

# Blended Learning

## The Central Hub in a CALL English Course for Telecommunications Engineers

Departing from a well proven concept for the curriculum of the Technical English courses (English 1-6) at the School of Telecommunications Engineering at the Salzburg University of Applied Sciences and Technologies, the challenge to move 50% of the course online to better address the needs of its part-time students seemed to be a feasible, even if challenging task. The first attempt in 1999 was passable but highly frustrating as too much time and energy had been invested into producing online materials without utilising the new medium to its full potential.

### 1. Introduction

After a few trial runs and continuous adaptations, we have now arrived at a concept that centres on the learner needs for interaction and community building. The following article outlines this development and provides an overview of the current concept.

### 2. From Frustration to Fun

In 1999, the management of the FHS decided to implement a part-time option for its telecommunications program, which entailed reducing the presence hours for students. A strategic decision was therefore made to establish a virtual learning environment, in our case WebCT, as the common platform for online course delivery. In the surging hype of elearning optimistic hopes were raised with regard to saving on personnel and physical infrastructure as well as automating certain tasks.

Whereas initially the primary focus was on “digitising” existing materials, thus consuming a disproportionately high amount of resources, we were pretty soon faced with the realisation that the input did in no way match the output. Additionally, we had to accept that we were adapting existing traditional classroom approaches to the new medium rather than exploring how the new medium could be used to its full potential. Though student feedback did acknowledge the effort we had put into material generation, it was still a frustrating but eventually useful learning experience for us. Analysing the situation from the learner perspective, we identified the

following central needs that we had to cater for to make elearning a rewarding experience:

- Need for interactivity between
  - instructor - students
  - students - students
- Need for community building
- Need for feedback
- Need for communicative and stimulating learning situations

Based on these findings, we arrived at the following basic principles that now inform the rationale behind our courses.

### 3. Rationale

*A well-defined framework and transparent documentation:*

With the decision to carry out only 50% of the course online, we had already intuitively adopted the concept of “blended learning”, though ignorant of the existence of the term and the respective approach. This approach, however, calls for a well-planned and clearly structured framework to seamlessly integrate online and offline activities. Interfaces must be defined and adequately communicated to compensate for the lack of instant feedback and clarification that is possible in the traditional classroom. All activities, instructions, and requirements have to be made explicit to the extent that no additional explanations are necessary. We found that we should never assume something is obvious, as the learners may feel not supported and thus eventually frustrated. The VLE’s cal-

endar function with portioned workloads and deadlines as well as detailed overviews of planned chat sessions are, for example, instruments in this context (figures 1 and 2).

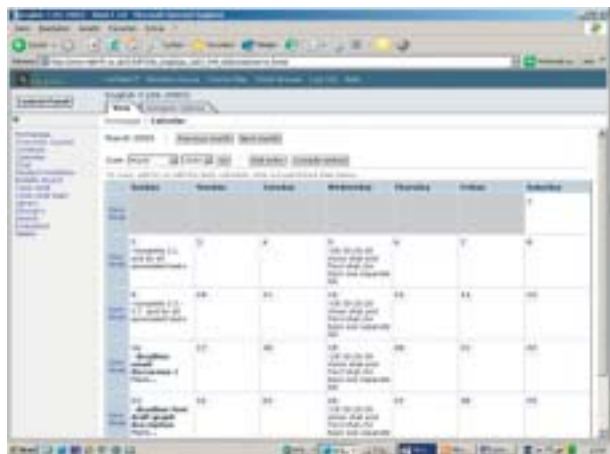


Figure 1: course calendar with portioned weekly workload and deadlines for assignments

Any documents that are produced by instructors and learners including all chat logfiles and individual corrections and feedback are accessible for all course participants and the three instructors teaching in one level.

