

**NOTES ON THE DESIGN OF
SELF-ACCESS SYSTEMS**

Philip RILEY

Résumé

Mettre en place un centre de ressources suppose de résoudre les contradictions apportées par différents types de contraintes tant matérielles que pédagogiques. S'appuyant sur l'expérience d'expertise du C.R.A.P.E.L. auprès de différents centres de ressources, l'auteur propose des solutions à ces problèmes. Les recommandations qu'il suggère portent notamment sur l'agencement architectural d'un centre de ressources, sur les décisions financières à prendre, sur les nouvelles définitions des tâches à élaborer pour le personnel concerné, et sur les contraintes que pose le respect des règles de sécurité. En annexe, l'article propose en exemple les plans de différents centres de ressources existants.

Background to this article

In 1990, the Government of Hong Kong established its 'Language Enhancement Programme', a generously-funded project designed to improve language instruction throughout the colony's educational system. Although Cantonese is the first language of the vast majority of the population (98%), the overall aim of the Programme is to provide conditions favourable to the additional "quality bilingualism" in English and Putonghua (Mandarin Chinese) essential if Hong Kong is to maintain its position as a major commercial, financial and technical centre. There is a widespread perception that the rapid increase in student numbers has resulted in a general lowering of standards of written and spoken English. Moreover, when Hong Kong is returned to the Peoples' Republic of China in July 1997, there will inevitably be a redistribution of language functions, as Putonghua is more widely used in the administration and, possibly, in education.

Several of the tertiary institutions involved in the Language Enhancement Programme were planning to use parts of the funds available to them to establish or extend language-learning resource centres or self-access systems of various kinds. At the suggestion of Dr. Herbert Pierson, Director of the Independent Learning Centre of the Chinese University of Hong Kong, these Universities, Polytechnics and teacher-training colleges (a full list is included in Appendix 1) formed a consortium to invite specialists in the field to Hong Kong to talk with colleagues there. Since the CRAPEL has been developing self-directed learning systems of various kinds for the past twenty-five years, the author of this article was retained as Consultant to the consortium for the period 1992 - 1994.

The consultancy work included both 'multilateral' activities, that is, a programme of seminars, lectures and workshops for staff from all the member institutions of the consortium, and 'bilateral' exchanges, consisting of visits to and discussions with the staff of separate institutions (see Appendix 2 for details). One of the workshop topics was "The design and lay-out of self-access centres", and this article is directly based on the ideas which were developed during that session. It also calls on numerous discussions with Hong Kong colleagues, many of whom were occupied setting up their

institution's centres at the time. This gave a sense of immediacy and urgency to these exchanges which is sometimes lacking in academic discussion. It also meant that, occasionally, small questions of practical detail assumed enormous importance for short periods. Dust in the ducting, the wrong type of coaxial cabling or late delivery of carpeting are problems that do not seem that trivial when they hold up the whole project for several days.

This certainly does not mean that there was no discussion of first principles, since it is now generally appreciated that the decisions of all kinds that go into the design, establishment and running of self-access systems - whether it is matter of equipment or staff appointments - can only be taken appropriately if prior thought is given to fundamental questions such as "How open is our open-access system to be?" and "How self-directed can our self-directed learning programme be?". Little (1989) includes a more detailed discussion of the considerations which need to be kept in mind when planning new self-access systems. Star (1994) is a clear and thoughtful guide to the ongoing evaluation of existing centres. In these *Notes*, however, we will be concentrating on the kinds of material and institutional constraints and problems which can prevent even the best-laid plans from being successfully implemented.

1. Architectural constraints

It is rare for self-access systems to be set up in purpose-built accommodation, and even when that is the case contact should be made with the architect at the earliest possible date: once plans have got as far as the drawing-board they can be surprisingly difficult to change, usually because they have a knock-on effect on other peoples' projects.

This seems obvious enough: what is less obvious is the point that "new" and "purpose-built" are far from being synonyms. There are numerous horror-stories of brand-new premises requiring major alterations even before opening day. Cases in point include one where it proved necessary to remove internal walls to make a modest reception-area, and another where the floor had to be taken

up to instal the supplementary wiring for the CALL and audio-active comparative equipment which no-one had mentioned to the architect .

