

An Evaluation of the Information Needs and Practices of Part-Time, Distance Learning and Mature Students in Higher Education

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Abstract:

This paper evaluates the information needs and practices of part-time, distance learning and mature students in Higher Education (HE) outside the Open University (OU). In recent years, the government has pointed out the importance of individuals engaging in lifelong learning, to remain competitive in a globalised economy, which draws increasingly on successful knowledge creation. In response, the HE sector in the UK offers a growing number of its programmes on a part-time and distance-learning basis for students to remain in full- or part-time employment while studying for further qualifications. We question whether the information-gathering practices of part-time and distance learning students best reflect the pedagogical concept of lifelong learning. Our results show that the majority of universities do not cater for the specialised needs of part-time and distance learners well, which leads to an increasing use of the Internet and employer resources as a substitute for traditional information channels. Students have major problems coping with the complexity of the WWW and they made recommendations on how to improve existing information services in HE.

0. Background: The historical development of part-time and distance learning programmes in the UK

Until the middle of the 19th century much of the HE climate in the UK was determined by the church and cultural elite attending the traditional full-time programmes in the Oxford and Cambridge tradition [1]. Following early Scottish developments, the University of London opened its doors in 1826 to the general public by operating as an external examining body for those students that attended classes in local colleges. In the latter half of the nineteenth century, other universities joined the extension movement, and advances in the print industry together with an improvement in postal services led to the implementation of the first correspondence courses. Fieldhouse points out that these programmes focused on arts and humanities education, concentrating on the middle rather than the working class [2]. At the turn of the century, the British education system was transformed through a standardisation of the university degree structure and tighter control on expenditure for HE, which led to decreasing numbers of short-courses available for mature students in the universities. After World War I, entrance requirements for university attendance were established with the young, full-time student in mind, which

transferred the responsibility for post-secondary education to technical colleges and trade unions.

The post-World War II period focused on the restructuring of secondary education, which left the need of enhancement of adult education marginalised [3]. The 1963 Robbins Report recognised the importance of a university expansion programme, but officially excluded any recommendations on the provision for part-time, distance learning or mature students. The implementation of the binary policy, dividing HE from technical colleges and polytechnics, restricted the successful working of democratisation processes, advised just a few years earlier by Robbins. Lowe argues that these developments together with an decrease of adult education through the Workers Educational Association (WEA) led to a demand of a University of the Air, which was to become the Open University who recruited its first students in 1971 [4].

The 1992 Higher and Further Education Act resulted in the abolition of the binary line, and the polytechnics did not consider extra-mural activities or adult education to be a separate entity. Part-time provision for adult students went in line with mainstream undergraduate and postgraduate programmes, and increasingly the pre-1992 universities were forced to adopt the same pattern for their mature students. As most courses were transformed into a modular credit structure, more students formerly studying in a leisurely manner under the 'open' system, had to consider going down the degree route instead. An even more fundamental change was under way as a result of the 1997 Dearing Report, which introduced the term "lifelong learning" as a new pedagogical concept for the new millennium. From the beginning, the report established an educational policy that is anchored in a much broader cultural context involving recognition of the individual's development beyond secondary and higher education:

'The purpose of education is life-enhancing: it contributes to the whole quality of life. This recognition of the purpose of higher education in the development of our people, our society, and our economy is central to our vision. In the next century, the economically successful nations will be those which become learning societies: where all are committed, through effective education and training, to lifelong learning.' [5]

The Dearing Report compared the perception of part- and full-time students about their institutions and programmes of study [6]. Part-time students were particularly restricted in terms of institutional choice because of family and work commitment (over 90% were in full-time employment). As a result, part-time students were also less flexible regarding their choice of programme, academic reputation, teaching record and research status. Full- and part-time students were well informed about the specific content of a programme but lacked awareness on non-academic skills covered in the course. A majority of part-time students (58%) were encouraged by their employers to engage in educational activities and of those who enrolled for a particular programme, 79% received financial support from their company. Part-time students reported an improvement in all three areas under that of their full-time colleagues with the exception of writing skills and self-motivation. On the other hand, it was striking that 6% of all part-time students reported a deterioration of their self-motivation. Interestingly, the Dearing Report excluded the perception of part-time students on library resources, computing and laboratory facilities and other specialised equipment needed for their study programme.

