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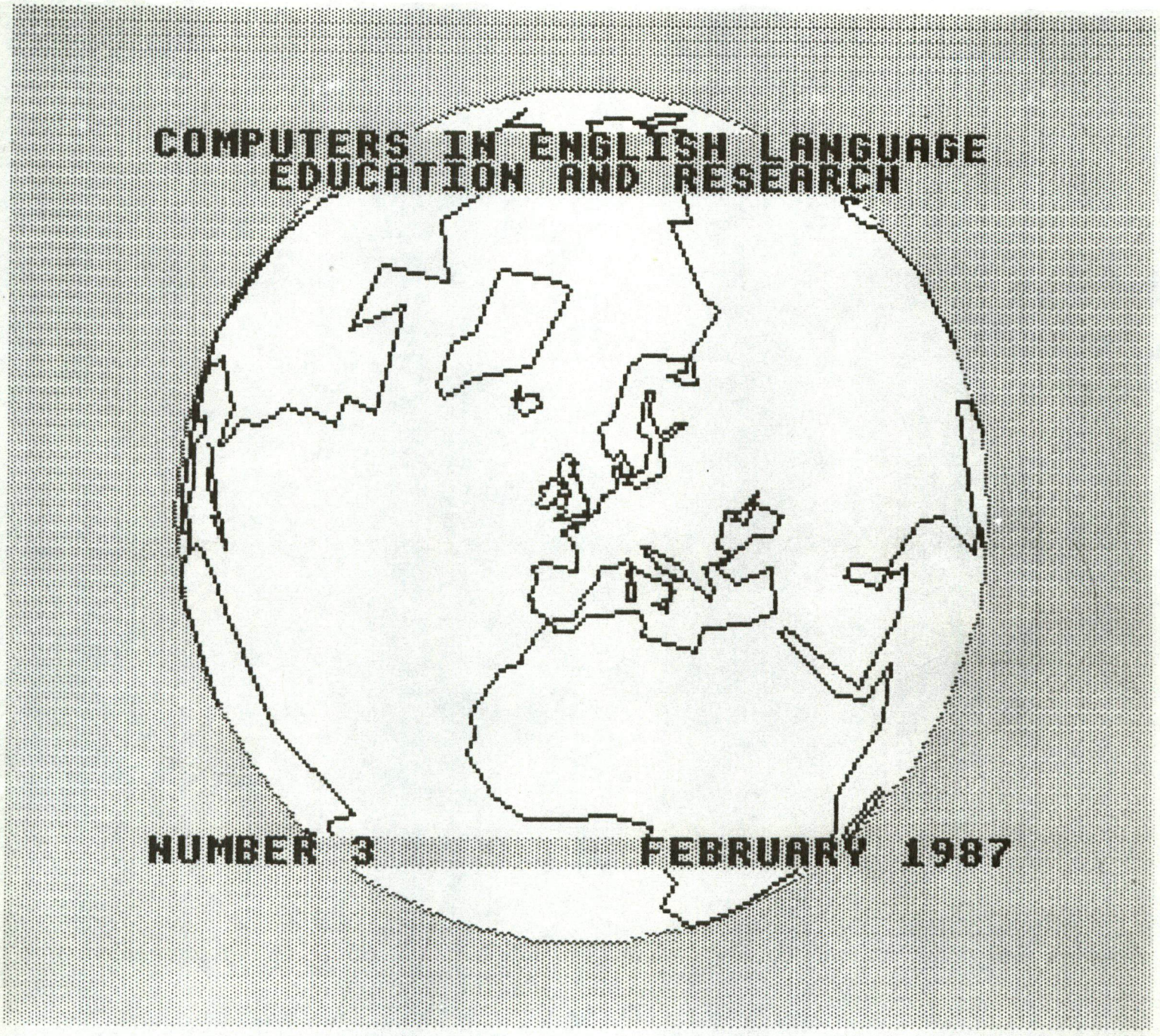

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Section d'Anglais

RECALL

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CALL EVALUATION TOOLS

John Higgins
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Learners, teachers, and software authors would all like to know how and when specific kinds of learning take place and how one can tell whether something has or has not been learned. The problem is that we do not know enough about knowing or learning. Indeed we do not even have an accepted and useful definition of the words 'know' and 'learn'. We make do with working definitions which are, roughly, 'be able to supply information about' and 'become able to supply information about'. We, as teachers, are like mediaeval doctors, equipped with a theory (the humours theory) which gives us a basis for our everyday practice. In ordinary cases our practice seems to work; we apply leeches and the patients generally recover. We are glad to take the credit for this, but when the treatment fails, we can always blame the patients ('lazy', 'forgetful'). Perhaps in a year or two a Harvey will demonstrate how educational blood circulates, or a Lister will teach us the equivalent of hygiene in surgery, but educational antibiotics are a long way away.

Meanwhile we need some way of observing what happens when we tamper with the system, when we apply the leeches in different places, or brew up different herbs. The evidence we get may not be the evidence we were looking for, but we need to keep collecting it. Either we or other people may be able to use it to gain insights into learning. Authors and other innovators want evidence that their innovations 'work', ie that they lead to changes which can be presented as beneficial. They have to fight the inertia of the established educational system, and this mens that they will always be on the lookout for 'hard' evidence in the form of numbers recording changes on a mass scale, rather than the soft data of anecdote, introspection or subjective impressions. They are biassed, of course, always looking for favourable evidence, but some of them at least will be ready to record, publish and perhaps make use of the negative evidence too.

Here, is a list of some of the tools we can use for CALL evaluation, with notes on their advantages and disadvantages, while we wait for somebody to invent the knowledge thermometer.

Sales figures

A crude measure of merit but not of demerit; something which has been a huge commercial sucess should at least be looked at. You may think, like me, that Jeffrey Archer writes appalling prose, but there has to be some talent to recognise in his books, some reason for his success. It is not safe to assume the converse; a commercial flop or something whih has not attracted any commercial backing may still be of value. The most significant evidence will always come from the surprises: the hyped up market leader which flopped, or the 'sleeper' which suddenly became popular. In the commercial world, however, it is difficult for outsiders to get information about publishers' mistakes.

Plagiarism

A similar indicator is the amount of imitation or plagiarism that has taken place. If there are a dozen competing versions of a program, then there were eleven software authors who thought the original idea good enough to spend time imitating.

Usage figures (eg time logs) for institutions where usage is recorded

Knowing the time spent on a program does not tell us whether the learner enjoyed it or whether anything of value was learned. Even so, it would be silly to ignore this evidence, since it is easy to collect in quantity. Usage can be distorted, with teachers' recommendations having some of the same effect as advertisers' hype. As with sales figures, the best evidence is provided when predictions are falsified, when 'entertaining' material is rejected in voluntary sessions in favour of 'boring' drill, for instance.

Attitude questionnaires

I suspect that learners are very inaccurate reporters of what they have enjoyed, tending often to report what they think they ought to have enjoyed, or not quite knowing what enjoyment consists of in the context of a learning activity. Current research also suggests they are inaccurate reporters of what they have learned, sometimes claiming to have learned things that did not occur in the lessons being evaluated. Making all due allowances, I think the evidence of what they thought they enjoyed and what they thought they learned may have its uses. The danger is of grossing up the figures obtained from large numbers of attitude questionnaires and trying to read significance into the magic numbers obtained. The best evidence is usually found in combinations of answers rather than in plain numbers, or in the disparity between questionnaire evidence and other evidence such as time logs.

