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Interacting at a distance: A critical review of the role of ICT in developing the learner–context interface in a university language programme

This article examines the introduction of new online technologies to support distance language learning in a higher education institution in the UK, charting the development from using telephone conferencing in the 1990s to the implementation of Moodle and videoconferencing more recently. It uses the sociocultural concept of the learner–context interface (White 2003) to emphasize the centrality of both learners and context in the design and delivery of technology-supported language courses rather than making the development of computer-mediated learning opportunities the main focus. Building on research and evaluation work carried out over more than 15 years, the authors of this article analyze the issues that have arisen and that have affected change regarding technology and pedagogy. Central areas of investigation in terms of the learners were found to be interaction, learning communities, metacognition, literacy, affect and learner support; in terms of context they include task design, teacher roles and teacher skills. In the conclusion, limitations of the research and new developments are outlined.

Keywords: language learning, language teaching, computer-assisted language learning, online learning, distance learning, learner–context interface

Introduction

The past two decades have seen a growth in distance and online language learning. The Open University has been at the forefront of this, with a current population of approximately 9,000 language learners. At the same time, the nature of classroom-based language learning has been changing with the introduction of distance learning elements brought about by technological developments (Murphy 2011). Learners and teachers in these blended environments potentially experience similar challenges to those involved in more traditional distance settings, and they are likely to benefit from insights gained in distance learning research. At the Open University the Department of Languages has been engaging in research

across a wide range of topics related to distance language learning, from autonomy and intercultural competence to task design and mobile learning. A central theme has been how to harness the new technologies to bridge the distance in distance learning and overcome the ‘loneliness of the long-distance language learner’ (Shield 2000) as well as provide much-needed speaking opportunities to language learners. This explains the strong focus on synchronous audio conferencing technologies at a time when other institutions were mainly investigating the value of asynchronous writing tools such as forums.

The next section of this article will present the specific context of this study, namely the language programme at the Open University and the supported distance learning approach, and briefly profile the learners who study languages at the university. We will describe the various tools that have been trialled and introduced to give distance learners more opportunity for interaction over the past 20 years, from simple telephone conferencing to multimodal videoconferencing for tutorial purposes, and from email and simple websites to a complex Moodle environment. The learner–context interface theory (White 2003) will be presented as a framework for examining a large number of studies that have evaluated and researched these developments and their implications for learners and teachers. The findings of these studies will be considered in the following section, where we focus on several recurrent themes that show the interrelatedness of the learning context and the learner. The final section provides a conclusion and looks to future developments in terms of technological developments as well as research.

Background

The Department of Languages (DoL) at the Open University, formerly the Centre for Modern Languages, offered its first course – in French – in 1995. Nowadays, students can enrol in six languages: French, German and Spanish up to C1 level in the Common European Framework

of Reference (CEFR) for Languages, Italian and Chinese to B1 level, and Welsh to A2. Under the current method, students receive a set of materials, consisting normally of textbooks, and audio and video content mostly on an interactive DVD-ROM. They also have access to a Moodle-supported course website with elements such as wikis, quizzes and forums. Students are free to choose how they progress through these materials but have to meet fixed deadlines for assignments and end-of-course examinations.

While courses usually consist of between 120 and 1200 students, each student is allocated to a tutor group comprising of up to 25 students. The tutor (also called Associate Lecturer) has responsibility for leading tutorials, marking assignments and giving feedback, and supporting students more generally (e.g. with asynchronous activities on the VLE in recent years). Tutorials take place face-to-face, via telephone or online via audioconferencing, offering students the opportunity to use the language they are studying and develop their speaking skills by interacting with others and enabling them to exchange information and experiences with others. However, as these tutorials are not compulsory, attendance rates tend to be relatively low; in one study of approx. 170 beginner students, 60% of students reported that they mostly or always attended, 30% that they never or seldom took part (Adams and Nicolson 2008).

With a male:female ratio of 39:61 and a median age of 31 at undergraduate level, the academic profile of Open University adult learners is also “much wider than in conventional, full-time, face-to-face universities: they range from those who have no experience at all of higher education to highly qualified students” (Coleman and Furnborough 2010, 16). Many study just for learning and not to acquire a qualification – although this is expected to change following the restructuring of university funding in England in 2012 (which has seen fees rise and loans being available solely to students who are registered for a full degree rather than individual courses).

Distance education entails particular benefits and challenges. Many Open University students value the flexibility that a distance programme affords them. They can learn at their own pace and combine studying with work and/or family. For many it makes financial sense to work and study at the same time, and for quite a few it is an opportunity that they did not have earlier in their lives. However, distance students are typically viewed as non-traditional students, characterized by lower persistence and higher attrition rates (Rovai 2003) caused by competing demands of working, studying and family commitments. Distance education often entails lack of interaction, which can have an impact in terms of learner isolation and anonymity. For language learners this is particularly serious as it means lack of opportunities for spoken communication and for developing fluency.

The use of new technologies in distance language learning: from the telephone to Moodle

We are using technologies to guide the reader through this section (see also figure 1) as technology has always been seen as an ally in maximizing the benefits and counteracting some of the challenges of distance learning, with colleagues in DoL exploring new learning environments for their potential for bringing students together and providing more opportunities for interaction.

