CREATING AN INFRASTRUCTURE FOR AUTONOMOUS LEARNING: THE RESOURCE CATALOGUE

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The recognition that greater autonomy in language learning requires the ability as well as the opportunity to make meaningful choices has focused attention on the need to combine the development of self-access facilities with pedagogical changes and learner support. There is now a wide literature not only on open and resource-based learning, but also on skills development and strategy training. This paper argues that provision enhancements, whether involving space, equipment, materials or methodology, must be accompanied by improvements in the accessibility of information and that this entails using a database system to catalogue resources. It presents the case for upgrading and computerizing resource catalogues, provides an overview of the process and describes how it was implemented at the University of East Anglia. It reports the problems encountered and ends with a brief discussion of outcomes.

FOSTERING AUTONOMY: THE PLACE OF THE RESOURCE CATALOGUE

As even a cursory glance through the literature will reveal, learner-centred resource-based language learning is rapidly gaining a firm foothold in higher education (Molinero and Wright, 1993; Miller and Rogerson-Revell, 1993; Nesi, 1993). Faced with growing rolls and moves towards making language study a university-wide provision, many language departments and language centres are taking a serious look at ideas that have been around for some time but which, until recently, had gained little acceptance in the tertiary sector. Until recently, the debates of the last 20 years on the shortcomings of instructivism, the difficulty of defining learner needs past a certain stage, the merits and problems associated with self-directed learning, and the possibility of a changed role for teachers had not had much impact on universities, where the teacher-led course based on a pre-determined syllabus remained the predominant paradigm. The pressure of numbers, however, has proved more persuasive.

It is true that circumstances have become more favourable to a move towards resource-based learning. In particular, technological developments have put at the disposal of educational establishments a wide range of tools and materials, and the majority of institutions can boast of making all sorts of documents available to learners, from audio and video recordings to foreign newspapers on CD-ROM, as well as new ways of presenting
projects through the use, for instance, of portable video camcorders (Coleman, 1992). This not only greatly increases opportunities for exposure to the language—and one knows the importance of input for acquisition—but makes for a flexible environment capable of catering to individual needs and preferences (Guillot and Kenning, 1994; Kenning and Guillot, 1994). Compared with previous generations, the learner of today is truly spoilt for choice.

However, there is far more to the promotion of resource-based learning than improvements in the range of resources offered to learners. Bransford (1979: p. 263) makes the point that “an emphasis on enriched environments is important yet insufficient. Unless people can be helped to develop the skills necessary to learn from experiences, exposure to enriched environments may do little good”. The remark has general validity but has special force in the case of learner-centred learning, where the very possibility of choice makes additional demands of learners in terms of needs awareness and organizational skills. It suggests that a well-stocked multimedia resource centre only becomes an advantage when combined with appropriate levels of learner support. The greater the range of materials on offer, the greater the call for guidance and training.

Advice on the matter, together with examples of tailor-made materials, can be found in a number of books and articles. Most publications focus on the encouragement of a reflective approach leading to self-awareness (needs analysis, definition of objectives, self-monitoring) and “good” study habits (Gibbs, 1981; Sheerin, 1989; Willing, 1989; Crabbe, 1993), but there have also been works concerned with the development of information skills, both generally (Marland, 1981), and, more recently, in relation to information technology (Carter and Monaco, 1987). Although these publications have not generally been written with higher education in mind, much of what is said is easy to adapt and directly relevant. Contrary to what may be thought, the need for support of current undergraduates does not differ significantly from those of less advanced learners. Faced with an assignment, a number of students show themselves unable to analyse the task, to identify and locate potential sources of information, to select and use the most suitable, to work cooperatively in the case of group projects and to present the results in an attractive and interesting manner. Empirical evidence collected recently at the University of East Anglia (UEA) indicates that the average first year language student is likely to lack organizational reference and information processing skills and cannot be assumed to be computer literate. With regard to the last point, it is interesting to note that out of a sample of 107 students surveyed at a pre-sessional meeting in autumn of 1993, only 11 answered the question “do you know how to use a computer/word processor?” affirmatively, with 43 ticking “more or less” and 53 saying “no”. Following pressure from careers advisers concerned that some graduates lack the kind of transferable skills that employers look for in applicants, these skills are beginning to make an appearance on committee agendas and syllabuses, but there needs to be greater awareness of deficiencies in this area if resource-based learning is to be successful.