Introspection and recall

This is what one gets from pre- and post-session interviews; assuming that the interviewer works with a checklist of questions, they are in effect animated attitude questionnaires. All the caveats mentioned in connection with questionnaires apply here too. The chief disadvantage of interviewing is the time taken. The chief advantage is the chance to probe whenever interesting or unpredicted answers are given, and therefore the chance to collect anecdotal evidence.

Class records and teachers´ reports

Teachers are in a position to observe not only what learners say but also what they do, all the unconscious signls of enthusiasm, boredom, enlightenment, or puzzlement that they sent out. If the teacher is properly observant and disinterested, the feedback can be immensely valuable. This type of reporting, though, should not be carried out by the software author, who has far too great a stake to be impartial.

Class observation

This is in effect a teacher´s report but carried out by an outsider, who should be using some kind of analytical framework to classify and record the different kinds of interaction. Again it is best carried out by someone other than the software author.

Before and after tests with control and experimental groups

This is what is traditionally meant by evaluation: pour the learning into the bottles and then see how full they are. It seems to be full of common sense. ´You are supposed to know 100 words. You scored 15 out of 20 on the test. I assume you know 75 words.´ But how many of the 75 words will spring to mind in an external communicative context? How many more exposures to the 25 ´unknown´ words are needed before they settle into the fabric of the new language system? We need such testing, of course, but we can provide less with it than we want to, since the stimuli given by the test question are so different from the needs of real-life communication, and test performance is at best an indirect measure of competence. As with many evaluation instruments, the negative information may be of more use than the positive. It is the wrong answers which are more interesting and which demand to be explained, rather than the right ones.

Verbalisation with tape-recording

The learner sits down with an exercise, while an observer with a tape-recorder sits beside him, prompting him to comment on what he can see, what he is doing and the reasons for his decisions. The same process is used by the Institute of Advanced Motorists in their driving test. This is the closest we come to mediaeval anatomy, actually examining the body. Just as dissectors only examine dead bodies, we can only examine external verbal descriptions of learning, not the learning itself. However, it does seem one of the most hopeful sources of hard information since the descriptions are immediate, not filtered through memory.

Communication

What any individual sees is bound to be distorted by the categories imposed by the observation scheme; we always to some extent see what we expect to see. The only safeguard is to let as many people as possible see with you by reporting your observations in meetings, journals, conferences, or whatever. But this will not be much use if the reports are unreadable, or swamped with numbers given to seven places of decimals. All kinds of evidence need to be shared, including anecdotal. Insights and innovation often come from seeing two things in different places and making a link.

THE COMPUTER AND THE SCHOOL BUS; FAST MOVING TECHNOLOGY*

Paul de Quincey
The British Council

When I first started my teaching career some years ago, a senior and vastly more experienced colleague, on hearing me ask where the OHP pens were kept, informed me in a very worldly, confidential tone that the only successful piece of educational technology was the school bus. At the time I shuddered at his apparent contempt for what seemed to me to be new and exciting ways of making my teaching more varied and interesting; the overhead projector, the cassette recorder, the language laboratory, the flannelboard and the television. 'Mark my words,' he said. 'They won't last!'

Since that time I have always been judicious in my use of educational technology, but while I regarded his words as being somewhat over-zealous his admonition contained more than an element of truth. The school bus is still widely used. Can the same be said of the flannelboard, or even the language laboratory?

The reasons for the flannelboard's demise are, of course, apparent. It offered no more in essence that was being offered at the time by two or three other media, nor did it revolutionise teaching by adding a new dimension of realism to the classroom in the same way that the audio cassette and video cassette recorder have done since.

The microcomputer, on the other hand, has the capacity to affect the very nature of the teaching and learning process because of its wide range of possible applications and because it, possibly more than any other piece of technology used in an educational context, plays an important and ever-expanding role in the real world.

How can we then ensure that our use of the microcomputer in the language learning environment will be as judicious as it needs to be?

The role of the microcomputer in the language classroom

One of the first things we should be aware of is the multi-faceted nature of the microcomputer. While many novitiates readily perceive how it can be used in its 'tutorial' mode, they are often not so aware of the more powerful and stimulating aspects of its 'non-tutorial' mode. Higgins (1983) made the distinction between what he called the 'magisterial' and 'pedagogic' roles of the computer in the language classroom, the former denoting its role as teacher or imparter of information and the latter denoting the wide range of possible roles that it might take when used by an imaginative teacher using well designed software. He said:

> "The computer becomes a task-setter, an opponent in a game, an environment, a conversational partner, a stooge, a tool."

*This article originally appeared in Zielsprache English, 4/1986.

While it is obvious that in the self-access arena the microcomputer has an important role to play, can 'facilitate autonomous learning' (O'Shea and Self, 1983), and is 'more unwearyingly patient than any one-to-one human teacher' (Johns, 1981), it is its non-tutorial or 'pedagogic' role that has most to offer the language teacher.

CALL Models

It is important to realise that the computer, like the language laboratory, does not contain an inherent methodology or blueprint for exploitation but has to be carefully integrated into a methodological schema in order for it to be maximally effective. The role that the computer takes on, therefore, and consequently the way in which it impinges on the teaching/learning process is dependent mainly on the type of prorams that are being used (de Quincey, 1986).

To date at least three models for CALL development have been enumerated (Phillips, 1986); the 'games' model; the 'expert system' model; and the 'prosthetic' model, all three of which are, according to Phillips, contending for paradigm or prevailing model status. It is undoubtedly true that the prosthetic model, emphasising the computer's role as a tool, has more claims at present than the other two to paradigmatic status. Is it the games model, however, with its intrinsically motivating, competitive elements in which:

> "people are driven by a will to mastery (challenge), to seek optimally informative environments (curiosity) which they assimilate, in part, using schemes from other contexts (fantasy)" (Malone, 1981)

that has had most impact on CALL and that has had widest currency over the last two years. It is interesting to note that we are now beginning to see the merging of the games and prosthetic models in a number of commercially available programs not necessarily designed specifically for ELT purposes but which offer to the ELT teacher useful and powerful tools.

Some practical scenarios

Numerous attempts have been made over the last few years to categorise CALL programs within the games model and it is generally accepted that there are between six and ten major categories depending on where dividing lines are drawn. Most programs, however, fall into one of the following: the manipulation game; the problem solving game; the text reconstruction game; the text construction game; the adventure game and the simulation.

I would now like to consider some commercially available software that falls into the two categories of text-construction and simulation programs as these are the two categories where the overlap between the games and prosthetic models is most obvious, and therefore where there seems to be most potential for CALL.

A number of programs exist (and can therefore be used for educational purposes) which exploit the text construction facilities of the computer, the wordprocessor of course being the best known. Depending on the type of machine

in use a number of programs are available each performing a similar range of functions and enabling character insertion and deletion, block insertion/moves/deletion, spelling correction, selective/global search and replace, and print formatting. While not being able in an article of this length to go into the various ways in which the wordprocessor can be used a number of possibilities suggest themselves, most of which are not new (Philipps op.cit., Wheeler 1985). They include:

1. Error correction
2. Punctuation
3. Cloze
4. Word/sentence/paragraph sequencing
5. Summary (written/oral)
6. Cumulative writing
7. Collaborative writing
8. Stylistic experimentation (search/replace)
9. Individual writing
10. Pattern writing.