It therefore appeared that the time was right for a study of the information practices of part-time and distance-learning students. In addition, the emergence of the World Wide Web as a medium for the delivery of publications in electronic form has altered the practical possibilities dramatically over the past five years.

1. Our Research

1.1 Introduction: selection of sample

The aim of the research project was to ascertain current practices and future prospects in the use of professional-level information services by students who are located remotely from their institutions of higher education or who study on a part-time basis, which restricts their access to institutional information services. We emphasised the contribution to this provision that may be made by electronic information resources available via the Internet, and evaluated the students' perception of possible cost implications for such a service. In addition, we assessed the student perception of future developments in information services in the HE sector. We specifically excluded students at the Open University from our survey, since their information needs are provided for in a very specific and structured way by the Open University's system which other universities would not be able to emulate.

As the project anticipated a general exploration of the lifelong learning environment, an equal distribution of respondents across the mode of study, subject area and the level of qualification had to be achieved. The starting point for the sampling procedure was information taken from the Internet, which allowed the identification of distance learning, part-time and short-course programmes. In addition to contacting programme tutors directly, students were also approached through the use of e-mail discussion lists. In the end, 77 students volunteered to participate in the study and another 160 addresses of students were received from a number of course administrators, which were used for the distribution of the questionnaire only.

For this study, 30 semi-structured telephone and personal interviews and two focus groups were conducted. In addition, 220 students from 17 universities and 31 different departments were approached to complete a questionnaire, which was available in printed form and on the WWW. A higher than average response rate was expected as the researchers established e-mail contact with nearly half of all respondents prior to the distribution of the questionnaire.

1.2 Telephone and Face-to-Face Interviews

Three face-to-face and 27 telephone interviews were carried out to help in the design and supplement the results of the questionnaire. The interviewees were chosen from different part-time and distance learning programmes in the UK. The respondents split into 16 postgraduate taught, seven research postgraduate, five undergraduate and one short course student. One student classified herself as a lifelong learner after she has completed all of her HE as a mature student. It was interesting to see that none of the 16 students studying on a distance learning basis pursued their course of study full-time. Four of the distance-learning students were based outside the UK and six respondents were non-native English speakers. The telephone interviews were based on an open topic guide and monitored four pre-defined subject areas: information sources that are currently used by the students, problems related to obtaining subject-related information, the future of information service provision and the mapping of an 'ideal world of information scenario'.

1.3 Focus Groups

The two focus groups consisting of seven participants each, were conducted after the completion of half of the telephone interviews. As a result, the research team had a clear indication of problems associated with the provision of information services, which helped

in the design of a topic guide for the focus group meetings. Altogether, five of the participants had been interviewed prior to the focus group meetings. It was anticipated that this would not bias the group behaviour as the general perception of respondents on the provision of information sources was not likely to change on the basis of the telephone interviews. In contrast, a positive discrimination could be achieved as these respondents could probe the other participants because they were more familiar with the topic. Fewer interactions were needed by the moderator, which led to a considerable improvement of group dynamics.

The first focus group was conducted at Birmingham University and consisted of students who were studying for either an Executive MBA (part-time evening) or a MSc in Economic Development (part-time day-release). The second focus group was held at Loughborough University with seven participants, studying in five different disciplines. All but one participant (MBA, University of Birmingham) studied at Loughborough University in either evening or day release mode. One of the participants was a full-time, distance learning student based in Glasgow. All other participants were in full-time employment and lived within daily commuting distance from their university.

