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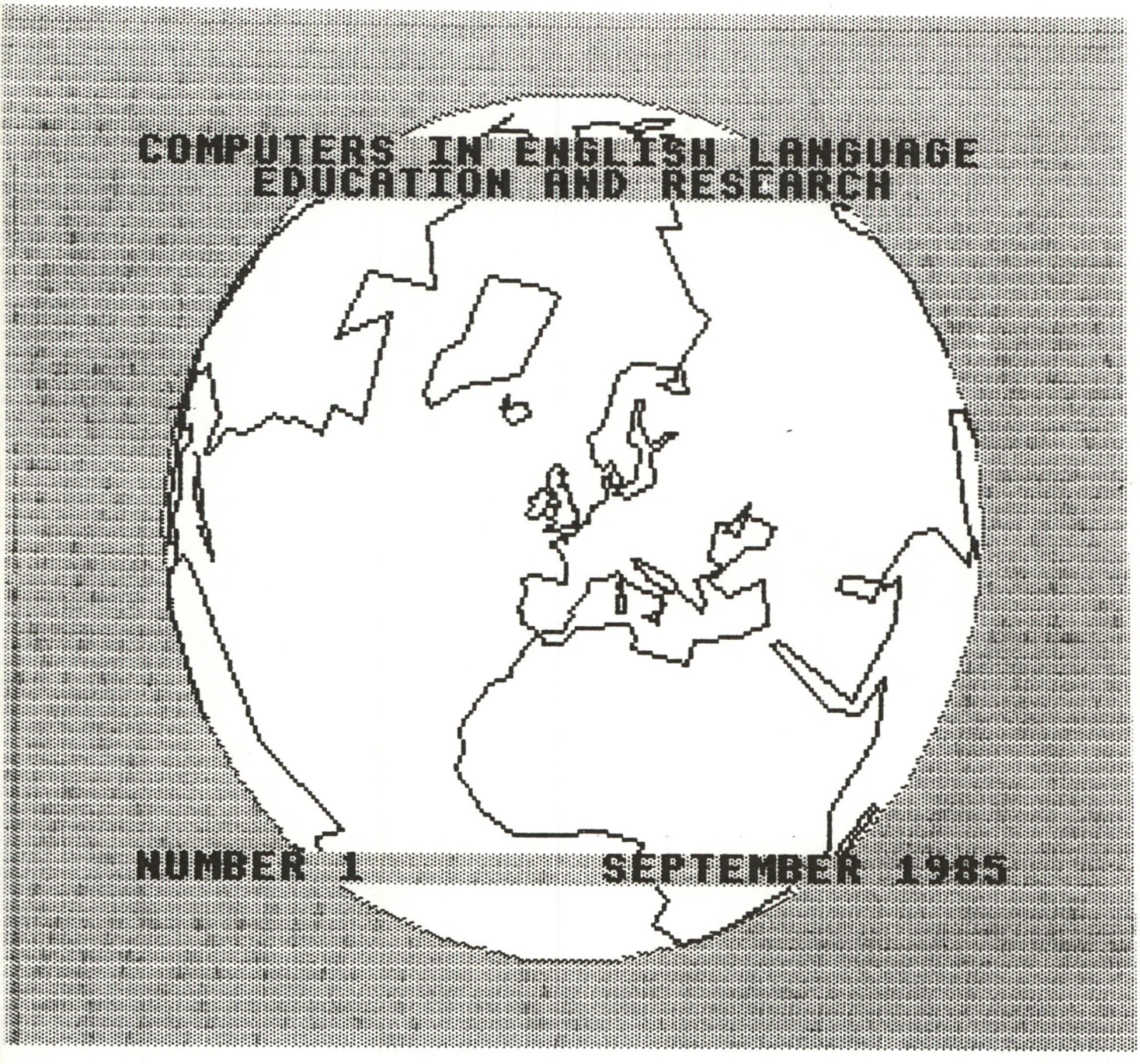