Despite their undoubted importance, defective cognitive and information processing skills represent only one aspect of the distinction to be made between availability and accessibility. As suggested by Rogers (1983: p. 8), practical issues also need to be addressed:
Instead of spending great blocks of time organizing lesson plans and lectures, facilitative teachers concentrate on providing all kinds of resources that can give students experiential learning relevant to the students' needs. These teachers also concentrate on making such resources clearly available by thinking through and simplifying the practical and psychological steps the student must go through in order to use the resources.

Material constraints such as inadequate premises and outdated or insufficient equipment immediately spring to mind here. However, the obviousness of such impediments is likely to lead to their being overcome at the earliest opportunity. In the same way, matters such as opening hours will probably be reviewed and any problems attended to. But other types of shortcomings may well evade detection for some time.

The weaknesses of present catalogues would seem to be a case in point. Whereas library catalogues have undergone an extensive programme of computerization, many resource centres would appear to continue to rely on paper forms of one kind or another. Print-based catalogues may have been adequate when materials were chosen by teachers, who were presumably familiar with the contents of the tape library, but in a system in which learners assume responsibility for the selection of the documents they are going to work on, their retention is a hindrance and may well result in students failing to access the most appropriate materials through lack of awareness of their existence or relevance. This paper argues, like Barnett (1993), that shifting the onus of selection from teachers to learners presupposes the supply of information in a form consistent with the easy identification of potentially useful materials; that since learners will no longer have a specific title or reference number to look for, they must be given the means to establish quickly whether there is anything likely to meet their needs; and that this entails upgrading the resource catalogue and making use of information technology.

The main argument in favour of computerization stems from the inherent limitations of paper as a medium and the established superiority of the search and retrieval facilities offered by the electronic mode. Advantages such as compactness and ease of updating are certainly valuable, but these are relatively minor assets in this case compared with the availability of multiple entry points allowing information to be accessed through a variety of routes and retrieved almost instantaneously. All the user needs to do in order to find out what is available is enter one or more keywords in the appropriate index or indexes, and the relevant information will be displayed in a matter of seconds.

The transfer from a printed catalogue to an electronic database is not a trivial operation. It involves a reconceptualization of the role and uses of the catalogue and is a lengthy and onerous process requiring an injection of funds as well as expert guidance. The kind of issues raised and some possible solutions are discussed in the remaining sections of this paper, which is informed by the experience gained in effecting such a transfer in the James Platt Centre of the University of East Anglia.

OVERVIEW OF THE COMPUTERIZATION PROCESS

The computerization of a catalogue of language resources can be said to comprise two distinct phases: design and implementation. Both phases can themselves be subdivided,
but whereas the design phase is likely to be largely over by the time implementation begins, the processes within each phase may well go on concurrently and show a higher degree of interdependence.

The first task is to define the nature and overall purpose of the changes to be made. It begins with the development of a model vision that is then compared with the present situation in order to determine what modifications need to be made. The definition of objectives can be done with reference to prospective use. This leads to the consideration of the range of potential users, their characteristics, the kind of information that they are likely to be looking for, and how they might want to access this information. As one moves from a general outline to the production of specifications, results are bound to become increasingly dependent on local circumstances, so that the final product will tend to reflect, at least to some degree, features that may well be peculiar to the institution concerned. Nevertheless, the same sorts of decisions will have to be faced, notably the amount of information to be included and its categorization. Answers to such questions will contribute to the elaboration of a prototype pro-forma.

As the key features of the future catalogue become clearer, consideration needs to be given to the drawing up of a list of criteria for the selection of a suitable database. These will then have to be matched against the characteristics of the range of products available to identify those coming closest to one’s requirements. In view of the number of factors to be taken into account, the process is unlikely to be entirely straightforward and may well involve altering the original criteria.

The choice of a particular database moves the project into the implementation phase. Once a satisfactory version of the pro-forma has been devised, the long twin tasks of documentation and data entry can get under way. As existing records are unlikely to contain all the information required, it will probably be necessary to view or listen to at least some of the materials, and this may be regarded as an opportunity to appraise and overhaul holdings. Finally, the system will have to be piloted, flaws remedied and documentation written up.