### A task-based approach utilising learner expertise and peer-support

Part-time courses attract non-traditional learners across a wide range of professional backgrounds and age brackets. Learners tend to be therefore highly heterogeneous in our groups in regard of their proficiency in English as well as their motivation for improvement. Tapping into their professional expertise, in our case their technical know-how and web-programming skills, has proven conducive to the learning process. Integrating tasks they are familiar with from their workplaces

into the language learning process acknowledges their expertise, provides reassurance and thus an emotionally supportive setting.

The more informal set-up of the chat as well as the transparency in all the interaction between instructors and students on the one hand and among students themselves on the other hand strongly support peer learning.

### A multi-channel approach blending synchronous and asynchronous communication integrating all four skills

The online medium definitely has the advantage that learners themselves may choose the channel that is most akin to their learning style at any given time. Multiple approaches to one learning goal and thus learner choice are key elements in this context. For example, the provision of a synchronous voice chat as an alternative to the text-based chat and the asynchronous discussion forums extends the capabilities of the online communication to truly integrate spoken English.

### A moderate constructivist approach in shifting responsibility partly to learners

The paradigm shift in instructor and learner roles is undoubtedly accepted, its concrete implementation in a real course context, however, needs openness and tolerance

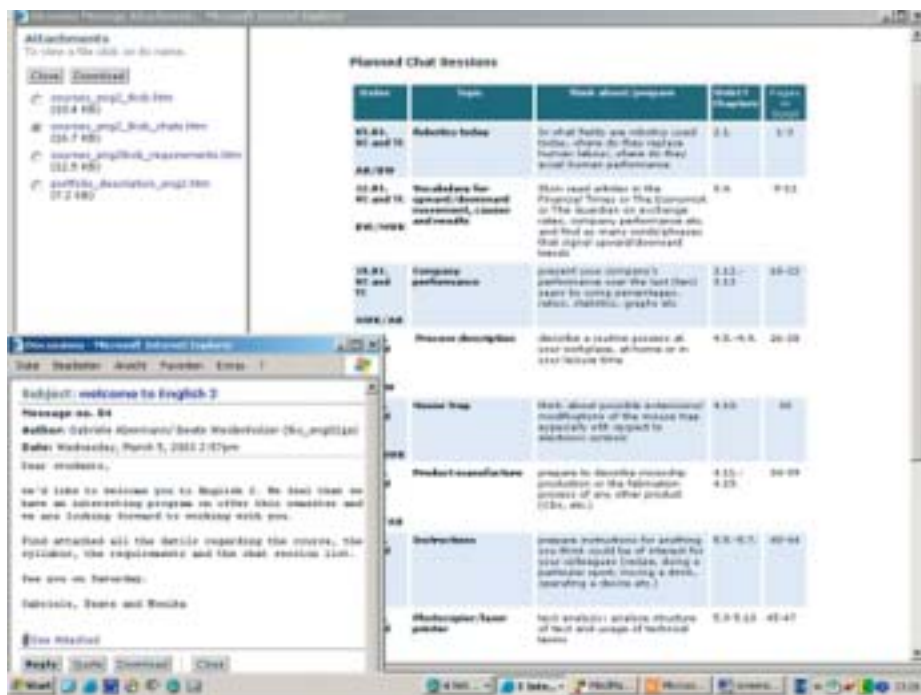


Figure 2: overview of chat topics and how these interface with online materials/script

on both sides. In our opinion, the magic wand is here again learner choice and learner responsibility.

Contrary to the first courses where we tracked learners in their online material usage we now focus on results and achievement of tasks. While it may still be interesting to analyse learning paths, we favour quality over the quantity of clicks and we see our materials as an offer rather than a prescription. It is the students' choice how, where, and when they acquire the requisite knowledge and skills to carry out certain interactions and tasks. If this takes place even outside course boundaries, this is welcomed not penalized.

However, we also have to cater for less advanced or independent learners. For those students that need more guidance, the semester workload is portioned into weekly bites and outlined in the course calendar. The objective is, however, to make learners accept the responsibility for their own progress.