UNIVERSITY OF LANCASTER

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UNIVERSITE DE PARIS IX-DAUPHINE

Section d'Anglais

RECALL

Computers in English Language Education and Research

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Contents

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COMPUTER-BASED ADVENTURE GAMES AND TESL --- A PRELIMINARY ENQUIRY

Members may recall that the effects of adventure games on second language learning was brought up during the 1984 Lancaster course as a controversial issue. An attempt to investigate this issue empirically, with special reference to the Hong Kong tertiary context, has been undertaken recently. To date, the first phase of a pilot study has been completed and the results appear to be encouraging.

The first session in which a pair of students [1] worked on 'Colossal Adventure', a text-only adventure game, has been recorded on video. Both students were new to adventure games, let alone the program in question. In a pre-work preparation session they were given a list of (a) all the possible directions they could take, (b) all the verbs that they could use and (c) all the special instructions that the computer recognised e.g. Catalogue, Describe, Save, etc. In addition, they were told that their primary objective was to find the cave where the treasures were and to get into it. Finally, it was suggested that it would be a good strategy to make a record of the program settings as they explored the game.

The data collection session lasted about 40 minutes. During the recording there were only 3 persons in the room - the researcher and the 2 subjects. The researcher was at the control panel and was seated behind a screen so as to cause the least disturbance. A dictionary was placed beside the computer in case the subjects wished to consult it.

PRELIMINARY FINDINGS AND DISCUSSION

1. The subjects seemed not to be affected by the recording environment. They tackled the program seriously and maintained a relatively smooth flow of conversation. The total number of turns generated in the whole session was 548. This was much greater than that of the text input items, which numbered 59. The nature of the text input items was quite restricted since most were related to instructions concerning directions to take. On the other hand, the linguistic data obtained from the verbal exchanges of the subjects were abundant and useful.

2. The target language was used throughout by both subjects. Only 5 instances of the use of the mother tongue have been recorded. This extremely low occurrence frequency can only be explained

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1 The subjects come from one of the better English classes that the researcher is currently teaching at the Hong Kong Polytechnic.

in terms of the group dynamics of the class from which this pair of subjects was drawn. It is apparent that in an English class, or any formal/semi-formal sessions with the English teacher, the preferred medium of communication is the target language. In fact, on one occasion, one subject apologised to the other for lapsing into the mother tongue.

3. A total of 61 overlapping turns were recorded. At first sight, this seems to contradict the underlying rule in English conversation as suggested by Sacks (1972): 'at least and not more than one party talks at a time'. However, a close scrutiny of the data reveals that these overlapping turns can be classified into 2 major categories. There are those which either immediately precede the execution of a VDU text input item or immediately follow a VDU prompt and can be labelled as Input/Output Specific Overlaps. On the other hand, there are also some which neither precede nor follow any VDU input or output and can be referred to as Non-input/-Output Specific Overlaps.

There were 31 Input/Output Specific Overlaps. An interesting feature of those preceding VDU text input is that both subjects used similar utterances. The explanation seems obvious since both subjects must have arrived at some sort of consensus before the VDU text input item in question was executed. Overlapping turns following a VDU text prompt were also similar and lengthy at times. In most cases, the subjects were not communicating but were reading the text aloud striving to comprehend it. This category of overlaps, quite unusual in daily conversation, appears to be a typical feature of adventure games.

There were 30 Non-input/Output Specific Overlaps and they amount to less than 5.5 % of the total number of turns. It appears that Sacks' rule was confirmed to some extent.

4. There were at least 113 occurrences of imperatives. Most of these involved the use of short imperative sentences e.g. Get the lamp, Climb, etc., while in some instances, only noun phrases e.g. North, East, etc. were used.

Apart from using imperatives, the subjects were constantly formulating hypotheses, arguing viewpoints, seeking approval, giving explanations and making clarifications.