The earliest trials in the Department started in 1995 with a not very new technology, the telephone. Telephone conferences were used to supplement the face-to-face tutorials that students were offered regularly but not very frequently. In the following year a combination of telephone conferencing and email was tested to enable asynchronous communication between scheduled telephone tutorials. When technology progressed to simple voice conferencing over the internet, the telephone was replaced by a tool called VoxChat that combined audio with text chat. In collaboration with DoL VoxChat was then developed in-

house by the Knowledge Media Institute (KMi) into a synchronous audiographic conferencing system called Lyceum. In 2002 Lyceum became the first online medium for interaction routinely used in mainstream language courses. Until Lyceum was superseded by Elluminate in 2009, videoconferencing had merely been attempted experimentally by DoL researchers, yet again employing a technology created by KMi: FlashMeeting. In 2008 a major change occurred after the university decided to use a virtual learning environment (VLE) to bring together various tools in one platform. This meant the introduction of a Moodle website for every course (or module, as they are now called); within a couple of years all language course teams had started integrating asynchronous tools such as forums and wikis into their modules.

<insert figure 1 about here>

If we compare the Open University with conventional universities, it becomes obvious that as a distance education provider it has followed a different trajectory in terms of technology use as it was trying to resolve the issue of providing learners with opportunities for spoken interaction that is deemed essential for language development (Ellis 2003). Other universities started with relatively simple written environments and are only now moving to audio and video conferencing applications as these have become more ubiquitous.

From the start, the introduction of these tools was accompanied by research activities. These include a lot of pedagogic ‘classroom’ based research, but also more theoretical and methodological research. The aim has been trying to understand the implications of using the various mainly interactive and communicative technologies, to explore their potential, to gauge their effectiveness as well as looking into the learners’ experience and – by extension – into the implications for teachers. A central factor has always been to encourage the development of pedagogies alongside the technologies.

The learner–context interface

A great deal of this development and research work has been informed by sociocultural theory, with its central tenet that human activity (including learning) is mediated in interaction with others, through language as well as other mediational tools (including computers). This reflects more recent notions of the cultural, historical and institutional situatedness of the learner (Lave 1991; Lave and Wenger 1991; Wertsch 1991) and an ecological approach to language learning (Kramsch 2002) where “language is seen as a system of relations, rather than a collection of objects” (van Lier 2004, 5) and where context is crucial. Wertsch (2002, 105) calls attention to this in his introduction to a special issue of *Distance Education* on computer mediation and problem-based learning: “Rather than viewing the introduction of a new cultural tool as making an existing form of action easier or more efficient, it may be important to consider how it introduces fundamental change – sometimes to such a degree that we can question whether the same form of action is involved at all”.

As White (2006, 247) points out, the field of distance language learning “is often narrowly conceptualised as the development of technology-mediated language learning opportunities”. We would therefore like to frame the development and research activities carried out in the Department of Languages by White’s concept of the ‘learner–context interface’ in distance learning, a concept which builds on sociocultural theory and looks at the particular challenges of distance education. It is “based on the premise that a meaningful theory of distance language learning must view the contribution of the learning context and the contribution of the learner as integral and reciprocal constructs.” (White 2005, 63). In terms of the learner it is about focusing on “individual attributes, conceptualisations, affects, skills and needs, all of which influence how each learner approaches, interprets and experiences distance language learning” (64). Context is described by White as “the features

of the distance learning course (e.g. resources, course work and assessment, and opportunities for interaction, support, and learner control), access to other target language sources, and features of the different sites in which the learning is carried out” (65). The interface is a more abstract concept which White sees as a construct, “both as the place at which and the means whereby learner and context meet and affect each other. The interface is developed as the learner interacts with the learning context, and develops awareness of his/her own requirements, abilities, preferred means of working and so on.” (66). It also informs future learning experiences (White 2004, 1). White gives an example of a study of distance learners of English in Australia (Harris 1995) which found that successful students created for themselves “a study-nurturing environment” (White 2005, 63), comparable to the learning environment in a face-to-face setting. So this theory of the learner–context interface explores ways in which distance language students develop cognitive and affective strategies to deal with the setting they are in and to make it meaningful, making certain adjustments to an environment that they may not be used to in the context of learning.

While other researchers have used White’s concept to examine the process of creating an effective learner-context interface by looking at individual students (Murphy 2011), we are proposing that it can also contribute to investigating the role of the institution in supporting learners to develop this interface. In this article we are focusing in particular on the implementation and enhancement of various online and interactive environments within a distance language programme and look at the developments outlined in the previous section through the lens of the learner-context interface. These developments have been accompanied by research and evaluation activities which will help us consider how changes have been made to the environment and gauge what impact these have had on the learners. In this way, White’s approach allows us to bring together the perspectives of students, teachers and researchers and link various factors such as learners, materials, environments and teachers.

If we apply White's notion of the learner–context interface to our setting, the central themes in terms of the learner are learner interaction, learning communities, learner conceptualization, literacy, and affect; in terms of the context the central themes are the affordances of the environment, task design, teacher roles and teacher skills. These themes will be examined in more detail in the following sections.

Learners in context

As explained above, the rationale for introducing new technologies at the Open University was to give learners more opportunities for interaction. This section analyses the research and evaluation activities that were undertaken to explore in what ways the new tools facilitated learning or caused tensions.

Early trials: telephone, email and VoxChat

Task design and learner interaction

As we mentioned above, the Department of Languages (DoL) at the Open University offered its first course in 1995. As all other DoL courses that followed on from it, it was aimed at developing the four language skills of listening, speaking, reading and writing as well as grammar and teaching content. To provide opportunities to interact orally in the target language and improve confidence and fluency, students were offered the possibility of participating in face-to-face tutorials. However, for a variety of reasons not all were able or willing to attend such sessions and thus the academic year of 1995/1996 saw the introduction of trials using telephone conferencing. A small group of students guided by a tutor worked through activities which mirrored those of the face-to-face classroom, mainly focusing on accuracy of form. Researchers observed and later analysed the recordings of these conferences, reporting that many of the learners were likely to over-prepare and read out their

answers and that this led to a lack of spontaneity and an unwillingness to take risks (Stevens and Hewer 1998). Moreover, the lack of visual cues and body language resulted in a highly-managed environment (Shield and Hewer 1999), with students waiting to be invited to speak, and hardly ever interrupting each other.