Usually, however, planners find themselves having to make do with existing accommodation, such as a classroom or an unused language-laboratory, which needs to be altered and refurbished to meet the requirements of the planned centre. It seems to be a universal rule of nature (or of the educational administrator's mind, at least) that the area of this accommodation will be approximately one-third of the planner's original requirements.

Such matters will obviously have to be negotiated within the framework of the physical and social realities of the institution in question, but it is worth keeping in mind that the standard measure for a "library place" used in many countries is 1.7m sq. This makes it possible to calculate the "put-through rate" of the planned centre on the basis of the formula:

Area available

1.7m sq. x number of hours open per week

It is important to note that in this context "area available" does not include non-user spaces such as the inside of the reception area, the technician's cupboard or workshop, the staff office and so on. This formula also needs to be taken with a hefty pinch of salt because it postulates a population of users with no preferences as regards time of day, no other timetable constraints and who do not panic as the exams approach. Finally, the figure of 1.7 m sq. does not include any allowance for equipment, which, of course, tends to be more voluminous in resource centres than in traditional libraries: nor does it allow for any cross-cultural variation in acceptable degrees of proximity between users.

During the planning phase, it is essential that a number of architectural features which cannot be altered under any circumstances, should be checked on. These will include the identification of those walls which are and are not load-bearing, for example, since this will place limitations on the space-configurations which can be obtained. Fire stairs and doors have to be preserved, of course, and may even have to be increased if the levels of frequentation are above the norms previously recognised

for the part of the building in question (see the section on 'Security', below.)

One problem that has cropped up unexpectedly on several occasions is maximum floor-weight: tapes and books, especially when stored in modern space-saving shelving with sliding units, rapidly reach weights per square metre which are above the authorised maximum. In one case, in Italy, the system designer was shocked to discover when well into the business of installing equipment, that there were severe restrictions on the number of *people* to be allowed into the building and into specific areas at any one time, as the elegance of the renaissance stairwell was not matched by its robustness: this had been no problem whilst the building housed administrative offices, but once it was transformed into an academic centre, these restrictions became a major headache.

It should go without saying that everything should be done to make a resource centre of any kind welcoming, light, airy and colourful, but in fact there is a long tradition of language laboratories being buried in basements and of learners in separate booths facing blank walls while they work. Ironically, cramped and irregular spaces often impose user-friendly solutions, since they make it impossible to instal blocks of equipment or long, straight lines of work-stations. The development of "islands" of equipment for installation in both large, open areas and in nooks and crannies is in part due to a recognition of this: examples include the Eurocentre self-access system in Cologne and both the Chinese University's Independent Learning Centre and the Hong Kong University of Science and Technology's Study Centre.

Lighting arrangements are usually inherited as part and parcel of the accommodation and changing them is often given a very low priority. Nonetheless, experience has shown that simply by varying the relative intensity, quality and directionality of the lighting from one area to another, much can be done towards creating pleasant working conditions. This is not, of course, merely a matter of aesthetics: lighting arrangements which are suitable for reading by, for example, give rise to unwelcome glare and reflections on VDU's. In some cases, real improvements can be brought about for the cost of a new type of bulb or lampshade. On the other hand, a lighting system designed and installed by experts as part of an integrated interior decoration scheme is, if possible at all, a worthwhile

investment and one which is relatively modest when compared to the overall price of the equipment housed in the centre: it is also long-lasting. The one source of light which should never be neglected or undervalued is the window: as a rule of thumb, it is best if the light from windows can reach across to opposite walls: this is particularly true when there are windows on only one side of the space in question.

2. Financial constraints

There are too many variables involved in establishing a self-access system in a given institutional context for it to be possible to state a golden rule or even to draw up a list of budgeting priorities (again, see Little, 1989). Clearly, money is important: you have to cut your coat to suit your cloth. But it may come as some consolation to hard-pressed teachers working on a shoestring budget to know that a number of people have actually said that they were glad that they did not have a large sum of money to start with, as it made them plan and select more than they would otherwise have done. A gradual, step-by-step approach, has the advantage that it can be adapted in the light of experience without too much loss of money or face, whereas it can be very difficult to pick up the pieces after a 'Big Bang' goes wrong.

