Problems and Possibilities of Information Technology in the Initial Teacher Training of Teachers of English and Modern Languages

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The personal computer has become widely used in schools as an integral part of the writing process for many learners of English, although not so much in the teaching of other languages. The writer feels that trainee teachers across the whole spectrum of school languages need to be shown how to maximise the potential of this equipment as part of their initial training. This article describes an attempt to involve the computer as an aid in the language learning process as well as an instrument for the production of written work. The processes described shows how facilities available to modern personal computers may be applied to language teaching. Special emphasis is placed upon the use of the word processor to compile a classified item bank of the learner's own linguistic problem areas and the use of this item bank as a means of error avoidance as well as error analysis. The writer feels that the process described here, which he has used in practice, motivates learners by making them feel involved in their own progress. Reference is also made to the possibilities of using commercial concordancing packages in teaching both English and modern languages.

1. The Present Situation

The government's reform of initial teacher training means that trainee teachers spend a greater proportion of their time in schools compared to time in their college/university base. The result is that provision of many elements of training experience has a greater variety of quantity and quality, depending on the nature of teaching practice schools. The variables which add to the differentiation of I.T. expertise among trainee teachers of English and modern languages are:

- school's ability to provide training and facilities,
- base institution's ability to provide training and facilities,
- impetus provided by school-based mentors and college-based tutors,
- student's motivation to acquire I.T. skills,
- perceptions of instructors and students of potential for I.T. in the subject area.

If the points indicated above represent the actual or potential difficulties in providing I.T. training, the following developments have provided teachers in these subjects with interesting opportunities:

- the increased sophistication of word processing programmes,
- increased access to the Internet and links such as Campus 2000.

In this article I would like to look at the potential for improvement in the teaching effectiveness of initial teacher training by the use of simple techniques within readily available resources offered by the modern computer.

2. Access to Word Processors

As learners make more use of word processors it is increasingly important for teachers to understand how these facilities operate, and to be able to teach pupils to get the most of them as aids to language learning, not simply as writing instruments. The increased refinement of facilities provided within modern word processing packages offer very useful applications in teaching writing skills to learners of English and modern languages. This article will use Microsoft Word as a point of reference, but users of WordPerfect or other word processors will probably be able to locate equivalent facilities in their programmes.

The literature on using word processors in improving learners' writing skills usually concentrates on usage in two stages of writing: the pre-production (drafting) phase and the production (writing) phase. In work with non-native speakers of English I have taken the word processor into a third phase, of individual error analysis and the logging of linguistic "problem areas". Before looking at that however, let us first look at techniques in pre-production and production that trainees might use to advantage in class.

3. Pre-Production Phase

Planning a Piece of Extended Writing

Many learners need to be taught the skill of planning an extended piece of writing and one problem frequently found is that, even when a plan has been made, writers often deviate from it. The

View facility in Word offers a useful method of referring to one's plan and arranging the headings (in order of priority) in Outline View. One can switch to Outline from Normal View as the work is being written. The advantage of this facility is that, when a paragraph or section has been written, if the writer moves the heading to another part of the essay in Outline View, the text associated with that heading will also be moved.

An alternative method is for writers to copy their plan into a segment of a vertically or horizontally split screen, so that they can keep an overview of their work in sight as they write the main body of text.

The Production Phase

Appearance of Work

The most important advantage for the learner is that the written product appears intelligible — the handwriting problem is avoided. To the objection that there is a danger of handwriting suffering if the word processor is used, the response is that handwriting is a separate skill which should be taught *in addition* to keyboard skills.

Typing Tutors

It is important that trainee teachers know how to use the keyboard to the best advantage and for this reason either the school or the training institution should make available to student teachers one of the typing tutor packages that are available, and ensure that they are used.

Error Avoidance

We are used to the idea of error correction *after* a piece of work has been written, but it is useful to encourage learners to use the techniques of linguistic self-analysis before or while they write. A system of "language data-banking", as described below, provides the writer with a personalised reference system related to the frequency of problems s/he has experienced with particular items of vocabulary or grammar.

Where a learner has had difficulty in formulating expressions in previous pieces of writing, the original problem phrase (error) and a more suitable form (correction) may be collected in a reference file which can be made available as new work is written. The student may then either switch windows to access the reference file when it is needed, or may copy a selection of anticipated phrases to the top of the new essay, so that they may be used as necessary.