5. The subjects very often made records of details of the program; they consulted the dictionary on a few occasions and for the major part of the data collection session they were practising the target language. Although there was less practice of writing skills, practice of the other three skills, i.e., speaking, reading and listening, was frequent. Moreover, the 7 instances of giggles and laughter recorded suggest that they enjoyed the exercise.

TENTATIVE CONCLUSIONS

The data of this pilot study seem to indicate that move-based simulations such as adventure games deserve a place in Second Language Teaching. Not only did students show an interest in the exercise but they were also interacting constantly in the target language. The seemingly natural flow of conversation provides useful data for further analysis at different levels, ranging from discourse analysis to error analysis for pedagogical purposes.

The next phase of data collection will include the selection and investigation of the performance of a group of subjects who are 'weaker' in the target language.

Marja Renkonen
Helsinki University of Technology

AN EXPERIMENT IN CALL WITH TECHNICAL ENGLISH

Summary: Combining computer software with two traditional systems, student initiated projects and self-access language laboratory.

Student initiated projects

Having studied English at school for several years, our students have a lot of everyday English. Thus we use project work to improve their skills in and knowledge of technical English. A project can be a short talk with slides, glossaries and activities for the other students of the class to carry out. The projects are evaluated by the other students. Projects of another type were carried out when our teaching material was James Burke's "Connections", a TV series and a book on the development of technology, produced by the BBC. Then each pair of students would be responsible for two of the ten units of the series. They read the corresponding chapters in the book, they watched their own units several times in advance in order to be able to explain difficult words, prepare an outline of the whole unit, and to know when to interrupt the show to give the class a chance to discuss interesting points, and also to find out what parts of the film were too boring to be shown at all. We have used the same method with computer software. At the beginning of the term the students get a list of software (Appendix I) from which to choose the programmes to demonstrate. Some students have also shown their own programmes that can be used for language learning. As the microcomputer monitor is too small for a group of 10-15 students to watch, we have connected an ordinary TV-set to our Apple II.

Self-access language laboratory - classroom arrangments

Since 1981 we have had an open door self-access language laboratory for the students and the staff. There are about 1,300 tapes and supplementary materials for 12 languages, and so far our losses have been negligible. With micros and diskettes the open door policy is more problematic. Thus we cannot keep the door of our microcomputer class wide open, just half open. In practice this works out so that only the students preparing their software demonstrations or own programmes have access to this room. And even they have to reserve a time in advance by signing their names in the micro computer diary, and ask the janitors to let them in by identifying themselves. This is the second term we have used this system, and so far nothing has disappeared.

Results

The results are as difficult to prove as in any kind of language learning, but we have had positive feedback from last term's course evaluations. "In simulations and in solving problems we have had a chance to practise the special terms we are learning", "it is nice to be the one who comes up with the missing word in Cloze Master and Storyboard programmes", "it gives a break to revise special vocabulary by having teams competing in solving crossword puzzles", wrote the students. And last but not least, both the students and the two teachers who are involved in it enjoy it.

