Planning flexible learning to match the needs of consumers: a national survey

Sam Ayer RN RNT PhD BSc FRSH
Senior Nurse Tutor

and Catherine Smith RGN MSc BSc
Research and Development Division, School of Health, The University of Hull, Hull, England

Accepted for publication 27 April 1998

Planning flexible education to match the needs of consumers: a national survey

The injection of market forces into the National Health Service (NHS) has led to nurse education being viewed as a commodity which educational institutions supply and NHS employers purchase. Conscious of the costs of paying for courses within this new consumer culture, NHS trusts and other health service employers are increasingly looking for cost-effective flexible training to educate their workforce quickly and efficiently. Parallel to this is the accelerated demand for continuing professional development (CPD) brought about by the inception of the UKCC’s Post-Registration Education and Practice Project (PREPP). Both registered and enrolled nurses are finding they need professional updating and skills and thus increased access to courses. The increased demand for education and training brought about by these changes cannot be met through traditional methods alone, requiring educational institutions to re-appraise their methods of delivery and introduce more flexible approaches to learning. There is every evidence that this is now the case with open learning, distance learning and flexible approaches to learning ever growing in popularity as providers of nurse education recognize the benefits such approaches offer. The emphasis is on meeting the diverse needs of the health care employers and individuals by providing education that is flexible, learner-centred and customer focused. This paper presents the findings of a national survey to ascertain how providers of flexible education plan educational programmes to meet the needs of their customers. Based on data collected from 120 educational institutions within the higher education, health and social care and private sectors, it highlights: the ways in which flexible learning programmes and courses are delivered; what aspects of flexibility are considered important when designing programmes to meet the needs of prospective customers; and what approaches are used to assess demand for flexible education. The study stresses the need for providers of flexible education to take into account the dual perspectives of those who have a stake in the flexibility of nurse education; NHS employers as funders of students and individual healthcare professionals themselves.

Correspondence: Sam Ayer, Research and Development Division, School of Health, The University of Hull, Hull HU6 7RX, England.
INTRODUCTION

Every now and then a new set of buzz words inflicts itself upon the various sectors of the professional and the educational system, and seems set to change the whole course of what we do and how we do it. In the 1960s and 1970s both in the United Kingdom and the United States of America we had new jargons. Remember nursing models (see for example Aggleton & Chalmers 1984), the nursing process (see for example Burns & Grove 1987, Yura & Walsh 1988). Following the seminal work of Donald Schon (1983) we are trying to be reflective practitioners, whether we are practising in the field of education, counselling or nursing.

There is considerable interest in the notion of reflection and reflective practice in nursing and nurse education (see for example Bodley 1992, Gray & Pratt 1993, Johns 1993).

James & Clark (1994) offer a detailed analysis of the concept of reflective practice and its implications for nurse education and Lauder (1994) discusses some of the philosophical issues that need to be considered by nurse educators and practitioners who are drawn to the concepts. There is currently a vast volume of nursing literature advocating the course of primary/associate nursing. Indeed, in 1991, the Prime Minister himself appeared to give it the official seal of approval by announcing his named-nurse initiative.

However, there are questions and doubts. There is the danger that nursing is being swept by a tide of enthusiasm and it is not using its critical faculties adequately. There are voices in the wilderness raising difficult issues and arguing that the advocates of primary/associate nursing have failed to construct a research-based case for their course (see for example, Wilson 1990, Ford & Walsh 1994). This latter point is crucial for in the absence of research evidence supporting major changes such as primary/associate nursing and reflection and reflective practice it is hard to see how implementation of these initiatives may proceed except as another ritual.

As Burnard (1995) points out empirical work on these topics is difficult to find.

Now, we are all trying to be ‘flexible’ in what we do! Broadly described, flexible learning is an approach to education which provides students with the opportunity to take greater responsibility for their own learning and to be engaged in learning activities and opportunities that meet their individual needs. Tomlinson & Kilner (1991) point out that flexible learning emphasizes adaptation to the varying needs of students and the promotion of their learning autonomy within a framework of appropriate support.

Flexible learning as a concept can have many different meanings to different individuals and organizations. The terms open learning, distance learning and flexible learning are often used synonymously (see for example, National Extension College 1989, ENB 1990, Wade et al. 1994, Lewis 1995, Jones & Rushford 1996). Open learning is a term used to describe a course which is flexibly designed to individual requirements. Lewis & Spencer (1986) explain that ‘it is often applied to provision which tries to remove barriers that prevent attendance at more traditional courses but it also suggests a learner-centred philosophy’ (see also Rowntree 1992, Race 1994, Thorpe 1993). Distance learning, although possessing similar characteristics, implies geographical distance between the learner and the providing institution. Usually the learning occurs with the aid of self-study packaged materials which may include video tapes or computer software.