When the experiment was repeated in the following year, tutors were discouraged from replicating text-book activities on the phone and supported in their efforts to promote more spontaneous exchanges by the students. The feedback collected in questionnaires from participants was positive in that they reported feeling more motivated, less isolated, and having improved their pronunciation (Shield and Hewer 1999). However, “sessions continued to be a compressed version of face-to-face work and gave the impression of being a bit bitty and disjointed” (Hewer 2000, 3).

As research suggests the advantages of a task-based approach to language learning (Ellis, 2000), a task-based model was adopted for the next set of pilot projects, combining the use of email and telephone tutorials. Roles were allocated to students who would then work in sub-groups via email collaboratively with peers and a tutor, preparing for a final plenary on the telephone (Shield and Hewer 1999; Hewer 2000). Students were encouraged to rehearse their arguments during the email phase rather than scripting what they were going to say; the result was fewer read responses and more spontaneous talk. The benefits also included affective ones: a great sense of camaraderie, less isolation, more confidence in speaking, and for some learners, less fear of making mistakes (Hewer 2000). As for disadvantages, most that were noted were practical ones, namely the expense of telephone conferences, the fact that they had to be arranged in advance, did not allow for meetings outside scheduled sessions and generally did not facilitate small group work (Shield and Hewer 1999).

Shield and Hewer 1999) concluded that it was vital “to adapt the available technologies to the pedagogy rather than the pedagogy to the technology” (382). With this in mind, a learning environment was secured which combined email, a website and a web-based audio client for real-time, many-to-many oral communication called VoxChat. VoxChat was found to be preferable over telephone conferencing in more ways than simply eliminating the need to travel long distances to attend tutorials: users would meet in a ‘plenary room’ (a sub-conference where the whole tutor group would interact), their names listed so that a name could be put to a voice; an icon signalled who was speaking; a text chat function allowed for the exchange of brief written messages; and new ‘rooms’ (i.e. sub-conferences) were available for small group work. Students could arrange their own sessions in VoxChat to work collaboratively outside scheduled plenaries, or in addition use email to communicate with tutors and peers to complete the designated tasks (Kötter, Shield and Stevens 1999). The website functioned as the main point of reference, with information about activities, partners’ contact details and FAQ-style technical help.

In 1998 and 1999 three pilot studies were run to assess the benefits of online provision for distance language learners (Kötter, Shield and Stevens 1999; Kötter and Shield 2000; Kötter 2001). Research data was gathered through classroom observation, recordings and questionnaires completed by tutors and students. The affordances offered by VoxChat for communicating were not obvious to all students, many of whom found it difficult to function effectively in this environment. Researchers first noted the relevance of the absence of visual cues, as students struggled to determine when speakers finished their turn. Consequently, there were uncomfortably long periods of silence before someone took up the floor, which only became less frequent as learners got used to the context. This was exacerbated by the fact that the software only offered half-duplex audio which meant that only one person could speak at a time. In addition, deliberately having to press the talk button to make themselves

heard, meant that students could not be as spontaneous as in face-to-face or telephone conversations, and could not use back channel cues such as ‘yeah’ or ‘uhm; without interrupting the flow of the conversation. Because they talked to ‘disembodied voices’, learners maintained that it was “harder to actively contribute and much easier to ‘hide’ making the whole process much less fluid” (Kötter, Shield and Stevens 1999, 58).

Overall, however, participants in these pilot projects welcomed the opportunities to speak formally and informally (Kötter 2001), carrying out meaningful and motivating activities in the target language (Shield 2000), and appreciated an improvement in their performance (Shield and Hewer 1999). For some, not seeing other people in the conference actually helped them to speak more confidently and feel relaxed. Others had to overcome their nerves, were initially reluctant to take risks, and conscious of the fact that they made more mistakes than in a face-to-face classroom. It is the increased awareness of making errors that researchers are keen to emphasize as a direct effect of the technology on the learners who always felt under pressure to speak (Kötter, Shield and Stevens 1999; Kötter 2001). On the other hand, the absence of body language and other context cues forced students to concentrate much harder on what was being said (Kötter and Shield 2000; Kötter 2001). Kötter (2001, 339) hypothesized that such focus of attention “increased their engagement in the learning process and the processing depth of the learned material”.

Learning communities, teacher roles and learner support

What other outcomes can be drawn from these early studies on the use of an Internet-based, synchronous audio tool in distance language learning and teaching? The analysis of participant responses to the online learning environment revealed the high importance that distance learners assign to being part of a learning community to reduce isolation (Shield and Hewer, 1999; Shield and Rodine 1999; Shield 2000). These online communities developed

the same characteristics as classroom-based groups: rapport, social support, collaboration on learning and a feeling of responsibility for each other (Shield 2000).

The adoption of VoxChat also prompted researchers to examine the changes that online synchronous communication brought upon the roles of distance language tutors. Hauck and Haezwindt (1999) – in their dual roles of teachers and researchers – observed that they had to become technically literate in order to survive software glitches and adapt their teaching style, for example to cope with the long silences in interaction and encourage students to participate more actively. Combining new administrative and social roles, tutors turned into managers of learning resources and organisers of learning events.

Finally, the degree of support that learners needed, especially during the first few weeks, both in terms of pedagogical and technical assistance, indicated that institutions needed to do more than providing the software and leaving the rest to the users (Kötter, Rodine and Shield 1999).