Our learners may also choose between the conventional form of assessment in a test and the alternative option of the online portfolio, which is described in more detail below.

#### 4. Key Elements

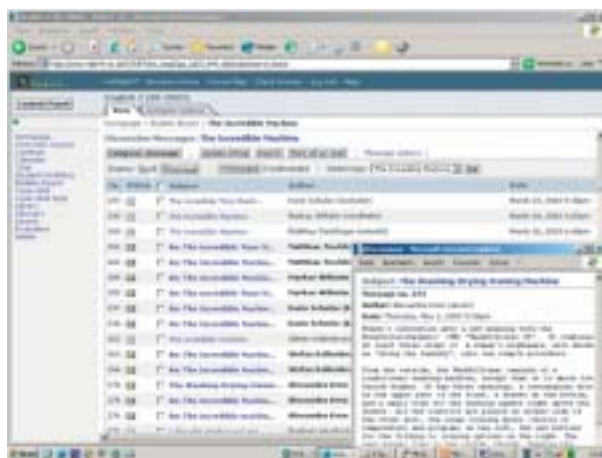
*Offline sessions – Group Learning – Instructor-led with Regard to Framework, Student-led with Regard to Interaction*

The course set-up combines or blends online activities with four offline sessions, thus also blends distributed and f2f communication. The offline sessions focus on communicative tasks carried out as pair or group work, role plays and simulations as well as student presentations. Contentwise, these are related to the subject areas treated in the respective semesters, though there is considerable freedom in the individual choice of topics. The online materials respectively script are designed to prepare students for these sessions.

*Online materials/script – Individualised Learning Space*

The materials compiled in the paper-based version of the script have been processed and enriched with multimedia elements such as flash animations, audio and video clips. These materials provide self-learning opportunities with integrated feedback mechanisms like self-tests, quizzes in various formats, puzzles and word plays. In the third-year courses, English 5 and 6, the focus is on academic writing, the language of meetings and negotiations as

well as presentation techniques. Here subject-related NetG courses have been integrated as for these topics suitable materials already exist.



*Bulletin Board – Asynchronous Communication – Community Space*

Apart from the obvious, like providing a forum for any questions, feedback, comments of learners and instructors, learners carry out two subject-related and focused email discussions. Each participant posts at least one original contribution and comments on at least two other entries. Feedback from instructors is given by directly interacting with and reacting to all learner contributions. The emphasis here is on encouraging and eliciting interactions rather than on accuracy. No formal assessment of these contributions is made but it is obvious that learning takes place implicitly and is integrated in the text-production process. The quality and quantity of the contributions are, however, taken into account for the final assessment.

*Text-based Chat and Voice Chat - Synchronous Communication - Community Space*

From a total of 12 chat sessions scheduled weekly in the evenings learners must participate in a minimum of four. Thus learners may choose from a wide range of topics as well as the two modes – text or voice. A detailed breakdown of the topics including questions to provoke / stimulate interest are provided at the beginning of the semester together with the references to the script/online materials.

*Process Writing – Self-reflection and Peer Reviews – Student-driven*

In the conventional approach students have to submit

written assignments which are then marked and graded and account for a defined percentage of the total value of the final mark for the course. In the portfolio approach, which we offer as an alternative, we have shifted the focus from the outputs to the process itself including reflection on the process. Students now submit drafts which are colour-coded and annotated by the instructors and peer-reviewed by colleagues. Alongside the final version, students also submit their reflections on the writing task. Only the final version is formally marked and assessed but the process itself is part of the portfolio assessment. We feel that this multidimensional approach benefits the learners not only in their proficiency in language usage but in their own approach to learning. The cyclical feedback loop raises their awareness of the mechanics of text production, which in turn impacts the training of the specifics of individual text types.

#### *Test/ Online Portfolio – Assessment/ Personalised Display of Achievement – Instructor-led/ Student-Driven*

As mentioned above learners may choose between the conventional test or the online portfolio. Both account for 40% of the final mark.

