# Paper abstracts

## John Arnold (Zürich)
*Itembanker: A new English testing programme*

Language tests fulfil a variety of different roles, assessing achievement and proficiency, providing feedback to teachers and learners etc. The problems arise when a test should perform a number of such functions at the same time. Using Item Response Theory, it is possible to calibrate test items against a scale of language proficiency. From a calibrated bank of items teachers can generate tests which report both achievement and proficiency reliably at the same time. Itembanker is just such a bank of items for English.

## Oliver Bayerlein (Kaiserslautern)
*Autorensystem zur Erstellung multimedialer, integrativer Lernsysteme*

Der Vortrag stellt ein in der Entwicklung begriffenes Autorensystem vor, das es Sprachlehrern ermöglicht, unter einer graphischen Benutzeroberfläche (Microsoft Windows) Texte, Sprache, Bilder sowie Animationen (Video oder graphische Animationen) zu computergestützten Lernmaterialien zusammenzufügen.

Das mit dem Autorensystem erstellte Endprodukt hat den Charakter eines Kiosks: Ein Ort, an dem der Kunde eine Vielzahl von Produkten aus verschiedenen Sparten vorfindet:

- touristische Informationen zur Landeskunde
- aktuelle Informationen zur Landeskunde
- kulturelle Informationen
- Sach- und Fachtexte
- fiktionale Texte
- Training und Tests u.a.

Das Ziel des Projektes ist die Einrichtung eines multinationalen Computernetzes, welches es Lernern ermöglicht, mittels PC und Modem computergestützte Lernmaterialien in der gewünschten Zielsprache auf den eigenen Rechner zu laden und im Selbstlernunterricht zu Hause zu bearbeiten.

Die Vorführung hat die Intention, dieses Autorensystem vorzustellen und interessierte Zuhörer zu gewinnen, sich an dem Netz zu beteiligen.

## Françoise Blin (Dublin)
*Integrating CALL in the language curriculum: The SALL Project*

This paper intends to show how learner autonomy and learning technologies, especially CALL, can be introduced and integrated in the language curriculum by restructuring language courses and reviewing the mode of tuition delivery at undergraduate level.

In September 1993, the SALL Project (Semi Autonomous Language Learning Project) was allocated a grant from the Irish Higher Education Authority in order to establish a Language Centre whose activities would focus on innovative teaching methods and the use of learning technologies. Some selected language courses were reorganised in order to implement a semi-autonomous mode of delivery: the learning experience was centred around peer groups as opposed to a class and the curriculum was modified so that a learner centred approach could be fostered with a strong emphasis on learner autonomy. In that context, CALL was introduced as an integral part of the methodology and therefore its implementation had to be consistent with the overall approach.

This paper will discuss the rationale behind the SALL/CALL approach to language learning, address some of the issues that arose in the course of the project and how they have (or have not) been resolved.

## Kristina Brazaitis (Melbourne)
*Quo vadis, CALL? – Theory and practice of integrated CALL programs for German language courses*

Two decades on since the first serious attempts to devise computer-related language teaching materials, this may be a good time to take stock with regard to the impact which such materials are having on the broad pedagogical level and their importance within language courses in universities. My paper will illustrate the theoretical premises and practical aspects in the design of a new integrated CALL courseware program for teaching German to complete beginners and post-beginners, which may be expected to bring about a change of emphasis in language teaching methodology at university level. The premises of my project are based on a theoretical model representable in pie-chart form, in which

learner motivation (the core) is complemented by four mutually sustaining elements (teacher, text, other aids. computer) within a 'circular' progression (in Croce's terms). ultimately leading to a viable pedagogical synthesis, comprising the four traditional skills plus visual ability. The ultimate objective will be the production of two mutually complementary components for each of the two levels:

1. Computer-based materials on file server and floppy disks.
2. A learner textbook to be issued in paper form. The textbook will introduce learners to the most relevant grammatical structures of German, and practice exercises (task-based, structural and communicative), with parallel reinforcement exercises within the software component of the twin package.

To my knowledge, no such comprehensive program for teaching German language is currently available on the market. My presentation will consist of a theoretical component followed by a practical hands-on demonstration of sample material. Although several models combining traditional materials with hypermedia already exist, this would be the first program combining CALL materials and printmedia with a view to ultimately integrating hypermedia and printmedia.

## Susan Bull (Edinburgh)
### *Diagnosis from four directions*

Four sources of information for diagnosis are available to the intelligent CALL system described here: individual performance, individual background, individuals' own (stated) beliefs and typical learner progression.

A learner's performance in the target domain constitutes the traditional information in a student model. However, there are many factors involved in learning a foreign language, for example, a learner's progression may be influenced by his previous language learning experiences, his native and other foreign languages, or the particular learning strategies he adopts. Thus in addition to performance in the target language, the system presented here also explicitly models learners' background languages in order to distinguish difficulties resulting from inappropriate overgeneralisation of the target rules and transfer from other languages. It also provides general information on, and traces students' use of learning strategies in order to make students more aware of different approaches to learning, and to encourage the use of effective stategies. The modelling of these individual characteristics (language background and learning strategies) complements the representations in the student model of a learner's performance in the domain.

Learner awareness of language form is enhanced by allowing the student to both inspect and discuss with the system all information contained in the system. This includes not only the objective domain information, but also the system's representation of the student's own beliefs. Such discussion is designed to encourage reflection and thereby enhance learning, and also to enable the student to directly

contribute information to the system.

## Birgit Conrad & Heike Rautenhaus (Oldenburg)
### *Innovative approaches to teacher training: concordancers as tools in foreign language learning*

In some earlier research, students of the Carl von Ossietzky-University in Oldenburg could verify that e-mail is a medium which enhances the possibility of teaching English in a way that enables the pupils to use the foreign language to cause actions in themselves and others.

The problems the foreign language teachers encounter when using electronic mail in the classroom are not usually of a technical nature but generally refer to a lack of methodological skill demanded from teachers when planning new teaching units around given e-mail material, without the certifying support of detailed teaching guides from the publishers of text-books. This of course is also a question of teacher education at university level.

It is obvious that the effort of training teachers to become more flexible about the construction of teaching units would be worthwhile. What teachers need now are examples of techniques which can be used successfully in planning new teaching units around existing e-mail texts, so that their own creativity is encouraged. The question which teachers often cannot answer is how to use the e-mail texts which they receive, in constructive ways, which go beyond asking pupils merely to read, discuss and maybe answer them, yet supporting the prescribed curriculum. In general, this means how to integrate them into teaching routines.

Here was the starting point for the seminar taught at the Carl von Ossietzky-university in Oldenburg in the winter semester of 1993/94. The aim was to improve the flexibility and creativity of the student-teachers, with respect to teaching methods in foreign language teaching. It is important to prevent the traditional models of teaching from degenerating into stale routines which prevent lively innovations. It is hoped to create new traditions, starting with student-teachers, so that the future generation of teachers can establish a new reality of foreign language teaching. Therefore the following (cognitive and affective) aims were set for the seminar:

● identification of the possible functions, forms and effects of teaching materials which teachers themselves prepare
● knowledge of general and specific techniques for organisation and development of foreign language teaching materials
● development of a general readiness, even perhaps the 'fun' of taking the trouble to prepare one's own materials

The students worked in groups studying the techniques connected with worksheets, overhead projector transparencies, games, concordancers, authoring programs, CD-ROMs and desk top publishing and – as examples of the application of these techniques – on topics like 'Creative handling of e-mail

collections' and 'Preparing materials for English in the primary school'.

In this paper we will deal with the results of 'concordances'. Birgit Conrad used the concordance program LMC from Longman in order to compare e-mail texts and textbook texts and then to develop some interesting ideas of how the pupils not only can be provided with the new language potential (e-mail) but also with a new explorative approach in the foreign language classroom. By exploiting received e-mail texts with the help of the LMC it becomes possible to naturally reflect on the language studied and thus win a language awareness which together with the acquired speaking ability constitutes the language competence to which we aspire.

## Klaus B Conrad (Flagstaff)
*Digital Video on CD-ROM: Current potential and limitations for CALL*

The goal of my presentation is to provide an opportunity for CALL software developers and second language teachers to assess the suitability of the CD-ROM medium for delivery of digitized video. The recent proliferation of the CD-ROM is largely due to the fact that it is currently the only standard medium that meets the storage demands of digital video. But does CD-ROM hardware meet the demands of both linear and interactive (random) access? To what extent is pedagogical design impacted by the limits and the potential of digital video on CD-ROM?

Currently, storage and playback of digital video via CD-ROM is only feasible with compression algorithms that introduce a certain degree of image quality deterioration and frame rate reduction. More importantly, the type of compression applied in digitizing the original for CD-ROM delivery affects the type of access required by the instructional software. By now, linear access such as simply playing a digital video clip from beginning to end is handled quite impressively by the CD-ROM, particularly since the advent of the so-called double-speed drives. However, when the core software is designed so that video materials are accessed by the learner in a more random fashion, the CD-ROM technology is taxed to its limits in the data rate at which it can transfer the video clip from the CD to the computer monitor. Linear access requires a lower data that is today well within the limits of double-speed drives and the compression for such access results in smaller files, effectively raising the storage capacity of the medium; random access requires considerably higher data transfer rates that even challenge the new crop of triple or quadruple speed drives. Video clips compressed for linear access but used for random access become useless because access is significantly delayed and imprecise. Since digital video-based CALL applications are almost exclusively interactive, the question arises as to whether the performance of properly-compressed but high-data-rate clips is sufficient in light of the pedagogical objective of the software and the influence it might have on learners' attitudes towards using multimedia learning tools.

To summarize, suitability issues will be discussed and exemplified in my presentation in the light of the following perspectives:

1. Performance is in the eye of the beholder: what some consider acceptable performance (i.e. frame rate, image quality, access delays), others consider unacceptable.
2. Since the CD-ROM medium is not without problems, pedagogical design may be affected by technological imperfections.

In order to allow for a comprehensive assessment of suitability, the presenter will describe software and hardware requirements for state-of-the-art digitizing and in-house CD-ROM recording. CD-ROM playback performance will be demonstrated. All examples will be taken from a CALL software program that has been developed and is in use at the presenter's institution.

## Bridget Cook (Dundee)
*LE MODULAIRE: A companion to French for scientists and engineers (Nuffield Project)*

*Background:* Language specialists from five British universities are developing an integrated course in French for undergraduate scientists and engineers. It is a two-year course aimed at students with a Scottish Standard Grade, English GCSE (slow-track students) and at those who have recently taken Higher or Advanced Level French (fast-track students). The course aims to provide the students with the linguistic competence to be able to study in French universities (Erasmus exchange students), or to work in industry in France.