Appendix I

PROGRAMMES AVAILABLE TO STUDENTS

Title	Publisher	Address	When bought
ALA-sampler	The American language	Regents/ALA, 2 Park Avenue, New York, NY, 10016:21	1983
Apple Graphics&Games	Opportunities for Learning Inc.	8950 Lurline Ave., Dept. 5KRED, Chatsworth, CA 91	1983
Apple Logo II	Apple Computer	20525 Mariani Avenue, Cupertiono, California, 95014	1985
Apple Pilot	Apple Computer, Inc.	10260 Bandley Drive, Cupertiono, California, 95014	1984
Apple Writer II	Apple Computer, Inc.	20525 Mariani Avenue, Cupertiono, California, 95014	1983
Beginning Basic	Applied Microsystems, Inc.	P.O. Box 832, Rosewell, GA, 30077	1984
Clozemaster	Wida Software	2 Nicholas Gardens, London, W5 5HY	1984
Crossword Magic	L & D Computerware	1008 Stewart Drive, Sunnyvale, CA, 94086	1984
Energy Search	Opportunities for Learning	As above	1984
Etymology	Right on Program	P.O. Box 977, Huntington, NY, 11743	1984
Four-Letter Words	Conduit	P.O. Box 388 Iowa City, Iowa, 52244	1984
Hail to the Chief	Creative Computing Software		1984
Know Your Apple	Muse Software	347 N Charles St., Baltimore, MD, 21201	1984
Questionmaster	Widasoftware	2 Nicholas Gardens, London, W5 5HY	1984
Quick File	Apple Computer, Inc.	20525 Mariani Avenue, Cupertiono, California, 95014	1983
Scientific Method	Micro Power & Light Co.		1984
Storyboard	Wida Software	2 Nicholas Gardens, London, W5 5HY	1984
The Job Corporation	Opportunities for Learning Inc.	8950 Lurline Ave., Dept. 5KRED, Chatsworth, CA 91	1983
The Linguist	Gessler Publishing Co, Inc.	900 Broadway, New York, NY	1984
The Micro Art of Int	Opportunities for Learning Inc.	8950 Lurline Ave., Dept. 5KRED, Chatsworth, CA 91	1984
The Sensible Speller	Sensible Software	24011 Seneaca, Oak Fork, MI, 48237	1984
The Speed Reader	Davidson & Associates	6069 Graveoak Place, 12 Rancho Palas V	1984
Think Tank	Living Videotext, Inc.	450 San Antonio Road n° 56, PaloAlto, CA, 94306	1984
Three Mile Island	Muse Software	347 N Charles St., Baltimore, MD, 21201	1984
Tick-Tack	Primerose Publishing Co		1984
Trucker and the Store	Creative Computing Software		1983
Typing Tutor	Microsoft corporation	10700 Northup Way, Bellevue, Washington, 98004	
Water Pollution	Opportunities for Learning Inc.	P.O. Box Pelham, New York, 10803	1984
Wordy	Opportunities for Learning Inc.	As above	1984

Lienhard Legenhausen
Dieter Wolff
University of Düsseldorf

PROJECT: COMPUTER-ASSISTED STUDIES OF ENGLISH VOCABULARY AND MORPHOLOGY

1. AIMS

Our basic idea is to investigate the structure of English vocabulary by applying electronic data-processing techniques. We believe that some fundamental methodological problems that derive mainly from the open-list character of the vocabulary can thus be largely overcome.

Our approach is intended to be multi-dimensional. This is to say we think it necessary to combine synchronic and diachronic considerations when analysing the vocabulary in terms of word-type properties - i.e. lexemes and their morphological patterns as dictionary entries - as well as in terms of word-token properties - i.e. the occurrence of vocabulary items in texts.

An example may illustrate this point. Any empirical investigation of the present-day English vocabulary will have to take into consideration the relative productivity of the various word-formation types. If productivity estimates are to go beyond subjective, feuilletonistic observations, large, i.e. machine-readable, corpora will have to be systematically investigated. In order to be able to evaluate the current productivity of a particular formation-type and to point out possible trends of on-going changes, a comparative study with earlier historical stages is called for.

2. RESEARCH PROGRAMME

We want to tackle these problems in a three-stage project.

Stage I: Compilation of a machine-readable dictionary

We have started on revising and updating the COMPUTERLEXIKON (CL), which is a computer-readable version of the SOED. The final version of our COMPUTER DICTIONARY OF ENGLISH (CDE) will incorporate data from two types of sources:

- the more up-to-date dictionaries such as the ALD, DCE, Collins Dictionary of the English Language,
- the classic corpora such as the LOB Corpus, the London-Lund Corpus, the Leuven Drama Corpus.

Hopefully, other machine-readable corpora will become accessible.

The CDE entries will contain the following types of information: word-class, frequency in corpora, first occurrence, etymology, register, morphological structure, number of homographs, source (dictionary or corpus).

