Introducing ICT to teachers of an institution-wide language programme: Principal considerations

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This article sets out to introduce some principal pedagogical considerations which influenced the design and delivery of a teacher training project for an institution-wide language programme. A training programme was developed which argues for the necessity of a theoretical framework in which e-learning can take place, as well as introducing different forms of e-learning and their evaluation in context. Some of the cornerstones of the programme delivery are introduced and discussed.

During the summer semester of 2005, a staff development course was offered to University Language Programme (ULP) teachers, introducing some basic principles of computer-assisted language learning (CALL). At the time, the language teaching portfolio at Nottingham Trent University did already include the use of CALL and e-learning in general, but this was an implementation on the initiative of individual members of staff rather than a generic, institutional approach.

E-learning in its broadest sense can be described as a general term

> *[…] which implies the use of electronic transmission of information from the teaching institution to the learning student and vice versa. E-learning can be interpreted as distance learning or as the use of technology-enhanced learning which can take place locally inside or outside the teaching situation, i.e., in class time or as directed or independent learning. In all cases, the computer is the medium and the constituent part where learning processes take place (Leahy, 2004, p. 2).*

The Nottingham Trent University (NTU), which is undergoing a major restructuring exercise, had launched its e-learning strategy as part of its strategic plan earlier that year, but not yet defined the term. For the purpose of the teacher training project described here, the definition above was used when referring to e-learning.

NTU's strategic plan stated the following:

> *NTU is committed to providing students with a rich and blended learning environment and will use online technologies to enhance learning outcomes for all students, whether on-campus, or studying at a distance or flexible mode.*

and

> *Good practice in on-line learning is realised through a combination of collaborative environments and interactive resources that engage the learner. E-learning will complement existing forms of learning including printed material and will rely heavily on the inspirational and professional commitment of teaching staff (NTU Strategic Plan, Feb. 2005).*

NTU staff were assured that this would mean a pedagogically driven bottom-up approach.

On this basis, a pilot project was designed to introduce Information Communication Technology (ICT) and CALL to ULP tutors with a view to implementing more e-learning as part of a blended learning approach to ULP classes.

The participants

All participants were experienced ULP teachers. Twenty-six colleagues registered initially for the course, approximately half of them attended more regularly, i.e., more than twice. All but one of the attending tutors had either fractional or full-time contracts. Only one tutor was hourly paid and received an acknowledging payment for attendance.

The project was in principle supported by the programme leader who encouraged tutor attendance and participated in several sessions as well.

Principal design considerations

The design of the project was informed by the experience and insights of previous teacher training courses, e.g., Littlemore (2002), Meskill *et al.* (2002), Pawan (2003), Sercu and Peters (2002) as well as by some basic design principles as advocated in software design (Cooper, 1999).

Essential cornerstones for the staff development pilot were the importance of a theoretical framework in which e-learning can take place, as well as the introduction of different forms of e-learning. The course had two main objectives:

- To highlight that all teaching and learning methods, including the introduction of CALL, should be pedagogically driven, and not by, for example, technological possibilities, and
- To introduce some practical examples of CALL and software application.

In line with the university e-learning strategy, emphasis was placed on a bottom-up approach[1], which would take note of individual tutors' preferences in teaching styles and integrate their expertise regarding the needs of their particular students.

Diverse participants' profiles

Following basic design considerations as frequently used in software design[2], the course was developed with 2 personas in mind. According to Cooper (1999), a one-size-fits-all design approach cannot be successful. He states:

> The broader a target group you aim for, the more certainty you have of missing the bull's eye. If you want to achieve a product satisfaction level of 50%, you cannot do it by making a large population 50% happy with your product. You can only accomplish it by singling out 50% of the people, and striving to make them 100% happy (p. 125).

Cooper's approach looks at key individuals of a particular target group and transfers their characteristics to certain personas. These created, specific personas can inform detailed design decisions which in turn can help targeting that specific group. This method was adopted for the staff development pilot in which the content and delivery was oriented on two created personas which were somewhat representative for the spectrum of our tutors:

(a) Persona A: A native speaker of the target language on a fractional contract, a resident in the UK for many years, mainly teaching foreign languages at the lower stages, who does not read regularly articles on new developments in second language (SLA) research. This person is likely to lack confidence in using the computer in general and for teaching purposes in particular[3].