Taking item 8 (Stylistic experimentation) as an example, one could, having discussed the markers of informal and formal register with a group of Business English students, ask them to replace, in a previously wordprocessed text, all examples of 'discuss' with 'chat'. They could then be asked as a group exercise to determine whether that measure alone had successfully altered the stylistic register of the text. If, as one would suspect, it had not, then they would have to decide what other words or phrases needed to be replaced and act accordingly using the search/replace facility. Print-outs could be taken at each stage of the exercise, and the implications of both lexical and syntactic changes discussed. Alternatively, students could undertake a collaborative writing exercise using the formal text as a starting point but using completely different structures and vocabulary to arrive at their final informal version. As this would be a piece of collaborative writing which might then be corrected by another group of students there would be an incentive for getting it right.

In cumulative or collaborative writing scenarios (items 6 and 7) the motivation for writing will have already been introduced. Students might for example have been given the brief to write an article for a student newspaper, a section of a local tourist guide, a simple story for their younger relatives, or an advertisement for a forthcoming event in which the class is involved, depending on the type of learning experience required from the exercise and on the specific desired learning point. Whatever the scenario and whether the exercise is a collaborative or comulative or individual one the wordprocessor will enable them to complete their task efficiently and possibly with more enjoyment than if they were using traditional methods. Indeed with programs such as Pagemaker (AMS, 1986) and Fleet Street Editor (Mirrorsoft, 1986) users are given graphics and typeface facilities which enable them to produce most attractive documents of their own specifications, though it should be remembered that an authentic readership for whatever is produced will add significantly to student motivation.

Deadline (CUP, 1986) gives students the chance to participate in a collaborative writing activity in which they are required to extract information from one written source and recreate it in textual format. Let us say, for example that we have been dealing in a class of science students with the ubiquitous topic of reading for information and have been basing our language work around a description of Louis Pasteur´s life and work. Students might, for example, have been asked, possibly using a wordprocessor, to rearrange a series of notes describing events that took place in Pasteur´s life into chronological order. They might then, usind Deadline in groups, have to scan a number of short texts dealing in more detail with the important scientific stepping stones of Pasteur´s life, and make notes on the contents. If the class has been divided into four groups each group could deal with a different period. For example Group 1 could deal with the period 1822-1838, Group 2 with the period 1839-1855, Group 3 with the period 1856-1871 and Group 4 with the period 1873-1895. Thus each group would be scanning the texts for information specific to the period which they have been assigned. In the second phase each group would write the first draft of their text using the wordprocessor built into the program, and, in the third phrase, would pass this for editing to the next group. In the fourth and final phase each group would receive its own first draft edited by another group into which they might have to incorporate new information. Finally all the texts would be printed out using a shared printer facility and could be used for further work in class. In this particular program an authoring system is built into the program to allow teachers to specify their own scenario. The program could therefore aim to stimulate the production of a travel guide to wherever it is being used, a business report, a series of current affairs articles, or pieces of imaginary writing, all at whatever level of linguistic complexity the teacher decides upon.

The opportunities that such programs open up for collaborative or cumulative writing practice or, if required, for individual practice in skimming, scanning, note-taking, drafting, editing, polishing and finalising a document are not to be underestimated. Such programs will, of course, alter quite radically the nature of the teacher´s role, but only in as much as that it will become more directive/coordinative than it would be in a more traditional EFL classroom. What is vitally important, however, is that in both the general wordprocessor program and the ´dedicated´ programme such as ´Deadline´ students are using the computer as a tool for learning in much the same way that they might use a computer in an extra-mural and therefore authentic business environment.

Simulations, now widely used for education and training purposes where realistic environments of the required type would be difficult if not impossible to replicate, also have a great deal to contribute to the language learning process. Depending on whether an environment for language practice needs to be created in the business, scientific, economic or more general context, a commercially available simulation program usually exists to fit the needs. For the BBC microcomputer ´Telemark´ and ´Stokmark´ (Acornsoft, 1982) the ´Sixgam´ and ´Hotel´ (Pitmansoft, 1984) can be used to stimulate different business environments, ´Chemiplant´ (H & H Software, 1985), ´Slick´ and ´The Paraffin File´ (BP Educational, 1984) can be used to stimulate scientific environments, ´GB Limited´ (Simon Hessel, 1982) and ´Yes Chancellor´ (Chalksoft, 1985) to

simulate economic environments, and a whole range including 'Discovering Electronic Office' (McGraw Hill, 1985). 'Fast Food' (Cambridge University Press, 1986), and 'Police' (CSH Software, 1985) for stimulating more general language practice.

Fast Food (Cambridge University Press, 1986) is a simulation that can be used for providing practice in the language of negotiation and for practising the more specific type of English used in a business context. The simulation is in four stages and simulates the running of a fast food stall at an imaginary exhibiton. The students, working in groups, can draw on two sources of information (a randomised weather report and a randomised set of figures showing the number of people attending on the same day last year) in order to help them complete their objective which is to make as much profit during the six day's trading as they can.

Each day is in four main stages. In the first, the stock buying stage, the students have to reach a consensus about what items from a finite list they are going to sell on their stall and how many of each item they are going to purchase. Their decision, which will of course be a group decision and therefore one which demands discussion, will be based on the number of projected customers and the weather. If it is hot and sunny they are more likely to sell sunglasses and cola than coffee and umbrellas. In the second stage the students have to decide on how much they are going to sell each item for, and, depending on their prices and the random factors of the weather and number of people attending, the program will allocate them a corresponding market share. Thus if they set their prices for sunglasses, for example, too high they will not sell as many as another group selling them for less. Again, as this is a consensus decision, the solution demands discussion and negotiation. The third stage is a simulation of the day's trading in which the students are informed when they sell out of each item. This can then be used as a basis for altering their buying and pricing strategy during the following days' trading. The results of this, particularly if noted down on a worksheet can stimulate a great deal of interesting and varied language practice. The fourth and final stage provides feedback on the overall profit for the day, items still in stock, and items that have perished, again providing a stimulus for discussion about the possible ways of reinvesting the day's profit in future stock.

Perhaps of equal importance to the discussion that takes place in the groups clustered around the workstations (and possibly also between the workstations) is the language work that takes place before and after the simulation and away from the computer environment. The program can be used for introducing or giving practice in the language of negotiation as already mentioned, stallholder/customer, price commission/reporter/interviewer language role plays, the writing of business reports giving profit/loss figures, and narrative descriptions and plans of the exhibition.

What the scenarios outlined above indicate is that the computer has become at once a more important though in a sense more peripheral piece of educational technology. More important in that it allows teachers to do things which they could not otherwise do in ways that are stimulating, communicative, and realistic; more peripheral in that, although the whole learning experience

relies on the computer acting as a catalyst it is by no means a physical prerequisite for learning to take place. Thus in Fast Food, and indeed most computer simulations, the amount of learning that takes place in front of the screen might well be of secondary importance to the learning that takes place away from it. Once this, and the concept of the computer's use as a learning tool, has been acknowledged, language teachers will indeed have taken a major step forward in understanding the unique impact that the computer is likely to have on their profession. Perhaps the computer and the school bus do have something in common after all.