*Le Modulaire:* The integrated CALL component provides interactive grammar tutorials and testing elements to complement other course work, a reading support tool for studying unseen texts (in shell form), and a writing tool to allow students to do their written assignments within a predetermined structure with on-line linguistic resources. There is an on-line glossary.

The student is expected to do a minimum of an hour per week at the computer, working through the tutorials, taking the relevant MCQ test at the end of each unit. They will also study scientific texts using the 'Lire' application in preparation for class discussion. Written assignments are completed using 'Ecrire' tool and are either be printed out for handing in to the tutor or else, if the language department is networked, they are dropped into the tutor's folder for marking.

## Philippe Delcloque (Edinburgh)
*The design of a French pronunciation tutor*

This is a cross platform interactive French pronunciation tutor which incorporates the following features:

1. A learner friendly Graphical User Interface designed

on Macintosh with a *Windows* conversion. The prototype is being written in *HyperCard 2.2* in colour as well as in Authorware. The final product will probably be written for both platforms in Authorware.

2.  It includes text (both orthographic and phonetic). In the conference paper, the author will also discuss a simplified pedagogic phonemic alphabet for French which uses the ordinary keyboard on any machine. Still and moving pictures will be included as well as animated sequences written in Director and incorporated within Authorware. Icons are used to represent distinctive features.

3.  Full bandwidth sound is used at both playback and recording levels and a very novel feature is added by the use of a special module for students to save their recordings either on the hard disc or on floppy discs for tutor check. Written exercises including phonemic transcription are naturally also included. The program is intended to be used on computers equiped with CD-ROM drives.

4.  The program deals with segmental phonology, rhythm, syllabation and clustering and semi intelligent and truly intelligent routines are included at sentential and syllabic levels. Phonemic correction also permits alternative clustering solutions in the exercises.

5.  Intonation teaching will be incorporated with the use of animated features and the program presented may include some visual representation of 'pitch fundamental' recognition, the type that is available on systems like Wave using a Sun workstation with a DSP under Unix.

*Conclusion:* Pronunciation teaching is one of the neglected areas of language teaching for a variety of reasons, most of them to do with student and tutor psychology. Yet phonological acquisition affects all areas of language learning. The multimedia computer has to be the best tool ever for non-judgmental, intuitive and interactive pronunciation reinforcement. It is also the most intelligent tool. The program includes many features applicable to intuitive grammatical teaching. The author will at the conference attempt to form an embryonic European group of researchers and tutors interested in computer assisted pronunciation teaching and learning.

## Françoise Demaizière and Anne-Laure Foucher (Paris)
### *Vidéo et didacticiel multimédia: entre aide à la compréhension et conceptualisation linguistique*

L'équipe Ordi rédige des didacticiels de langue depuis de nombreuses années. Ses réalisations s'appuient sur différents axes de recherche entre croisant linguistique, didactique, EAO ou nouvelles technologies pour la formation. On évoquera la réalisation d'un didacticiel de français langue étrangère multimédia, incorporant de la vidéo sur support CD-ROM. Notre équipe a une longue expérience de la réali-

sation de didacticiels tutoriels incorporant une activité de 'conceptualisation', de prise de conscience et de maîtrise des phénomènes linguistiques mis en jeu. Nos didacticiels incorporent de nombreuses sollicitations de l'apprenant pour la production de messages textuels finement analysés et commentés. La première confrontation à un projet multimédia avec vidéo a apporté de nouvelles possibilités, entraîné d'inévitables (et non négligeables) difficultés techniques et pédagogiques, tout en amenant à poser de nouveaux problèmes didactiques et méthodologiques.

Nous décrirons brièvement le projet, réalisé avec le soutien du programme européen Lingua (projet Gripil 'Apprendre à apprendre les langues'). 'Les pompiers au secours du temps' est un didacticiel qui s'appuie sur le film d'une manoeuvre de sapeurs-pompiers relative à une pollution des eaux. La bande vidéo a été utilisée à la fois comme support d'une activité de compréhension et de conceptualisation sur la référence à l'avenir en français (d'où le titre).

Problèmes didactiques abordés:

- Exploitation de la vidéo, type d'oral, type de communication
- Quelles fonctions de la vidéo pour quelles activités?
- Montages et contenus
- Une vidéo qui ne serait pas une visualisation du système linguistique
- Vidéo et mise en place de repères pour une réflexion linguistique
- Organisation des contenus, choix des notions
- Gestion de l'écran
- Le support CD-ROM.

## Marina Dodigovic (Bremen)
### *Multimedia CALLware: The developer's responsibility*

The early CALL programs were silent and mostly limited to screen or printer supported written text as the prevailing communication resource. The advent of powerful graphics, sound and video combined with AI-based parsers and sound recognition devices gradually turned the computer into a rather anthropomorphic partner, especially as far as language learning is concerned. This has revolutionized the role of the courseware developer in many respects, made it extremely complex. He or she must be a linguist as well as a language teaching specialist. Apart from that, programming skills might be required, designer know-how, basic facts of screen ergonomics, but also the metacommunicational and cognitive aspects of CALL. A little bit of an artist is a part of the role, too. If the program is to use knowledge representation, the CALLware developer has to be a knowledge engineer as well. If the program is to have integrated videos, the developer may have to do the job of a film director. The importance of the human factor behind the machine increases. Bremen Multimedia Initiative explores all these aspects of multimedia courseware development by using Video-Machine and ToolBook to develop new applications.

## Randall P Donaldson (Baltimore)
*A suite of HyperCard programs to enhance reading skills in L2*

This paper will focus on a computer-based process for providing cultural and linguistic clues to promote comprehension of a text as well as allow analysis of the literary text.

The author has collaborated with colleagues to develop a suite of HyperCard stacks which facilitate reading at all levels of competence from rank beginners to advanced, third-year students. The group of stacks consists of four independent stacks or stack groups in French, German and Italian. The French stack presents a text for students in the first weeks of language study. One German stack works through a text designed for students in the first weeks of second-year university-level studies. In addition, there is a stack in German and a stack in Italian at the advanced level. The Italian stack is based on Machiavelli's *Il demonio che prese moglie*, a Renaissance text complicated by Latinate syntax and belief in demonic possession. The intended audience are advanced readers in Italian, including the self-taught. The German stack is a cultural text on the life of Ludwig II of Bavaria drawn from a brochure prepared for German-speaking visitors to King Ludwig's castles. The intended audience are advanced intermediate students, who might find the historical and cultural content interesting but are intimidated by the complex and typically Germanic syntax as well as by the frequent use of compound words and derivational forms.

All stacks take advantage of the multi-dimensional capacities of the HyperCard environment to involve readers actively in the process of deciphering both the linguistic and cultural contexts of the text. Even as they read, readers can choose to branch into either vocabulary or graphic representations of the geographical and historical reality which provide the context for the story under consideration. In the Italian stack the reader can opt to hear each card read aloud, in the German stacks the reader can pause to develop related vocabulary by exploring word families, and in the French stack the student is presented with a number of graphic images which facilitate the learning of necessary structures. Each stack also suggests several projects for classroom and home use beyond the initial experience with the HyperCard stack, such as adding a card to the stack for future readers, developing a presentation for the class, or researching the cultural aspects in greater detail.

## Andreas Eck (Wuppertal)
*Hypertext – The global dimension*

Recently, and due to the breathtaking pace, at which computer technology has developed, concepts like hypertext and hypermedia have come to the attention of software developers and people working in the language teaching professions.

Most of the present hypertext and hypermedia applications are of local nature, i.e. information can be retrieved from one computer or from a local area network (LAN) only. But the rapid development of international electronic networks has made it possible to use hypertext or hypermedia documents from thousands of computers worldwide.

At the Audiovisual Media Centre of Wuppertal University we are about to install a World Wide Web module that aims at learners of English as a foreign language. This module enables learners to locate and retrieve relevant information in hypertext format from host servers around the world. Up to now, three menu options have been installed:

- electronic texts (access to hundreds of pieces of literature in English and the possibility to transfer these texts to the local computer for future use with concordancers etc.)
- reference material (electronic dictionaries, encyclopedias)
- information on geographical, social and cultural aspects of the most important English speaking countries

The fact that learners have access to information in the foreign language does by no means guarantee that an actual learning process takes place. To encourage students to process the information in an active and meaningful way, we plan to develop an integrated language learning module that goes beyond the mere presentation of information but asks the learners to actively reflect upon the information retrieved.

## Christine Flude (Lancaster)
*Cannibalising CALIS*

On the *ab initio* German course at Lancaster University we currently use the LoStr set of CALL exercises written in *CALIS* which accompanies the coursebook *German, a Structural Approach* by Lohnes, Strothmann and Petig. With the permission of the publishers, W.W. Norton & Co. Ltd., we are modifying and extending these exercises in response to feedback from students.

The LoStr dataset provides information and exercises on a wide range of grammatical topic areas and gives immediate and very specific feedback to the student on his or her mistakes. It can be used as a reinforcement to a parallel teaching session, as a way of reviewing work learned at a previous stage, and to some extent as a teaching tool.

The modifications being made include breaking down some of the sections into simpler elements to increase speed and ease of learning, changes in the metalanguage used in the instructions so that it coincides with that used in standard grammar reference works used at British universities, simplification of some explanations, and changes in layout for the purposes of clarity.

An introductory section is being added consisting of a simple test of a student's knowledge of the metalanguage in which the instructions to the exercises are written, and a set of exercises based on a flow-chart model to teach the relevant concepts to the student at whatever level of sophistica-

tion is appropriate for that particular student.

Students have been observed and interviewed during their weekly class in the computer lab, and information obtained in this way has enabled modifications to be refined several times over and additional exercises to be written in areas where students appeared to have particular difficulty. An investigation into student preference as to simultaneous or sequential reporting of multiple errors is planned.

As well as being used on the *ab initio* course, another use for the revised *CALIS* exercises might be to underpin the work undertaken by students who have standard university entrance qualifications in German. Students embarking on a degree course in Modern Languages have traditionally been assumed to have a sound grammatical base; however, the change of emphasis with regard to the relative importance of the skills of reading, writing, listening and speaking within externally assessed school examinations of modern languages in Britain has resulted in greater oral fluency, improved listening skills and a wider vocabulary, but lower levels of grammatical competence, with the result that areas of grammar previously covered at school level now frequently have to be taught by university lecturers who are unaccustomed to teaching at this level, and whose main interests lie elsewhere. Time and financial resources are needed to bring the grammatical competence of many of these students up to a level where they may benefit from the range of courses available in a Modern Languages department; this load might be reduced by providing them with access to the revised *CALIS* exercises.