(b) Persona B: A full-time member of staff whose teaching portfolio was more recently extended to ULP classes and who may harbour resentments towards technology and possibly language programme teaching. This colleague may be research active in a field other than foreign language teaching.

Research has repeatedly referred to the low face value perceived (by some) of language teaching in general and computer-assisted learning specifically (e.g., Gillespie & Barr, 2002; Underwood *et al*., 1996) which may well lead, on the part of some academics, to resentment towards both. With a UK research emphasis geared towards RAE[4] submissions, technology-enhanced language learning and teaching may just be viewed as very low priority within the competing demands on academics' time.

These difficulties aside, other possible characteristics of participants had to be taken into consideration, of which only three shall be highlighted here. Bax (2003) names two prevalent language teacher groups, those who harbour a phobia towards technology and those who are in awe of it. Both positions are extreme, non-reflective and unrealistic, therefore both groups need to be guided towards a more realistic approach to computer-assisted or technology-enhanced language learning. Furthermore, there is at least one other group of language teachers whose expectations may influence the outcome of a teacher training programme: those tutors who primarily hope to receive useful hints and tips which can easily be implemented into their own teaching (Sercu & Peters, 2002). These colleagues favour an approach which may be termed "short-cut mentality", bypassing theoretical considerations and proceeding straight to implementation.

Tutors working for the ULP can be described in one or several ways along the lines of those categories above.

In view of these very diverse participants' profiles, which most likely affect their attitudes towards the staff development course, clarification of the participants' expectations is essential.

Participants' expectations

Before the course was developed in any detail, all ULP tutors were sent an invitation to express which topic areas they would like to see being covered. Furthermore, a pre-course questionnaire was sent to all participants in order to determine their existing ICT knowledge and skills[5].

The expressed interest areas were taken into account when the programme was finalised. However, there were two further points the course designers had to be particularly aware of:

1. the difficulties inherent in in-house training designed and delivered by a colleague of the participants, and
2. the interpretation and transformation of suggested topic areas into delivered content.

Again quoting Cooper (1999):

> *There is a big difference between listening to and following your customers. Listening is good. It implies applying your own filter to what you have heard. Following is bad. It implies merely doing what your customers tell you to do. (p. 220)*

For this course aimed at the ULP tutors at NTU, the participants' needs were at the centre.

Pedagogical beliefs

When analysing the needs of the target group, just following their expressed needs may not be enough, as pointed out by Cooper above. A further complicating factor can be the teachers' perception of the computer itself and its function in the learning situation, e.g., whether the computer is primarily viewed as a tutor or tool (Levy, 1997). Based on the teacher's dominant pedagogical approach, whether the teacher is aware of it or not, the application of the machine will be very different as outlined in Warschauer's attempt to map the main use of the computer in recent decades. Comparing the application of the computer in language learning with the dominant pedagogical beliefs of the period, he describes the phases as structural, communicative and integrative[6].

When using the machine for drill and practice exercises, the computer is viewed as the actual tutor with the knowledge to decide whether the student input is correct or not. The computer (tutor) therefore has the power to evaluate the student's performance (Levy, 1997). When, on the other hand, the computer is principally used as a locus for authentic discourse then it is a tool to produce and view this discourse, e.g., by accessing authentic materials via the Internet or by communicating with native speakers, to name but a few examples.

An awareness of the interdependency between pedagogical believes and computer application is essential when planning appropriate use of CALL material for different language learners. To make this interdependency transparent is reflected in the first objective for this teacher training programme.

Based on these design considerations, practical decisions had to be made in order to implement the pilot programme. The following introduces some of the cornerstones of the programme delivery.