Audiographic and video conferencing

While VoxChat was only ever used experimentally, its successor Lyceum was mainstreamed in 2002 for language learners who wanted to study German at entry level B1. One year later the option to attend either online or face-to-face tutorials was introduced for beginners' French, Spanish and German, gradually followed by all other language courses. By the time *ab initio* Italian was launched in November 2007, however, the Open University had already committed to blended tuition: students could no longer choose, but were offered a combination of face-to-face tutorials and online tutorials via Lyceum. This reflects Shield's (2000) observation that all distance language learners, not only those who cannot attend face-to-face tutorials, can benefit from access to an online learning community, given its potential to reduce isolation.

Hampel (2003) evaluated tuition via Lyceum during its first year of presentation. Data was collected through observation of one tutorial group throughout the course (February to July), student and teacher logbooks, and questionnaires, underlining rather familiar issues. Technical difficulties remained one of the major challenges of using the audiographic conferencing tool – for example, getting disconnected, or having sound problems had a negative impact on the learning/teaching experience. Due to the absence of body language, conversations were found to lack spontaneity, as users struggled to decide on turn-taking or to avoid awkward silences. It was also noted that shy students were less likely to participate. Others felt cognitively overloaded (e.g. using the mouse, typing and speaking). The fact that the Open University does not enforce attendance at tutorials, and that students cannot always find the time to prepare in-between sessions, often meant that small numbers took part in the online tasks – some also ill-prepared – in which case tutors had to adapt the activities if they were to work well.

In spite of all difficulties, most students and tutors involved in the study were of the opinion that “using Lyceum had improved the students’ oral communication skills” (Hampel 2003, 32). They also agreed that the tool lent itself to authentic communication with other learners at a distance, and was particularly useful for group work. In addition, the multimodal nature of audiographic conferencing was highlighted as an advantage over written computer-mediated communication (CMC) and face-to-face classroom situations. Students not only receive information in different modes, but if they possess adequate literacy skills, can also employ different modes while performing a task.

This was the first research study which examined the use of Lyceum as an integral part of a regular Open University language course. As it became a familiar tool for hundreds of language learners and their tutors, researchers steadily developed a large volume of work,

further exploring old and new avenues of enquiry and continuing to map out White's learner-context interface.

Task design for oral interaction via Lyceum

Having found in earlier pilot projects that Lyceum features “not only allow students to create, modify and edit their own input, but also actually encourage them to do so” (Hauck and Hampel 2005, 266) thus facilitating their engagement with the learning activity, Hauck and Hampel's (2005) focused on task design. They point to the need of producing activities which would progressively train students to use the online environment. They show how in order to help distance language learners to develop their oral fluency – taking risks at the expense of accuracy –, online activities have to be complementary to existing course materials and build on structures and vocabulary introduced in the course. They also present how fluctuating levels of attendance at tutorials and varying degrees of commitment from students to collaborate with peers outside regular online sessions can be dealt with by devising a bank of suitable activities for tutors, who were then better equipped in their online classes. Hampel (2006) also found that having few attendees in class resulted in greater tutor control, as tasks tended to lose their student-centeredness. Furthermore, she maintains that the design of tasks must be informed by the potential of the medium and the learners' needs, and “reflect the affordances of the modes available as well as building up learner confidence and guide them towards taking control of the environment” (Hampel 2007, 50).

Whereas Hampel (2003), Hampel and Hauck (2004), Hauck and Hampel (2005) and Hampel (2006) reported on the design of online tasks for intermediate and advanced language learners, who are assumed to have attained a certain level of proficiency and therefore to be able to perform tasks of a more open nature, Rosell-Aguilar (2005) took up the challenge of activity design to foster oral interaction in audiographic conferences among beginners. His

premise was that the limited knowledge of structures and vocabulary that beginner learners have, especially as they set out to learn a language, called for highly structured activities and the use of a larger number of stimuli. In his view and in line with the findings of previous studies, tasks must be conceived to suit Lyceum and not merely replicate face-to-face exchanges, and gradually build up the users' confidence in the operation of the different features of the software, while avoiding making technology the focus of the tutorial.

Another study compared interaction in Lyceum tutorials with face-to-face tutorials in a beginners' course at the OU. Using social network analysis, Stickler, Batstone, Duensing and Heins (2007) found that although interaction patterns differ across the two media, it is not the medium that is the main reason for this but has more to do with task design and tutor style. They also examined the occurrence of silences where they found a closer link with the medium used. In another paper they mapped the interaction in both media (Heins, Duensing, Stickler and Batstone 2008) and found that in the online environment there was a higher ratio of L2 input and comprehensible output by students, a prevalence of highly structured L2 input and output, greater emphasis on classroom management, tutor dominance in spoken tutorial interaction, and fewer student–student exchanges outside allocated tasks.

Teacher skills

Hampel and Stickler (2005) discuss the skills that language teachers must have in order to function effectively in an online environment, as opposed to a face-to-face setting. As they advocate the notion that skills build on one another, the authors propose the figure of a pyramid (see figure 2).

<figure 2 about here>

For Rosell-Aguilar (2007) the tutors' own style becomes more essential in an online environment than in the face-to-face classroom. In his study, participating tutors emphasize the differences in terms of emotional support: it is the ubiquitous reference to the absence of physical contact that makes it more difficult for them to create a relaxed atmosphere in an online tutorial, a feeling of trust and belonging on which to build a more personal relationship with the students. This need to know how to convey warmth motivates Rosell-Aguilar (2007) to call for tutor training to focus on the social aspects of tutoring. When Stickler and Hampel (2007) evaluate the implementation of a tutor training programme based on the framework they introduced in Hampel and Stickler (2005), they invite online tutors of German to suggest ways of improving the training provided, and the responses also feature a request to concentrate more on how to make students feel at ease in Lyceum.