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Acornsoft	Stokmark Telemark
AMS	Pagemaker
BP Educational	Slick The Paraffin File
Chalksoft	Yes Chancellor
Cambridge University Press (The British Council Software Series)	Deadline Fastfood
CSH Software	Police
H & H Software	Chemiplant
McGraw Hill	Discovering Electronic Office
Mirrorsoft	Fleet Street Editor
Pitmansoft	Hotel Sixgun

COMPUTERIZED CLOZE EXERCISES AND THE ADULT LEARNER

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1. Recent research carried out by Windeatt at the University of Lancaster (1) and Piper and Tafner at Ealing College of Higher Education (2) presents strong evidence that very little conversation takes place among EFL students working in small groups on computerized cloze exercises. Such learners apparently focus most of their attention on completing the assigned task rather than on the other participants. Transcripts of students working on computerized text-gapping exercises show that participants' speech is highly impoverished both in length of turn and in types of construction used. Typical student utterances consist of only one or two words, suggestions as to what the missing words might be and/or how to spell them. These results are surprising and, no doubt for some, rather disappointing in that they run counter to early claims for CALL as a powerful generator of interactive communication. (3)

2. The data from the Lancaster and Ealing studies coincide with preliminary findings from experiments with CALL and adult learners in July 1986 at the BSN Training Centre in Saint-Andeol-le-Chateau, France. The Saint Andeol test groups consisted of sixteen lower-intermediate to advanced learners of English who had been chosen (4) to participate in a twelve day residential English course. All participants were native speakers of French. The average age was approximately thirty-five, with an age span from twenty-five to sixty. All sixteen could be classified as highly motivated self-starters in terms of their career aspirations and achievements. For most of the group the strong will to achieve carried over into their approaches to second language learning.

3. Video cassettes of course participants working on an assortment of CALL exercises attest to the same poverty of linquistic output recorded for the university and college students used as volunteers in the Lancaster and Ealing studies. Although the impression one had upon entering the computer room (5) was most often one of lively discussion and banter, the cold facts preserved on the video tape tell a different story. Students working in pairs (6) on cloze exercises of the Storyboard type (7) actually spoke very rarely to one another whilst completing the exercise. Verbal output was primarily confined to guesses concerning the gapped portions of the text and one- or two-word replies to these suggestions. The range of grammatical constructions used, even with most advanced students, was very limited in the video recordings thus far transcribed. (8)

4. One major difference between the Saint Andeol and Ealing data (9) has emerged to date. The number of turns per minute was very high among the Ealing participants, whether the cloze task was carried out on the computer or with pencil and paper. The number of turns taken per minute by the Saint Andeol volunteers was very low. Long silences (of up to one a half minutes) occurred periodically. A number of factors, or some combination thereof, might account for this discrepancy:

a) The Saint Adeol learners were under strict orders to speak English at all times. The participants took this rule seriously (10), but the effort required to blot out their own language twenty-four

hours a day may at times have been overwhelming, resulting in artificial silences.

b) The video tapes thus far examined show only students from the most advanced group at work on CALL programs. This group had their hour and a half of "Indepedent Study", during which they had access to the computers, from four to half past five in the afternoon. Since this period fell at the end of the day, after some seven hours of classes, speakers, discussion and other activities, sheer fatigue - both physical and mental - might have accounted for the frequent silences.

c) This group of seven stayed together all day long, with the exception of the lunch hour when students were encouraged to sit with members of the other two groups. As stated above, the days were long and strenuous. (For many they began at 6.45 a.m. with a brisk jog around the grounds!) Perhaps by late afternoon the seven advanced learners (6 men: 1 woman) had simply run out of scintillating conversation and were in need of a break from each other´s company. This would be particularly true in the data discussed here, insofar as it was taken from the third day of the course when friendships had barely begun to form.

d) The Ealing and Lancaster data reveal a tendency among students working on cloze exercises to concentrate on completing the task rather than on discussing it with other learners. This tendency may have been even more pronounced with the Saint Andeol students, inasmuch as they were, collectively, a group of high achievers in their own fields endowed with a keen sense of competition and a low tolerance of failure in any endeavor. Given this type of student, it should have been predictable that using the help facility would be seen as a sign of failure. One pair of students sat in front of a twenty-line text for slightly over an hour before finally resorting to the help facility, despite the fact that they were making little progress on reconstructing the missing portions of the text.

5. On the final morning of the twelve-day session a questionnaire was distributed to all Saint Andeol course participants. The response to certain items prompts me to think that, despite their poor showing as generators of lively debate, cloze exercises should not be discarded from the EFL curriculum - if for no other reason than that students seem to enjoy doing them. This is reflected in the data given below:

a) When asked to "List those programs you find most useful or that you like most for any reason in order of preference", eight out of the sixteen Saint Andeol students listed Startext, Verbtext or Preptext, all variants of the same text deletion program, as their first choice.

b) If we eliminate the four lower-intermediate students and examine only the two higher-level groups, a combined total of twelve students, we find that seven students named Startext, Verbtext or Preptext as their first choice over six other programs. Included in the not-so-popular six were a scrambled sentence program, a version of Hangman, two variants of a matching program (one for matching French and English lexical items in

different categories, including the language of management: one for matching colourful or idiomatic English phrases with other more common English expressions), a beat-the-clock multiple- choice game and a fill-in-the-blank grammar review program. In a break-down of these results by group, we see that three out of seven advanced students and four out of six intermediate students seleted the text-deletion/cloze exercise as their favourite amoung the array of CALL software offered.

6. The 1986 Saint Andeol questionnaire results would tend to indicate that lower level EFL learners do not find computerized cloze exercises as rewarding or useful as more advanced learners do. Although a much larger sample would be needed to test this hypothesis, some corrobating evidence is available from a questionnaire given to a group of ten low-level ("faux debutants") participants in a week-long residential English course held at Saint Andeol in September 1985, during which the same CALL programs described above were available. Students were asked to name the programs they had found most interesting or useful during the course. (11) Four out of ten students replied that ALL the programs were useful and interesting, that it would be impossible to choose, that "at this level" every little bit helps. Two students specifically named "Startext; one selected the Hangman program; another two chose the exercise in which French and English words were matched. The tenth participant left the question blank. This data, albeit based on a very small number of students, suggests an enthusiastic but unfocused response to CALL among lower-level, adult EFL learners.

Notes

1) Windeatt, Scott. 'Observing CALL in action'. in Geoffrey Leech and Christopher N Candlin (eds.) Computers in English Language Teaching and Research. London: Longman, 1986

2) Piper, Alison and Megan Tafner. 'A comparison of the patterns of interaction in small groups of language learners completing a cloze task in written form and on a microcomputer program'. London: Ealing College of Further Education (mimeo), 1985.

3) See e.g., Phillips, Martin. 'Logical possibilities and classroom scenarios for the development of CALL'. in ELT Documents 122, pp.39-41.

4) Participants were chosen by their own subsidiaries within BSN, a large French multinational. Those selected were indirectly made to understand that it was an honour to be chosen and that they were under an obligation to perform well. Once selected, participants took both written and oral tests in English to determine their group assignemt. Only those who scored at least at the lower-level were accepted.