In recent years the Open University has been the educational institution that has pioneered distance learning both nationally and internationally. The Committee of Scottish University Principals (CSUP 1992) has claimed that the broad term flexible education has been used as a banner under which to promote a shift from formal whole class didactic learning towards individual or group management of learning. This is achieved through the provision by the tutor of structured resource materials together with the opportunities for the negotiation of tasks, self and peer assessment and collaborative group work. Although labelling the approach ‘flexible education’ helps to bring out the logical priority of learning and the goal of student autonomy, the approach is clearly concerned with assisting that learning and promoting that autonomy (see also Sims & Stoney 1990, Thomas 1995, Waterhouse 1990).

The development of any form of flexible learning therefore requires a strong framework of support and guidance for the student from the outset. This support cannot be provided by the tutor but must be part of an institutional support structure which provides for the student’s education needs. The Technical and Vocational Education Initiative (TVEI 1991) lists as a main institutional implication that clear and easily assessed learner support framework must be in place to provide appropriate support for students to take an increased responsibility.

What is the impetus behind the introduction of flexible education?

The impetus behind the increasing trend towards the development of flexible education can be traced through...
a number of developments that are affecting the world of teaching and learning. In planning to expand higher education provision in the 1990s the government clearly intended to widen access to non-traditional groups. As a consequence not only would entry requirements and procedures have to be changed, but according to the Department of Education and Science, institutions of higher education would have to adapt their teaching methods and the design of their courses to accommodate new type of student (DES 1987).

In Britain in the 1990s, universities are experiencing both internal and external pressures for change. There are important external factors. First, many former polytechnics and colleges of higher education have become universities creating a much larger and more diverse sector. Second, in a relatively short time there has been a substantial under funded expansion of undergraduate student numbers. Third, the automatic entitlement of fees and other financial benefits for full time degree students is no longer sacrosanct. All these external pressures force universities to reconsider the pattern of provision (Costello 1994).

The Flowers Committee (HEFCE 1993) which inquired into the organization of the academic year recommended the restructuring of the academic year on a semester basis. In spite of the rapid growth of the university sector in the second half of the twentieth century the dominant style of undergraduate courses has not changed. For many years, the normal pattern of undergraduate courses in universities required about 30 weeks attendance in each academic year, divided into three 10-week terms. Since most undergraduate degree programmes were provided by specialist subject departments, it was the responsibility of departments to organize the teaching and the time table within those three terms.

Assessment commonly included a number of formal written examinations held in the latter part of the Summer term. As Costello (1994) pointed out so long as courses were largely the responsibility of individual departments, the traditional academic year worked reasonably well. However, when courses were broken up into smaller units or modules, when more options were made available to students outside their main department, and particularly when courses shorter than the full academic year were included in the programme, problems began to arise.

Another difficulty in the three term system is the effective use of time. A subject department which provides the bulk of the degree programme may have no difficulty in planning 24 or 25 weeks of teaching. But if a range of shorter courses are offered as contributions to various programmes, it is more natural and convenient to provide these on one term basis.

In some cases where degrees include a substantial number of elective modules from several departments this has led to a concentration of work in Autumn and Spring and a gradual erosion of teaching in the Summer term. These are some of the internal considerations which have led to a division of the academic year into two 15 week semesters. Even before the Flowers recommendations were published a number of universities had taken a decision to implement flexibility through semesterization.

A survey by Davidson (1992) of the sizes of standard course or units, suggests that a pattern of 12 weeks teaching followed by 3 weeks for assessment will become normal practice in the 1990s.

Another impetus for internal innovation has come by way of flexibility through modularization. Modularization usually refers to the division of each year of a degree course into smaller discrete units of standard size, thus allowing for a notional division of the students workload into discrete parts.

The system introduced at Loughborough University of Technology in 1991 required full time undergraduate students to complete 12 modules in each year. Each module could be taught entirely within one term or could operate throughout the year on a ‘long/thin’ basis. Modularization in this sense is an enabling device which can be used to provide a number of innovations. For example, it can provide an institutional basis on which to review the comparability of demands made by different degree programmes and to develop funding in an equitable way to departments responsible for different aspects of teaching. It can lead to more efficient teaching where one module is seen as an appropriate part of several different programmes.

Most importantly, it can increase student choice where degree programs include a number of optional or elective modules (Costello 1994). The structuring of under graduate courses in modular form at Loughborough University of Technology was followed by a decision to introduce a system of credit accumulation at under graduate level.

Credit accumulation schemes allow students to build up ‘credit’ towards a degree by completing courses each of which carries a certain credit weighting. Most commonly in Britain, a year’s full time study is imagined as carrying 120 credits, so that a BA or BSc degree is awarded on the basis of 360 credits. Flexible credit accumulation scheme becomes useful and interesting when students act to negotiate and construct their own program with a range of subject content and a time scale which suits their individual needs. As Costello (1994) points out the so called ‘old’ universities are late comers to module and credit accumulation schemes. It is worth noting that nearly all the ‘new’ universities (former polytechnics) and, of course, the Open University have operated such systems successfully for a number of years.