Hence, both Rosell-Aguilar (2007) and Stickler and Hampel (2007) endorse that institutions involved in online teaching should not simply be content in the knowledge that their staff are technically literate, but offer training that looks to “online socialization of communities of learners and the languages specific need for facilitating communicative competence” (Hampel and Stickler 2005: 323). It is paramount, though, that tutors themselves approve of this type of training and engage in reflective practice (Hampel and Stickler 2005).

Multimodal literacy

Hampel (2003) argues that alongside SLA and sociocultural theories a theoretical framework underpinning the use of new digital environments for language learning and teaching also needs to include consideration of the nature of the environment to help gauge its demands as well as its potential for learning. She suggests that many of the new learning spaces are multimodal and thus require certain literacy skills on behalf of the learners as well as the

teachers. In line with this, Lamy argues that “interacting means exercising competence not only in matters of language but also over all the tools brought into play in the particular communication context” (Lamy 2004, 523) and asserts that in a synchronous voice-based audiographic environment, where language learners perform an oral task, they also interact with the computer. She draws on Erben’s (1999) research into how a group of trainee teachers of languages interacted using an audiographic tool, wherein the technology was found to have an impact on the discourse practice. Lamy (2004) looks at examples of learner–learner interaction in Lyceum and its predecessor VoxChat to illustrate how these virtual environments can mould meaning-making behaviour, before highlighting the methodological challenges posed as L2 competence is redefined.

Hampel and Hauck (2006) and Hampel (2007) look at multimodality in the context of language teaching and learning to explore the demands that a multimodal environment puts on its users. They conceive that CMC, as a learning space, cannot replicate the face-to-face classroom if the meaning-making affordances and modes of the computer are taken into consideration. “It is important to become familiar with [the computer’s] functionalities and build up an awareness of what these afford the user, thus developing the skills necessary for successful deployment of the resources” (Hampel 2007, 35). This is at the core of the newly-termed ‘new literacies’, a combination of technical competences and the ability to immerse oneself in the electronic medium to the extent that its constraints and possibilities become second nature to the user, able to engage creatively and critically with the environment (Hampel, 2007).

In this way, the challenges that tutors and learners face are not insignificant. Apart from familiarizing themselves with the technology, they need to learn to represent meaning in more than one mode at a time, understand each mode and how to use different modes

constructively, while remaining aware of intercultural values and the affective demands of new media (Hampel and Hauck 2006). In the context of a pilot project on the use of videoconferencing, Hampel and Stickler (2012) analysed the written and spoken interaction of participants, showing how learners and teachers used and combined multiple modes to make meaning. The findings illustrate how an online videoconferencing environment with its multiple modalities can be used in language teaching, how teachers and learners adapt to the multimodal online environment and how new patterns of communication emerge in the process.

Metacognition and affect

For Hauck (2005) the need for distance language learners to understand and manage themselves and their learning (White 2003) applies equally to language learners in online self-directed learning spaces. She adds that “the degree to which language learners are aware of both themselves (...) and of the affordances of the learning environment, and the degree to which they demonstrate control and flexibility in the use of [metacognitive strategies] such as self-management and thus autonomy, are interdependent” (Hauck 2005, 68-69). In her view, learners with a high level of metacognitive knowledge are also efficient in deploying self-management skills, that is, they are aware of how they learn best, and able to set up the learning conditions most favourable to them.

Hauck’s research on activities designed to foster learner self-awareness served to substantiate two hypotheses: that “instructed self-management skills contribute to an increase in learners’ self and contextual knowledge” and also “help distance learners to deal with affective factors such as language anxiety in both face-to-face and virtual learning contexts” (Hauck and Hurd 2005, np). Raising learners’ self-awareness is one requisite for building up their self-esteem and influencing their self-efficacy and achievement beliefs. Those who

believe in their effectiveness as learners, certain to master the necessary skills, set themselves higher learning goals and are determined to succeed regardless of the obstacle, be it of a linguistic, technical or affective nature (Hauck and Hurd 2005; Hampel and Hauck 2006).

De los Arcos, Coleman and Hampel (2009) set out to investigate the nature of anxiety in online settings, and the extent to which it is triggered by the medium itself. Following a constructionist model, they propose applying discursive psychology to the study of anxiety, whereby emotions are no longer cognitive representations but discourse practices, meaning created in interaction between speaker and listener. Hence, anxiety is no longer a psychological state but a social construct.

Their findings reveal a strong connection between beliefs and emotion. As in Hurd (2006), de los Arcos et al. (2009) observe that distance language learners have a very good understanding of what makes a good language learner, and thus enter the L2 classroom with a ready-made set of beliefs and expectations not only about their own role but also the role of the tutor. In emotion talk, they justify to themselves and others the extent to which they manage to fulfill that role. The authors endorse Hauck and Hurd's (2005) argument that learners' self-management skills, which also include being able to control their emotions, can help reduce anxiety, but add that "it is judging that your behaviour as a language learner coincides with what you believe is expected of a language learner which indicates the absence of anxiety" (de los Arcos et al. 2009). In a follow-up study, de los Arcos (2010) once again moves away from linguists' broad concept of affect into the more particular understanding of emotion by emotion theorists. Her study of the appraisal patterns of pride and regret by language learners using an audiographic conferencing system for synchronous oral interaction suggests that negative emotions should not be ostracised from the process of

language learning, and that language learners need to develop an awareness of the origin of their emotions (positive and negative), including self, others and the context of interaction.

Telecollaborative learning over the internet

Various Open University based trials have been examining the potential of using online environments for intercultural learning by linking up Open University language learners with other learners in the countries where the L1 is spoken. The first e-tandem project involved German and English learners and used predominantly e-mail. Research found that there are cultural differences in correction patterns (Stickler 2004), and specific online collaboration strategies for language learning (Lewis and Stickler 2008).