Still, "too much money" will continue to be an oxymoron for most people, so it is instructive to consider the following examples where the purchase of expensive equipment has proved counter-productive (the details are correct, but names have been withheld to protect the innocent.)

1/ A major financial institution decided to strengthen and modernise its in-house language training provision. A resource centre was set up consisting of a CALL/multi-media network including a network server, thirty student workstations and a variety of workstations for staff and for the cataloguing system. The cost of this equipment, independent of all other considerations, was approximately \$ US 150,000. This equipment remains largely unused, due to the chronic lack of suitable materials, a lack which the permanent staff of the centre is working full-time to try to compensate for but which, given the extremely time- and labour-

intensive nature of multi-media materials production, will remain largely unchanged for the foreseeable future.

2/ A university language centre was fortunate enough to receive a grant from a foreign foundation to upgrade its resource centre facilities. Naturally enough, the offer was accepted. The foundation stipulated that money should be spent on 'tangibles', i.e. equipment, rather than materials production, extra staff and so on. In order to spend the considerable sum in question on equipment alone, it had to be sophisticated, expensive equipment and the results were similar to those in the previous example, with the additional disadvantage that the shiny new machinery is now monopolising half the badly-needed space available for the resource centre.

In both cases, the centres in question would have been better off with thirty Walkmans and a good collection of cassette materials. Resource centres are not necessarily chock-full of 'hi-tech' equipment: indeed, some of the busiest have none. What they do have is a set of clearly-stated objectives and an adequate strategy of learner-training for self-directed study.

In purely administrative terms, it is obviously helpful if the centre enjoys some degree of financial autonomy, since this can smooth the selection, purchase and acquisition of materials and equipment. However, in those cases where financial independence entails full responsibility for all ordering and accounting procedures, colleagues with no relevant expertise have voiced considerable doubts, since they felt that the extra work-and-worry load was not really worth it.

3. Institutional constraints

One of the most frequent objections to the ideas of self-access and self-direction springs from the perception that there is a contradiction between such approaches and a number of common institutional requirements, in particular examinations. In extreme circumstances, this may indeed be the case, though it is important to remember that there can also be contradictions between, for example, classroom teaching activities and the official syllabus. Generally, though, the introduction of examination-oriented

materials and activities into a self-access centre does not undermine the principles on which it has been established, since such materials can surely be realistically considered as catering to the student's needs, even though the need in question might be "to pass the examination" rather than to learn something. Indeed, it can be argued that any other attitude would be both hypocritical and condescending, a dereliction of duty. Fortunately, as the practice and theory of self-directed learning have spread over recent years, attitudes to and techniques of assessment have also developed, so that in many cases the examinations in question have integrated the self-directed components of learners' study with no lowering of standards (See Gremmo and Riley, 1994).

Related anxieties concern whether or not self-access work should be credit-bearing and/or compulsory. Again, it is important to avoid a complete polarisation of the argument: one of the greatest advantages of self-access systems is that they allow different individuals or groups different degrees of self-direction in the same centre at the same time. There is, therefore, simply no need to make a one-way choice: both teacher-directed and self-directed work can be carried on simultaneously.

Two other areas which are usually subject to tight institutional constraints are *staffing* and *research*. Of course, staffing can be a problem in the sense that it is difficult to find people with relevant experience in the technicalities of establishing and running centres and who also have a thorough grasp of the principles of self-access and self-direction, especially in the fields of counselling and learner-training. Institutional problems, though, tend to be of a more rudimentary kind: creating posts or even simply winning the recognition that hours spent in the centre really do count as "work" in the same way as fully-frontal classroom teaching. Some institutions have developed 'equations' or 'coefficients' for relating centre hours to classroom hours, e.g. "2 hours 'self-access' = 1 hour's teaching", a practice which may seem a reasonable compromise to administrators but which is felt to be a glaring injustice by the staff concerned. Admittedly, it can be extremely difficult to compare the work of counsellors helping self-directed learners on a 'drop-in' basis with timetabled teaching. At the CRAPEL, three discussions with learners are counted as the equivalent of one hour's teaching.

