Latest trends in CALL materials

In 1982 John HIGGINS and I were invited by the Centre for Information on Language Teaching, London, to write an information guide on the use of computers in language learning[1]. At the time the range of software for computer assisted language learning (CALL) was extremely limited, but there was a general atmosphere of optimism about likely future developments and it was felt that the time had come to make language teachers aware of computers and the kind of materials that could be used on them. In 1980 the government had initiated the Microelectronics in Education Programme (MEP) and it was hoped that the substantial funds it offered to educational institutions would result in reasonable quantities of good-quality software being produced by teams of experts across the curriculum. In retrospect, the MEP's efforts have been disappointing. Some excellent materials have been produced for the scientific disciplines but pitifully little has been developed for languages. And now the MEP funding is drawing to a close.

One reason for the lack of CALL software is that MEP funds for developing software went almost exclusively to institutions with a good track record in computing rather than to institutions with an established reputation in specific subject areas. Experts in computing are not the best people to take decisions about CALL, and language teachers were remarkably reticent in coming to terms with the new hardware. Thus many decisions on CALL software were left to the programmers. Armed with vocabulary lists and verb tables, they set about producing boring programs consisting of lists of out-of-context words to be translated and randomly generated (and therefore often obscure) verbs to be conjugated. Kosmos Software's THE FRENCH MISTRESS[2] and Heinemann's COMPRENEZ 1 and REPONDEZ 1[3] are typical examples of this kind of software. THE FRENCH MISTRESS is the product of an independent commercial organisation and consists of lists of words which the student has to translate into or from French. The two Heinemann programs, which were produced by Five Ways School with the aid of MEP funds, present lists of different forms of verbs which

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1 DAVIES, G. & HIGGINS, J. (1982): *Computers, language and language learning,* Centre for Information on Language Teaching (CILT), Regent's College, Inner Circle, Regent's Park, London NW1 4NS.
2 Published 1984 by Kosmos Software Ltd, 1 Pilgrim's Close, Harlington, Dunstable, Bedfordshire LU5 6LX.
3 Published 1982 by Heinemann Computers in Education Ltd, 22 Bedford Square, London WC1B 3HH.

have to be translated into French. COMPRENEZ 1 uses a multiple-choice format while REPONDEZ 1 requires the student to enter the whole verb.

The reactions of language teachers to such products were predictably negative. «If that's all the computer can do then it has nothing to offer me» was the characteristic response, and it took some time for language teachers to realise that the computer was much more than a drill-and-practice machine. Not that drill-and-practice is necessarily bad. Contextualised drills can be very useful, especially if the computer offers sensible feedback in combination with appropriate tutorial material. The best software of this type I have seen is the Canadian CLEF package for learners of French – now available on the Commodore 64 computer[4].

It was perhaps inevitable that once language teachers discovered the new technology the pendulum would swing in the opposite direction. Numerous teams of teachers and programmers embarked upon CALL projects with the declared aim to «make full use of the computer's potential». This meant that text-only programs were out. The educators had given in to the demands of the video generation and computer graphics became the yardstick by which all programs were judged. What the new converts had not realised, however, was that their ambitious projects would require an enormous investment in time and money.

Chelsea College's recently published programs, METRO and COPROB[5], are typical products of this new enthusiasm. Both programs were produced with the aid of a substantial government grant. They claim to be in line with the communicative approach to language teaching, although this claim appears to be exaggerated.