The European project LITERALIA brought together learners from four different countries who interacted via a Moodle environment using wikis, forums and synchronous chat. In addition, pairs of learners communicated via e-mail. Research focused on the different facets of learner engagement in this multimodal environment and on intercultural learning. Stickler (2008) found that the (voluntary) chat sessions were both used as social events and as learning events. Stickler and Emke (2011) describe how adult learners in the context of the LITERALIA project experienced the online multicultural environment and how their interactions shaped and developed their intercultural competencies.

In another project, which linked students of French in the UK and the US with native speakers in France, Lyceum was combined with blogs. Students worked on tasks collaboratively and produced joint blogs. Hauck and Lewis (2007) found that asynchronous tools complement synchronous ones by giving learners the opportunity to work at their own pace and in their own time (particularly important when the learners are in different time zones) and make it easier to build in reflective activities. In contrast to other research, the

project also showed that integrating such a project into the assessment of the course does not necessarily increase learner participation and motivation.

In a telecollaborative project with a similar setup, Hauck (2010a) explored notions of multimodal and intercultural communicative competence. The study suggests that raising awareness regarding both the media used and the intercultural experience helps learners to take greater control of their learning context and to collaborate more successfully. In the context of the same project, Hauck (2010b) explored how telecollaborative tasks can be set up to develop learners' multimodal competence.

Towards an integrated virtual learning environment

In 2005, the university adopted Moodle (see <https://moodle.org/>) and started to build a comprehensive virtual learning environment (VLE, also known as Course Management System in the US) that eventually replaced the tools and platforms that had been in use before. Moodle allows for the delivery of content (in this case e-book versions of the printed course books, assessment materials and other resources) and it supports learner activity through forums, wikis and other interactive tools. Initially, the only Moodle features that were used at the Open University were the study calendar and the news forum; they were not integrated with the other course materials or with Lyceum. This changed in 2009 when the study calendar became the 'spine' of the course, online activities were made available to learners, and the VLE linked out to other tools such as Elluminate or the electronic assignment submission system.

In preparation for the introduction of a VLE offering multiple tools, a project was launched which examined how learners coped with a short language course that combined synchronous and asynchronous elements and encouraged them to interact and collaborate. It highlighted the benefits and challenges of using tools such as forums, wikis and videoconferencing,

showing the importance of the following factors: familiarity with the technology, task design, learner expectations regarding teacher role, and the right level of teacher support (Hampel 2010). The study that accompanied the course also showed the advantages of giving learners a choice of tools suited to their preferences in terms of learning styles (Stickler and Hampel 2010). Careful planning of tasks and teacher input are therefore crucial. To explore further how teachers can be trained to support collaborative learning, this project was followed by a teacher training project which emphasized the benefits in using an experiential approach when training teachers and the importance of careful monitoring and guiding of learners (Ernest et al. 2012; Hampel 2010).

When Moodle was rolled out to university courses in 2007, individual course VLEs were limited to providing access to information and resources rather than offering students an interactive learning environment. In DoL this changed dramatically with the introduction of a new generation of language courses that from 2009 started to make increased use of the VLE's potential for communication and interaction. The idea was to give learners greater choice by offering them face-to-face *and* online tuition, with the online tuition being delivered using synchronous *and* asynchronous communication tools.

Nicolson, Murphy and Southgate (2011) dedicate an entire book to teaching languages to adults in blended contexts in higher, further, and adult education. The contributors – all of whom are involved in teaching languages at the Open University – focus on the impact of different learning environments (online, face-to-face, telephone) on pedagogic practice and language learner support, and examine the particular socio-cultural, psycho-linguistic and cognitive issues that have to be taken into account when working with diverse adult language learners in blended settings.

Task design

The design of the asynchronous learning activities on the VLE was driven by the following objectives (which relate to one of the German courses at level 2 (CEFR exit level B2) but are not dissimilar from other courses):

- To develop linguistic skills and content knowledge
- To foster intercultural understanding
- To provide opportunities for practising content and language introduced elsewhere in the course
- To update the content of the print and AV materials and make it more relevant to individual interests
- To combine focus on meaning with focus on form
- To promote joint knowledge construction
- To create a community of learners
- To develop learner autonomy
- To encourage as many learners as possible to engage with the tasks
- To appeal to different learning preferences

(Hampel and Pleines, in preparation)

However, following the departmental policy at the time, the online activities were not directly assessed and initial evaluations – e.g. of the Spanish and German level 2 courses – have shown low participation rates in activities using forums, wikis and blogs, with students not seeing the written communication activities as a priority (Comas-Quinn, de los Arcos and Mardomingo 2012; Hampel and Pleines (in preparation); Price, Hampel and Pleines 2010). First of all, anxiety seemed to play a role, with students feeling pressured by being asked to perform in a mode that is much less ephemeral than spoken language and where errors are much more obvious. Other reasons for not engaging with the online activities were lack of

adequate literacy and technical problems. Some learners did not like the use of technology in itself, further emphasizing the affective component of learning. There also seemed to be a certain preference in terms of tools, as forum activities were chosen over wiki and blog tasks. Although learners may have wanted more practice and more interaction, they found it difficult to actively contribute to forum discussions or wiki activities due to lack of time, or they contributed at a later point when other students had already moved to another activity. Those who initially were keen to communicate asynchronously often gave up since feedback was not always forthcoming (neither from other learners nor from their teachers). Many students did not see the point of peer learning and wanted more teacher feedback.

In both courses, the researchers found that the number of students viewing the online activities was much higher than the number of students actually posting messages (the ratio of viewings to postings in the German course was on average about 9 to 1). At the same time it was noted that in both courses there was more interest in and active engagement with assessment-related tasks.