## June Gassin & Mike Smith (Melbourne)
### *Establishing a multimedia CALL facility*

This paper reports on the establishment of a 26-place multimedia CALL laboratory in the Horwood Language Centre at the University of Melbourne. The facility was designed to provide students with a true multimedia learning environment including computer, audio, video and videodisc facilities. It is one of the first multimedia laboratories in Australia to be solely dedicated to the learning of languages.

The challenge was to create a facility where CALL could be incorporated into language lessons in a variety of ways. From the beginning we wanted to put the teachers in control of the technology and not vice-versa. This meant accepting that teachers had different teaching styles and needs and trying to accommodate them by providing a range of staff development programs. More than 30 language teachers across 13 languages have been trained and have incorporated CALL into their language classes.

## J H Gillespie (Coleraine)
### *The integration of CALL tools into the modern languages curriculum: a case study*

This study is based on an ongoing developmental evaluation of the *MetaText* program (a translation tool and interactive

notebook) which has been developed under the auspices of the TELL consortium. Throughout the whole of the current academic year *MetaText* has been used with one translation class, and for the second semester with another class from another course as well.

The paper will examine the following issues, *inter alia*, which have arisen from the use of the software:

- the laboratory provision of workstations
- the development of computer literacy
- the development of a culture of computer use
- the development of computer based study skills and patterns
- the development of a culture of independent learning
- the integration of the computer based work into the heart of the language learning process
- the use of CALL to develop previously neglected language learning skills
- the teaching skills for integrating language and the computer including the tutorial interface
- the targeting of the use of the computer to specific language skills, particularly linguistic awareness
- the development of support among non-computer-literate colleagues
- the relation of CALL tools and their use to assessment making the use of significant software packages enjoyable.

The paper will argue, on the basis of data obtained during the year, that it is not enough to develop an effective piece of software which can be used easily by students and upgraded to meet further needs as they are identified but that the integration of CALL use into degree programmes is often neglected and needs to be undertaken with considerable seriousness. Suggestions as to how that integration should best be undertaken shall be made. It will also assess the extent to which, within such an environment, CALL use saves time or enhances and improves the process of language learning.

## Ana Gimeno (Valencia)
### *The CAMILLE Project: Computer-Aided Multimedia Interactive Language Learning Environment*

**The CAMILLE Consortium:** The CAMILLE Consortium is a group of European universities co-ordinated by The University of Teesside who, with funding from the EC's LINGUA programme, are undertaking a programme of courseware development based on the CAMILLE platform. The consortium's current goals are the creation of *ab initio* courses in Dutch and Spanish based on the *France InterActive* model and advanced courses in French and English for students in business and industry. The members of the consortium are the University of Teesside in Great Britain, the Université Blaise Pascal and the Université D'Auvergne both in Clermont-Ferrand, France, the Universidad Politécnica de Valencia, Spain and the Haagse Hogeschool in The Hague, Netherlands.

*España Interactiva: España Interactiva* is a multimedia interactive course for learners of Spanish as a foreign language developed within the CAMILLE Project. It exploits the latest optical-disc technology to deliver full-motion video and digital sound, and by providing immediate record and playback facilities, enables the user to see and listen to native speakers of Spanish and practise what he or she has learned in a genuinely interactive fashion. It combines this highly interactive language learning environment with a 'communicative competence' approach to language acquisition delivered within a hypermedia framework for video, audio and text storage and retrieval. Digitised interactive video simulates the second-language environment by allowing the learner to observe and be taught by native speakers filmed on location in authentic situations. Interactive audio allows for oral responses which can be monitored, and compared instantaneously with 'model' responses by native speakers. Hypermedia gives the learner instant access to glossaries, grammar and interactive exercises as well as the facility to replay any of the video or audio material.

## Marie-Noélle Guillot & Marie-Madeleine Kenning (Norwich)
*Developing software for the exploitation of CD-ROM databases*

This paper reviews the work carried out at the University of East Anglia on the exploitation of textual databases and electronic tools under the auspices of the TELL consortium.

The program in progress, targeted at advanced language learners for use in conjunction with electronic textual resources and tools, is designed to act as an interactive link between the user's mind, the type of chosen tasks or activities and the resources available. Its short- and medium-term objectives are, respectively:

- to promote the fulfilment of specific objectives through exploitation of data, e.g. carry out specific tasks or explore particular techniques (product orientation)
- to empower users to make the most both of the available materials and of their own mental resources, i.e. enable them to develop their own methods and techniques of exploration and exploitation of data for language learning purposes (process orientation)

Its longer-term educational aim is to make it possible for the user's own mental software to take over, and build on, the various functions fulfilled by the program.

The package features three interrelated modules of activity, namely, from general to specific:

- **Advance analysis** to assess the relevance of available resources to possible tasks
- **Taskbreakdown** to assess the factual and linguistic specifications/requirements of specific tasks in relation to available resources

- **Exercises** to develop transferable skills for factual and linguistic processing of the available data, with support of electronic tools where appropriate, e.g. concordancer, scrambler

Guided discovery is the preferred didactic mode of approach adopted in the design of all three levels (and sections therein); other features of the program include:

*Flexibility of use:* the Hypertext configuration of the package makes it possible for users to navigate at will and selectively between levels (and sections therein), and between the different features of individual activities (including work guidelines, help pointers and supporting examples), thereby enabling them to select the route and sequence of activities best suited to their own requirements; the package also caters for a variety of learning situations, and can be used for individual, pair and/or larger group work, with or without teacher guidance.

## Gudrun Hesenius (Köln)
*English Express: Das multimediale Lernkonzept – jetzt auch für Anfänger*

Seit der Markteinführung vor über 2 Jahren wird English Express inzwischen von führenden Unternehmen und Organisationen europaweit erfolgreich eingesetzt.

Mit der zunehmenden Akzeptanz dieser innovativen Lernmethode wurde aber auch die Forderung nach einem Anfängerkurs immer stärker. Diese Herausforderung wurde angenommen und der neue interaktive Multimedia-Kurs 'Begin at the Beginning' entwickelt und in *English Express* integriert.

Behutsam wird auch der blutigste Anfänger mit der englischen Sprache vertraut gemacht. Erklärungen in seiner Muttersprache unterstützen ihn wirkungsvoll. Ein hoher Bezug zur Realität sorgt für schnelle Erfolgserlebnisse. Das Lernen ist spannend und macht Spaß.

Das interaktive Kurspaket *English Express* deckt nun den Bedarf vom Ersteinsteiger bis hin zum Fortgeschrittenen ab.

Interaktivität, Flexibilität für Anwender und Ausbilder und vor allem eine hohe Benutzerfreundlichkeit zeichnen dieses Lernkonzept aus. Zugeschnitten auf *business people* bietet *English Express* die Möglichkeit, das Ausdrucksvermögen und das Hörverständnis zu verbessern.

## John Higgins (Stirling)
*The actor and the cowboy*

John Ford, the film director, is reputed to have said 'It is easier to train an actor to be a cowboy than to train a cowboy to be an actor'. In language teaching we are used to having to find a balance in training between the theoretical and the practical, the academic and the applied, command of a skill and ability to teach it. Now CALL further widens the range of knowledge and skills that that FL practitioners need. This

talk draws on a year's work planning a new MSc in CALL and TESOL designed for experienced EFL teachers wanting to study for a qualification in applied linguistics which will also equip them as CALL professionals. What blend of computer skills and language teaching skills does the CALL professional need? What entry skills can one assume? What is the relative importance of work on traditional CALL-dedicated software? search tools for data-driven learning? the Internet? sound and multimedia? general-purpose software and serendipity? artificial intelligence? The talk will use examples from the Stirling syllabus to try to answer the question: who is the actor and who is the cowboy?

## Paul Hickman (Southampton)
*The development of grammar tutorial and sensitisation software using Microsoft Visual Basic*
The use of authoring languages such as HyperCard, Toolbook, Guide and Authorware, have reduced the occasions on which low-level programming expertise is needed in order to prepare and deliver language study packages via a graphical user interface on Macintosh computers or through Windows on a PC. They do however represent a straitjacket for the developer who wishes to manipulate flexibly the language elements of a tutorial sequence, as opposed to or in addition to the integration of sound and video with the presentation of text and the creation of hypertext 'jumps' which the above packages facilitate.

The use of Visual Basic, a highly acclaimed programming environment launched in the early nineties by Microsoft and now one of the leading software development tools, has allowed the developers of the *GramEx* and *GramDef* series of CALL applications to benefit from the complex string handling facilities of Basic, whilst being able to create GUI interfaces and manipulate Windows objects with ease. Basic shells with multiple hotspots and a range of clickable objects have been integrated with complex code to create a range of programmed structures, each tailored to the characteristics of a particular grammatical area of interest, and to the pedagogical requirements of a tutorial sequence related to that area. Examples will be taken from French, German and English programs.

Attention will also be given to the criteria governing the creation of the interfaces used in the programs, and the ways in which these interfaces have evolved and been refined over the development period. In this connection, reference will be made to the process and results of a formative evaluation study carried out as the material was being developed as part of the TELL Consortium's activities. In addition, the compilation of Help files and their integration with the applications will be discussed.

## Jøzsef Horvarth (Pecs)
*EFL writing in HyperText*
This lecture on the potential of hypertext in EFL skills development demonstrates a HyperCard stack designed by the speaker as the first step in a project that aims to establish a self-access resource for students of English at Janus Pannonius University, Pecs, Hungary. The hypertext is based on a corpus of student writing the speaker has collected over the past two years. The demonstration includes ways in which student EFL writing can be exploited in making this corpus a valuable tool in essay writing development.

## Abdi Hosseini-Kazeroni (Compiègne)
*Grammar teaching and computer-assisted language learning*
Language teaching methodologies have implicitly or explicitly included grammar teaching in their syllabuses. Part of the age old debate on the usefulness of teaching grammar has been whether it should be introduced implicitly or explicitly. Computer-Assisted Language Learning (CALL) software of the 'first generation' was almost exclusively used to teach grammar and the approach was often deductive. The software we are developing aims at the receptive skills. The learner's attention is focused first on meaning and then on form. Though the approach is centred on meaning and inductive, the software can be used for both inductive and deductive grammar teaching. In the experiment we have conducted with our 'home-produced' software we have tried to identify learner types – using R. Oxford's SILL 5.1 – and the approach adopted by each individual learner. We have also observed how each individual has improved his/her explicit and implicit knowledge of English tense aspect.