METRO aims to test the learner's ability to understand the meaning of essential signs he/she might encounter on a trip on the Paris Métro. The object is to reach a specified destination by answering a series of multiple-choice questions. As the learner chooses the correct answers he/she moves from station to station. A plan of a section of the Métro is drawn after each correct response, showing the station at which he/she has arrived. If the learner fails to recognise that Châtelet is a «station de correspondance» halfway through the exercise he/she goes in the wrong direction and has to backtrack. The idea is essentially a good one and the graphic sequences are visually attractive. It is a pity, however, that the attention devoted to the graphics – which are difficult to program and use up a lot of the computer's memory – seems to have resulted in the sacrifice of important pedagogical features. The program offers no feedback to the

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4 Published 1985 by Gessler Publishing Co Inc, 900 Broadway, New York, NY 10003-1291.
5 Published 1985 by Macmillan Education Ltd, Houndmills, Basingstoke, Hants RG1 2XS.

learner, apart from telling him/her whether he/she is right or wrong. The French text is in capital letters and, apart from the questions themselves, there is little French on the screen. Moreover, the program lacks variety. There are only fifteen questions, which are always the same and always presented in the same order with the same arrangement of correct answers and distractors. The section of the Metro is always the same, as is the specified destination. METRO therefore turns out to be a linear recognition exercise dressed up with graphics.

COPROB is a game in which the learner plays the role of a policeman whose task is to pre-empt a series of four crimes which are about to be committed in a French town. This requires the learner to send a police car to a number of different locations, for example the hypermarket or the bank. There are twelve locations in all and the learner is given a list of them at the beginning of the program. It is suggested (in English) that four thieves are about to steal different items, for example money or petrol, and the learner has to identify the likely locations of these items in order to catch the criminals in the act. The locations are given in French, in capital letters and without the relevant articles, thus: HYPERMARCHE, BANQUE. A graphic representation of the town is displayed, and the learner indicates the four possible locations of the crimes. At Level 1 this is done in multiple-choice format, but at Level 3 the learner has to type the whole words from memory. Answers including the article, for example LA BOULANGERIE, are rejected and the program is generally weak in the way it handles inputs from the keyboard[6]. Feedback is minimal if the answer is incorrect, but a correct answer causes a little square representing the police car to race to the scene of the crime and arrest the criminal. The locations themselves are depicted symbolically, but most of the symbols are somewhat obscure. It took some mental gymnastics on my part to work out that the square containing a line-drawing of an elephant represented the hypermarket: elephant = mammoth = Mammouth = famous hypermarket chain. But apart from these criticisms, the learner who uses COPROB will learn very little French. At best he/she will end up with the ability to recognise a dozen French nouns.

METRO and COPROB are not particularly bad examples of CALL software – there are plenty of worse ones – but one is inclined to ask whether the elaborate graphic presentations were worth the effort and expense considering how little language the programs contain. And the effort seems to have been considerable. A small team of teachers and programmers is

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6 See Davies, G. & Higgins, J. (1985): on «Input validation and matching: a check list» in *Using computers in language learning: a teacher's guide,* London, CILT, pp. 24–26.

credited with having worked on them. I do not know how many man-hours the programs took to create, but I saw the first draft of METRO in early 1983 and was unable to buy the published version until early 1985.

Better CALL software has emerged from Netherhall School and Homerton College, both of which received MEP funding. Like METRO and COPROB, the software was a long time in the making, but the effort seems to have been more worthwhile in that the programs offer a greater variety of applications.

Netherhall School's FRENCH CONNECTIONS[7] is a package of two programs which make good use of graphics in order to familiarise the learner of French with the language associated with giving directions and with the geographical locations and features of important French towns.

The first program, entitled DIRECTIONS, depicts a street map and an animated figure, Pierre, whom the learner instructs to move in different directions: Tournez à gauche, Allez tout droit, Tournez à gauche à la piscine, and so on. Pierre goes in whatever direction he is told. The learner is congratulated when Pierre reaches his goal or is shown the correct French phrase, accompanied by an animated graphic sequence, whenever a mistake is made. Apart from the language associated with giving directions, there is plenty of French on the screen and translations into English are available if required.

The second program, entitled VILLES de FRANCE, is for more advanced learners. In an accompanying booklet a number of important towns in France are described (in French): where they are located, what kind of industries they have and other notable features. The computer program consists of two guessing games. The object of the first is simply to pinpoint the locations of ten different towns by moving the cursor across a map of France. The second game requires the learner to identify a town from clues given in French.