Many centres are run by staff who are redeployed full- or part-time from a parent language department. For example, a teacher

with a teaching load of 18 hours per week will continue to teach for twelve hours and work for six hours in the self-access centre. Although this may cause some organisational headaches, it is an arrangement which also has a number of advantages. In particular, it gives teachers who are new to self-access or who do not want to give up classroom teaching completely, the opportunity to try the water, rather than pushing them in at the deep end.

Research is one of the most sensitive issues for language centres, especially those in tertiary education, not for any scientific reasons, but because it touches on matters related to careers and prestige. A number of educational systems treat their language centre staff with a mixture of condescension and ignorance which would be almost comic were it not for the fact that it blights the professional lives of the people concerned. In order to follow a normal academic career, they are often obliged to leave the centres where they work and to complete theses on irrelevant topics, since language didactics is not regarded in itself as a serious field of teaching or research. (This problem is discussed in greater detail in Riley, 1991.) When starting up new centres, it is essential to avoid reproducing this state of affairs through traditional and institutional inertia by ensuring that posts are created on a par with those in, for example, the 'academic' language departments. Here again, the type of 'time-sharing' redeployment of staff mentioned in the previous paragraph has a useful role to play, as it allows staff to keep a foot in both camps.

4. Space

The surface area available for a resource centre is often less than planners would have wished, but imagination and ingenuity can compensate to some degree at least. Few projects can afford to call on the services of interior decorators, which is a great pity, as those centres which have benefited from professional help are usually both pleasant and attractive as well as easier to run in many respects. Whether amateur or professional, successful use of the space available depends largely on the flow of users and of the distribution of the various facilities.

A smooth flow of users is not always easy to obtain, as certain sections, such as the reception/help desk and the catalogue are used by everyone. To avoid bottlenecks, therefore, catalogue terminals should not be concentrated around the entrance, but placed in

strategic and separate points around the centre: 'strategic' here should be taken as meaning that they will be conveniently close to major sections, such as the listening comprehension, video or CALL sections. Users will not have to cross other sections or 'corridors' leading from one section to another. Although it is not possible to give hard-and-fast rules, experience in several centres has shown that three terminals are adequate provision for a 60-work-station centre in normal conditions of use.

Establishing just what 'normal conditions' are in the context of a given institution is an important priority. Obviously, a certain amount of information can be obtained in advance through the study of departmental timetables, which should give some indication of likely 'rush-hours'. This information needs to be kept up-to-date, though, and to be checked against statistics of actual attendance and use: such statistics will include a breakdown of visits by time, day and length of stay, and, where relevant, by department. They can be obtained by processing requests and catalogue inquiries.

A recent and very healthy development in the design of resource centres has been the planned inclusion of "communication spaces". These are areas or rooms for non-machine-based activities, where students can participate in a variety of conversations, debates, sketches, presentations, role-plays and simulations. Materials, such as role-play cards, can be stocked in plastic pouches hanging on the walls. Although such activities are not dependent on equipment of any kind, there is, of course, nothing to stop the learners making video or audio recordings of their performances for subsequent analysis and assessment.

In most centres nowadays, some provision is made for a counselling service. It is interesting to note, though, that where this has consisted of an office separated from the centre by a door, it has been found to be rather off-putting, so that many counsellors now prefer an open-plan arrangement of an informal kind (such as armchairs and a coffee-table) inside the centre proper.

The plans of a number of resource centres are given in Appendix 3. No-one, least of all the planners concerned, would claim that they are ideal designs to be imitated, but they are practical solutions to practical problems and repay careful study.

5. Security

Security comes in two forms: 'fires and wires' and 'stop thief'. The first is usually the general responsibility of a buildings officer who will check on the quality of the various types of electrical installation, provide fire-fighting equipment and a full fire-evacuation plan with all the facilities and indications necessary for its implementation. In planning a centre, these considerations should be given absolute priority in every sense: details such as the positioning of extinguishers and fire doors, types of sprinkler system, the choice of non-inflammable materials for certain types of furnishings such as chairs, curtains and carpets (often a legal or institutional requirement) should be decided on before anything but the most general outlines of the layout are drawn up.

The fact that there is a person who is professionally responsible for security of this kind does not, of course, exempt the staff and users of the centre from all responsibility on a commonsense, day-to-day basis. No-smoking signs should be respected and trailing wires of any kind kept to an absolute minimum and clearly flagged when truly unavoidable.