5) There were five IBM-PCs in the computer room. At any given time there might be up to fifteen students, native English speaker "assistants" and EFL teachers (all native speakers) in the room. In addition, the computer room was cheek to jowl with the town's main road, which, for a small village, seemed to handle an inordinate amount of traffic. All these factors most likely contributed to the impression of a lot of activity, conversation and joking back and forth. In fact, the video tapes show that there was more, and more interesting in terms of its content, conversation between members of various groups - often working on different types of CALL programs - than there was among members of the same group.

6) Students were free to work on the programs as they wished, but the bulk of the video tape data thus far transcribed (see note 8) shows them working in pairs.

7) The program, wich is not yet commercially available, is called Startext. The number of words deleted is contigent upon the user's choice of difficultly level. The program can hold texts of up to 250 words on an 80-character width screen, or up to 125 words on a 40-character width screen. Variants of this program delete either prepositions (Preptext) or auxiliary verbs (Verb-text).

8) Out of almost eight hours of vieo tape, only the first fifty minutes have been transcribed.

9) The problem of precise length of turn is not treated by Windeatt.

10) I have participated in the Saint Andeol English intensive course for the past four years and can say unequivocably that the 1986 group surpassed the 1983, 1984 and 1985 groups by far in their strict adherence to the no-French rule.

11) "Parmi les didacticiels que vous avez vus/utilises au cours de votre stage, lesquels sont les plus interessants ou efficaces pour quelqu´un de votre niveau?"

UPDATING THE COMPUTER-LEXIKON: THE ADDITIONS OF THE ALD THIRD EDITION (1974)

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0. Progress in updating and revising the Computer-Lexikon (CL) - as described in RECALL, 1, 1985 - has been slow but steady. As may be remembered, our CL is a machine-readable version of the Shorter Oxford English Dictionary, in which all the ALD words of the second edition (ALD2) are labelled as such. During the last twelve months we have added all the new words from the ALD´s third edition of 1974 (ALD3) which were not included in the SOED of 1933 and thus not listed in our CL. We can now compare and contrast wordlists of the ALD3 with its forerunner the ALD2 and, in addition, check the ALD3 revisions against the SOED. This automatic matching technique opens new possibilities of dictionary assessment.

1. As we all know, no dictionary has so far been able to escape criticism from reviewers for all kinds of omissions, inclusions and overall inconsistencies. On the other hand, a systematic and comprehensive assessment of even medium-sized dictionaries proved to be an insurmountable task for the simple reason that the amount of data to be reviewed was unmanageable. Most reviewers could therefore be blamed for the haphazard and subjective way of sampling the words and illustrations on which their criticism was based.

This has changed with the advent of computerized dictionaries and the availability of standard dictionaries on magnetic tape. Now it has become possible not only to systematically analyse revisional work carried out on a new edition, but also to compare and contrast various dictionaries which, according to their editors, are intended to serve the same purposes. At the present stage of our project we can begin to use these new facilities.

2. Two questions seem to be of interest when comparing earlier and new versions of a dictionary:
(1) Where does the focus of the revision work lie? The changes and additions may either be attributed to editorial efforts to compensate for obvious lexicographic oversights in the earlier version, or reflect actual changes in the language.
(2) If the modifications are in any systematic way indicative of language changes, is it possible to observe any major trends?

It may also be of interest to find out to what extent the amount of newly coined words outnumbers words that have become archaic or obsolete. How do these figures compare to the number of long-established, but marginal words that have gained a more important status and have for this reason been thought "fit" to be included in a compact standard dictionary of the ALD type?

3. We would now like to summarize some of our findings and illustrate them with

examples of word-formation types that are considered highly productive in modern English.

Our general impression is that the modifications and revisions of the ALD3-wordlists are primarily due to editorial re-assessments of the status of longer-established lexical items. However, it is extremely difficult or even impossible to determine in individual cases whether these re-assessments reflect perceived status changes within the language or whether they just compensate for oversights in the earlier version.

The number of newly-added words that can be regarded as neologisms and that have entered the language in the last twenty-five or in the last fifty years (that is since the publication of the SOED) constitutes only a minor percentage of the revision work.

These tendencies can be illustrated with some suffixations. We take the -ism and -ist lists of ALD3 as the basis of our comparison.

Suffixations in -ism

The overall SOED list of lexicalized -ism words contains 656 different items. A subset of 149 items were also included in ALD2 of 1963. The ALD3 has added 43 formations ending in -ism that were not included in the ALD2. However, the majority of these newly-added words (29 words = 67%) must be considered fairly well established even at the time when the ALD2 was published, since they are recorded in the OED. Most of them are 19th century formations.

The remaining 13 -ism words have entered the language since about 1930 and they reflect philosophical, political movements and/or social phenomena of the last 50 years:

(a) dialectical materialism (1972), logical positivism (1931), Maoism (1951), Narzism (1934), McCarthyism (1950)

(b) neocolonialism (1931)
(c) escapism(1933), elitism (1947)
(d) transvestism (transvestite 1922), sadomasochism (1935), sexism (1970)
(e) monetarism consumerism

Only escapsim, Narzism, racism were included in the Addenda to the SOED. It seems astonishing that a subset of 7 established suffixations, that were first recorded between 1880 and 1922 went unnoticed by the SOED editors. These forms include:

(a) micro-organism (1880), autism (1912), mongolism (1922)
(b) authoritarianism (1914), revisionism (1921, eroticism (1981), naturism (1886).

We can only speculate on the causes for the rejection of these suffixations. It does not seem convincing that their status was doubtful at the time of the SOED publication.

Suffixations in -ist

The list of -ist suffixes resembles the -ism list in many respects. The SOLD list of -ist words contains 535 different items. A subset of 148 were also included in ALD2 in 1963.

ALDS words that are not listed in the SOED (including the Addenda) nor recorded in the OED (except for the supplements) comprise:

diversionist (1937), elitist, male chauvinist (1970), hair-stylist (1950), Maoist (1951), racist (1932), sadomasochist (1935), sexist (1970), psephologist (1952), percussionist (1950/music).

Established forms ignored by the SOED, but included in ALD3, are the following:

activist (1909), geneticist (1913), leftist (1924), naturist (1929), saxophonist (1865), therapist (1886), vacationist (1885).

A total of 23 long-established ALD3 words ending in-ist are recorded in the SOED but are disregarded by ALD2. They include:

expressionist (1850), lobbyist (1862), oboist (1863), obstructionist (1846), portraitist (1866), positivist (1854), revisionist (1865), telephonist (1882).

4. A detailed comparison between dictionaries brings to light many inconsistencies and arbitrary editorial decisions. The criteria for including or excluding certain lexical items are easily defined, but hard to observe in practice. A final example may illustrate our point.

It would be difficult, in our opinion, to argue in the following examples that varying degrees of conventionalization are responsible for accepting or rejecting the items:

Lexeme	ALD3	DCE	Collins*	Webster**
electromagnetism	+	-	+	+
hairstylist	+	-	+	+
lobbyist	+	-	+	+
appointee	+	-	+	+
bailee	+	-	+	+
interviewer	-	+	+	+
referee (person who provides a reference)	-	+	+	-
examinee	-	-	+	+
selectee	-	-	+	+
conferee	-	-	+	+
grantee	-	-	+	+
interviewee	-	-	+	+
testee	-	-	-	+

5. Since dictionaries such as the ALD purport to represent the common core vocabulary a "learner is likely to come across", the various editions should thus also reflect the changes in the language omitting what has gone out and including what has come in. To the extent that the dictionaries achieve their aims, they might in turn serve as data bases for analysing language developments.