The external impetus referred to above have included the requirement ‘to widen access to non-traditional groups’. As Tight (1988) has pointed out, if by the ‘traditional students’ is meant a homogenous group aged 18–21, white, British, middle-class and ‘hardly ever ugly’, the characteristic of non-traditional students is the extent...
of their heterogeneity. Non-traditional students come in all shapes and sizes: with or without formal qualifications, at any age, in very individual personal and economic circumstances, for example the waged and non-waged part-time matured students (Thorley 1991), overseas, European and domestic students.

From the health and social care professions has come the need to create an effective flexible modes of learning in post-registration nursing and social work education. In a sense, an appropriate response to a heterogeneous students need represents a flexible learning initiative.

**Humberside College of Health Experience**

In 1993, the Northern and Yorkshire Regional Health Authority commissioned Humberside College of Health to develop a flexible learning unit (FLU) within the college. The purpose was to develop the FLU as a resource for the benefit of other colleges of health within the region.

Humberside College FLU was to be the whole college: a flexible college. Thus Humberside College of Health flexible education development embraced all aspects of the colleges activities.

In Humberside College of Health, flexible education is generally accepted as being the creation and adaptation of the colleges learning resources to meet the needs of students. Flexible education provision has embraced wider staff involvement and development. (For example, commissioning an external facilitator (Learning Materials Design, Milton Keynes) to help college staff to take essential small steps in to the practical world of ‘Making a Reality of Flexible Learning’ (HCH 1996) as well as necessary organizational and infrastructural changes, for example developing open learning resource centres.

Developments and adaptations to dimensions of flexible education have included the following aspects of flexibility.

- **Provision and access:** modularization of all courses; credit rating; enhancing choice available to the learner, e.g. in recruitment, and module programme, starting date and entry to module programme; entry requirement; sponsorship and payment for module programme; schedule times; location of classroom based sessions; and location and choice of practice placement.

- **Teaching and learning:** content of module programmes; resources for teaching and learning activities; access to tutor guidance; and pace of progression through the module programme.

- **Assessment of theory and practice:** pattern and timing of assessments; the assessment criteria; task and form of assessment evidence; and formative and summative assessment evaluation.

In Humberside College of Health flexible education aims to give students more choices. It also aims to enhance student autonomy and accountability. Thus student-centred and adult learning principles are important aspects of developing flexible learning provision (Knowles 1970, Mezirow 1981).

**THE NATIONAL SURVEY**

**Research aims and objectives**

The aim of this research was to ascertain how providers of flexible education plan and deliver educational programmes to meet the needs of their customers. Specific objectives of the project were:

- to determine the ways in which flexible learning programmes and courses are delivered;
- to discover what aspects of flexibility are considered important when designing programmes to meet the needs of prospective customers; and
- to ascertain what approaches are used to assess demand for flexible education.

**Methods of data collection**

The research took the form of a national postal questionnaire survey. A nationally selected sample of providers of open and flexible learning in the higher/further education, private, industrial and health and social care sectors was drawn from the following representative sampling frame: See Table 1.

The dearth of material in this field of study made the researchers adopt a triangular approach as a means of developing an appropriate questionnaire content. To develop the survey questionnaire the following approaches were adopted:

- a thorough search through the relevant literature for the issues and themes relevant to the provision of flexible education was carried out;
- an in-depth discussion with experts in the field of flexible education was carried out; and
- focus groups were used to identify themes and issues from stakeholders.

**Table 1 The National Survey Sampling Frame**

| A membership list provided by the Open Learning Foundation |
| The British Association of Open Learning Members Directory |
| The Open Learning Directory |
| A list of Open Learning Foundation member institutions |
| Colleges of health using the Continuing Nurse Education Programme modules |
| A list of Health PICKUP Centres provided by the NHS Training Directorate |
Use of focus groups in the national survey

The aim of the national study was to identify consumer requirement for flexible education within the health and social care sector.

In the present study, the questionnaire content emerged from and was developed through the use of focus group discussions. Ideas generated by the focus groups served as the catalyst for the researchers who used the information to develop and generate new ideas. Focus group data were used to provide appropriate language and to improve the research questions. In a national study of this kind in which respondents had diverse orientations, characteristics and backgrounds it was crucial to use the correct vocabulary, jargon and phraseology in order to ensure that prospective respondents fully understood the questions asked. Bellenger et al. (1976) identified seven uses of focus groups from a marketing research perspective. For details of the use of focus groups as research techniques see Basch et al. (1989), Crockell et al. (1990), Digman et al. (1990), Hart & Rotem (1990), Elbeck & Fectue (1990) and Trenkner et al. (1991).