*Reference*
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## Hanne Hwims (Slagelse)
*Self-instructional multi-media based language training program in technical English understanding through reading and listening*
**Background:** English will always be the most important foreign language for the Danes. The reason for the increasing demands for language skills in employees is primarily the increasing internationalization of Danish trade and industry – the internal market of EU, new markets in the East, Asia etc. Furthermore, language skills have become a qualification demand caused by the rapidly advancing technological development. Manuals, technical instructions, process descriptions etc. will to an increasing extent only be available in foreign languages. In the cases where a translation is available it will typically only cover a short introduction to the machine/installation while the rest of the manual is in English. The demands for vocational renewal and ability of readjustment in the labour market presents increasing demands for qualifications that are *independent of processes.*

Language skills will in future be one of the most

important process independent qualifications, among other things as a necessity and a condition for the upholding and the maintenance of existing qualifications along with acquisition of new ones. But the technological development does not present demands for language skills alone.

The technology can also be used to make language learning more efficient. Thus, Technical College Slagelse has – in co-operation with competent enterprises within language training and development of training programmes based on multi-media – developed a self-instructional language program in technical English.

The language training takes place via multimedia where sound, picture, graphics and text are combined through a PC. This allows elaborations of motivating and exciting training programmes. The language program concentrates on one aspect of the language skills subject namely *technical reading ability* – to be able to read and understand written communication.

*The program:* the superior objective of the program is to make the employees feel the benefit of having a set of language skills. Following this motto 'The language is your tool!' the acquired language skills are to be perceived as an aid on equal terms with other technical aids that are used when solving an occupational/technical problem.

The program has been developed as a self-instructional program in order for the employee to be able to work with it independently and at times when he/she is unoccupied or can be spared from the job, or if necessary in the spare time.

The program has been built up with great importance attached to the illustration side of the sequence of exercises and tasks (drawings, sound, video sequences, pictures, graphics, text). This provides an exciting and topical environment in the program and maintains the objective of the program, namely to make the user relate his training to the technical working processes of everyday life.

The program consists of: one general technical basic course (16 modules) and four vocationally specific modules.

## Bruce D Ingraham and Chris R Emery (Teesside)
*Preparing a multimedia CD*

It is widely agreed that CD-ROMs provide the key to the distribution/delivery of multimedia courseware. This paper will report on the experience of the CAMILLE consortium in preparing a large-scale multimedia package for distribution/delivery on CD-ROM. The paper will consider such issues as: optimising file and directory structures for accessing CDs; optimising video files for delivery from CD; and the use of writable CD-ROMs in the development process. The paper will also examine the question of whether complex multimedia courseware should be downloaded to hard disk or accessed directly from the CD.

## Tim Johns (Birmingham)
*From handout to screen: The CALLCO Project at Birmingham University*

For many years one component of the help offered to overseas students studying at the University of Birmingham has been a programme of elective classes in English, which students may follow if they find them of use in dealing with linguistic problems that arise in the course of their studies. Characteristics of the classes are:

(a) They attempt to deal with problems as far as possible on a 'common-core' basis, the common core being identified either in terms of language form (e.g. Remedial Grammar, Vocabulary Studies) or in terms of language function (e.g. Academic Writing, Structured Dialogues).

(b) They increasingly draw on computer-based research into the linguistic features of target texts: thus the Remedial Grammar materials use concordance data almost exclusively for presentation and research and practice activities ('Data-driven learning'), and the Academic Writing materials draw on research within the Unit into a half-million word corpus of texts from the scientific journal *Nature*.

(c) Within the constraints of the time available, and the large numbers of students (100+) who turn up for some classes, they aim to include as much student activity as possible within the class.

(d) Classes are based on handouts which are designed not only to set out the activities to be undertaken in class, but also to be of some use to students who would like to attend a class but are, for some reason, unable to do so.

The English for Overseas Students Unit, in conjunction with the Centre for Computer-based Learning at Birmingham University and a part-time consultant (David Woolls), has now embarked on a project ('Computer-Assisted Language-Learning Courseware') to convert some of this course material – in the first place that for Remedial Grammar and for Academic Writing – into a form that can be distributed over the University's high-speed campus network, and used by students on a computer cluster in their own Faculty on a self-access basis.

## Michael R Jones (University of Ulster at Coleraine)
*ERASMUS and telematics: networks for courses – distance no object*

One of the main aims of the ERASMUS and LINGUA networks, set up to enable guided and structured student exchange between the countries of the European Union, is the furthering of joint teaching projects of all kinds. Hitherto such projects have often been stillborn due to an insufficiency of funding which, in turn, was often due to the need for a considerable and costly element of participant travel.

Recently, however, the rapid strides made in the development of such areas as E-mail, computer and video-conferencing and in the creation of broadband digital data highways of all kinds have opened up new possibilities for joint project

work, work which is designed to take advantage of the strong personal links engendered between the participating staff in the institutions concerned, due to the atmosphere of close co-operation which can characterise such networks. These links are providing a fertile ground from which joint teaching projects may now spring.

This paper outlines a particular range of projects arising out of one such network and the electronic means which are to be employed to realise them.

## Randall L Jones (Provo)
*Computerized diagnostic testing as a prelude to CALL*

Brigham Young University has a comprehensive German CALL program known as CLIPS (Computerized Language Instruction and Practice Software) for practising and reviewing grammar and vocabulary. The program was originally intended for use in the first two semesters of the German program, but it has proven to be useful as well for intermediate and advanced students who need remediation in specific areas of grammar. In order for students to use the program effectively, it is important for them to have an understanding of their main areas of weakness. Unfortunately, many students do not have a clear perception of their proficiency in using grammatical structures. We are now in the process of designing a computer-administered diagnostic testing program to assist students in understanding which areas of German grammar they need to review. By 'probing' certain grammatical concepts through the use of sample items, we hope to be able to assist students in using CLIPS more effectively, by guiding them to the lessons that will be most useful to them. The program will be especially valuable to students in the first weeks of intermediate and advanced courses.

## Ton Koet (Amsterdam)
*Computer administered orthographic and phonemic dictation exercises*

After many years of neglect scholars and teachers have taken a renewed interest in dictation. Thanks to the immediate feedback, computer administered dictation exercises are seen to be an effective instrument in training learners in two important skills: listening for detail and writing correctly. Dictation exercises can also be useful in the cognitive sphere by promoting an awareness of the phonemes of the target language and by inculcating the sound-letter and sound-phonemic symbol relation. The didactic model developed by us is applicable for 'traditional' as well as 'phonemic' transcription. Exercises for students of English as a foreign language have been used for a number of years, whereas prototypes for learners of Dutch, French and Arabic have been developed more recently.

## Lis Kornum (Copenhagen)
*Using information and communication technology*

*in modern language teaching and learning in Europe*

This is the title of the Council of Europe workshop no. 7 in the series 'New Style'. The project started with a workshop 7A in December 1991 in Paris, where delegates from the member states elaborated proposals for a two year research and development programme. During the following two years the participants tried to establish international collaboration in various fields of IT, such as telematics, interactive multimedia, the exploitation of databases, teacher training etc.

In April 1994 workshop 7B was held in Denmark where a number of the collaborative projects were presented together with the latest developments in the area, and new ideas and proposals debated. Although there were many new participants a substantial amount of work was done during the week, resulting in several clearly defined projects for the integration of IT in foreign language teaching and learning, as well as a number of recommendations to follow up the second workshop. Several reports describing the development of the programme of Workshop 7 have been elaborated.

## Rainer Kussler (Stellenbosch)
*HyperDeutsch. Ein Studienbegleiter zum Fach Deutsch als Fremdsprache*

Vorgeführt wird ein Hypertextsystem für Schüler und Studenten im Fach DaF, die bereits Grundfähigkeiten und -kenntnisse besitzen; und zwar ungefähr auf dem Niveau des *Zertifikats DaF*.

Inhaltlich bietet *HyperDeutsch*:

- eine Einführung in die deutsche Literatur des 20. Jahrhunderts an ausgewählten Textbeispielen
- didaktisch aufbereitete Übersichten zu diesen Textbeispielen anhand von einprägsamen Schaubildern
- Sprach- und Sachinformationen zu diesen Textbeispielen
- Informationen zur deutschen Landeskunde, Literatur und Geschichte mit vielen Karten und Tabellen
- eine Einführung in Grundbegriffe des Fachs Deutsch als Fremdphilologie
- (je nach Umfang der angeschlossenen externen Programme) direkten Zugang zu einer umfassenden elektronischen Handbibliothek

Als Hypertextsystem nutzt *HyperDeutsch* die wichtigsten Funktionen moderner Informationsaufbereitung und ist deshalb einfach zu handhaben und leicht zu erlernen. Das System gestattet u.a.

- schnellstmögliche Information durch intuitives und assoziatives Arbeiten anhand eines ausgeklügelten Steuer-systems
- Stichwort- und Volltextsuche
- Kopieren und Abspeichern in andere Anwendungen

(z.B. Windows 'Write' oder 'Notepad')
● Drucken

Als Windows-Programm nutzt *HyperDeutsch* die beson-
deren Eigenschaften dieser Benutzeroberfläche und ist paral-
lel zu anderen Windows-Anwendungen einsetzbar.

## Lienhard Legenhausen (Münster)
*The interplay between frequency lists and concor-*
*dancers: Over- and under-representation in learner*
*languages*
This paper is concerned with two issues:

● Ever since Selinker 1972 we know that interlanguages
are characterized by over- and under-representation of
certain linguistic features. However, it is extremely
difficult to identify these areas and come up with sta-
tistical data.
● Most researchers and practitioners are by now con-
vinced that language acquisition is largely determined
by the learners' abilities and opportunities to form and
test hypotheses. However, when it comes to systemati-
cally supporting the learners' attempts we quickly run
out of ideas.

The point I would like to make is that 'contrastive' frequency
lists – in combination with concordancers – will stimulate
learners to form and test hypotheses and identify over- and
under-represented forms in their own language. The L1 and
the L2 corpora are derived from the telecommunications pro-
jects which A. Eck, D. Wolff and myself carried out over the
past three years.

## David Little (Dublin)
*Learning by talking: An exploration of the use of*
*Autotutor II by four learners working together in*
*self-access*
For a number of years the Centre for Language and Commu-
nication Studies, Trinity College, Dublin, has been conduct-
ing language learning experiments using its own interactive
videocassette system, the *Autotutor* (Little and Davis, 1986).
The implementation of the PC-based version of the system,
*Autotutor II*, has focussed especially on its use as a stimulus
for group work in self-access (Little, to appear).