However, a systematic analysis of the ALD3 revisions and updatings reveals that many editorial decisions are not based on empirical data but are rather the result of intuitive judgements.

Footnote:

* = Collins Dictionary of the English Language, 1979

** = Webster's Ninth New Collegiate Dictionary 1983

CONCORDANCES IN LANGUAGE TEACHING

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A Puzzle.

A group of ESP students in a language class is studying a set of data gathered from an experiment. Their task is to write a formal account of the experiment, drawing what conclusions they can from the data. After some time one of the students asks the teacher, "When do you use ´In my opinion´, ´In my view´, and ´To my mind´?"

In another room, in another building, a researcher is reading through pages of computer printout - a list of sentences with the same word or phrase occurring in each of them.

In yet another room, in yet another building, is a secretary sitting in front of a computer screen. She is using a word-processor to edit an article on language learning, and has typed in a command which will automatically change all the references to ´learning´ in the article to ´acquisition ´.

What is the connection between these people and events?

In the first situation, the student´s question would probably need to be answered by reference to examples. The teacher could appeal to memory or intuition for these or, more usefully, they could be found by reading through a number of texts of the kind the students were trying to write. Finding suitable examples, however, can involve searching through many books and journals - and this will often prove too time-consuming to be practicable.

The computer printouts which the second person was looking at however, contained exactly the kind of information that could have been used to answer the student´s question. The printouts the researcher had obtained (by using a concordance program with a large collection of texts held in the memory of a mainframe computer) provided him with a number of contextualised examples of a particular lexical item.

Unfortunately the teacher did not have access to the multi-million pound mainframe computer, or the large collection of texts, which the researcher had at his disposal. However, both the hardware and the software the secretary was using have the basic facilities which would allow the teacher to search for examples in the same way as the researcher, and this much more modest set of equipment is the kind to which the teacher might well have access. This article, then, is about the use of concordances in language teaching, and particularly about the use of desk-top micros for carrying out concordance searches.

What is a concordance?

In its most basic form a concordance is simply a list of all the words that occur in a text, with the frequency of their occurrence. Such lists can be used for stylistic analysis of particular types of text, or of a particular author´s

work. More useful for language teaching, however, is likely to be a listing of words in the context in which they occur - a KWIC (Key Word In Context) concordance - as in the following concordance of the definite article:

```
                                The  computer printouts which the second pe
looking at contained exactly    the  kind of information that could have be
uld have been used to answer    the  student´s question. In this case the r
researcher was investigating    the  use of ´may´ and ´might´, and the prin
 collection of texts held in    the   memory of a mainframe computer)
fferences in meaning between    the  items.
                          Unfortunately the  teacher did not have at his disp
did not have at his disposal    the  multi-million pound mainframe computer
 pound mainframe computer or    the  large collection of texts, which the e
  collection of texts, which    the  researcher had been using. However, b
d been using. However, both     the  hardware and the software the secretar
wever, both the hardware and    the  software the secretary was using have
he hardware and the software    the   secretary was using have the basi
facilities which would allow    the  teacher to search for examples in the
   to search for examples in    the  same way as the researcher, and this
 examples in the same way as    the  researcher, and this much more modest
e modest set of equipment is    the  kind to which a teacher might well hav ....
```

Half a line of text might provide sufficient context for the item under investigation, however a longer context might be useful, or necessary, for some items. The concordance on the same data as in the above example might have been presented in the following way, with a context of a whole sentence for each occurrence:

```
                                The  computer printouts which the second person
                                     was looking at however, contained exactly
                                     the kind of information that could have
                                     been used to answer the student´s question.
This article, then is about     the  use of of concordances in language teaching,
                                     and particularly about the use of desk-top
                                     micros for carrying out concordance searches.
....
```

Even longer contexts, such as whole paragraphs, could be printed out, and the concordances can be presented in a variety of ways to make the analysis of the data easier. The occurrences could, for example, be sorted according to the items which appear to the left or right of the item which is being searched for; if the item being searched for is ´may´, and the occurrences are sorted according to the item which appears to the right of ´may´, this would reveal the frequency with which it occurs with ´well´, as all the occurrences of ´may well´ would be printed out together.

What data does it work on?

In principle a concordance search using a computer can be carried out on any text data held in computerised form, though different concordance programs require the text to be coded in different ways. Some programs, for example, require the texts to be typed into the computer in a particular format - perhaps a line at a time, with special codes at the beginning of each line - though some can work on ordinary word-processed text.

Research work is usually carried out using large collections, or corpora, of data, held on mainframe computers. There are three main features of such corpora which affect the ways in which they can be used for linguistic research.

The first is size. The collection of texts which make up the Lancaster-Oslo-Bergen corpus, for example, which is used at the University of Lancaster, contains one million words. Even this is relatively small, however, compared with a number of other corpora with eight, ten, fifteen, or even ninety million or more words.

The type of information which can be gathered from a corpus, however, is also dependent on the extent to which the data held in the corpus has been analysed grammatically (with items in the texts having been given a grammatical label). Clearly this is necessary if the corpus is to be used not just for lexical research, but for grammatical research of other than a fairly limited kind.

To be useful for language teaching, however, a collection of texts does not necessarily have to be large, or grammatically tagged, since the value of a corpus lies not only in its size, but in the selection of texts it contains. A corpus made up of written texts, for example, would not be ideal for examining features of spoken language. Nor would a collection of newspaper articles provide much information about language specific to scientific articles, or a corpus consisting of texts which are 20 years old provide data on recent changes in the usage of certain lexical items.

Using a concordance program in language teaching.

Teachers and learners might use computer-derived concordances in the language classroom in five main ways.

First of all, a teacher might carry out a concordance search of a corpus in order to collect examples for use in his teaching. This might simply be a way of providing his learners with a variety of examples to illustrate how a particular lexical item or grammatical point is used. Or he might use the examples to try to work out rules and guidelines of his own if existing explanations seem inadequate. Alternatively the examples might be presented to learners in such a way as to set them an exercise in working out rules and guidelines for themselves.

Secondly the teacher might use the examples to construct gapped exercises for teaching or testing. This might be a useful follow-up to the kind of use described above, and the availability of a large number of examples could provide a useful item bank for tests and exercises.

Thirdly, if the learners´ work is available in computer-readable form, it would be possible to carry out analyses and comparisons of stylistic features of their writing - for example, by comparing their work with each others´, or with authentic versions of the same kind of text.

Fourthly concordance programs could be used to carry out some analysis of errors in learners´ work.

Finally, although the implication has so far been that learners are presented

with the results of concordance searches - in either analysed or raw form - by the teacher, these concordance searches could, of course, be carried out by the learners, either on their own or working with the teacher.

An example.

How a teacher might use concordances in the classroom will depend on the equipment, the software and the texts available to him. Let us take as an example a teacher who has a group of ESP learners of the kind described at the beginning of this article, and has only a desk-top micro, with word-processing software. Although it is now possible to keep substantial quantities of text on hard-disks - indeed the LOB corpus would probably fit onto the kind of hard-disks available for many relatively cheap desk-top micros at the moment - let us assume that the teacher is going to have to build up his own collection of texts. Clearly, it would be impractical (and unnecessary) in most cases to think of building up a very large corpus, but the teacher at least has the opportunity of establishing a collection of texts amounting to several thousand (and eventually perhaps tens of thousands) words relating to a topic or topics of specific relevance to his learners. The texts could be typed in by the teacher, or anyone else who could be persuaded to help; the learners themselves could type in both authentic texts, and copies of their own writing, which would be available as a separate collection of examples of 'learner-language'.