For the present study, focus groups were used: to explore issues and generate ideas to be used in the design of the national survey questionnaire; to provide information on the needs and wants of stakeholders regarding flexible education; and to provide primary data on the views and perspectives of stakeholders for the national study.

Three focus group events took place. To generate fruitful discussions the sample from which participants were recruited was restricted to those individuals who had had experience of flexible education.

Focus group one (managers, n 11) was recruited from health and social care managers.

Focus group two (course tutors, n 10) was recruited from tutors who deliver flexible education courses.

Focus group three (students, n 8) was made up of current students or individuals who had attended flexible education courses.

Selection of sample and analysis of focus group material

Our approach to analysis was to make use of focus group material to compare and contrast issues that emerged from other sources, for example, material from literature search, discussions with significant others and from established theory in social science. Focus group material was analysed in terms of typologies, continuaums, diagrams and metaphors that depict how focus group participants viewed the topic under study. For a detailed exposition of this approach see, for example, Patton (1990 pp. 393–400) and Krueger (1994 pp. 126–139). Focus group material helped to raise the level of understanding and awareness of the problems and issues under study.

This strategy has limitations. The problem with focus group interviewing is selection bias. For practical reasons participants could not be recruited on random basis. Randomization helps to ensure a non-bias sample selection, essentially giving everyone on the sampling frame an equal chance of selection. Randomization is an effective strategy to minimize probable selection bias. However, randomization works if the available sampling frame meets the selection criteria. Table 2 is an example of the logistics of focus group selection for the student sample. As can be seen, one column (7 August) provided the only workable number of recruits. This procedure was the only practical way to ensure that recruits were reasonably homogenous and unfamiliar with each other. The approach also guaranteed the researchers group size small enough for everyone to have an opportunity to share insights and yet large enough to provide diversity of perceptions. However, this approach undoubtedly introduced a degree of selection bias. The use of several sources was meant as a check on material obtained from focus group discussions.

A questionnaire was designed and first sent to Professor Roger Lewis, BP Professor of Flexible Education, University of Humberside and Brenda Clark, Researcher, ENB, London for their views and comments. The questionnaire was also discussed in detail with Dr Peter Birchenall and Mr Robert Adams of the Open Learning Foundation, University of Humberside and Brenda Clark, Researcher, ENB, London for their views and comments. The questionnaire was also discussed in detail with Dr Peter Birchenall and Mr Robert Adams of the Open Learning Foundation, University of Humberside and Brenda Clark, Researcher, ENB, London for their views and comments. The questionnaire was also discussed in detail with Dr Peter Birchenall and Mr Robert Adams of the Open Learning Foundation, University of Humberside and Brenda Clark, Researcher, ENB, London for their views and comments. The questionnaire was also discussed in detail with Dr Peter Birchenall and Mr Robert Adams of the Open Learning Foundation, University of Humberside and Brenda Clark, Researcher, ENB, London for their views and comments.

One hundred and ninety-four questionnaires were administered in August 1995. Reminders to respondents were sent on 11 September 1995 with a final cut off date of 10 October 1995. Eight questionnaires were returned uncompleted as respondents were no longer involved in flexible/open learning. These eight were therefore removed from the sample. This leaves an overall sample size of 186; 120 questionnaires were returned completed. This gives an overall response rate of 65%.

Table 3 shows the characteristics of the sample.

Table 4 shows the sample size and response rates for each of the different subgroups.

Every effort was made to maximize the response to the survey and the overall response rate of 65% was thought to be satisfactory given the specialized nature of the sample, and the national coverage of the sampling frame. Similarly the researchers were encouraged by the response rates achieved within each sub-sample. This ensured adequate representation from a diverse group of institutions within the UK that provide flexible education.

Table 5 shows the response rate by type of organization.
### Table 2 Logistics of FGD selection: student sample

<table>
<thead>
<tr>
<th>Course</th>
<th>Participant list</th>
<th>Configuration of schedule dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc Health Studies</td>
<td>J C</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>M E</td>
<td>–</td>
</tr>
<tr>
<td>Contact tel. no.</td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Research awareness</td>
<td>B C</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Contact tel. no.</td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>EN conversion</td>
<td>S W</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Contact tel. no.</td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Contact tel. no.</td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Diploma</td>
<td>C S</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Contact tel. no.</td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Cert. in Health Ed.</td>
<td>D C</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Contact tel. no.</td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Mentor assessor</td>
<td>S B</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td>Contact tel. no.</td>
<td>Tel. no.</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Tel. no.</td>
<td>–</td>
</tr>
</tbody>
</table>

**Data preparation**

The questionnaire collected mainly quantitative data, although qualitative data existed in the form of comments at the end of the questionnaire. This qualitative data was transcribed verbatim and then categorized into themes and issues. Comments that were particularly descriptive or summed up the tenor of respondents’ feelings and perspectives were noted and set aside to use as quotations in the report.