Homerton College's QUELLE TETE uses graphics to familiarise the learner of French with the vocabulary of physiognomical description. Its companion program, JEU DES MENAGES, focuses on the vocabulary used to describe the rooms in a house and the items with which they can be furnished. There are German versions of each program, respectively called KOPFJAEGER and UMZIEHEN[8]. All four programs were designed by Barry Jones. The programs can be used by individual learners, but they are probably more effective when used to stimulate conversation in a small group of students working under the supervision of the teacher.

7 Published 1985 by Cambridge Micro Software, Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU.
8 Published 1985 by Cambridge Micro Software (see Note 6).

QUELLE TETE is based on the «Photofit» package used by the police to enable criminals to be identified more easily. With QUELLE TETE, the learner can draw a variety of human faces on the computer screen by selecting different items of vocabulary from successive lists of nouns and adjectives. As the items of vocabulary are selected, sentences in French appear beneath the graphic depiction: for example, «Il a une grande tête ovale». The program thus offers practice in the relevant vocabulary, the use of articles and the agreement and position of adjectives.

Used by the individual learner, the program is entertaining but does not force the learner to process the language appearing on screen: for example by deciding on the form of the article, where the adjective is to be positioned and whether it has to be modified to agree with the noun to which it refers. All this is done automatically by the computer. The program is much more effective in group oral work, for example:

(1) A completed face is displayed on the screen and members of the group are asked by the teacher to describe or modify it by pressing the appropriate keys.

(2) A face is built up on the screen according to suggestions provided by the group. The group copy the sentences appearing at the foot of the screen and are then asked to combine them to form a short descriptive essay.

(3) One member of the group is given the role of detective. The remaining members play the role of witnesses and are given identical print-outs of a criminal's face (the program includes a print-out facility). Each witness is quizzed by the detective about the criminal:
Detective: «Il avait la tête comment?»
Witness: «Il avait la tête carrée.»
The witnesses' responses are entered at the keyboard and the picture is modified until the face on screen matches the print-out.

(4) The teacher uses the print-out facility to produce a variety of different faces. Each member of the group is given a print-out and asked to describe the similarities and differences between their own and their neighbour's print-out.

JEU DES MENAGES offers similar possibilities as a means of stimulating oral work. The program draws a cross-section of a house on the screen, displaying the various rooms: la cuisine, la salle à manger, and so on. The learner is asked in which rooms a succession of items of furniture are to be located and the computer dutifully positions them as required. JEU DES MENAGES is fun for the individual learner but it is also effective in group activities, for example:

(1) A fully-furnished house is displayed on the screen and members of the group are asked in turn by the teacher to describe what they see in the different rooms.

(2) A fully-furnished house is displayed on the screen and the teacher asks each member of the group to modify the furnishings by typing in the relevant commands at the keyboard.

(3) An empty house is displayed on the screen. The group is given a list of available furniture by the teacher and each member is asked in turn to discuss with his/her neighbour where any chosen item is to be located. The final choices are then entered at the keyboard.

QUELLE TETE and JEU DES MENAGES can be used in much the same way as a poster or overhead projector. The difference, however, is that the images can easily be varied. In addition, the teacher's authoritarian role is removed, as the computer acts as final arbitrator on the correctness of the language entered at the keyboard. Moreover, if the print-out facilities of the programs are used, a valuable source of handouts is immediately available to the teacher. The computer thus becomes a useful tool rather than attempting to take over the teacher's role completely.

So far the main trends in CALL I have distinguished are: a movement away from drill-and practice, the development of programs incorporating elaborate graphics and the use of the computer in group activities. Drill-and-practice programs continue to be popular amongst students and conscientious parents, but teachers active in CALL tend to favour exploratory or task-oriented programs. Simulations fall into this category. Unlike the programs described above, they do not rely heavily on graphics but they are ideal for group activities.