My paper will first sketch the theoretical assumptions
underlying this work and then, by analysing an *Autotutor*
session recorded by Arthurs (1993), attempt to uncover
something of the learning process stimulated by *Autotutor*
*II*. Particular attention will be paid to two issues: (i) the
extent to which the four learners in question used the *Auto-*
*tutor* program's discourse structure to give shape and its
content to give substance to their learning conversation;
and (ii) the extent to which they betrayed conscious aware-
ness of the cultural dimension of the program's video com-
ponent.

The paper will conclude by drawing some general con-
clusions about the use of interactive multimedia in language
learning, with particular reference to self-access.

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## François Mangenot (Lyon)
*Informatique et autonomie dans l'apprentissage des*
*langues*
Après m'être brièvement interrogé sur les rôles respectifs (du
point de vue de la communication) que peuvent jouer
enseignant, élèves et ordinateurs en classe de langue, j'abor-
derai le thème central de mon exposé, celui de l'autonomie
de l'apprenant. La question à laquelle je tenterai de répondre
est la suivante: l'ordinateur peut-il favoriser cette autonomie,
et à quelles conditions?

Le concept d'autonomie sera pris successivement dans
quatre acceptions différentes, qui seront illustrées de nom-
breux exemples d'utilisation de l'informatique :

● l'autonomie physique (possibilité pour l'élève d'ap
prendre suivant d'autres modèles que la classique
interaction professeur/apprenant)
● l'autonomie sociale (apprendre en interaction avec un
groupe)
● l'autonomie linguistique (apprendre la langue pour
faire autre chose avec)
● l'autonomie cognitive (apprendre à apprendre)

Ces différentes formes d'autonomie ne sont naturellement
pas antagonistes: on aura l'occasion de voir qu'une même
activité peut parfois impliquer un travail de groupe sur une
tâche transdisciplinaire de haut niveau cognitif.

Je n'envisagerai pas ici l'apprentissage d'une langue
sans intervention d'un enseignant, même avec des logiciels
multi- ou hypermédia. J'essaierai par contre de montrer que
l'informatique peut entraîner (mais ce n'est pas automatique)
une forte remise en cause de l'organisation traditionnelle de
la classe de langue telle qu'elle existe encore massivement
dans les établissements scolaires.

## Brian McCarthy (Wollongong)
*Grammar drills: What CALL can and cannot do*
The computer is indisputably a powerful tool, but like
blackboards, books, audio cassettes or videos, it has both
strengths and weaknesses, it imposes a particular shape on
the information it conveys, and it can only ever be seen as

an aid to learning and not as the learning itself. Over the past four years the author has developed and published over forty CALL modules (HyperCard environment), approximately half of which provide basic grammar revision and extension activities for students of French. This paper draws on experience gained both in the design process and in extensive use of the software in teaching university programmes to provide a realistic assessment of factors such as the organisation and presentation of linguistic information; student interaction with the computer; pedagogical limitations of computer-presented grammar drills; the integration of grammar software into the larger teaching programme; and the influence of the medium on the choice of language items.

## Jane McKee (Magee)
### *The development of language acquisition skills through CALL: the Magee experiment*

Language students have always needed to develop what are now termed self-learning skills. Independent extension of their range of linguistic competence has been a consistently important feature of their work.

In the past, literature courses and the reading which they involved provided a means of consolidating and extending language skills. New developments in language teaching have tended to cut out some of this reading. On interdisciplinary courses, the literary element is usually replaced by another discipline, while on applied languages courses, literature is often replaced by area studies, much of which can be studied through the students' native and not their target language.

In such courses, it becomes even more necessary to teach language learning skills in a very thorough way, so as to encourage students consciously to make the most of what reading they do for language acquisition purposes.

Lectures, seminars and tutorials can all be used for this purpose. However, it is still the case that most assessment of language work tends to have translation or summary as its focus. The study of vocabulary, idiom and structure is usually done as an adjunct to such exercises and often not used as a vehicle for assessment.

This can devalue such work in the eyes of students and they often find it hard to summon up the motivation to keep up such work on their own. Even if they do, there are clear difficulties with an individual pen and paper exercise: the data collected may not be well selected; it is hard to store in an easily retrievable way, and students frequently find themselves with a mass of virtually useless material.

In Magee, I sought to address this problem using CALL. The program used was TAP, originally developed as a dual literary/linguistic analysis tool. The course addressed the problem of language learning techniques through the medium of the study of a particular area of language, i.e. computer terminology. TAP is now being modified as part of Univ. of Ulster's contribution to the TELL consortium.

## P.J. Meijer & A.G. Sciarone (Delft)
### *Combining user friendliness and effectivity: Considerations when developing a CD-i course*

As far as course organizers are concerned videodiscs and interactive CDs are attractive media to work with. Efficiency and effectiveness can be increased if the learning methods employed are adapted to the individual and if learners have at their permanent disposal a wide range of teaching, practice and feedback material. However, because the possibilities are so many there are several important decisions that have to be made by course compilers.

Apart from having to decide which language learning principles the material is to be based upon, one needs to establish how much user freedom is desirable from a didactic point of view (cf. Sciarone and Meijer, 1993) and what elements should be seen as essential to the learning and practising process.

Then, apart from the purely technical side, there are the more practical questions like: how many different resources (such as translations, grammatical explanations and feedback) does the learner need to draw upon and want to draw upon? When can the learner gain access to these sources of information? How will testing be carried out? Is it possible, with the interactive facilities available, to make practice lead to something that approximates to real conversation and feedback? When it comes to creating the teaching and exercise material the question that is usually uppermost is: how can visual, aural and textual resources be utilized most naturally, that is to say, in a way that is most purposeful and coherent? What is meant by coherent in this sense is, the way that visual and audio aids relate to each other; by purposeful we mean the way that leads to a correct interpretation of the linguistic elements.

One of the things that will be demonstrated (especially where creating courses aimed at developing general linguistic proficiency is concerned) is, that course compilers must adopt a different approach when creating interactive AV media. The visual and aural aids implemented should not derive from the accompanying written text but should rather be produced in conjunction with it. One of the best ways to do justice to the medium is to regard it as a communicative system laid down in a combination of audio and visual communicative aids in which the text provides a written record of the linguistic elements or refers the learner to the accompanying images and sounds for the interpretation. In this way one can ensure that the medium is not treated like some kind of 'electronic notepad' with a few accessories that are of merely minor importance.

The above-mentioned aspects will be discussed in the light of the example of a CD-i Dutch course that is currently being developed for foreign workers in the metal sector who have a minimal knowledge of Dutch. By means of demonstration we shall try to convey how the considerations outlined above determined the logistics and the content of the course.

## Ulrike Meyer and Karola Baum (Köln)
*Einsatz von CALL-Übungen zur Vorbereitung der PNdS an der Fachhochschule Köln*

Unser Vortrag wird sehr stark praxisorientiert sein und anhand unserer Erfahrungen zeigen, wie CALL an einem Hochschul-Institut funktionieren kann.

Zunächst soll eine Einführung in die an der FH Köln eingesetzten Programme gegeben werden. Insbesondere die Programme *Textbaumeister, Wahlmeister* und *Wortbank* von Eurocentres/Wida (alte Version) wurden bei der Erarbeitung von PNdS-Vorbereitungs-Reihen verwandt. Deshalb werden wir uns hierauf beschränken. Ausgehend von der Präsentation möchten wir auch didaktische und methodische Überlegungen zum Einsatz dieser Programme zur Diskussion stellen, sowie verschiedene Einsatzmöglichkeiten vorführen.

In einem zweiten Teil soll eine Übungssequenz präsentiert werden, die eigens zur Vorbereitung der PNdS an der FH Köln erarbeitet wurde. Diese Übungssequenz umfaßt die Teile

- Wortschatz-Vorentlastung (mit dem Programm *Wahlmeister*)
- Fragen zum Text (mit dem Programm *Wahlmeister*)
- Grammatische Umformungen (mit dem Programm *Wahlmeister*)
- Textrekonstitution (mit dem Programm *Textbaumeister*)
- Festigung des neuen Wortschatzes (mit dem Programm *Wortbank*)

Drittens möchten wir über unsere konkreten Erfahrungen mit der Einführung computergestützten Sprachunterrichts berichten, sowie über Probleme und Beschränkungen. Schließlich soll ein kleiner Ausblick gegeben werden, wie künftig das CALL-Angebot ausgebaut werden soll, insbesondere durch Miteinbeziehung des Audiobereiches.

## Wolfgang Meyer (Norden)
*Schüler als Autoren von Multimedia-Präsentationen: Neue Wege für den Informationsaustausch in der internationalen Projektarbeit*

Das European Studies Project (ESP) verbindet in verschiedenen Programmen ca. 300 Schulen in verschiedenen europäischen Ländern. Sechs bis zehn Schulen arbeiten jeweils für ein Schuljahr in einer internationalen Gruppe zusammen. Briefe, Videos, elektronische Post und Fax dienen als Kommunikationsmittel für die themenorientierte Projektarbeit. Anfang 1994 sind erstmals und mit Erfolg ISDN-Videokonferenzen zwischen Schulen in Irland und Frankreich erprobt worden. Eine weitere Möglichkeit, innerhalb des Projekts Informationen aufzubereiten und auszutauschen, bieten Multimedia-Autorensysteme.

*BookMaker*, ein neues, einfach zu bedienendes Multimedia-Autorensystem für Windows erlaubt auf einfache Weise die Kombination von Text, Bild, Ton, Animation und Video. Jeder Bildschirmseite kann ein Audioclip zugeordnet werden; jedes Wort des elektronischen Buches kann mit Bild, Ton oder Video verbunden werden. Informationen können über eine Volltextsuche, Querverweise (Hyperlinks) und ein Register erschlossen werden.

Erste Versuche mit *BookMaker* zeigen, daß Schüler nach kurzer Einweisung in der Lage sind, mit diesem Autorensystem Multimedia-Bücher zu erstellen. Der Austausch der Multimedia-Bücher erfolgte über den Versand von Disketten, der Austausch über elektronische Netzwerke bereitet z. Zt. wegen der umfangreichen Datenmengen noch Probleme. Lösungswege zeichnen sich jedoch bereits ab.

## Jon Mills (Luton)
*Using a concordancer with advanced level students of EFL*

The use of electronic text analysis and retrieval systems in the fields of literary studies and language teaching to provide word lists, indexes, KWIC (key word in context) concordances, distribution tables and collocation tables, is becoming more and more common. The pedagogic value of such tools is being increasingly exploited with the availability of good, easy-to-use software and sources of machine readable text.