Table 3  Characteristics of the survey sample

<table>
<thead>
<tr>
<th>Sub-sample</th>
<th>Number of questionnaires sent</th>
<th>Percentage of total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleges</td>
<td>58</td>
<td>31</td>
</tr>
<tr>
<td>University</td>
<td>30</td>
<td>16</td>
</tr>
<tr>
<td>Specialist organizations</td>
<td>32</td>
<td>17</td>
</tr>
<tr>
<td>Health/social care sector</td>
<td>29</td>
<td>15</td>
</tr>
<tr>
<td>Industrial</td>
<td>37</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>186</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4  Response rates from each sub-sample

<table>
<thead>
<tr>
<th>Sub-sample</th>
<th>Total number responding from each group</th>
<th>Percent response rate from each group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleges</td>
<td>46 (n=58)</td>
<td>79</td>
</tr>
<tr>
<td>University</td>
<td>28 (n=30)</td>
<td>93</td>
</tr>
<tr>
<td>Specialist organizations</td>
<td>21 (n=32)</td>
<td>66</td>
</tr>
<tr>
<td>Health/social care sector</td>
<td>14 (n=29)</td>
<td>48</td>
</tr>
<tr>
<td>Industrial</td>
<td>11 (n=37)</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>120 (n=186)</td>
<td>65</td>
</tr>
</tbody>
</table>

Table 5  Response rate by type of organization

<table>
<thead>
<tr>
<th>Type of organization</th>
<th>Frequency</th>
<th>Percentage of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleges</td>
<td>46</td>
<td>38</td>
</tr>
<tr>
<td>University</td>
<td>28</td>
<td>23</td>
</tr>
<tr>
<td>Specialist organizations</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>Health/social care sector</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Industrial</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Both the quantitative data and the qualitative data were prepared for analysis. All data were coded and entered onto a computer database. A sample of questionnaires was then validated against the database to assure accuracy. The data were analysed using the analysis package SPSS.

RESULTS

The results of the study are presented under the following subheadings.

How flexible education is delivered

Respondents were asked to select from a number of listed alternatives the ways in which flexible education is delivered by their organization. Figure 1 illustrates their responses.

Figure 1 shows that open learning was the most popular method of delivering flexible education. Ninety-nine (82%) organizations combined open learning with tutor support, whilst 99 (82%) organizations used open learning packages on their own (most ticked both categories). Only two organizations did not use open learning in any form, one university and one college, although the university stated that it was being planned for the future.

Learning workshops were also a common method of delivery, being used by 70 (58%) organizations. Individual tutoring was employed by 66 (55%) organizations. All types of organizations used these methods.

Modular flexible programmes were popular with 62 (52%) organizations. The majority of these were universities and colleges. Six organizations within the health sector, three in industry and eight specialist organizations also delivered modular flexible programmes.

Drop-in centres, distance learning schemes and multimedia (e.g. video-conferencing) were used by all types of organizations. Computer networks, however, were mostly used by universities and colleges. Only four specialist organizations, four industrial organizations and one health service sector organization used computer networks.

Many organizations commented that they utilized a whole range of different types of learning schemes to meet the needs of their customers. One stated.

Our open/flexible learning programs represent a continuum from ‘drop-in and use materials or computers when you like’ to a multi-million pound contract to provide learning packages to a multiskill labour force.

The findings of this study are very similar to those of other studies looking at the delivery of flexible education.
Planning and designing courses

Respondents were asked to select from a list of alternatives the approaches they used to plan and design flexible learning courses. Figure 2 illustrates the responses.

Figure 2 shows that the most common way of planning and designing a flexible learning course was through the evaluation of existing courses, a method used by 98 (87%) of organizations. This was followed by informal feedback.

To whom is flexible learning provided?

Consumers of flexible education and training can be categorized into two main groups: learners who take up a course of study individually; and corporate clients/employers who need to educate and train their workforce.

Respondents were asked which type of customer they delivered flexible education to. Table 6 below shows the responses.

Table 6 shows that 41 organizations (34%) delivered flexible or open learning solely to individuals, whilst five (4%) delivered solely to corporate clients. All of the five that delivered to corporate clients only were specialist organizations. 74 (62%) delivered to both individual learners and to corporate clients.

Four organizations stated that they also delivered flexible education to other education establishments and trainers. Five organizations delivered to international employers whilst two delivered to community groups.

For example, a survey undertaken on behalf of the Coventry & Warkwickshire Training & Enterprise Council (1991) to investigate the approaches to flexible training adopted by employers and training providers in the area, found that where flexible methods of delivery were used, open learning text was the most common. The study also revealed that technology-based training such as interactive video and computers tended to be discounted on the grounds of cost.

The study conducted by Humberside College of Health (1996) to identify consumer preferences for flexible learning also revealed similar findings. For example, open learning and learning workshops were the most common ways health and social care employers delivered flexible education and training. Computer networks were the least common. When asked how they would prefer to see flexible education delivered, both individual learners and employers listed open learning and modular-based training as the most common preference. Again computer networks were the least popular.