Table 1. Stages of CALL, following Warschauer (1996 and 2000)

	Structural CALL	Communicative CALL	Integrative CALL
Technology	Mainframe	PCs	Multimedia + Internet
English teaching paradigm	Grammar translation & audio-lingual	Communicative language teaching	Content-based ESP/EAP
View of language	Structural (formal structural system)	Cognitive (mentally constructed system)	Socio-cognitive (developed in social interaction)
Principal use of computer	Drill and practice	Communicative exercises	Authentic discourse
Principal objective	accuracy	And fluency	And agency

Implementation

Following two main objectives, the staff development course introduced pedagogical principles in relation to CALL and some practical examples with a view to future integration of e-learning material to the ULP. It is important to note that one particular pedagogical approach was not advocated over another, rather, the attempt was made to highlight the interdependence of the teachers' underlying pedagogical beliefs and the application of CALL. To give an example, the frequent heated argument among language teachers about the importance of discrete grammar practice versus language use in context may not be reconcilable without addressing the teacher beliefs which influence their choices.

Parts of two online courses were used as training material: Information- and Communication Technology for Language Teachers (ICT4LT) and Teaching and Learning Languages Enhanced by New Technologies (TALLENT). Both online courses were developed by experts in technology and language learning to help language teachers to familiarize themselves with technology in language learning. Both module packs were originally supported by European funding.

During a period of three months, three sessions of two hours were delivered, covering the following topic areas

- An introduction to computer-assisted language learning
- CALL – pedagogical concerns – structural, communicative and integral CALL
- Computers and writing practice, evaluation of existing exercises

followed by a further two extended sessions

(a) Introduction to computers and assessments; Questionmark Perception

(b) Listening / speaking (introduction to Wimba)

Practical examples of computer-assisted language learning material had been a frequent request by participants, together with an interest in support using the Virtual Learning

Portal (VLP), a virtual learning environment developed by NTU. It is the delivery platform for student information and course material and is used quite creatively by some academics. However, the VLP-use by ULP tutors had received a very slow uptake. The institution had offered staff training sessions on VLP-use to all members of staff for a considerable time, but attendance had been voluntary and confidence on the part of academic users is (still) patchy. Possible reasons for this are discussed below.

The module delivery of the first, more theoretical part, was divided into four sections which were based on (a) input, (b) reading, (c) practice and (d) posting of group results[7]. All elements were interlinked in order to either exemplify or reinforce the topic under discussion. The input was successively reduced while the practical element was increased. The practical element either exemplified what had been introduced in mini-input presentations (mini-lectures) or served reflection on the tutors' own practice and needs of their respective ULP stages. Groups appointed their representatives each week and they were asked to post their workshop results to a discussion forum on the VLP, thereby practising functions provided by the VLP and therefore learning VLP usage "hands-on" as requested by tutors. By this method, tutors experienced the VLP from the student's position and could familiarize themselves with the different functions before transferring this skill in support of their own modules they were to provide for their students. Additionally, this method created a record of all workshops in form of their tasks and outcomes of group work. Therefore, the staff development module on the VLP produced a module packet with input information (in the form of Power Point presentations), links to a selective reading list, workshop tasks and outcomes which could be (re)visited at any time. Any absence from a specific session would allow later access to content covered during the individual's absence. Any wish for later clarification or further engagement with the material on the VLP was possible until access to the module was closed. Indeed, one participant re-visited the presentations, reading lists and programme during the next academic year, i.e., many months after the actual training course.

The initial practical sessions served awareness raising purposes regarding the tutors' own pedagogical beliefs and practices and furthermore introduced CALL-related concepts. This included the introduction of some evaluation principles for CALL material based on Chapelle's (2001) evaluation criteria. The application of those evaluation principles was practised on ready-made material on the web, applied to the context of our language programme.

It was anticipated that some tutors as represented by Persona A would not read any of the recommended articles. The input sessions therefore had to cover the essential information, e.g., an introduction to CALL and pedagogical implications when introducing e-learning in general. Colleagues as represented by persona B could make use of the given reading list. Titles for further reading were given on handouts, through web links (attached to the VLP module for easy access via the hyperlink) and the module's reading list.

The second half of the second objective, namely to introduce useful software applications[8] was addressed in 2 parts, i.e., input in the form of a presentation of computer-assisted assessment and an introduction to *Questionmark Perception* and *Wimba*. Large parts of those sessions were dedicated to hands-on practice.

Shortcomings of the pilot scheme

The pilot course was rushed. The initial programme was based on ten two-hour sessions, but the programme had to be shortened due to the difficulty of arranging meeting times. This meant that the learning objectives were somewhat compromised.