Protecting materials and equipment against theft is a knotty problem, not only because it is difficult in itself, but because security measures may indeed limit the degree of self-access. However, it should also be remembered that in pedagogical terms, the actual mechanics of storage and distribution are relatively unimportant: what matters to the learners *qua* learners is their capacity to use the materials autonomously once they have obtained them. Sensible precautionary measures are in no sense an infringement of learners' rights. Amongst the measures which have been found effective in various institutions are the following:

1/ Offering to make copies of materials on request. For example, where a learner is working on the transcript of a tape, providing a photocopy of the text.

2/ Requiring some kind of deposit. This may be a cheque, to be returned at the end of the academic year or, a common practice, the student's identity card, to be returned at the end of each visit to the centre as materials are handed in.

3/ Flow control, that is, designing the centre in such a way as to ensure that each user has to pass directly in front of the reception desk when leaving.

4/ Bar-codes and security gates, that is, the sort of system used in shops to prevent shoplifting.

Certain colleagues have voiced their surprise at the fact that stealing is not *more* of a problem in their centres and, without being blue-eyed about it, there is some reason to think that a self-directed approach to learning, with its emphasis on individual responsibility, might encourage respect both for the materials and for other learners.

APPENDIX 1

LIST OF INSTITUTIONS INVOLVED IN THE 'LANGUAGE ENHANCEMENT PROGRAMME' WORKSHOPS AND SEMINARS 1992 - 1994:

British Council
Baptist College, Hong Kong
City Polytechnic of Hong Kong
The Chinese University of Hong Kong
Hong Kong Lingnan College
Hong Kong Polytechnic
Hong Kong University
Hong Kong University of Science and Technology
The Institute of Language in Education

APPENDIX 2

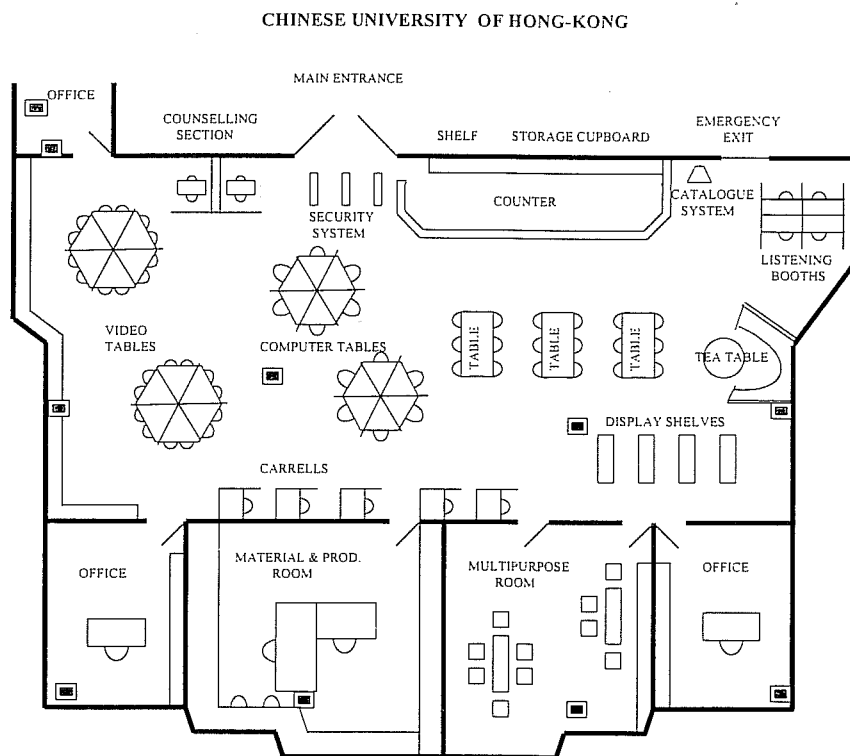
PROGRAMME OF LECTURES AND WORKSHOPS FOR STAFF MEMBERS OF THE 'LANGUAGE ENHANCEMENT PROGRAMME' INSTITUTIONS

- 1/ Cataloguing and indexing
- 2/ Lay-out, design and facilities
- 3/ Questionnaire design, needs analysis
- 4/ Materials development; the production of back-up documents for learners
- 5/ Systems development and evaluation
- 6/ Learner-training
- 7/ Self-assessment
- 8/ Learning styles
- 9/ Counselling
- 10/ The induction of large numbers of learners into self-access.
- 11/ Research: fields, methodology, objectives

APPENDIX 3

A SELECTION OF RESOURCE CENTRE DESIGNS

1/ The Independent Learning Centre, Chinese University of Hong Kong.