Hampel and Pleines (in preparation) took a more long-term view, examining the changes that were made to the design of the online activities on the basis of the initial evaluation and comparing student use of and participation in the asynchronous online tasks over a period of two years. This showed that a reduction of the number of online activities, easier navigation, the removal of wikis from the main course, a move from multiple tutor group forums (one per activity) to one large tutor group forum (for all forum activities) and increased learner support through greater teacher input led to an increase in forum use. However, the study also found that there was a trade-off between increased participation in one tool (the tutor group forum) and decreased engagement with others. This is a particularly relevant point in the context of distance learning where students often have a limited amount

of time to spend on their studies due to an array of competing pressures. Meanwhile, greater participation in assessment-related activities continued – indicating that this may be key to increasing learner engagement with online tools.

Teacher role

Another study examined in more detail the teachers' role and experience and charted the changes from one year to the next. Comas-Quinn et al. (2012) found that initially there were some negative attitudes to technology. Teachers felt that tools were poorly integrated in the course and that too much was asked of them as part-timer employees in terms of engagement with online activities. Apart from teaching face-to-face and online through Lyceum or Elluminate, they were also required to support learners asynchronously in forums and blogs. Teaching to them had become too distributed. The lessons learned in the first year were not only that teaching in such multiple settings is a huge undertaking and that teachers need adequate ICT skills, but also that they need to understand the pedagogical function of online tools and have to be able to convey this to the learners. As a result, in 2010 roles were separated when an e-moderator was introduced to support students with the asynchronous online tasks (forums, wiki, blog) across all tutor groups.

Conclusion

In her book, White (2004) looked ahead towards new teaching and learning spaces, believing that this “involves a complete rethinking of all aspects of practice, for all participants. It means working with an interconnected community of learners, using a number of new media [...] and it means higher levels of interaction and collaboration, which in turn require particular kinds of skills, motivation and commitment.” (229) This article has not only shown the leaps and bounds that distance language learning has made over the past 20 years, from individual correspondence study to interactive online learning, but has also examined some of

the consequences that White describes above. It has shown the development of our knowledge about e-learning through research, and the need for adjusting the pedagogy we use to ensure the new tools are used appropriately. Thus it also contributes to “the development of a research agenda to inform and guide pedagogical practice within rapidly evolving virtual learning environments” (White 2006, 249) which has been missing in the field.

Using the concept of the learner–context interface in distance learning has helped us identify various factors that the research into language learning and teaching at the Open University has been focusing on. On the learner side this research has taken account of various “characteristics and attributes that an individual brings to language learning” (White 2003, 89) and has explored how learners approach, interpret and experience distance language learning, covering the areas of affect and emotions, literacy and metacognition. In terms of context, the following features of distance learning have been addressed: teacher role and training, task design, functionalities of the environment (e.g. multimodality), and setting (telecollaboration).

The projects and courses that have featured in this article provide the interface for the students involved, “the place *at* which and the means *by* which learner and context meet, interact and affect one another” (White 2003, 91). In the Open University’s distance context technology plays a vital role in this interface, and on-going research and evaluation aims to improve the learning experience in a distance setting by supporting learners, helping them to develop their literacy skills, raising their awareness of what it takes to learn at a distance, as well as training teachers and raising their awareness.

The cycles of research and development also show how implementing new technologies in teaching is an iterative process, starting with a planning phase informed by

pedagogic theories and language development principles, followed by implementation and evaluation, which in turn influence redesign and reimplementation. Considerations such as these are not only relevant for distance settings but also for more conventional contexts where online learning plays an increasingly important role today.

At the same time, the article has highlighted a number of issues with technology which merit further research, such as the crucial role of the teacher, lack of literacy amongst learners or low participation rates in asynchronous online tasks. While research shows that assessment improves both learner participation rates (Macdonald 2003) and the quality of contributions in online contexts (Anderson 2004, 357), the Open University has to walk a tightrope between using technologies that have the potential of contributing to the formation of communities of learners and tutors in a distance context on the one hand and catering to a very diverse audience of learners some of whom are still uncomfortable with new forms of online learning on the other. Working on this article has also suggested the existence of certain gaps in the research carried out in DoL; the effectiveness of online learner activity in terms of language development; the potential and the challenges of video use in Elluminate and the contribution of such multimodal communication to language learning; and a greater focus on what learners bring, e.g. in terms of individual attributes. A closer examination of these would contribute to enhancing the learner–context interface. In addition, researchers will need to keep exploring other new technologies that have the capacity to bridge the distance in distance education (e.g. virtual worlds, online games, or social networking tools).

In DoL mobile language learning has already caught the imagination of teachers and researchers. Comas-Quinn, Mardomingo and Valentine (2009) study mobile blogging as a constructivist, situated, informal approach to learning a language, and underline the tensions that exist between wanting students to engage actively and freely with new technologies,

while also providing them with the necessary guidance. Demouy and Kukulska-Hulme (2010) investigate Open University students' experiences when using portable devices for additional listening and speaking exercises within a French course. They conclude that a mobile device means that any time and any place can become an opportunity to practise language skills, but that students need to be helped towards valuing this practice as a stepping stone towards authentic communication. Kukulska-Hulme and de los Arcos (2011) explore how self-directed language learners use mobile devices informally, and uncover their motivations to make the most of everyday, situated opportunities for learning. More recently, tapping into the popularity of podcasting sites, Rosell-Aguilar (2012) has been studying the profile of the iTunes U language learner in comparison with learners of other subjects, and Kan (2012) examines what makes a good language app in the context of learning Chinese at a distance. All this ensures that the potential of the latest technologies can be harnessed for teaching and learning and that their use is grounded in research.