Unfortunately, there are very few purpose-built simulations for language learners, but Barry JONES is currently working on an elaborate French-language simulation known as GRANVILLE[9]. This ambitious program aims to give the learner an inkling of what it is like to spend a short holiday in France by offering a choice of activities and places to be explored. GRANVILLE consists mainly of descriptive text in French, and may be compared to the popular adventure games. The difference, however, is that it is set in a more down-to-earth environment. The learner begins by filling in the «affiche» as he/she registers in his/her hotel. From this point on the learner can explore the town, visiting a museum, taking a bus or boat ride or taking advantage of special attractions which crop up from time to time. The learner's thirst and hunger factors are constantly monitored by the computer and he/she may find him/herself being whisked off to

9 To be published in 1986 by Cambridge Micro Software (see Note 6).

a bistro for lunch. It is essential to pay the bill, however, otherwise a warning appears. Moreover, it is vital to stay within one's budget and not to indulge in luxuries one cannot afford. If necessary, it is possible to phone home, which causes the instructions found in a French telephone kiosk to appear on screen. So authentic is the simulation, even the sound of the phone being taken off the hook and the dialling tone can be heard. GRANVILLE is an exploratory program which offers hours of amusement to the individual learner and a whole range of activities for groups under the supervision of the teacher.

The main reason why there are so few purpose-built language simulations is that such programs take a very long time to write and the market is somewhat limited. There are, however, a number of unlikely sources of suitable CALL material, especially for the teacher of English as a Foreign Language.

A well-known simulation entitled GREAT BRITAIN LIMITED[10] comes under the heading «Economics» in one software house's catalogue, but it is invaluable for students on language courses, especially those oriented towards economics, business studies or politics. The user commits him/herself to a political party and attempts to run the British economy for a period of five years, culminating in a General Election. My own experience with the program suggests it is particularly effective if the teacher remains in control of the keyboard and adopts a deliberately provocative role, say, by cutting unemployment benefit by half or doubling the duty on a bottle of spirits. If the aim is to stimulate discussion, then this tactic certainly works! Ian MORRIS-WILSON describes a session in which I used GREAT BRITAIN LIMITED at the Second CAI Seminar, University of Tampere, Finland, 29th July to 2nd August 1982:

«One game we played, all sixty of us in the audience that is, worked extremely well: called GREAT BRITAIN LIMITED, the program invited us to run the UK economy for five years, increasing/decreasing taxes, building schools or roads or hospitals, spending money on defence or social welfare, etc, etc. And we were shouting out what steps to take and arguing with each other before we ever realised that we were actually involved in a group discussion! The fun and excitement was increased with warnings forever being flashed on the screen about strikes, the rising level of inflation, riots in the streets in major cities, and so on. The climax came with the General Election at the end of our term of office. The suspense as the results came in on polling night was electric, all sixty of us waiting with bated breath!»

10 Published 1982 by Simon Hessel Software, 15 Lytham Court, Cardwell Crescent, Sunning-hill, Berkshire.

Another type of simulation is the text maze. A text maze is a set of inter-connected pieces of text, each page describing stages in the development of a problematic situation to which the reader must find a solution by making selections from alternative courses of action. It is much easier to program than a full-blown simulation, although the path through the maze and the writing of the text requires a good deal of preparatory work before programming begins. If a ready-made collection of mazes can be found then the programmer's task is simple. A package of six maze programs has been developed by myself from the book by BERER and RINVOLUCRI[11]. It is hoped that the package will eventually be published. The mazes range from minor domestic problems, such as attempting to get the baby back to sleep when she wakes up crying during the night to a major international crisis involving a highjacked plane.