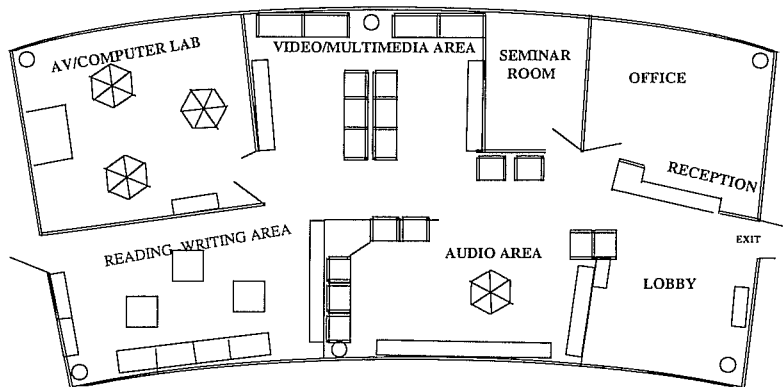


This centre was designed by Dr. Herbert Pierson and a team of colleagues from the English Language Teaching Unit, CUHK. We are grateful for their permission to publish this plan.

2/ The Language Centre, Hong Kong University of Science and Technology. This centre was designed by Richard Pemberton and a group of colleagues from the English Department. We are grateful to them for permission to publish the plan.

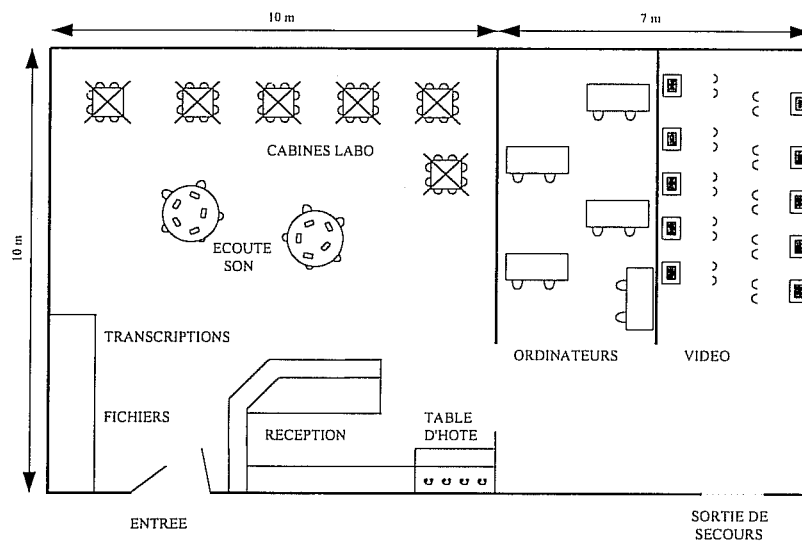
HONG KONG UNIVERSITY
OF SCIENCE AND TECHNOLOGY
LANGUAGE CENTRE

SELF-ACCESS CENTRE



3/ The Sound and Video Library, Université de Nancy 2, France. This centre, which was opened in 1974, was originally planned by a CRAPEL research team including Michel Cembalo, Christian Heddesheimer, Henri Holec, Philip Riley, Francine Roussel and Claude Zoppis. It has since been extended and a CALL section added (Margaret Serandour). Materials are available in nine languages.

The present Director is René Metrich. The centre will move to a new site in 1995 - 96.



SONOVIDEOTHEQUE MULTILINGUE - UNIVERSITE NANCY 2

4/ Proposed new self-access language centre for Lingnan College, Hong Kong. Designed by Terence Pang and colleagues.

LINGNAN COLLEGE, HONG KONG