The simplest way in which a concordance search could be carried out on the texts would be by using the 'Find' facility in the word-processing program. The teacher - or the learners - search through the text(s), with the program stopping automatically at each occurrence of the item(s) selected. Occurrences identified in this way could be marked - perhaps by by underlining them - and the text(s) printed out. It would then be easier to read through the text(s) and consider the items in their context. The learners could, for example, search for occurrences of 'if' to try and work out rules or guidelines for its use. This procedure could then be continued by searching for other ways of expressing condition, such as 'had', 'should' and 'were' - as in 'Had I known that...', 'Should he finish first...',and 'Were you to accept my offer...'.

A dedicated concordancing program will print out the results of the search in a more convenient form, as in the examples above, and there are now word-processors which include their own concordancing software ('Nota Bene', which is aimed specifically at academics, is an example). If concordancing software is not available, however, it is fairly easy to write, either in an ordinary programming language, or, if a word-processor such as Framework II is available, with the word-processor's own programming language. This is likely to be more straightforward than using a conventional programming language, and will work with ordinary word-processed texts. The following is an example of such a program, which was written for a word-processor on the BBC micro.

```
SELECT TEXT
CURSOR TOP
```

```
.find
 VDU3
 A$=" the "
 N%=80
 L%=(N%/2)-(LEN(A$)DIV2)
 FIND A$
 IF EOT THEN END
```

```
.print
VDU2
CURSOR LEFT L%
D$=" "
DOTHIS
D$=GCT$
PRINT D$;
TIMES 80
CURSOR LEFT L%
PRINT CHR$(13)
GOTOfind
```

The program was written after a demonstration by Tim Johns of Birmingham University of the use of concordances on desk-top micros. It works by searching through a text for occurrences of the item selected by the user (in the example above it is " the "); it then prints out those occurrences in a line of text, as in the example at the beginning of the article. The word searched for can be changed by altering the value of A$, and the number of characters printed out as context changed by altering the value of N%.

The program has been refined in various ways, but even in its basic form is quite adequate for simple searches on fairly large quantities of data. In order to try to answer the question posed by the student described at the beginning of the article, for example, a search was made of a number of authentic texts of the kind the students were trying to write. The fact that no examples of any of the expressions were found confirmed the teacher´s feeling that these expressions tend not to be used in such writing. On the other hand, a further search for alternatives provided examples of ´appears´, ´suggests that´, ´seems to show´, and ´tends´ as ways in which writers express their interpretation of the data, whilst avoiding explicit reference to personal opinions or views. The evidence provided by a search of a relatively large number of texts can be a much more effective way of considering such questions than simply appealing to the teacher´s intuition.

Conclusion.

There are two main benefits which the use of corpora and concordance programs can bring to language teaching. The first is the access they provide to authentic examples of the language, which both learners and teachers can use to confirm, question or amplify existing explanations in grammar-books and dictionaries, or to investigate points which are not dealt with at all in reference books. The particular value of this may be that it opens up for scrutiny quantities of linguistic data of the kind on which a native-speaker´s intuitions about the language are based. Perhaps more important, however, is the attitude towards language and language learning that the technique of using concordances can encourage. Language corpora and concordance software provide teachers and learners with the tools that are available to linguistic researchers. As a consequence they are encouraged to become researchers themselves, carrying out their own investigations, forming hypotheses about the target language, and testing them against the data.

What the use of computers and concordancing software brings to the language classroom is not something totally new - clearly concordances can be, and are, produced without computers - but the ability to carry out easily the time-consuming, mechanical process of gathering data, leaving teachers and learners free to focus on the task of interpretation. As with many aspects of the use of computers in language learning, therefore, the result is not that the impossible becomes possible, but that the impractical becomes practical.

References

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MACHINE INTELLIGENCE AND CALL

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Imagine a letter that spoke for itself. That just started stating its case when you opened the envelope. Imagine a drawerfull of these things all squeaking away trying to get your attention. Or an old-suitfull. The embarrassment of old love-letters singing the praises of some long since gone beauty. Fantasy perhaps, yet not too far from the reality that some of the work in AI is leading towards.

E-mail, the electronic mail of the computer networks, used to be confined to text messages appearing on a screen. Now several commercial systems already offer packages that not only read out the mail, but any message that can appear on the screen in the form of text.

Imagine a keyboard that would accept 'rnu' and enter 'run' as, of course, you meant. Intelligent spelling checkers are a thing of the present and are already causing their own problems as anyone who has ever attempted to write about the gnu with one will tell you.

Education

Education has never really been a big spender in the realms of technical research. But neither is it slow to take advantage of the progress that is made, as the use of cassettes and video in language teaching goes to prove. So what does it have to gain from AI? And what is AI anyway?

Maybe machine intelligence would be a better phrase but we don't seem to have found a satisfactory definition for intelligence of the human variety yet and there is certainly nothing artificial about the work that is being done in the name of Al. I prefer to think of it as cognitive modelling, or knowledge engineering, because although the task is to make the computer perform in a way that would deserve the label 'intelligent' if done by a person, the details of that kind of programming involve formulating models of the way people think and behave that go beyond the simple 'if-then' routines of (dare I say it?) less intelligent programming.

For the cognitive scientist, a computer is a tool to examine the workings of the mind. So why not for the language teacher? A lot of effort is being put into the design of intelligent front-ends for database and of natural language interfaces to a wide range of application programs. We don't have to have access to all the hardware to be able to take advantage of its benefits. We can emulate a simple parser on a micro - indeed much of the early research is often done on a micro - and it is in the examination of the problems involved that most of the interest lies.

Parallels

There are interesting parallels in the development of a language interface for a machine and the development of an interlanguage for a student. Both have a solid base of facts that they need to 'apply' to the outside world through the intermediary of language. Both need a grammar and a lexicon and a way of parsing the input to relate these to the facts as they are known. Both need to

understand speech and text (and there´s no need to point out to a machine how different these can be!) and both need to produce acceptable output in these two media. We can´t say for sure what mental activities take place when people process input, but we do have an idea of the speed and the sophistication required for anaphora resolution, for example, or disambiguation, and this provides standards of elegance and economy of design for our working models.

So while as teachers we can only stand back and ogle the bit-mapped super-hi-res screens and windowing facilities of the AI machines, we can also duplicate the research with our own two-legged HI machines. If computers are being programmed to learn, perhaps some of the same processes can be applied to other kinds of learners? But let´s not take too much for granted. It is in the constraints of having to formalise rules and heuristics to such fine precision for this dumb collection of wires and chips that the value of AI lies. If we are to get the machine to come out with not only intelligible speech but meaningful and natural speech as well, then we are going to have to look closely at the text that goes in to find out just how many clues there actually are, hidden in the structure and among the words to an adequate and ´correct´ intonation and pronunciation of the output. What does go through the heads of your students when they read a text to be spoken aloud? Or formulate an utterance of their own? Like the caterpillar with all its legs, maybe it´s better not to be conscious of every single detail of the process, but we are talking about learners here - people who may benefit from a clearer understanding of whether it´s a rise or a fall at the end of this sentence, and AI is telling us now that the rules we have given them in the past are not adequate for the super-sophisticated speaking machines. Maybe they weren´t adequare for Taro and Rossita either?