The following sections will focus in more detail on the online portfolios and the voice chat.

## 5. Online Portfolios

Our main motivation for introducing the online portfolios was to find a more satisfactory and tailored means of assessment for our heterogeneous groups. With the conventional test those learners whose entry level for English was much lower than others – for diverse reasons ranging from secondary education to lack of opportunities for language usage at the workplace – were always at a disadvantage. Their efforts would never be adequately rewarded and reflected by their marks. Alternatively, those students whose English had already reached a certain level could be quite passive and still achieve a tolerable mark. As a consequence, this also affected learner motivation.

The focal point has thus shifted from the test as a mere instrument of assessment to the online portfolio as a display of achievement, where the learners themselves decide how detailed and in-depth the individual parts should be. It also enhances community building as portfolios are presented in a common space in the VLE and at least some parts of the portfolios are commented on by peers (see figure 4).



The online portfolios, which are displayed in the presentation space of WebCT, and thus accessible by anyone in the course across all three groups, are divided into four main sections:

#### **My Profile (personal data, learner profile)**

This is the section where learners present themselves. Having a lot of freedom in personalising this part, they may use a formal approach as in a CV or simply provide pictures accompanied by a short text.

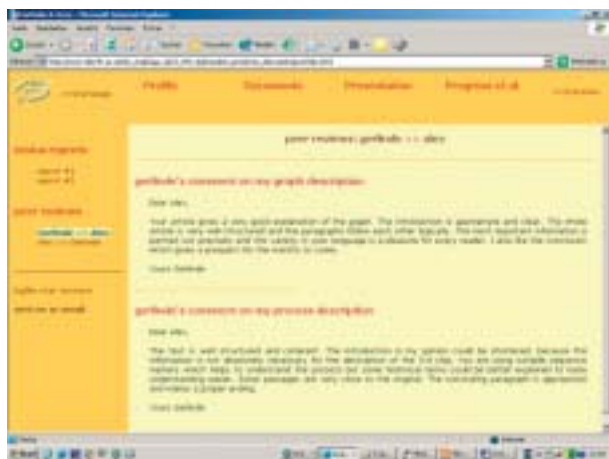


In any case this part must contain the learner profile as we consider it instrumental in the learners' recognition of their own approach to learning. We assume that it may support them in improving their learning strategies. No accuracy in expression is expected here but an earnest account of themselves as learners with the English language being used here as the vehicle of communicating this self-portrait (figure 5). This section has provided us with valuable insight and feedback for fine-tuning our courses. We also feel that it is especially relevant for engineers to reflect on their attitudes and approaches as they tend to be

more practice- and hands-on-oriented than representatives of other disciplines.

#### **My Documents (assignments: drafts and final versions, peer reviews)**

This is the section where students upload the outputs of the writing process thus documenting also the progress they have been able to achieve. The final versions of the documents are assessed also for accuracy of expression. Peer reviews serve both as an instrument to improve as well as gain more insight into the writing process. The change of perspective from text producer to text assessor again requires the analytical faculties on the metalevel, which, however, also reverberates in the students' own text production (figure 6). Apart from the cognitive aspects involved here, social and self-regulatory skills come into play when verbalising criticism in a constructive manner.



#### **My Progress (status reports and reflections on assignments)**

Learners are asked here to critically reflect on their progress and actual learning curve during the semester as well as document their approaches to the assignments. Again, this section provides not only an opportunity for learners to monitor and take control of their learning efforts but also meaningful feedback on the course design.

#### **My Presentation (ppt.files and/or reflections)**

This section displays the slides used for the presentation. The purpose here is twofold: first, it provides a space for learners to display their research and documentation efforts on a specific topic of their expertise, thus also tapping into their affective attitudes. Second, the individual contributions together constitute quite an impressive col-

lection and resource of professional expertise. As learners usually choose topics in which they are savvy, it is motivating and reassuring for them to present these slides even if their language skills may sometimes lag behind.