Post-Production Phase

The Spelling Checker and Grammar Checker

Modern word processing programmes contain facilities to check spelling and grammar and the question is sometimes asked: do these automatic checkers make learners lazy if they can simply ask the programme to do corrections for them? In the case of the spelling checker, the fact of the word processor drawing attention to a spelling error or a mis-typed word and the fact that the writer has then to select a correct word may actually be a help in learning to spell acceptably. If, however, the teacher feels that there is a temptation to laziness he or she can always ask the learner to keep a note of spelling corrections the checker has indicated.

As for grammar checkers, they may be a help for adult writers who have some awareness of what kind of language they wish to use. However, at this stage in their development grammar checkers are simply too primitive to be useful in the classroom and can actually be confusing.

Word processors with a word count facility are useful in making learners keep their writing to a limit specified by the teacher, rather than ramble in an undisciplined way.

Autotext

A more useful function of the word processor with regard to checking rules and frequent errors is the use of what is called in earlier Microsoft Word versions the Glossary, and in later ones Autotext. If we take as an example a learner with difficulties in, for

example, the French present perfect, s/he can create a document with the basic rules for using this tense, and collect examples taken from:

corrections in previous essays,

dictionaries or grammar books,

examples taken from a concordancing programme (see below),

and store them as an Autotext entry. If, while writing, the learner needs to refer to information on the structure, simply typing a code word (e.g. "avoir") and (in Word) pressing the F3 key will produce the stored examples.

In the case described above the reference will occur within the body of work being written, from which it will have to be deleted after use. An alternative method is to open another document window, and recall the reference there, together with any further information that is retrieved.

Correction Banking

The word processor helps students with their errors in two ways:

- errors identified by the learner in the process of writing can be rectified without crossing out or erasure;
- teacher correction can be used as a teaching aid and a tool for error analysis.

I have suggested elsewhere (Howells, 1982) that effective language teaching attempts to bring these two elements together so that the learner begins to recognise those patterns of language that s/he knows to be a problem area and is thus able to turn teacher correction into self-correction. This has traditionally involved collecting instances of errors and analysing them quantitatively to identify where learners' problems lie. For the student, however, numbers on their own are not particularly useful in learning to eradicate errors — what is also needed is a corpus of examples in which a relevant usage may be easily located. The system that

worked well with students who wrote their work on word processors was the following:

(i) first draft of original text written, spell-checked, saved to disc and printed in draft on the reverse side of once-used paper
(ii) teacher indicates, without correcting, erroneous phrases
(iii)student returns to original file, attempts to correct errors, saves new document and prints a fair copy
(iv)final draft of text is corrected by teacher and first and second correction processes discussed with student
(v) student returns to original file on the word processor and carries out the following actions:

- creates a two-column table at the foot of the document, one headed **Error**, the other **Correction**;
- selects erroneous phrase *together with as many of the surrounding words as give a meaningful context*;
- types at the beginning of the selection a code (i.e. **v/** for verb errors, **pre/** for prepositions, **voc/** for vocabulary etc.);
- copies the selection to *both* cells in the columns at the foot of the document;
- changes the phrase in the **Correction** column to an acceptable version;
- performs a Sort on the columns which, by means of the codes, brings all the errors together according to their grammatical classification (after sorting, the codes may be deleted by using the Replace command – e.g. "Replace **v/** with....." leaving the "with" box blank);
- with Cut and Paste, the two columns are transferred to a master file of errors compiled from other pieces of writing and by using Sort again, the groups of errors are inserted into the general classifications of Verbs, Prepositions, Spelling, Vocabulary etc.

The advantage of this system is that the learner composes a corpus of his/her own errors and can see not only where the

majority of them are occurring, but also in what contexts, without the tedium of having to copy out phrases and corrections by hand. New errors can be included within grammatical classifications, and quickly listed in alphabetical order for easy reference. A further refinement to the method is for the learners to create a new master error file every term in order to be able to observe changes in their error profile.

The consequences of this system in terms of remedial work on an individual or group basis, are clear. The teacher can see where to direct future teaching and the learners know what areas they have difficulties in.

Errors in spoken language can also be collected either 'live' as group or paired discussions happen, or from audio and video tapes of simulations and debates. Transcripts are analysed in exactly the same way as written work.