Learning

Perhaps the essence of AI development, as in teaching, is that the programmer can never feel confident in being able to anticipate all the situations in which a program will be used. It is rarely possible to produce a finite set of conditions under which total performance can be assured so it becomes necessary to design an element of adaptability into the program. Such systems can be broadly classified into the general type and the expert type, where the former, like GPS (the somewhat ambitious General Problem Solver from way back in 1961), attempts to provide heuristics for tackling a broad class of problems by applying frames to particular cases, and the latter takes a more in-depth approach and attempts to gather all the current knowledge together in one place to apply it to a single specific set of problems to reach, for example, a conclusion about a medical diagnosis or the site for an oil well. Accuntability is the keyword for these types of program. We need to know not just what result has been reached, but the processes involved and the decisions taken in actually getting there; to model the interlanguage to detect any flaws there may be in the finished product and to retain a route map of the solution that may be of use in solving related problems and building on and incorporating past knowledge in the present system. Machines are being built that can learn. That can generalise and make inferences from discrete items of data without being specifically so programmed in the first place. So we are back with knowledge engineering and the problems of how to organise an immense amount of data, much of it unrelated and often apparently contradictory, in a way that allows fast access and rapid interconnection. I get the feeling that many of our students would understand the situation well but what do they have to gain from it?

One idea is to utilise AI techniqus in an EFL program that allows students to become more aware of their own language development through modelling it on the computer. Most natural language interfaces have a finite set of the language to work with - maybe the dimensions and military potential of all ships on the sea, or the stock on the shelves of a motor manufacturer´s warehouse - and it can be more or less anticipated in advance what use will be made of the systems so that even the syntax can be narrowed down to just that which will be called for. How else to control the world? But in EFL we are talking about just that. The whole world. And we cannot predict in advance that a nat-lang system is going to be used for cookery, or for balloon debates, or can we?

We have the distinct advantage, with elementary levels at least, of having a finite and really rather limited lexical base using a similarly restricted syntactic subset of the language. We can limit Lessons One to Five to the present tense and the first five hundred words of the list. We often do, and for very practical reaons. We find that we are not faced with the immense task of mapping th world after all, and we can get it all into a classroom micro. Next the inference engine. It should not be too difficult to assign features to each item in the database that specify how and where each acts in the language. Whether a verb is one- or two-place, whether a noun is animate or inanimate, its gender and agreement rules and so on. The Generalised Phrase Structure Grammar of Gazdar et al would not be a bad place to start, or Lexical-unification grammars. From which we can produce a simulator of natural language that can draw from the data base to construct valid sentences according to its rules. Except that it will be limited, at first, by two things. One is the size of working memory (a horrid but very practical consideration when computing in the classroom as opposed to the research lab) and the other is the size of ´thinking´ memory. The former can be overcome by judicious disk access and a slight sacrifice in speed that can be hidden under display screens and menu options. The latter is much more interesting. The machine needs a teacher, and who better than the students who are undergoing a similar learning process themselves. They do not need to be expert programmers to be able to input a line of text at the prompting of a menu and they are presumably able to judge the acceptability of new generalisations that the machine can come up with from the fresh data items. And if they are not, then they have the teacher, or the reference books to refer to. Those who are really interested may find themselves wanting to ´get at the rules´ to find out how the thing works. To apply the fun of taking an old car engine to pieces to the analysis of a real and working grammar, but not so that they should learn the details of the grammar for their own implementation, rather that they have the opportunity to see a grammar as a ´living´ and working system in some way parallel to what they must be using in their own generation of language.

The strength of AI programming in the classroom lies not in the sophistication of its technology and the cleverness of its system, but in the way it reflects the cognitive processes that are already so finely tuned in any native speaker of the language. In the inflexible way it demands absolute precision and flexibility in programming for situations that cannot be anticipated except in the most general terms, and in the way it forces the engineering of knowledge for efficient access and interconnection. That is where we have most to learn from it but perhaps we can only do so by bringing it into the classroom in one form or another and just playing with it to find out.

In the next article I shall describe some of the major AI programs of the past,

discuss some of the implications they may have for language learning and take a look at the AI programming languages - comparing them with the more popular languages like Basic and Pascal and examining the facilities they offer for work on the modelling of human cognitive skills.

About the author -

Nick Campbell took an MA in computational linguistics at Lancaster University after serving with ILC as a teacher and Director of Studies in their Far and Middle East operations. He now works as a researcher for IBM at the UK Scientific Centre in Winchester where he would be pleased to enter into any correspondence on this subject.

Notes and News

Conferences

December 5-6 1986

The University of Paris IX-Dauphine hosted the VIIIth G.E.R.A.S. (Groupe d´Etude et recherches sur l´Anglais de specialite) conference on 5th-6th December 1986. The focus of the conference was CALL. Scott Windeatt spoke on ´Word-Processing and the EFL Classroom.´, and Antoinette Renouf described current research in computational linguistics at the University of Birmingham. Selected speeches from the conference will be published in the Cahiers de Dauphine at a projected price of 125 FF. To order, contact:

Professor Michele Rivas
C.E.R.L.A.C.A. - B.411
Universite de Paris Dauphine
Place du Marechal-de-Lattre-de-Tassigny
75775 Paris CEDEX 16

April 10-11 1987

A conference entitled ´Computers and Teaching in the Humanities´ will be held at Southampton University on 10-11 April 1987. For more information, contact:

Dr. Mary Katzen
Office for Humanities Communication
University of Leicester
Leicester LE1 7RH
England
Tel: 0533-544081

March 5-7 1987

The third Eurocall Conference will take place in Delft on 5-7 March 1987. For further details, contact:

Marlies Smit
English Department
Lerarenopleiding Zuidwest-Nederland
Postbus 2967
2601 CZ Delft
Tel: 015-134947

July 27 - August 14 1987

A third annual course in CALL will be held at the University of Lancaster, from July 27 - August 14, entitled ´Computers in the Classroom´. Scott Windeatt will be course co-ordinatior. For further details, contact:

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Tel: 0524-65201 ext. 389

September 13-25 1987

The second course in 'Computers in English Language Education and Research' run by Lancaster for the British Council will take place in Lancaster from 13 - 25 September. The course co-ordinators will be Geoffrey Leech and Scott Windeatt. For details, contact your local British Council Office.

People

Congratulations to John Higgins, who has recently accepted a lectureship in the Department of Education at the University of Bristol, England.

CALL FOR CONTRIBUTIONS

RECALL appears twice a year, usually in Spring and Autumn. The next issue of is due to appear in Autumn 1987, and we are looking for articles for this and subsequent issues.

Articles on any aspect of CALL - whether on research or practical classroom experiences - are welcome. For the next issue we would particularly welcome articles on WORD-PROCESSING.

Please send copies of articles to the editor:

Evelyn Perry
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75775 PARIS CEDEX 16

If you can provide your contribution on a disc in word-processed form, we may be able to transfer your files straight to our word-processor. Please contact the editor.