Planning flexible education

Multi-media
Computer networks
Distance learning schemes
Drop-in centre
Regular flexible programmes
Individual workshops
Learning workshops
Open learning packs
Open learning with tutor

Figure 1 Main ways in which United Kingdom educational organizations deliver flexible education.
from both colleagues (87, 73%) and customers (86, 72%). The use of a task group or working party was also a popular method of planning courses (85, 71% of organizations) as was carrying out a training needs analysis (63, 53% of organizations).

Those methods that required an organization to formally consult customers, however, were less common. For example, interviewing and surveying customers were methods used by only 47% and 46% of organizations, respectively. Focus groups were even less popular, being used by only 31 (26%) of organizations.

Cross tabulation of the variable ‘type of organization’ with each of the methods listed above showed the most popular methods used by colleges was evaluation. The least common method used was found to be focus groups. For universities, task groups were the most common method, followed closely by evaluating courses. Again focus groups were the least common methods.

The most common method of planning and designing courses by specialist organizations was informal feedback from customers. Surveying customers and focus groups were the least common. Within the health and social care sector, carrying out a training needs analysis was the most popular method, whilst surveying and focus groups were again the least popular. Training needs analysis was also the most common within industry, whereas task groups were less common.

**Importance of aspects of flexibility**

As stated above, a flexible or open learning system can be described as one which offers a range of freedoms designed to meet the needs of the individual (Lewis 1995). Lewis (1995) groups these freedoms, under two headings: choices in access (including studying at a time, place and pace suited to the learner) and choices within the course itself (choice

<table>
<thead>
<tr>
<th>Aspects of flexibility</th>
<th>Very important</th>
<th>Important</th>
<th>Not important</th>
<th>Not applicable</th>
<th>Missing data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time that suits customer</td>
<td>91</td>
<td>24</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Content that suits customer</td>
<td>91</td>
<td>23</td>
<td>1</td>
<td>–</td>
<td>5</td>
</tr>
<tr>
<td>Pace that suits customer</td>
<td>88</td>
<td>28</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Location that suits customer</td>
<td>67</td>
<td>43</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Negotiated tutor support</td>
<td>61</td>
<td>48</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Choice of learning mediums</td>
<td>37</td>
<td>64</td>
<td>5</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Negotiated assessment</td>
<td>28</td>
<td>57</td>
<td>13</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Payment by instalment</td>
<td>14</td>
<td>46</td>
<td>29</td>
<td>22</td>
<td>9</td>
</tr>
</tbody>
</table>
of assessment method, negotiating content and choice of mode of study). It also includes aspects of flexibility such as negotiating access to tutor support at a time of convenience and flexibility in the way a learner pays for a course.

Respondents were asked what aspects of flexibility their organization considered important when planning courses to meet the needs of their customers. Respondents could select from four categories: ‘very important’, ‘important’, not important’ and ‘not applicable’. Table 7 shows their responses.

Table 7 shows that the most important aspects of flexibility relating to accessing learning were delivering courses at a time, pace and place to suit the customer. Such flexibility was seen as ways of removing the physical barriers associated with traditional education such as fixed locations, fixed start and finishing times and fixed day and time (Lewis 1986). One respondent commented:

The course is delivered at weekends and students can take the number of modules they wish, consequently taking as much or as little time to finish the course as it fits their work schedule.

The ability of customers to pay by instalments appeared to be of less importance to organizations, although cost of education and training is known to be a common barrier to accessing learning. Lewis (1986), for example, cites cost of travel and fees, cost of release from employment and cost of course materials as financial barriers that limit access. In addition, a study to investigate the consumer perspective on open learning showed that personal financial constraints ranked as the most common barrier to accessing study (Jones & Rushforth 1996). Paying by instalments therefore is one way of easing financial burdens. Indeed, the study conducted by Humberside College of Health (1996) to identify consumer preferences for flexible learning revealed that 89% of students would prefer to pay by instalments rather than one lump sum.

The most important aspect of flexibility relating to choices within the course was ensuring that the content suited the customer. Ninety-one organizations (76%) felt this to be very important. This was followed by the ability to negotiate tutor support, felt to be very important by 61 (51%) organizations. Of less importance to organizations were providing a choice of learning mediums and allowing a choice of assessment method.

Some respondents commented on other aspects of flexibility incorporated by their organizations:

The MSc course is flexible in that the entry requirements are not rigid.

We have credit-rated all programmes and are now at a stage where the curriculum is adaptable enough to provide a range of flexible programmes.

Many respondents stated that their organization tries to tailor a course to an individual or company’s specific needs. Comments included the following:

- We try to be as flexible as possible. Initial counselling/advice/guidance tells us which course is suitable. If there is not one off the shelf, we try and tailor make it for the individual.