A computer concordancer enables text to be searched for a particular word and then displays each occurrence in its context, usually one complete line with the key word centred. Once students are familiar with this tool, they may use it as readily as a dictionary to find examples of usage from their chosen corpus of text. Errors in students' written work can be dealt with by comparing the items which students have misused with examples from authentic texts. Students' use of a concordancer involves more than looking up facts: a single consultation has a tendency to raise other questions, requiring further concordances. This leads to a kind of conjectural learning.

Within the field of literary studies, the application of electronic text analysis to stylistics is of value to the study of structure, style, prosody and content of texts. It offers statistical analysis of, amongst other things, the size and diversity of an author's vocabulary, or detailed study of single words or small sets of words such as 'and' or the use of 'on' vs. 'upon'. Particular attention may be paid to words that occur only once in the text of an individual author. The study of thematic patterns in literature may be aided by data concerning the distribution of selected words throughout a given text.

Whether the orientation is towards literature or language, electronic text analysis offers the student the opportunity to take control of his/her own learning by means of purposeful interaction with text(s). The higher level skills of inferencing, connecting, interpreting and evaluating are brought into play and informal acquisition is facilitated in addition to selective attention to linguistic or literary features.

## Haymo Mitschian (Berlin)
*Status- und Steuerungselemente für sprachbezogene Übungsprogramme: Obligatorische und fakultative Oberflächenelemente*

In order to use computers as a medium to learn a language there is need for some GUI elements indicating and regulating the actual status of training. These elements have to be separated into obligatory ones, useful in almost all CALL-software, and optional ones, necessary for most 'teachware'. Due to a general need to reduce the difficulties of using training programs for language learning, standardization of these GUI elements should be aimed at.

Suggestions for design and function are made on the basis of the training program *Verbindungsarten* (German as a foreign language/for special purposes: mechanical engineering).

## Tim Musson and Carol B. Thomson (Edinburgh and Lancaster)
*Stylist: A tool for cognitive stylistics*

Most software which has been used in the teaching and learning of languages may be split into two categories. These are courseware, which is usually specifically designed to teach a particular topic, and general purpose software (e.g. word processors) which is used to support particular learning activities. There is, however, a third category, which is specifically designed to support particular learning activities and is more concerned with process than content. This paper considers *Stylist*, a CALL system in the third category, designed to support activities involved in the learning of cognitive stylistics.

The stylistic analysis of text is a particularly laborious process, usually carried out manually: it is carried out at several linguistic levels, with each level involving detailed annotation of the text. The design of *Stylist* allows this process to be carried out in semi-automatic fashion, both permitting the student to concentrate on the linguistic issues rather than note-making and giving a clear presentation of the results of the analysis. The main focus of the paper is on the task analysis, pedagogical issues and design issues of *Stylist*.

## James N Pankhurst (Berlin)
*A fresh approach to learning grammar – novel features in a new grammar trainer for Cornelsen's English G (new edition)*

Many apparently fascinating programs are used a few times and then put aside. Long-term motivational requirements have been given a high priority in the new grammar trainer, which has been designed to provide continuing support for a widely-used school course over a period of six years. This supplement to the standard course material has been designed as much for voluntary home use as for within-school use. The program seeks to enhance the scope of the original course and promote pupils' interest in the language

by stimulating both intrinsic and extrinsic motivation. On the one hand, it employs motivational features which range from graphic animations such as landing lazy turtles or parking London buses to the use of unusual and original short narrative texts. On the other, there is a carefully planned set of attainment motivators, which form part of an overall achievement scheme: a growing grammar tree, a grammar house with doors which open up as work progresses, certificates of progress, best-scores which depend on luck as much as on grammatical skill, and so on. The motivational aspects which the grammar trainer shares with conventional good programs, such as context-sensitive error feedback, the provision of help, and even organised cheating are also discussed. There is a detailed description of some new exercise forms, most specifically Action Reading, an original recycling text activity, and Guess Who, where continuing questions and answers reveal the secrets of the colourful characters portrayed on the screen. These, together with numerous other features, provide a stimulating and challenging experience in language processing for school learners.

## Luc Pauwels (Mons)
*Managing a CALL Centre: Some tips and tricks to seduce your students*

There they are at last, your long-awaited computers! Freshly unpacked, neatly arranged on the desks of your computer classrooms, linked up into a network, fitted with voicecards, printers, and lots of other peripherals and above all, equipped with all the latest, state-of-the-art, CALL packages.

Not only did you first spend days and nights trying to understand and manage your network, but naturally, you have worked out scores of dazzling computer exercises. A shrewd instructor, you have shown your colleagues how to manage this new learning tool. Better still, you even have organized a few introductory sessions for your students aimed at making them aware of all the potential of a CALL classroom. No doubt your visitors' initial reaction will give you every reason to be boastful: bedazzled and fascinated by the glittering colour screens and the digitized sound, your newly-won fans will not hesitate to get down to work, captivated by the ever patient, user-friendly computers which never let them down.

The question is, however: how long will those first-day enthusiasts keep coming back? More specifically, will the seduction last till the end of the academic year?

It is an undeniable fact that people tend to get used quite easily to even the most up-to-date technology. Moreover, the longer they use a facility, the more likely they are to find fault with it. In this particular instance, your students are apt to feel that their computer – initially seen as infallible – does have shortcomings as well: it does not allow them to quit an exercise as they please or even prevents them skipping certain questions which they do not feel like doing at once or doing at all. Worse still, the computer may turn down an answer which *they think* and *you know* is correct. If you do not react immediately, students may soon be put off

and turn away from your CALL-room before they even begin to realise its real merits and promises.

Yet such behaviour need not necessarily discourage the CALL manager. Rather, it ought to be a thought-provoking challenge to which he has to find a suitable answer.

In this presentation, I will describe some actions I have taken since I started working as the CALL-network manager at the Facultés Universitaires Catholiques de Mons (Belgium) eighteen months ago.

First and foremost, it need hardly be said that the key to success lies in establishing first-class communication with your student population. This aspect should be one of your main criteria when contemplating the purchase of a CALL-system. You might consider selecting a network that is easy to use, does not bully students and colleagues alike, and – above all – is amenable to a wide range of communicative interaction: student-computer, student-teacher, and student-student. I will try to depict how those requirements were met by the language team's choice of a Tandberg TECS star-network, equipped with headphones and Tandberg 3000 voice-cards.

I will further explain how we programmed our computers with a handy 'click-the-button' interface which saves students the trouble of having to go through stacks of instruction manuals and gives them speedy access to a wide range of computer packages, whether open or closed (e.g. *Adam&Eve, Telex, Question Mark, Storyboard, Gapmaster, Testmaster, Wordstore, Essential English Grammar, Verbapuces, Woorden in Context* and *Nederlandse Basisgrammatica*).

I will then show how the exercises were structured and made to match the four successive levels in the four languages currently offered by our college's language department: Dutch, English, German and Spanish.

Lastly, I will illustrate how we succeeded in turning our students into genuine co-operators in the CALL project. We provided for instance means by which the students were able to give continuous feedback on the CALL activities (e.g. suggestions on how to further improve our exercises, evaluation of new CALL packages, ideas for the daily management of the CALL centre).

As backup material, a computerized slide-show will accompany my presentation, giving the audience a clear picture of the resources used at FUCaM's Computer-assisted Language Learning Centre.


## Pietro Pavanini (Napoli)

*Leggere, ascoltare, comprendere (Lesen, Hören, Vestehen): Verstehensübungen zur italienischen Landeskunde in einem integrierten Werk (Buch + Diskette)*

Ein gravierendes Hindernis für die Anwendung bzw. Verbreitung von multimedialen Computerlernprogrammen unter dem großen Publikum potentieller Benutzer (in unserem Fall Fremdsprachenlerner) ist häufig die Unzulänglichkeit der Hardware-Ausstattung vieler Homecomputer, die technisch meistens einige 'Generationen' hinter dem aktuellen, zumal in ständiger Entwicklung begriffenen Stand der Informatik zurückliegen und folglich den Anforderungen neuer Softwarepakete (schnelle Mikroprozessoren, große Speicherkapazität, CD-ROM Laufwerk u. a.) nicht genügen. Die Hardware-Anpassungskosten und selbst die Anschaffungspreise solcher Programme lassen daher eine Investition eher im institutionellen (etwa Sprachenzentren der Universitäten, Schulen usw.) als im privaten Bereich annehmen.

Darüberhinaus ist das Angebot von CALL-Produkten noch zu einseitig in der Konfiguration, die praktisch nur die Verwendung eines Computers (wie auch immer ausgestattet) und des dazugehörigen Programms voraussetzt. Die Bezeichnung *multimediale* Software erscheint hier also nicht besonders passend, weil man zumindest ein 'klassisches' und alles andere als ausgestorbenes Lernmittel vernachlässigt, nämlich das Buch. Das kommt weder den konkreten Anforderungen noch der 'kulturellen Sensibilität' der Geisteswissenschaftler entgegen, die überdies zu den am wenigsten 'informatisierten' Lernergruppen gehören.

Das Projekt *Leggere, ascoltare, comprendere* möchte eine Antwort auf die aufgezeigten technisch-pädagogischen Bedürfnisse geben. Das zweiteilige Werk umfaßt eine Sammlung von meist kurzen Aufsätzen aus italienischen Tageszeitungen und Magazinen, die dem Leser/Lernenden anhand von kuriosen Begebenheiten einen Einblick in das italienische Alltagsleben gewähren. Die einzelnen Texte sind im Buch mit Übungen versehen, die sich besser auf dem Papier vorstellen bzw. lösen lassen. So verfügt der Benutzer über eine *Hardcopy* des Werkes, ein festbleibendes Lesebuch für seine Bibliothek. Die Diskette enthält dagegen unkonventionelle, eben nur per Computer vermittelbare und auf denselben Texten basierende Übungsroutinen, mit denen man, manchmal auf spielerische Art, Hörverstehen, Speedreading, lexikalische Aspekte u.v.m. trainieren kann.