EXAMPLE OF IMPLEMENTATION

The computerization of the catalogue of the James Platt Centre arose out of concerns that efforts to encourage autonomy and team work in language learning were being hampered by shortcomings in the tape library catalogue. These shortcomings were all the more in evidence as a bequest by a local benefactor, Miss Irene Platt, had recently enabled the university to equip its language service unit with excellent self-access facilities, including a Resource Room with a range of multimedia positions. The catalogue of available materials, however, had remained unchanged. It had its origin in a list compiled for record keeping purposes by a former secretary of the Centre and as such only provided very basic information. It was useful for finding out the class mark of a particular tape and gave some overview of the holdings, but did not contain enough data to really serve as a guide to the collection. Furthermore, it was only available to users in printed form. Students were essentially dependent on teachers for information and tended to
only use materials if and when explicitly asked to do so. The system did not favour initiative and was an obstacle to the full exploitation of the resources. What was needed was an electronic catalogue allowing fast identification of the materials through a range of alternative routes (e.g. title, topic) without the help of someone acquainted with the collection.

The project began with an investigation of the kind of uses that a catalogue might be put to in the context of UEA courses and the ways in which users might wish to access information. This involved the administration of a questionnaire to a representative sample of teaching staff, reading through the relevant literature, anticipating the kind of search that language learners might undertake and how they might approach the task and consulting students. Among the questions to be considered were the steps that might be gone through, and the type of index categories required. In light of investigations of taxonomies, like the NERIS thesaurus, that confirmed Little's view that a professional librarian's method of categorizing material is too complex and precise to suit a self-access system (Little, 1989), it was decided to create a tailor-made system.

While the initial impetus came from the language staff, both the design and implementation phase were very much collaborative ventures with the Library. Stress should be laid here on the benefits to be derived from involving cataloguing experts in the discussions from the very beginning of the design phase. First-hand knowledge of the facilities offered by current systems is, of course, essential when purchasing decisions are being made, but is also very useful for keeping plans within the realms of the possible by pointing out unrealistic expectations while at the same time ensuring that important questions and potentially useful options and facilities are not overlooked. The involvement of the library made it possible to obtain feedback on the format to be used for recording materials' details and led to the holding of discussions that proved extremely valuable as a means of clarifying what was wanted. It helped increase the reliability of the decision-making process through the provision of advice on the range of issues to be considered (e.g. who would look after future upgrades) and of comments on the merits and drawbacks of alternative options. And it gave access to specialists with first-hand information on available databases.

With the bulk of the design phase over, a joint application was made to the University's Innovation in Teaching Fund for a grant of £4840 for the creation of an online catalogue within OPAC (Online Public Access Catalogue). The decision to integrate the holdings into the main library catalogue rather than use an independent database was influenced by two main factors: the possibility of customizing OPAC and the advantages of integration in terms of accessibility (use of a campus-wide system known to students) and of continued support for maintenance and upgrading. The success of the application enabled the project to proceed to the next phase.

Like the drawing up of the proposal, the implementation process, which lasted just over a year, was overseen by a steering committee made up of language, library and technical support staff. The steering committee was the main arena for dovetailing work carried out in different sections. It met to plan the project schedule, to finalize decisions on issues such as the range of details to be recorded, the index categories to be used and the
layout of the pro-forma, and to monitor progress. The final version of the pro-forma is shown in the Appendix. To minimize disruption most of the resource documentation work was scheduled to take place over the summer vacation, and temporary staff with the necessary language expertise was brought in specially. The appointment, induction and supervision of staff were the responsibility of the School of Modern Languages and European Studies, which also undertook the trying out of test data and the production and piloting of a user guide. The library, for its part, looked after the adaptation of pro-forma information to OPAC standards, data input and liaison with the Computing Centre. Finally, and as already mentioned and recommended by Aston (1993), there was student participation—first, in the form of consultations during the elaboration of the format and second, for the piloting of the user guide.

CONCLUSION

Upgrading and computerizing the catalogue of a bank of materials numbering over 3000 items is a skilled and time-consuming undertaking. Where, as here, resources have to be removed from the shelves to allow the gathering of further information, the logistics of the operation must be carefully thought out. Among the difficulties to be faced is the unknown magnitude of the task in hand due to the varying amount of work to be done on each record and the inherent differences between the resources themselves. Under such circumstances, estimates can turn out to be significantly inaccurate. While this was not the case overall at UEA, it did make the allocation of tasks to individuals a much more complex management issue than had been anticipated and demanded a great deal of good will and adaptability from all those concerned.