Discussion

Electronic discussions (e.g., an online discussion board) were not incorporated into the pilot project. Even though the university's virtual learning environment includes a discussion forum based on *Webboard*, this facility was only intended to be used as a message board for the posting of the results of in-class discussions. When designing the module it was assumed that using the discussion forum in this way facilitated a tentative familiarization with the function, but appeared less of an onerous task for the participants than the active engagement in a discussion would have presented.

A staff development opportunity (as discussed here) has limitations, e.g., tutors' participation in this module was voluntary, and as such regular attendance at the sessions was regarded as an achievement in itself. Since the course was delivered in-house, it would have appeared unnatural to the participants to discuss issues online. Tutors were physically present, a distance learning element was not included in the framework, for reasons mentioned above when personas were described. Even though a reading list was provided, it was not anticipated that many tutors would take up the offer. It would have been difficult to impose more tutor engagement other than the time during attendance. It would therefore have been unrealistic to expect subject-specific discussions about issues raised in the literature. Furthermore, facilitating productive online discussions is difficult, even with motivated students who may be familiar with the technology. Studies of discussion forums used by teachers and trainee teachers show that it is difficult to initiate and maintain a focused asynchronous collaborative online discussion. It appears that "serial monologues" (Henri, 1991[9]), a form of "one-way interactions" are a common, but a less desirable feature in such forums (Pawan *et al.*, 2003). A certain amount of self-reflexivity can be achieved in serial monologues, but a collaborative development of ideas, an engagement with ideas raised by others, seems to be neglected.

Another study by Arnold, Ducate, Lomicka, and Lord (2005) could find evidence of (virtual) community building among the participants of a discussion group based on asynchronous CMC. Adopting Rourke *et al.*'s (2001) framework of a community, they base their analysis on three response areas: affective responses (humour and self-disclosure), interactive responses (mutual awareness and recognition of each other's contributions) and cohesive responses (building group cohesion).

In this study the asynchronous CMC resulted in a positive learning experience among the participants which in turn led to a positive view amongst the teachers to use similar online discussions in their teaching. This represents a welcome effect which we also hoped for in our framework regarding the use of the VLP in general: a transfer of the acquired skill from the student practice perspective (i.e., teacher as student) to the teacher who implements similar strategies or skills to be used by her/his students.

Pawan *et al.* (2003) and Arnold *et al.* (2005) investigate different issues in asynchronous computer-mediated communication, but the tenor is somewhat similar. The perhaps naive hope of early projects that electronic discussion forums could readily support the learning process has been put into perspective: The first hurdle to overcome may lie in the lack of participation in the electronic discussion forum. Once participation has been taken up, it appears that a pre-requisite of meaningful electronic exchanges is the building of an online community which is interested in sharing and negotiating meaning as well as collaboratively constructing meaning. If exchanges fail to note previous postings, a danger of posting mere serial monologues increases and the purpose for the online discussions, i.e., interaction between participants, is lost. In order to overcome this problem, Pawan *et al.* (2003) suggest three areas of teacher intervention which may help students to constructively build knowledge together. As one of these areas, Pawan *et al.* (2003) specifically recommend making expectations clear to students in advance, whose first recommended intervention is for "instructors to clearly outline participation requirements in the course syllabus" (p. 136). This is somewhat echoed in Arnold and Ducate's (2006)[10] study. They outlined their expectations on students' engagement in the electronic discussions and clear marking references were supplied in advance to students. Students were aware of what was expected of them and knew what to do in order to score highly in this activity. Giving a framework like this appears to have helped the students engaging in interactive discussions without a need to have a high presence of the course deliverer.