- The emphasis with the college is on designing programmes specifically for each customer-tailored programmes to meet client need and individual tutor support.

- We offer our clients a variety of solutions or approaches to identified training and development needs, including open and flexible learning initiatives. Our ‘open course’ programme feature some open learning materials which can be extended into company based programs if requested.

- We produce a lot of in-house material using our own graphic designers. This lets us tailor materials to student requirements.

One institution stated that tailoring education and training to consumer needs was essential to survival:

We serve 8000 square miles of area and a large rural population who expect us to provide a service over 100 miles away. With a small business base who cannot release students and who demand specific tailoring we are dependent on survival to offer a complete service as possible.

The production and purchase of open learning materials

Respondents were asked if open learning materials were used by learners on their courses. 117 (97%) said yes, whilst 2 (2%) said no. One respondent stated that the question was not applicable because they publish open learning materials, not run courses.

Those organizations who used open learning materials were asked to indicate whether they produced their own packages to meet the needs of their customers, whether packages were purchased and adapted or whether packages were purchased and used as they stood. Table 8 shows the range of answers given.

Table 8 shows that nearly half of organizations (48%) bought some open learning materials, produced some of their own in-house and bought some and then adapted them. Fifteen organizations purchased open learning materials, 10 produced their own materials, whilst one organization bought in materials then adapted them for their own use. Comments regarding the production and use of open learning materials included the following:

- We try to provide open learning materials to support major initiatives within the Trust. This included the purchase of books/videos, not just formal open learning materials. We attempt to link this to the organizations business plan.

- We have standards and procedures for the development, production and delivery of open learning materials and courses.

- We produce most of our own courses for our own students. The materials can then be marketed where applicable. In some cases
taught courses have been converted to distance learning, but rarely have we produced material specifically for an external client.

More general packages of existing products are customised for use and to meet the college quality standards.

Recently joined a consortium of similar colleges to develop more flexible materials.

### Assessing customer demand for courses

Respondents were asked to select from a list of alternatives, the approaches they took to assess demand for courses. Figure 3 illustrates the responses.

Figure 3 shows that the most popular techniques for assessing demand for courses was monitoring enquiries from prospective students and informal feedback from students. This was a consistent trend across all types of organizations. Monitoring the demand of existing courses and informal networking with colleagues and experts were also popular methods. Comments include:

Demand for provision is often more ascertained through networks of members of the faculty through informal/formal arrangements with the ENB. Regional Health Authority Managers. FHSA, etc.

Publishing for open learning is a new venture for us. The main source of information is people. We try to stay in contact with leading experts in the field and receive advice on any gaps in the market and commission accordingly.

The more formal techniques, however, were less common methods of assessing demand. Indeed, slightly more organizations (45%) relied more on their intuition than, for example, surveying (42%) or interviewing customers (39%). One respondent commented:

We spend a lot on intuition, which given our collective experience is perhaps not quite as vague as I sometimes fear.

One reason that might explain why informal techniques were more common than formal is revealed in a comment made by one respondent:

We would do all of the listed alternatives if we had both the time and money.

In other words, informal methods such as monitoring of enquiries and feedback from students, are cheaper and less time consuming than conducting questionnaire surveys or interviewing customers. Indeed, focus groups, a technique used extensively by the private sector (Stewart & Shamdansi 1990), but which can be both expensive and time consuming, was utilized by only 22% of organizations.

![Figure 3. The approaches organizations use to assess demand for flexible and open learning courses.](image)

The least common method was commissioning other companies to carry out market research. Only 20% of organizations employed this method.

Other ways respondents stated their organization assessed the marketability of a course were: scan of qualifications requested for jobs in local newspapers, training needs analysis, piloting programmes; project boards; keeping abreast of new developments in the open learning field; selecting popular modules from traditional courses; adapting existing traditional courses to specific student demands; and gathering information from other organizations such as the funding council.

Other comments from respondents were:

The college is a partner in an education advice shop which is a good source of market information about content, etc.

Sometimes we have a small market which would lend itself to a more flexible delivery method and then encourage further market research to see if by changing the delivery method and/or altering content we can increase the number of students choosing the course.

**When market research is carried out**

Respondents were asked whether customer demand for a course was assessed in advance of course development or after a course had been designed. Table 9 shows the responses.

Nine respondents did not answer this question. Of those that did, 89 (80%) said they assessed customer demand in advance of course design. Eight (7%) said they assessed customer demand after course design. Fourteen respondents (13%) stated they did both. Comments included the following:

Getting this right is how we have stayed in business since 1963.

In terms of marketing, this has proved to be a useful selling point. We work throughout the UK organizing study days, modules and longer courses in response to demand. Development work is undertaken in response to customer need.

The open learning facility is marketed by carefully targeting those who would likely to benefit.