Die Computerversion wurde mit dem Autorensystem *CALIS*, in der DOS-Version (*Text-CALIS*), verarbeitet. Dieses bietet einige wichtige Vorteile gegenüber anderen, in der Graphik gewiß schöneren und in der Bedienung 'freundlicheren' Programmen. (a) DOS-*CALIS* braucht eine einzige exe-Datei zum Starten der verarbeiteten Übungen (während etwa *WinCalis* – wie alle in Windows laufenden Programme – die Anschaffung und Installation einer gesonderten Software erfordert, natürlich vorausgesetzt, daß der Benutzer auch Windows in seinem Computer besitzt bzw. laufen lassen kann). (b) Die große Flexibilität der Programm-Syntax ermöglicht (a) die Gestaltung von ganz neuen, phantasievollen und, warum nicht, lustigen Übungstypologien, mit denen sich das Ziel des Edutainments, also education + entertainment, am besten erreichen läßt; (b) eine punktuelle Fehleranalyse der verschiedensten Antworten und folglich die Einfügung von gezielten, den Lerner in seiner Übungsarbeit stark motivierenden Feedback-Hilfen. (c) Die Ankoppelung an eine Tonkarte schafft, auf geringe Kosten, die Voraussetzung für eine multimediale Anwendung des Programms.

### Andreas Roellinghoff (Lausanne)
*Learning languages through multimedia projects*
Technology is not necessarily a motivator. A lot of testing must be done to best take advantage of its use for language learning. This presentation will retrace the development of a multimedia product that was created out of a classroom situation where the learners and the developer worked in close collaboration. The resulting 'Photoproject' and 'Filmproject' are HyperCard which give students the possibility to elaborate a favourite subject including texts, sounds, photos and films and moreover produce automatic comprehension tests to enhance the reading experience for the other learner in the group.

Several of these projects in English, French, Spanish and German will be presented in order to discuss their pedagogical value.

### Françine Roussel (Nancy)
*The LINGUA Parallel Concordancing Project*
The project, which started in January 1994 and is due to extend over a maximum period of two years, aims at

● developing a parallel concordancer (first for the PC, then for the Macintosh)
● collecting parallel corpora of well-translated texts in six (eventually eight or nine) European languages and corresponding to a range of genres and linguistic levels
● producing teaching materials, whether in electronic or paper form, based on parallel concordances obtained from this data

The idea is to offer a useful CALL and CAT tool, accessible from within a word processor so as to throw light on obscure language points as one is writing a text, or producing a translation, in a foreign language. Blanking and other facilities will also enable it to produce pedagogical materials, at any level, with little effort on the part of the teacher.

The University of Nancy II, France, is co-ordinator of the project. The development of the alignment program and of the user interface is the responsibility of the Centre de Recherches en Informatique de Nancy, with the valuable contribution of Tim Johns and David Woolls of the University of Birmingham. The data entry and insertion of cross-references in the parallel versions of texts are done by the Universities of Nancy, Birmingham, Hull, East Anglia, Genoa (Italy), Wuppertal (Germany), Aarhus (Denmark) and Patras (Greece).

### Felicitas Rühlmann (Bristol)
*Designing templates for interactive tasks in CALL tutorials*
This paper is based on experiences with CALL template development for mainly linear multimedia tutorials. The design of templates for multiple choice questions and inter-active tasks in a prototype module is described. Possibilities of enhancing interactivity by introducing problem-oriented elements into multiple choice questions, and by designing multi-layered tasks, are also examined. The prototype was integrated as a model into a final year undergraduate course which aimed at the production of low-cost courseware by students with a view to counterbalancing reduced lecture time with tailor-made CALL modules. The question is raised as to the extent to which students can be expected to design sophisticated interactive tasks, and which pitfalls should be avoided.

### P J Scholfield and G S Ypsilandis (Thessaloniki)
*Computer Assisted Language (CALA): a communicative attempt*
Research previous to this study (Scholfield and Ypsilandis, 1992, 1993) indicated that users' views on traditional CALL programs used in three modes, one to one, in groups and all the class together, were not favourable. The programs (providing exercises), were used after one hour's traditional teaching, or in a self-access centre. Any adverse reactions seemed to be to the pedagogical aspects and not the technical ones. The programs did not (a) provide adequate/motivating feedback, (b) highlight the communicative off-screen aspect, or (c) relate to communicative methodologies of teaching.

The present study (action research) attempts to combine communicative language teaching methodologies (the British tradition) with CALA which we subdivide into: (a) Computer Assisted Language Presentation (CALP), where the target language is presented to the user, with vocabulary entries, help on grammar, and with awareness heightening features (CALAH, Scholfield, 1991), (b) Computer Assisted Language Learning (CALL), where the target language is practised by repetition of the language or drilling of a key phenomenon, (c) Computer Assisted Language Use (CALU), where the target language is used in role-plays or simulations, and (d) Computer Assisted Language Testing (CAL-Testing), where the language is tested. In this study there was a different role for the teacher and a different role for the computer at each stage. The software was authored (the material was from Longman's 'Blueprint'-intermediate) with Elston's 'hyper' focusing on the type of feedback, the role of the teacher, and off-screen interaction, and was used to teach from the beginning of the lesson. Then it was implemented in a real situation for thirty hours to 15 students in a state institute for professional training in Thessaloniki (Greece). Data were collected with the same instrument (questionnaire) as in the previous study, together with observations on the program being used.

Reactions were all positive. In particular the subjects found the program to be suited to their needs, the feedback to be adequate, and this mode of use met their preferences for learning a foreign language. Ideally, one would also need to have actual achievement on language variables compared with achievement by traditional modes of teaching. Cer-

tainly, this was a case study of a small specific group of subjects and the results are purely indicative.

## Friedhelm Schröter (Köln)
*A communications strategies course in English for engineers – on CD-ROM*

The program's concept is based on an extensive analysis of the needs expressed in interviews by engineering students and practising engineers from various disciplines in Germany and Italy. The program, developed by FH Cologne, South Bank University London, Interactive Technologies UK, and International Consultancy Services Naples with the assistance of the Wind Energy Group Ltd., UK, is called *The Leading Edge – The Winds of Change*, and is designed for advanced learners of specialised and non-specialised English as a foreign language in an authentic, though virtual, environment. Its dual approach of enhancing foreign language skills and promoting communications strategies in job-related situations makes this interactive multimedia program a unique self-access tool in education and working life.

The program has been developed on an authoring platform comprising audiovisuals, graphics, text materials and a glossary database. The development project has been co-funded by the State of Northrhine-Westfalia and the LINGUA programme of the EU. The technology will allow a learner to access the program comfortably by means of a Multimedia PC with CD-ROM drive, Windows 3.1 or higher and a SoundBlaster voice card with speakers or headphones and microphone.

## Mathias Schulze (Manchester)
*'Themen' and the Computer*

The paper will report on a project currently being carried out at the Department of Languages at the Manchester Metropolitan University.

More and more students in Higher Education are using the opportunities available to start learning another foreign language. However, this means increased pressure on the teaching staff because of bigger group sizes, fewer contact hours, and more topics (or parts thereof) to be studied or at least revised outside of class-contact hours.

The aim of this paper is to outline the problems which arise when using computers as a self-study tool in language learning in general. On the basis of this reflection, the approach of incorporating CALL software into the teaching of German language (*ab initio* for approx. 200 students) at the MMU will be discussed. The main idea of the project is to bring the different software packages (*Tuco, Tiger I, German Master, Textarbeiter, Gertie* and others) in line with the course book used *(Themen 1 Neu)*. It is hoped that this case study may help colleagues to avoid problems in introducing and using CALL for their 'languages for all' schemes. It may be that, even some of the material produced (hand-outs, tests) can be used at other institutions.

The paper will focus on the interpretation of two questionnaires (attitudes to computers and computer literacy of staff and students); the working schedule for incorporating CALL software; briefing of staff (very often part-time or assistants), and the induction of students. Particular attention will be given to the monitoring of computer-assisted self-study.

## Patricia A Sneesby (Cordoba)
*Writing activities for 2000 students? What CALL can do for us*

Writing activities are usually considered almost impossible to deal with in large science faculties where sheer numbers defeat the most willing. Technological advances have produced systems that can help solve these problems. We present our experience of integrating writing into the curricula of 50 classes of around 40 students each, using CALL and a CSS to take most of the load.

## Marta Stanglova (Hradec Kralove)
*Überlegungen zu neuen Fremdsprachenlerntheorien und technologiengestütztem Fremdsprachenunterricht aus osteuropäischer Sicht*

Bei der Entscheidung für ein didaktisches Konzept des Einsatzes der Computer bzw. Multimedien für den Fremdsprachenunterricht sollten folgende Schwerpunkte bzw. Probleme berücksichtigt werden:

- Programmtechnische, didaktische und inhaltsspezifische Entwicklungsprobleme
- Teilweise unterschiedliche Entwicklung der Didaktik des Fremdsprachenunterrichts im jeweiligen Land, in unserem Fall in Tschechien, im Vergleich zu Westeuropa – und damit verbundene unterschiedliche traditionelle Lernstrategien
- Unterschiedliche Ausgangssprachen sowie unterschiedliche Zielsprachen, die unterschiedliches didaktisches Vorgehen erfordern (am Beispiel Tschechisch – Deutsch, Tschechisch – Englisch)
- Neuere Fremdsprachenerwerbstheorien und Möglichkeiten der Medien, diesen Theorien entgegen-zukommen
- Unterschiedliche materiell-technische Bedingungen für den institutionalisierten Fremdsprachenun-terricht in Tschechien im Vergleich zu anderen europäischen Ländern.

Daraus ergeben sich Überlegungen für den computer- und medienunterstützten Fremdsprachenunterricht in Tschechien, die berücksichtigen sollen: Verhältnis des Unterrichts in der Klasse und selbständiger Arbeit der Lernenden, Entwicklung der Grundfähigkeiten, Verhältnis von Bewußtsein und Automatisierung bei der Herausbildung sprachlichen Könnens und landeskundlicher Kenntnisse, Lernerautonomie.

## Jacques Villeneuve (Helsinki)
*Creating a technology enhanced learning environment for French translation*

The purpose of this paper is to describe how a technology enhanced environment can be created for teaching a translation class (from Finnish into French), and also how to analyse and assess the experience gained during the two years that I have taught at the Helsinki School of Economics.

The class functions mainly on the basis of distance learning. The participants are first taught how to send French text files through e-mail. They send their translations electronically to the teacher who sends the corrected version back with feedback and comments, and if needed, explanatory extracts from the teacher's French grammar database. The group has weekly class sessions but no compulsory attendance is required. The teacher gives more textual and vocabulary explanations through the CD-ROM dictionary *Le Robert Electronique*.

The results so far have been positive and the students have been highly motivated. This kind of learning environment seems to enable individual guidance more effectively than the traditional static classroom.

## Klaus Waschik (Bochum)
*Fremdsprachenlernen via Expertensystem: Das IDEA-PROJEKT – Eine neue Generation intelligenter Software zur Wissens- und Fertigkeitenvermittlung*

Die Idee selbst ist alt und spätestens seit der Vision des 'Nürnberger Trichters' nimmt sie technizistische Konturen an: die Suche nach der idealen Lernmaschine, nach einem omnipotenten und allseits verfügbaren Medium für Wissenstransfer und Fertigkeitenvermittlung.