No attempt will be made to include semantic information. The main idea of the CDE is to serve as a data-base for further research as outlined above and below.

Stage II: Compilation of a DERIVATIONAL DICTIONARY OF ENGLISH (DDE)

Once the CDE has been completed the compilation of a derivational dictionary, in which suffixations are alphabetically and chronologically ordered, is merely a technical matter. On the basis of the suffixation lists the underlying regularities of the various formation types will be specified and subtypes listed separately. The productivity of the suffixation types will be indicated on the basis of first occurrence of the lexeme and its frequency in corpora.

Stage III: Statistical analyses of the structure of English vocabulary

We are interested in questions such as:

- What are the correlations between etymology, first occurrence, register, frequency ?
- How is the etymological structure of English vocabulary- as represented in dictionaries - reflected in text types (type - token relationship) ?
- What are the patterns of word borrowings in the 20th century ?
- How does the 20th century structure of English vocabulary compare to that of earlier stages ?

3. ON-GOING ACTIVITIES

Right now we are manually comparing the ALD entries with the old CL entries and adding those new words which were not included in the CL.

Moreover we are working on an automatic morphological parsing program which will identify and separately print out affixations of a certain type. The simple idea is for the machine to recognize a pattern such as -able and to check the immediate environment of that entry as to whether there is a corresponding base which occurs in isolation. This procedure will exclude all non-suffixes such as fable, stable from the lists.

4. PROSPECTS

We have applied for a research grant, which will, hopefully, boost our project by the end of this summer term.

Notes and News

Conferences

- Congratulations and thanks to **Lienhard Legenhausen**, **Marlies Smit**, **Tony Vermeire** and **Dieter Wolff** for organising the conference on new developments in CALL and computational linguistics held in Hasselt last March.

- **Bella Rubin** sends news of the first International Conference on Courseware Design and Evaluation (ICCDE), sponsored by the Israel Association for Computers in Education (IACE) and the Israel Information Processing Association (IIPA). **John Higgins** has been invited as guest lecturer. The conference will take place in Tel Aviv, April 8-13, 1986 (post-conference workshops, April 14-16). Abstracts (600 words) of proposed 30-minute papers or presentations must be received by December 15, 1985. For further information contact:

Benjamin Feinstein
ICCDE Organizing Committee
Israel Association for Computers in Education
P.O.B. 13009
Hakirya Romema, Jerusalem 91130
Tel. (02) 52.19.30, (02) 52.51.11

Other news

- Computers in English Language Teaching and Research: Selected Papers from the 1984 Lancaster Symposium "Computers in English Language Education and Research", Geoffrey Leech and Christopher Candlin, editors, will be published by Longman, London and New York, in January, 1986, as part of the Applied Linguistic and Language Studies series directed by Christopher Candlin.

- **John Higgins** is spending the 1985-1986 academic year at the University of Lancaster, Department of Linguistics, completing a research project entitled "Development and Evaluation of Computer Assisted Language Learning Materials".

- **Scott Windeatt** will report on the second Lancaster "Computers in English Language Education and Research" course (August, 1985) in the next issue of RECALL.

- **Gianfranco Porcelli**, Via G. Bruzzesi 39, 20146 Milano, Italy, is compiling a bibliography of CALL and computer-assisted language research and would appreciate any suggestions readers might have, especially works or publications from countries other than Italy, Great Britain and the United States.

- **David Ellis** of the SHAPE Language Centre in Belgium is exploring the possibility of a SHAPE/NATO computer corpus with **Geoffrey Leech** and **Christopher Candlin** from the University of Lancaster and **John Sinclair** from the University of Birmingham.

- Many thanks to **Charles Ross** for his inspired suggestion of RECALL as the title of this bulletin.

- Contributions for RECALL Number 2 should be submitted to the editor (address, p. 1) no later than December 31, 1985. Articles may also be sent to E. Perry, 12 rue Caroline, 75017 PARIS, France.