1.4 Questionnaire Survey

The questionnaire was returned by 106 students, which represents a response rate of 48 per cent. The respondents studied for a diverse range of subject areas (Business, Education, Social Science & Humanities, and Science & Engineering) on undergraduate (11%), taught postgraduate (55%), and research postgraduate (17%) level. In addition, 17% of the students were participants in short courses. As the over-representation of taught postgraduate programmes reflects well the availability of part-time and distance-learning programmes outside the OU, we decided not trying to achieve an equal distribution among courses. During the interviews a number of respondents pointed out that they do not have all the formal qualifications necessary for following a postgraduate degree, but it seemed that a majority of departments were more flexible with the admission of mature students because their work experience was often taken as a substitute for formal academic qualifications.

2. Data Analysis and Results

2.1 The information flow from traditional resources

The biggest barriers to using university libraries [7] for all the students were time and geographical constraints. Over one-third of the respondents never entered their or any other university library during their course of study. More than three-quarters of the part-time students found that the opening hours of the university library are not tailored to their needs and another 34% of the respondents visit a university library only between one and three times per month. The interviews and focus groups revealed the following main problem areas in information provision by university libraries:

- restricted opening hours during vacation periods that hit part-time students in full-time employment most
- short-loan collections which could not be used due to a 24-hour return policy
- inter-library loan services of some institutions operate with a long delay
- strong competition for material because part- and full-time students use the same reading lists

Students recognised that in most institutions library staff would try to adapt to the special needs of part-time and distance learning students. Some of the universities operated special distance learning units, which would provide mail deliveries and an extended electronic information network. A majority of the respondents had to purchase core reading material with an average expenditure of £40-60 per module.

Even though public libraries are recognised by students as a possible source of information, they generally do not cater for the specialised information needs of students in higher education. Nevertheless, the interviews revealed that students found staff in public libraries friendlier and more helpful compared with the university librarians. In addition, the inter-library loan service of public libraries compared favourably with that of universities.

Even though the respondents were critical about libraries, books and journals still emerged clearly as the most frequently used information source by our students. Even though the Internet makes life a lot easier as it saves valuable time, there was a general agreement between respondents that nothing compares to the traditionally published information material because of its mobility, flexibility, easy scanning, more comfortable reading position with less constraint on the eyes, and the option of storing texts for a long period of time. The Internet is frequently used to order books through online bookshops, but students generally prefer to read study material on paper than on the screen. Newspapers and magazines represent a valuable information channel particularly for social science and business students.

Anyone deciding to study for a degree or postgraduate qualification would probably expect to receive an introduction on the availability of information sources in one form or the other. Only 46% of the respondents received such an introduction, which included information on library and Internet resources. Our study has shown that such an introduction was only common among social science and humanities students (77%) and least likely to be offered in business schools (65%) and education departments (54%). It was expected that part-time and distance learning students would receive a special introduction on the availability of information services, as their access to the university libraries is considerably restricted. But interestingly, our results revealed that the introduction to information services had no impact on the quality rating of library and Internet resources with 7% of the students considering the quality of both as unsatisfactory.

2.2 The information flow from electronic resources

Our survey suggests that distance learning and part-time students make increasingly use of electronic information sources. Only 12% of the respondents did not have an Internet access at home, and a lot of time is spent searching the WWW for information. Nearly half of all students spend more than 10 hours a month on-line and only 3% of the students make no use of the Internet at all. Considering the access difficulties to university libraries, it was a surprise to find that a majority of students (52%) do not spend more than 6-10 hours per month on the Internet. A majority of students who spent long hours on the Internet (>10 hours per month) were also regular library visitors (Fig. 1).

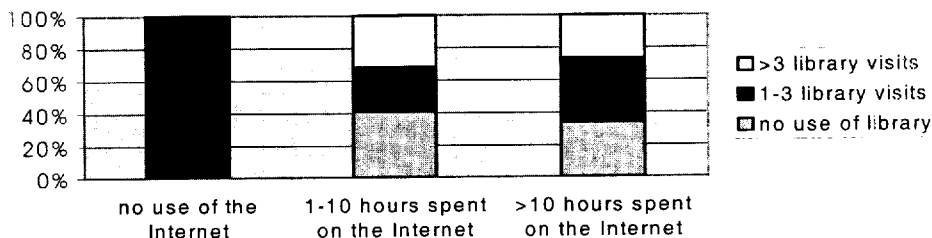


Fig. 1 Library visits in relation to hours spent on the Internet

Even though the Internet is very popular with students, it is not a medium without conflict. The Internet did not emerge as an alternative information channel for those students who were unsatisfied with their university library as a majority (67%) would also give the Internet a rating of a just pass or unsatisfactory.