Vocabulary Acquisition

Language teaching practice today is opposed to the learning of lists of vocabulary items, and certainly the parroting of lists of words isolated from their contexts is not helpful in acquiring an active vocabulary. The learner has two needs in relation to vocabulary acquisition, a productive need and a receptive one:

- to be able to find the most appropriate word or phrase to express a meaning, (productive)
- to be able to relate received utterances to the stock of vocabulary s/he has already acquired (receptive).

When a gap occurs in either process, that is, when the learner cannot find a word to express a meaning, or when a new word appears and ignorance of its meaning prevents understanding of a whole phrase, the learner must have a means of registering that word in its appropriate contexts, for future use. Language learners need an effective way of building up such a mental database, and in order to memorise new items most students must make a written

record. The problem with a cumulative record is that it is random, with lexical items added as they occur after being found in the dictionary for use in written work, or from a book that is being read at the time. Retrieval of a particular word or phrase is therefore difficult when a large collection of vocabulary has been recorded.

The advantage the word processor offers is that new items can be collected and put into alphabetical order with the Sort facility, for easy retrieval. In other words, just as the learner can create an individualised error list, so a personalised mini-dictionary can be compiled containing only the words the individual needs. In the present writer's attempts to acquire some rudiments of Japanese the following method was used:

- a five-column grid was created
- Japanese vocabulary (with context and notes where appropriate — the absolute beginner level involved here meant that single words were usually sufficient) was entered in the first column in Roman script, English equivalents in the second
- first column was sorted into alphabetical order
- file saved as **Japeng.doc**
- file copied into another document, sorted by the second column and saved as **Engjap.doc**
- files could then be printed with English or the Japanese columns deleted for the purpose of self-testing.

Concordancing

An interesting development in language work is that of small-scale concordancig programmes. Oxford University Press and Longman both publish such programmes, which are available with English language corpora. The programmes offer the facility of producing a screen filled with lists of examples of the use of a certain word chosen by the operator. So if we are teaching "should" and "ought" we can enter both words at once into our search and receive a list of examples printed in the following format:

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1 e body clok. However, we should add that, particularly when experi
2 d by the BAID in New York should all be hypothetical is
understandab
3 braically general. Perhaps it should also be remarked that algebraic ty
4 the whole composition, and ought to be its source» (p. 29). <p> One
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We can expand these lines to look at the context in which they appear; we may also save the concordances and print them. If we teach modern languages, we have to find source text for our corpus and save it into the programme. Although this appears to be a difficult problem, there are strategies to overcome it. One happy by-product of the over-production of documents in Brussels is that papers are produced on all sorts of topics (thus incorporating widely ranging vocabulary). A contact there kindly sends me discs with Portuguese text on them, which I use for teaching. A friend in Lisbon who has written a book has sent me a disc of the manuscript. Other possible alternatives might be a person who types theses, or someone in a commercial organisation which generates written material (if a suitable agreement over confidentiality could be arrived at, this would be an excellent source of vocabulary for teaching the language of business).

If we are providing support for speakers of English as a second language in school we might ask colleagues working in other disciplines who write lesson notes or handouts on word processors, if we may include this material in a concordance corpus so that learners may locate usages specific to the language of say, history or economics.

This article is concentrating on language teaching, but there are interesting implications for teaching literature with concordancers. For further information on this, see Tribble and Jones (1990).

The Internet

At the time of writing schools are looking at the pros and cons of the Internet. Points in favour are the obvious ones of access to vast areas of information and electronic mail links with other schools in Britain and abroad. Points against are costs and possible access to the murkier areas of human experience that can be found on the Net. Although it is difficult to forecast what will happen, there are grounds for believing that this development will inevitably appear in schools. When it does, language teachers will have a powerful resource at their disposal.

To give one or two examples, a colleague recently wanted to compare world-wide reaction to French atomic tests in the Pacific as reflected in English-language newspapers. We were able to collect comments from New Zealand, Australia and the USA. In modern language teaching one can access up-to-date newspapers in the language one is teaching, copy a page to a word processor, simplify the text if necessary, add comprehension questions and save it for further use.

Although I do not have personal experience of it, I understand that some schools are already communicating with schools in mainland Europe via electronic mail. What is interesting in this is the potential for spreading the contact with languages such as French and Spanish away from the metropolitan areas to the wider francophone and hispanophone societies.

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