These findings may be very relevant for subsequent teacher training courses. For reasons outlined above, the framework of the pilot course did not underpin the requirements named in recent research projects that may support successful asynchronous CMC. However, the course design did consider the participants' recognition of the *VLP discussion forum* as a potential language learning tool as very important. Rather than explaining it explicitly in a theoretical manner, tutors were encouraged to use the feature as a posting tool. Hereby, a certain familiarization with the function could be achieved, without the attempt of setting up a discussion forum in which participation and negotiation of meaning was to be accomplished. Since the module did not attract any accreditation or recognition of tutor time spent, it seemed more realistic to aim for familiarisation with the function than full use of the same. As it turned out, the tutors who posted their workshop results successfully, expressed a feeling of achievement. It appeared to have a positive effect on their attitude to computers and computer-assisted learning. However, the opposite is true as well. One tutor who continually expressed a dislike towards the machine did attempt to post the group's results but failed to follow the written instructions. Once he had lost his typed summary before it was sent, he refused to engage with the discussion forum altogether. Even though he was offered to be shown through the procedure individually, he declined. Unfortunately, this experience re-enforced his aversion instead of helping him to overcome it.

In a staff development session either within paid time or as part of an accredited course, it would have been easier to assist teachers in overcoming their difficulties. It would have been more difficult to follow the impulse of refusal and there would have been some obligations in attempting to master the tasks set as part of the module.

Evaluation

The following is based on observation and individual comments from tutors.

Positive outcomes

- The bottom-up approach based on consensus was received positively.
- As a direct result of the course, some colleagues are less frightened of the media and their attitude towards technology is less negative.
- Some enthusiasm among tutors to make use of the VLP for their modules could be observed.
- Tutors appeared to be excited about the use of listening material via the VLP.

Lessons to be learnt

- A sequence over a longer period of time is desirable. Time for reflection about the new ideas and time to test them out seems to reinforce the new.
- Technical and administrative support is needed during the following academic year in order to enable tutors to implement and use their new ideas. For various reasons, support, in particular the need to connect students to their respective modules in time, was only available to a limited degree which led to a lot of tutor frustration.
- The delay in being able to use the newly learnt skills may have caused some loss of the same.

Recommendations

There were three recommendations that could be inferred from the results of the present study. First and foremost, it would be helpful if the institution acknowledged explicitly tutor time spent on staff development. Acknowledgement could take the form of either provision during paid time or through accreditation. Full-time members of staff normally participate in staff development activities during paid time. Since part-time tutors need to come to the institution specifically for the course, they may perceive such participation less as personal development but rather as lost private time. Even though this perception may or may not be correct, it may influence the approach towards the activity, i.e., casual approach to attendance and less stamina in overcoming difficulties, or even being only present in body, but not participating constructively.

Secondly, technical support and back-up are essential in order for tutors to implement their ideas. One shortfall in this situation was an institutional failure to link all students in time to their modules. As a consequence, constructive use of the virtual learning environment can be impaired.

Finally, the participants' expectations on the one hand and the aims of the teacher training course on the other may need explicit discussion right from the start. These may well be very different. If a clarification does not take place early in the course, the participants may consider it not relevant to them. For instance, it would not be uncommon for teachers hoping to receive ready-made material from e.g., the Internet while the course's aim may be

to raise awareness about the necessity to make pedagogically motivated decisions before implementing any computer-assisted language learning exercises as part of a syllabus. In order to make such possible misconceptions more transparent (and to enhance transfer from theory to practice) it may be useful to introduce specific lesson plans to the course which incorporate ICT and which are embedded in different pedagogical approaches[11].

Acknowledgement

The second part of the course, the two extended sessions mentioned above, were designed and solely delivered by Trevor Pull. Trevor also provided most of the input to the questionnaire of existing ICT knowledge and skills.

References

Arnold, N. & Ducate, L. (2006). Future foreign language teachers' social and cognitive collaboration in an online environment. *Language Learning & Technology, 10* (1), 42-66.

Arnold, N., Ducate, L., Lomicka, L., & Lord, G. (2005). Using computer-mediated communication to establish social and supportive environments in teacher education. *CALICO Journal, 22* (3), 537-566.

Barr, D. & Gillespie, J. (2003). Creating a computer-based language learning environment. *ReCALL, 15* (1), 68-78.

Bax, S. (2003). CALL – past, present and future. *System 31,* 13-28.

Chapelle, C. (2001). *Computer applications in second language acquisition*. Cambridge: Cambridge University Press.

Cooper, A. (1999). *The inmates are running the asylum*. Indianapolis: SAMS.

Gillespie, J., & Barr, D. (2002). Resistance, reluctance and radicalism: A study of staff reaction to the adaptation of CALL/C&IT in modern languages departments. *ReCALL, 14* (1), 120-131.

