belief that relevant two-way communication for distance students will necessarily be mediated. This research shows that this is not always the case for vocational courses; as Luckin et al. (2008) observe, students are instrumental in creating their own learning contexts. This study shows that they can and do create opportunities to
interact face to face and synchronously with others who can support their learning. Eleven of the 12 students interviewed cast someone in their immediate environment in the role of a mentor who could provide both motivation and opportunities to build knowledge. Students on both Business1 and Education1 preferred face-to-face interaction to computer-mediated interaction and created possibilities for face-to-face meetings whenever possible.

Conclusions

This was a small-scale study, focused primarily on the experience of 12 students. Nevertheless, it identified commonalities of experience between the students on two courses in different subjects, at different levels and with different structures. More broadly, the results aligned with those of the wider ICHE project, which studied 36 courses. The ICHE researchers reported: ‘There is clearly the potential for negative as well as positive impact on students’ emotional well-being from involvement in conferencing, requiring action to minimize the negative aspects and strengthen the positive’ (Thorpe & Godwin 2006, p. 215)

The study reported here extends understanding of the affective aspects of online interaction in educational settings, and thus has implications for the design of distance education courses. Educators need to take into account students’ affective reasons for interaction, acting to ensure that the negative aspects of comparison and venting feelings are minimized. It should be acknowledged that relating in this medium is difficult and requires the development of social skills alongside cognitive ones. More research is needed to investigate the range of skills that students need in order to benefit most from computer-mediated interaction.

Sustained two-way communication between peers is important for distance education students, as it is for their colleagues in the classroom. By examining students’ overall experience of interaction, rather than focusing solely on the educational setting, this study has shown that computer-mediated interaction is not the only form of interaction available to or valued by these learners. Vocational students make use of opportunities to create their own learning contexts and to access substantial levels of face-to-face interaction that supports their learning. Whether supported to do so or not, they mobilize these resources to provide support and learning opportunities. The experience of students on Education1 shows that educators can successfully draw on these external resources in a variety of ways in order to enhance student learning.

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