Assessment of and feedback to the portfolios is given in a detailed verbalised and personalised manner according to predefined criteria communicated to the learners in advance.

Though being convinced of the portfolio model, we still had rather mixed feelings when first introducing it. Its wide acceptance and success among learners was, however rather surprising for us. From the total number of roughly 100 students who have been given the choice so far, only three (!) opted for the conventional test. While being aware that the portfolio requires more and continuous effort, students obviously acknowledge its learning potential and the more individualised approach. On balance, we have identified two major stimulants for students to favour the portfolio over the test:

#### **Stimulating Motivation through Reviews and Possibility for Rewrites:**

Learners feel that their efforts are being taken seriously and that they can actively control their progress. This is, however, both an opportunity and a threat as this approach requires a certain degree of maturity and commitment on the part of the learners. Some students are quite reluctant to step outside their comfort sphere into the metalevel of reflection.

#### *Stimulating Creativity through Personalised Portfolio Design.*

As computer experts our learners can build here on their experience and expertise as well as draw on their creativity. The resulting range of different approaches to colour scheme, design and degree of personalisation has been really impressive. We do, however, provide a basic model for those who are not willing to spend time on the design, though rarely anyone makes use of it without adapting anything.

## **6. Voice Chat**

One of the basic constraints of e-learning in the context of language learning is that it clearly favours written text production over spoken communication. This does, however, not reflect the actual learner needs. This was also a major complaint among our students and a seminal factor in the initial reservations against the usage of language

instruction in a virtual environment. Though technical solutions are available, such as video and/or audioconferencing facilities, bandwidth availability, robustness of operation and infrastructural environments make their concrete usage often not feasible or are cost-intensive.

Since the winter semester 2002/3 we have been experimenting with a voice chat software (Interwise) as an alternative to the text-based chat. We rent this software on an hourly basis from a local elearning solutions provider. The possibility for testing the software with clearly calculated costs was a major decision factor in favour of that solution. In its operational usage, the software has proved fairly stable, though technical problems do occur. It provides an intuitive and multi-functional interface with whiteboard and polling facilities and offers the possibility for showing prepared slides that are uploaded onto the server prior to the session (see figure 7). It also includes application sharing, which we, however, have not yet used.



Initially we used two modes, the iclass mode, where the moderator assigns speaking time, and the imeeting mode, where speaking time is allocated on a first come first serve basis with the software automatically drawing up a speaking list if more people simultaneously press the ctrl (speech)-button. In the iclass mode, both we, the instructors, and the students found the moderator-centred-

ness and the strict hierarchical communications structure rather inhibiting than facilitating communication. Starting with the winter semester of 2003/4 we have therefore decided to completely switch over to the imeeting mode. This decision was supported by the improved interface and capabilities of this mode in the updated version, which now also includes the possibility for slide display and application sharing.

As with the portfolio, it is the learners who decide which of the chat sessions – text or voice – they attend as long as the minimum requirement of four sessions is met. As all the topics and related subject areas are made available in the bulletin board, students have choice and flexibility with regard to content and potential time constraints through their day jobs. Both chat modes interface and intertwine with all other course activities.

From the experience so far, in most cases student predilections for either mode clearly crystallised. This confirms our decision to offer the voice chat not on an exclusive basis but as one of two options. While it is too early to draw any specific conclusions, it seems that weaker students feel more comfortable and less exposed in the text chat. The differences in the interaction and the communicative set-up and their impact on language learning would well lend itself for a more detailed analysis and could be an interesting field for linguistic research.

## 7. Conclusions

We have found that while it is valuable to utilise and build on existing concepts, the integration of e-learning must discriminately and carefully consider the potentials of the medium in the concrete context of its implementation paying heed to actual learner needs. Additionally, input – output efficiency in terms of available resources should be a decisive factor in strategic decision-making. In our case, a blended learning approach has proven quite successful as soon as we accommodated our learners' needs for interaction, feedback and community building.