ICT4LT module 2.1: CALL methodology – integrating CALL into study programmes; Retrieved April, 2006, from http://www.ict4lt.org/

ICT4LT module 2.3:Exploiting World Wide Web resources online and offline; Retrieved April, 2006, from http://www.ict4lt.org/

Jaeglin, C. (1998). Learners' and instructors' attitudes towards computer-assisted class discussion. In J. Swaffar, S. Romano, K. Arens, & P. Markley (Eds.), *Language learning online: Research and pedagogy in ESL and L2* (pp. 121-139). Austin, TX: Labyrinth Publications.

Leahy, C. (2004). Researching language learning processes in open CALL settings for advanced learners. *Computer Assisted Language Learning, 17* (3-4), 289-313.

Levy, M. (1997). *Computer-assisted language learning: Context and conceptualization.* Oxford: Clarendon Press.

Littlemore, J. (2002). Setting up a course in ICT for language teachers: Some essential considerations. *CALL-EJ Online, 4* (1). Retrieved April, 2006, from http://www.clec.ritsumei.ac.jp/english/callejonline/7-1/littlemore.html

Meskill, C., Mossop, J., DiAngelo, S., & Pasquale, R. (2002). Expert and Novice Teachers talking technology: Precepts, concepts and misconcepts, *Language Learning and Technology, Vol. 6 (2),* 46-57. Retrieved April, 2006, from http://llt.msu.edu/vol6num3/default.html .

Pawan, F, Paulus, T., Yalsin, S., & Chang, C. (2003). Online learning: Patterns of engagement and interaction among in-service teachers. *Language Learning & Technology, 7* (3), 119-140.

Rourke, L., Anderson, T., Garrison, R. D., & Archer, W. (2001). Assessing social presence in asynchronous text-based computer conferencing. *Journal of Distance Education, 14 (2).* Retrieved April, 2006, from http://cade.athabascau.ca/vol14.2/rourke_et_al.html

Sercu, L., & Peters, E. (2002). Learning e-learning – a comprehensive investigation of course developers' and language teacher trainees' views regarding the usefulness and effectiveness of a multimedia self-tuition course. *ReCALL, 14* (1), 32-46.

TALLENT, Teaching and learning languages enhanced by new technology. Retrieved April, 2006, from http://www.solki.jyu.fi/tallent/econtent.htm

Underwood, J., Cavendish, S., & Lawson, T. (1996). Are integrated learning systems good for teachers too? *Journal of Information Technology for Teacher Education, 5* (3), 207-218.

Warschauer, M. (2000). The death of cyberspace and the rebirth of CALL, edited version of the plenary speech given at the "CALL for the 21st century" IATEFL and ESADE conference, 2 July 2000, Barcelona, Spain. Retrieved April, 2006, from http://www.gse.uci.edu/faculty/markw/cyberspace.html

Warschauer, M. (1996). Computer-assisted language learning: An introduction. In S. Fotos (Ed.), *Multimedia language teaching* (pp. 3-20). Tokyo: Logos International. Retrieved April, 2006, from http://www.gse.uci.edu/faculty/markw/call.html

Biodata

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(Endnotes)

1 This apparently contradicts a recommendation made by, for example, JISC (Joint Information Systems Committee), which advocated a top-down approach for change management. See Gillespie and Barr (2002, p. 127).
2 e.g., A. Cooper (1999).
3 See e.g., Jaeglin (1998).
4 Research Assessment Exercise, for details see http://www.rae.ac.uk/
5 Some of the questions used were based on Graham Davies's *Can do list* version Feb. 2004; access via ICT4LT, basic modules, "Can do" lists.

6 The difference between Warschauer's (1996 and 2000) and Bax's (2003) classification into different phases of CALL is not relevant in this context.
7 See discussion of the interactive element (webboard) below.
8 Many thanks to Trevor Pull, the resources manager of the School of Arts, Communication and Culture, NTU, who designed and delivered this part.
9 As quoted in Pawan *et al.* (2003).
10 Arnold and Ducate (2006) appear to have used the same sample of student online discussions as in Arnold *et al.* (2005).
11 Compare to Sercu and Peters (2002).