So scheint nicht weiter bemerkenswert, daß seit den Anfängen der Computer- und Programmentwicklung in der Nachkriegszeit und besonders nach einer zunehmenden Verfügbarkeit des Personal Computer in den 80er Jahren eine permante Hinwendung der Forschung und Entwicklung zu Problemen des Computereinsatzes bei der Vermittlung von Wissen und Fertigkeiten zu beobachten ist, die zu einer umfangreichen Literatur in diesem Bereich geführt hat.

Wenn auch die Kinderjahre der Computer- und Softwareentwicklung eher – was eine durchgängige Programmierbarkeit des Lernens und Wissensvermittelns angeht – von euphorischen Stimmmungen gekennzeichnet waren, so boten sich nach einer Phase der Ernüchterung mit der Entwicklung von Expertensystemen neue Dimensionen, dem Wissen vermittelnden Computerprogramm eine gänzlich andere Funktion zuzuweisen, als dies die absolute Mehrzahl sogenannter 'Lernsoftware' auf Heimtrainer-Niveau zuließ. Erstmals schien der Computer (bzw. die Software) in der Lage, eine tatsächlich aktiv steuernde Rolle im Wissensvermittlungsprozeß wahrzunehmen und nicht nur unter dem Deckmantel des Prädikats 'interaktiv' lediglich auf Lernbedürfnisse zu reagieren.

*Entwicklungsgeschichte und Kooperationspartner:*
Vor diesem Hintergrund ist das IDEA-Projekt zu verstehen, das in enger Kooperation zwischen der Ruhr-Universität Bochum (Lotman-Institut), der Moskauer Lomonosov-Universität (Lehrstuhl für mathematische Theorie intellektueller Systeme) und der Dortmunder Software-Firma Link & Link unter der wissenschaftlichen Leitung von Dr. Klaus Waschik (RUB) zwischen 1990 und 1994 geplant und realisiert wurde. So konnte erstmals auf der CeBit 1994 ein multimediales windowsbasiertes Software-Paket vorgestellt werden, das in der Lage ist, unter Einbezug eines in die Anwender/Lerner-Software integrierten Expertensystems selbstständig zu unterrichten und Wissensinhalte in Abhängigkeit vom Verhalten des Lerners, seinen Vorkenntnissen und Schwächen lernergerecht zu vermitteln.

*Stichwort: Autonomes Lernen:* 'Philosophischer' Kernpunkt des IDEA-Konzept ist die Umkehrung des funktionalen Verhältnisses 'Computer - Lerner', bei dem heute, im Gegensatz zu traditioneller Lernsoftware, der Lerner nicht selbst den Lernprozeß steuern muß, sondern wieder ganz Lerner sein kann. Dem Computerprogramm wurde die eigentliche tutorielle Betreuungs- und Leitungsfunktion während des Lernprozesses zurückgegeben und bietet nicht mehr nur ein 'Selbstlernbuch mit Antwortschlüssel' (traditionelle Lernsoftware) in digitaler Form, bei dem der Lerner grundsätzlich um seine eigenen Defizite wissen und mögliche Programmwege zur ihrer Beseitigung kennen muß. 'Der Computer ist wieder der Lehrer' heißt somit die Devise, die konzeptionell im IDEA-Projekt realisiert ist.

Um nun diesen Anspruch adäquat verwirklichen zu können, ist nicht nur eine qualitative Fehler- und Verhaltensananalyse des Lerners (im Gegensatz zur quantitativen bei traditioneller Lernsoftware) durch das Expertensystem notwendig. Das Expertensystem muß auch über entsprechende 'natürliche' Lehrererfahrung verfügen, um in den unterschiedlichen Lernsituation entscheiden zu können, was als nächstes in der Abfolge der Lernobjekte (Unterrichtsinhalte) getan werden soll (z.B. Wiederholungen einleiten, punktuell ergänzend üben oder in der Lernprogression fortschreiten). Wie auch ein 'natürlicher' Lehrer besitzt IDEA lernsituationsbezogene Lehr-Erfahrung, die in Gestalt eines extern modifizierbaren Regelapparates des Expertensystems kodifiziert ist. Dabei verfolgt das Expertensystem den Lerner nicht nur während der einzelnen Übung, sondern protokolliert parallel über fünf unterschiedliche Zeitintervalle (z.B. 'ganzer Kurs', 'laufende Lernzielkette', 'heutige Arbeitssitzung u.a.) die für die Evaluation des Lernverhaltens zentralen Daten. Nach ihrer Auswertung bestimmt das Expertensystem, das sich, am Rande bemerkt, auch deaktivieren läßt, mit welcher Übungs- oder Lernoption der Lerner weitermachen soll und korrigiert, so dies nach der Analyse notwendig erscheint, die ursprünglich gewählte Lernstrategie. Alle Entscheidungen des Expertensystems werden selbstverständlich – auch für den Lerner einsehbar – protokolliert und in einem individuellen 'Gedächtnis' zu dem jeweiligen konkreten Lerner gespeichert.

Das Wissen um Art und Weise, wie das Expertensystem mit dem zu vermittelnden Lernstoff umzugehen hat, um diesen lernergerecht einsetzen zu können, schöpft es aus einer durch den Kursautoren erstellten Sachordnung, in der die Wissensinhalte als Lernziele funktional strukturiert und organisiert sind. Der hierarchisch angelegte 'Lernzielbaum' bildet intern die 'Navigationskarte', mit der sich das Expertensystem im Bereich des zu vermittelnden Wissens orientiert und damit wiederum den Lerner zu genau den Orten führen kann, die seinem aktuellen Wissensstand am besten entsprechen. Darüberhinaus hat aber auch der Kursautor die Möglichkeit, in den vom ihm erstellten Lernobjekten (Übungen, Texte, Bilder etc.) anzugeben, welche anderen Objekte für die laufende Übung als 'bekannt' vorausgesetzt werden, um damit die Bewegungsrichtung des Expertensystems noch präziser zu gestalten.

*Einsatzgebiete:* Strukturell gesehen eignet sich IDEA daher nicht nur für die Vermittlung von Fremdsprachen, obwohl einige Programmfeatures (wie z.B. Wörterbuch, Übungstypen, Datenbanken) dies besonders nahelegen. Es können grundsätzlich auch andere Wissensbereiche vermittelt werden, die sich einer expliziten Lernzieldefinition unterwerfen und dies gilt zumindest für eine große Anzahl von Stoffgebieten.

*Strukturmerkmale:* Neben den eigentlichen interaktiven Lernobjekten (Übungstypen) können in Kursen, die mit IDEA erstellt wurden, nicht nur Text- Bild-, Ton- und Videodaten eingebunden werden, die sowohl als Datenbanken (allgemeine Nutzung) wie auch lernkontextsensitiv zur Verfügung stehen. Durchgängig wurde auch das Prinzip des 'lokalen Lernens' realisiert, das es gestattet, zusätzlich zu den aktuell bearbeiteten Lernobjekten zusätzliche Lern- und Informationsoptionen bereitzustellen, die der Lerner 'lokal' benötigt oder deren Nutzung im gegebenen Lernkontext methodisch sinnvoll erscheint. Damit kann ein Hypersystem von Übungs- und Informationsobjekten erstellt werden, das – in Anhängigkeit vom 'Standort' des Lerners – variiert und eine qualitativ-funktionale Optimierung des eigentlichen Lernvorgangs in seinen unterschiedlichen Dimensionen bedeutet.

*Komponenten:* Das Programm-Paket IDEA (Autorensystem, Anwender/Lerner-System, Programmintegrator und Expertensystemssimulator) ist durchgehend multimedial gestaltet und verfügt über vielfältige Optionen für Bild-, Ton- und Videoeinsatz. Mehrsprachigkeit (unterschiedliche Schriftsysteme) ist bei Nutzung entsprechender Treibersysteme (z.B. Kirillica 3.0) problemlos möglich.

## Scott Windeatt (Newcastle upon Tyne)
*CATTCALL: Computer-Assisted Teacher Training for Computer-Assisted Language Learning*
Computer-based materials can be a useful supplement, and in some cases a substitute, for classroom-based training in the use of computers for language teaching. At Newcastle students on our Masters courses have developed computer-based training packages which have been integrated into the syllabus of a number of CALL teacher-training courses. These packages are used to introduce language teachers to a range of CALL programs, and to ways in which they can be used with learners. This session will demonstrate some of the software that has been produced, and discuss advantages and problems in using the material in teacher-training courses.

## Erich Zehnder (Mainz)
*Die Nutzung neuer Technologien im berufsorientierten Fremdsprachenunterricht*
Gerade für berufsorientierten Fremdsprachenunterricht bietet sich die Nutzung neuer Technologien an. Die Lernenden verfügen meist über einschlägige Technologieerfahrung, die Unterrichtsmaterialien sind – wenn überhaupt vorhanden – oft nur an Standardsituationen ausgerichtet. Die Lehrenden jedoch verfügen noch selten genug über Kenntnisse und Erfahrungen für einen Einsatz von Computern in der Unterrichtsvorbereitung und -durchführung.

Hier setzen im Auftrag des Europarates von einer trinationalen Projektgruppe zu entwickelnde und zu erprobende Trainigsmodule für die Lehrerfortbildung an. Die Unterrichtenden sollen durch Demonstration der Nutzungsmöglichkeiten der neuen Technologien motiviert werden (Modul 1) und durch Einweisung und praktische Erprobung Autoren- und Konkordanzprogramme für die Unterrichts-vorbereitung nutzen lernen (Modul 2). Hinzu kommen erweiterte Einsatzmöglichkeiten mit Hilfe von CD-ROM, z.B. *Bookshelf* und *Voicecart* (Modul 3).

Die Projektgruppe berichtet über ihre Erfahrungen in der Zusammenstellung und Erprobung der Module in Norwegen, Österreich und Deutschland.

*Mitglieder der CDCC-Projektgruppe:* Inge Anna Koleff, Verband Wiener Volksbildung; Ingrid Söndenaa, Nasjonalt Laeremiddelsenter, Oslo; Prof. Dr. Bernd Rüschoff, Pädagogische Hochschule Karlsruhe; Dr. Erich Zehnder, Projektkoordinator, Verband der Volkshochschulen von Rheinland-Pfalz in Mainz, Lehrbeauftragter für Sprachandragogik an der Johannes-Gutenberg-Universität in Mainz