**Table 9 When market research is carried out**

<table>
<thead>
<tr>
<th>Type of organization</th>
<th>In advance of course design</th>
<th>After course design</th>
<th>Both</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleges</td>
<td>36</td>
<td>3</td>
<td>5</td>
<td>44</td>
</tr>
<tr>
<td>University</td>
<td>20</td>
<td>2</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>Specialist organizations</td>
<td>11</td>
<td>–</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Health/social care sector</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Industrial</td>
<td>15</td>
<td>2</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>8</td>
<td>14</td>
<td>111*</td>
</tr>
</tbody>
</table>

* Missing data = 9.

**SUMMARY OF FINDINGS**

The following points summarize the findings of the research.

The use of open learning materials was the most common method of delivering flexible education. The study revealed that only two organization did not use open content in any form.

Learning workshops, individual tutoring, modular flexible programs, drop-in centres and distance learning schemes were also popular methods of delivery. Most organizations utilized a range of these methods.

The least common ways of delivering open and flexible education was through multimedia, for example, video conferencing, and computer networks.

The majority of organizations delivered flexible education and training to both individual students and corporate clients. A third delivered solely to individual learners. Only four organizations delivered to corporate clients.

Evaluation of existing courses was the most common method of planning and developing courses to match the needs of customers. Other common methods included informal feedback from colleagues and customers, the use of a task groups and training needs analysis. Those methods that required an organization to formally consult customers such as interviewing, surveying customers and conducting focus groups were less common.

Delivering courses at a time, place and pace to suit the customer were considered by organizations to be the most
important aspects of flexibility relating to accessing learning. However, although the cost of education and training is known to be a common barrier to accessing learning, payment by instalments was of less importance to organizations.

Ensuring the content suited the customer was considered by most organizations to be a very important aspect of flexibility relating to choice within the course. Negotiating access to tutor support was also felt to be very important. Of less importance to organizations were providing a choice of learning mediums and allowing a choice of assessment method.

Providers of open and flexible learning tend to use more informal than formal methods of market research to explore consumer demand for courses. For example, the monitoring of enquiries from prospective students, informal feedback from students and colleagues and monitoring the demand of existing courses were all popular methods. Surveying customers, interviewing customers and conducting focus groups were all less popular.

CONCLUSION

The provision of flexible education in the form of open/distance learning is fast growing in the higher education sector as well as in the corporate sector. Many companies and organizations in both the private and public sectors are using open/distance learning as means of developing their workforce. These include large industrial companies such as Shell UK, British Telecom, ICI, and Halifax Building Society, and public bodies such as NHS trusts and local authorities as well as small local engineering and constructing firms.

Open/distance learning is also proving itself to be a key method of providing the competence based training enshrined in the new National Vocational Qualifications (NVQs) being established by the various industrial-led bodies (DOH 1989).

The higher education sector, universities and colleges, is also looking at ways of extending income-generation activities within the corporate sector, in line with the local management of colleges implications of the Education Reform Act 1988. This growing collaboration ensures that open/distance learning provides both flexibility and cost-effective use of the resources of these institutions. Open/distance learning appeals to corporate bodies because: it can be directly work-related; it is possible to involve line managers and supervisors in support; it is seen as being cost effective; it can provide standardized training of guaranteed quality to large members of staff; and it allows access for staff who cannot otherwise be trained, for example shift workers.

The growing enthusiasm for education for adults who take up part-time courses based on modular schemes also ensure that a significant proportion of flexible education provision is taken-up by individual learners. In the present study 33% of consumers are individual paying members. As Knowles (1975), Coffee (1977) Robinson (1989) Westwood (1991) Salisbury & Murcott (1992), Thomas (1995) and Young (1995) and recently Dearlove (1997) point out the higher education system should be adapted to the needs of the new learners.

Changes in higher education provision indicate a continual trend towards greater innovation in flexibility. A major problem in open/distance learning is the relative lack of interaction and the isolation that many students feel while on courses.

Using new technology, the advantages of open/distance learning can be built upon whilst at the same time developing an interactive community for students and staff.

The creation of virtual universities will help to reduce the disadvantages felt by some students, see, for example, Parkhurst (1995), EUCS (1996), Princhett (1996) and Rhodes & Davidson (1996). The resources of the virtual university are potentially unlimited. These include the use of E-mail, the Internet, video conferencing, world wide web, E-journals and virtual libraries.

One approach is that illustrated by Parkhurst (1995) using Penn State University’s world wide web page: virtual course; if you have access to E-mail you can access these courses. As an E-mail course or virtual course, the participant can enter the virtual classroom at any time during day or night. Using E-mail, there is virtually 24-hour access. All 15 lessons will be available when the course begins. Therefore the participants can work at their own pace. The virtual course work could be completed in as little as 1 week or as long as 15 weeks. The participants also have access to the instructor via E-mail.

References

Planning flexible education