The authors of the book suggest a variety of group activities which the teacher might find useful: getting individual students to read out the texts and choices of action, followed by discussion and consensus on the choice the group wishes to follow; asking the students to focus on why they made their last choice and what they think the consequences may be; dividing the students into pairs who discuss with one another what choices of action they should follow and then taking a vote on their joint decisions.

Maze programs are an improvement on the book versions, because the student cannot cheat by turning the pages and looking ahead at the alterna-tive paths. But more research has to be done to find out to what extent maze programs and simulations in general are effective when used to stimu-late conversation. Left to their own devices, students will rarely sustain a discussion in a foreign language, particularly if a simulation begins to get exciting. The British Council's FAST FOOD program[12], which simu-lates the running of a fast food stall at an exhibition, aims to encourage discussion and decision-making by a group students playing the collective role of stall-owner. Decisions on the amount of coffee one needs have to be made before the morning rush of visitors, and the weather may influence the final decision; if it is warm then hot drinks may not prove popular. The aim is to make a profit. The program does indeed encourage discus-sion, but even the most experienced speakers of English have been observed to lapse into their mother tongue if left unsupervised. One important obser-vation that has been made, however, is that if large chunks of text appear on screen students working together are inclined to read it out loud, quiz one another about the meaning of certain words and to use their mother tongue less and less as the program progesses.

11 BERER, M. & RINVOLUCRI, M. (1981): *MAZES: a problem-solving reader.* Heinemann.
12 To be published in 1986 by Cambridge Micro Software (see Note 6).

The shortage of good CALL software and the present trend towards task-oriented CALL has led many teachers to find other imaginative uses for ready-made programs: for example creative writing activities. The BBC microcomputer's easy-to-use word-processing program, entitled VIEW[13], has proved invaluable in this respect. My colleague, Alison Piper, has created a series of text files with VIEW, which offer the students a variety of grammatical and creative writing tasks. The students may be required, for example, to convert all the verbs in a text from the present into the past tense. As the students complete this task they gain valuable practice in positioning the cursor and making use of the insert and delete functions. In effect, what appears to them to be a grammatical exercise is preparatory training in the use of the word-processor.

As the students master the basic word-processing functions they move on to more demanding creative writing tasks. The students work best in pairs. Setting a pair of students a collaborative creative writing task on the word-processor is much more worthwhile than giving them an essay to write on their own at home. Each pair has to discuss what they are writing about, so a certain amount of conversation is automatically generated. The teacher circulates round the class offering each pair guidance and checking for errors. The advantage of «marking» work in this way, on the computer screen, is that the student is able to print out and take away a «clean» copy at the end of the session rather than handing it in and waiting for it to be covered in red ink.

The idea of using the computer for collaborative creative writing tasks is also embodied in a program known as TELE-BOOK[14], which enables students to create pages of text (and simple graphics) on the computer screen, using the features which are common to a number of teletext display systems. The pages are easily created and edited and can be combined into a sort of teletext «book». The «book» can then be read at leisure by others and can even be set up to run automatically in a prominent position. It was designed for use by English native speakers in junior schools but the EFL teacher will find it invaluable.

The important point about VIEW and TELE-BOOK is that they turn the computer into a useful tool. This contrasts with the traditional approach to CALL, in which the learner is regarded as a kind of battery chicken to be processed. Attempts to replace the teacher in what is essentially a human-centred activity are probably misguided. There is unquestionably a case for using the computer to offer the individual student sup-

13 Published by Acornsoft Ltd, Betjeman House, 104 Hills Road, Cambridge CB2 1LQ.
14 Published 1984 by 4mat Educational Software, Linden Lea, Barnstaple, Devon.

plementary practice in closely-defined areas of grammar and vocabulary, and its infinite patience and time are values which the busy teacher will doubtless appreciate. But there is also room for an alternative approach in which the computer serves as a stimulus or as a tool for more open-ended language learning activities. It is up to language teachers to decide in what ways they can make use of this extremely powerful piece of hardware. So far we have only scratched the surface of its potential.

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