A year on, the system appears to be working well. Initial resistance to computerization, fuelled perhaps by the unwise removal of the paper catalogue, has disappeared. Instead of being restricted to a simple classification and a list of titles with virtually no details on contents, one can now search for a particular topic, for materials suitable for a particular type of activity, by a particular author or director, corresponding to a given level of difficulty, and so on. In addition, three types of displays are available:

“Brief” (default), as in (for French, Environment):

6 S.O.S. Terre: [French]; directed by Paul Nahon and prepared by Bernard Benyamin; 1990
Classmark: Platt Centre V-FRDC 24-2 /

“List”, as in:

6. S.O.S. Terre, videorecording; [French]; directed by Paul Nahon 1990
9. Informations, videorecording 1990
10. Les Alpes, videorecording 1991
11. La Camargue, videorecording; [French]; presented by Eric Joly 1989
12. La provence du littoral, sound recording; avec la voix de Gérard 1991
or “Full” as in:

**Item**

**Title:** S.O.S. Terre: [French]; directed by Paul Nahon and prepared by Bernard Benyamin

**Series Title:** Envoyé special

**Notes:** Tape is split into three sub-topics: Eau secours (about water pollution); Tchernobyl soleil noir (about nuclear pollution); Décharges alerte (about pollution caused by industry and everyday life)

**Subjects:** French Environment; Agriculture; Energy; Europe; Nature; Science Documentary; Interviews Listening comprehension Honours; A level Video

**Other entries:** Nahon, Paul Benyamin, Bernard Eau secours

As well as allowing users to make more informed choices when selecting materials for self-study, the improvement in the accessibility of the resources has enhanced the prospects for project work not only in language but in other areas such as literature or media studies. In language, a typical application is to ask students to prepare a multimedia presentation on a contemporary French topic agreed with the teacher, a task that has produced good results and has been well received. It is true that the changes made do not by themselves equip students with the kind of skills necessary for successful autonomous work. However, in so far as it offers opportunities for exercising a choice that did not exist before, the new catalogue must be regarded as a step forward in the building of a learning environment conducive to greater autonomy.

**REFERENCES**


## APPENDIX

<table>
<thead>
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<th>LANGUAGE:</th>
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<tbody>
<tr>
<td>TITLE:</td>
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<tr>
<td>AUTHOR/DIRECTOR/PRESENTER/WELL-KNOWN PARTICIPANTS:</td>
<td></td>
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<tr>
<td>REQUESTED/DIRECTOR/PRESENTER/WELL-KNOWN PARTICIPANTS:</td>
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### TECHNICAL DETAILS:

| number of tapes: |  |
| length: |  |
| date made: |  |
| date transmitted/acquired: |  |
| black & white or colour: |  |
| TV program/series and channel or video publisher: |  |

### TOPIC:

| tick (any relevant category, double tick main category) | Language |
| Agriculture | Language Teaching |
| Animals | Law |
| Art (visual arts) | Leisure |
| Africa | Linguistics |
| America: N/S/Central | Literary Criticism |
| Asia | Literature |
| Australasia | Mass Media |
| Business | Medicine |
| Crime | Moral Issues |
| Culture | Music |
| Developing Countries | Nature |
| Economy | Planning (soc. & economic) |
| Education | Politics |
| Employment | Population |
| Engineering | Race Relations |
| Entertainment | Regionalism |
| Environment | Religion |
| Europe | Rural Life |
| European Community | Science |
| Everyday Life | Society |
| Feminism/Social Life | Sports |
| Food and Drink | Supernatural |
| Games and Puzzles | Technology |
| Geography | Theatre |
| History | Transport |
| Immigration | Travel |
| Industry | Urbanism |
AUTONOMOUS LEARNING INFRASTRUCTURE

ACTIVITY TYPE: (tick any relevant category—double tick main category)

- Dictation
- Grammar
- Pronunciation/Recording
- Interpreting/Translating
- Listening Comprehension

LEVELS OF DIFFICULTY: (tick any relevant category—double tick main category)

- Reading Comprehension
- Text Manipulation
- Vocabulary
- Writing
- Word Processing

Beginners
Intermediate
A level
Honours

(GCSE)

SUPPLEMENTARY INFORMATION FOR FILLING IN PRO-FORMA

OTHER DETAILS: provide details such as:

- monolingual/multilingual (indicate other language(s), English ‘voice over’ or subtitles, mixture of English and foreign language)
- edited or not
- spontaneous or not
- accents (if strong) and/or presence of dialect
- register and style of language spoken, i.e. technical, political, slang
- number of participants
- speed of delivery (if specially slow or fast)
- quality of recording (if bad)
- cross-references to other relevant material—e.g. historical or political event, e.g. film adaptation of a novel (the two titles might be different). In the case of documentaries, reference to specific event/social or political issue.