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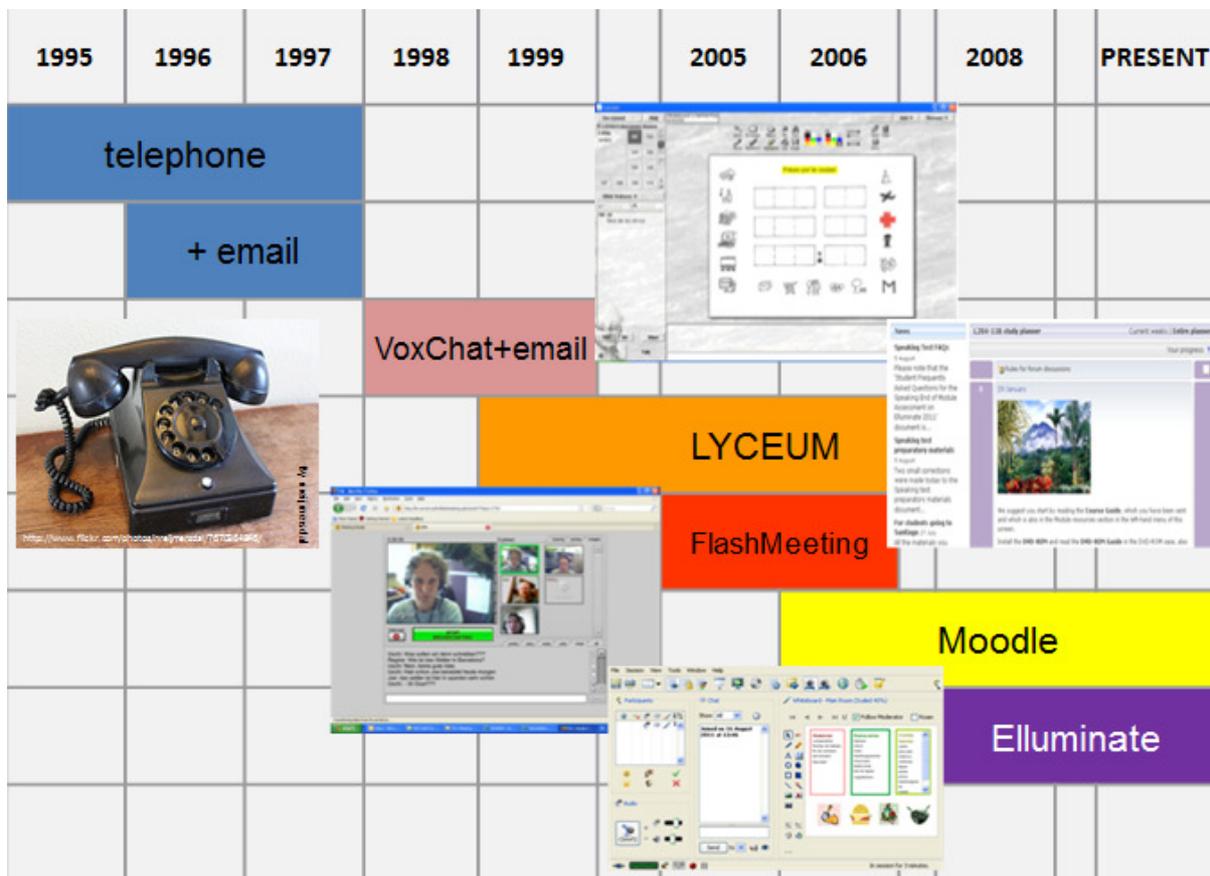


Figure 1. The deployment of new technologies for language learning at the Open University

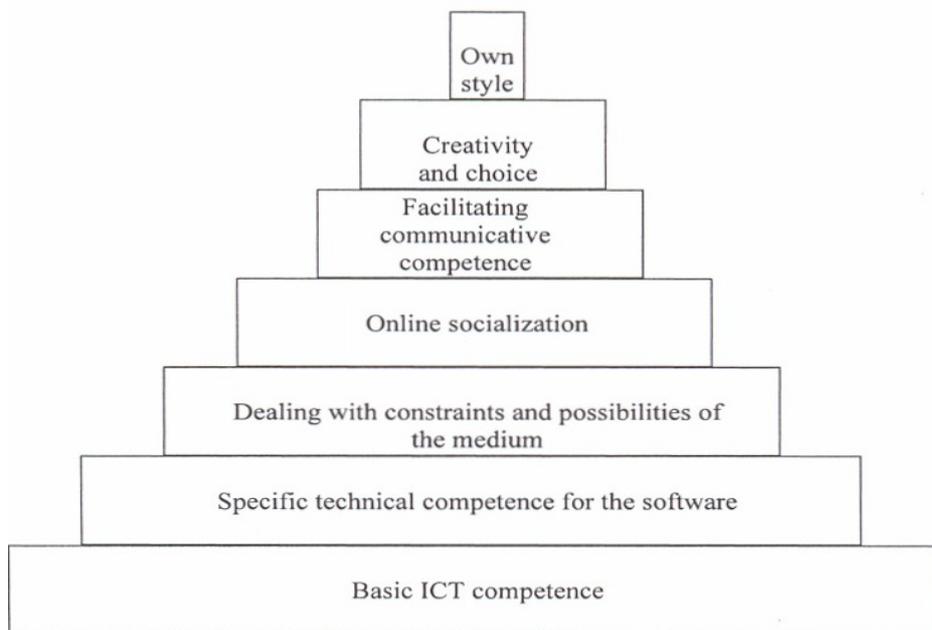


Figure 2. Skills pyramid (Hampel and Stickler, 2005: 317)