Students still enjoy studying more than searching for study materials (64%), which might be mainly due to the difficulties associated with accessing the library rather than searching for books *per se*. In addition, students appeared to be very impatient with search engines and information systems, particularly science and engineering and business students (Fig. 2). Almost half of all students (49%) do not invest more than ten minutes in finding out how an information system or search engine works. Overall, an information service provider would have lost nearly three-quarters of its customers if they could still not understand the information system after 15 minutes.

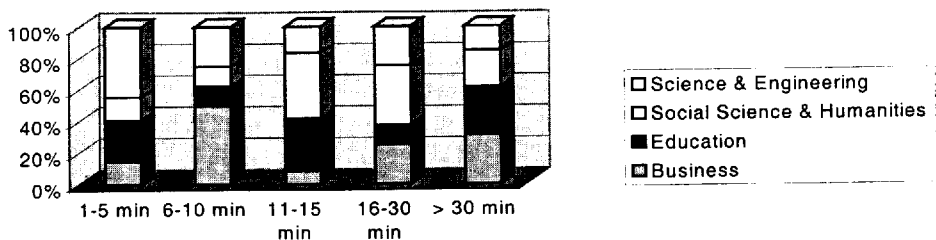


Fig. 2 Maximum timeframe for working out how an information system or search engine works

Generally students seem to be familiar with search engines, as three-quarters of the respondents had no difficulties searching for relevant information sources. Nevertheless, the majority believe that a lot of the search engines are too general and they would appreciate a service that would be more specific for their academic and professional development. There was an indication that the most and least frequent users of the Internet were less likely to spend a long time with a new information system or search engine (Fig. 3).

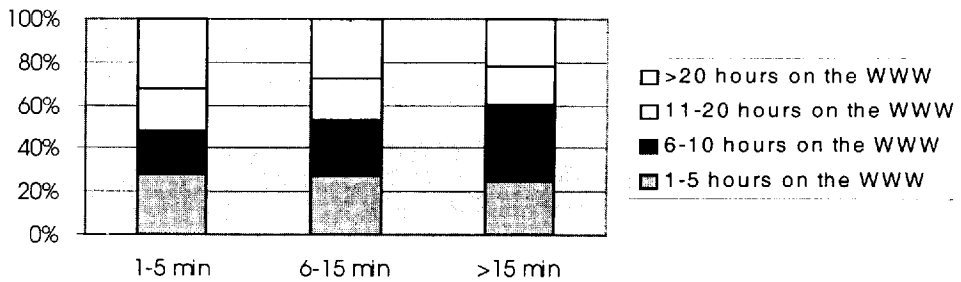


Fig. 3 Usage of the Internet in relation to the time students are prepared to spend with a new information system or search engine

Our results indicate that there is a split between Internet users on the topic of being able to filter relevant information. Half of the students often feel overwhelmed by the amount of information that is provided on the Internet and question its quality. In fact, the focus group discussions revealed that students would welcome the implementation of subject-related gateway services, which would operate as an electronic library with the additional feature of a quality assurance system of commercial websites and e-mail discussion groups.

Nearly half of the respondents (48%) found that there is high competition for books in university libraries, and part-time or distance learning students are normally the ones who get the last pick. As a result, over three quarters (77%) wished that there was an electronic library that would send students material on request via e-mail. Students did not agree on how much such a service should cost (Fig. 4). There seemed to be a general perception that such a service should be offered free of charge, as the information service provider would be able to recover its cost through advertising campaigns. On average, social science and humanities students are willing to pay a higher price per electronic document delivery compared with all other students. Business and science and engineering students are most reluctant to using a service on a pay per view basis, mainly because they feel that the Internet already provides enough information for them free of charge.

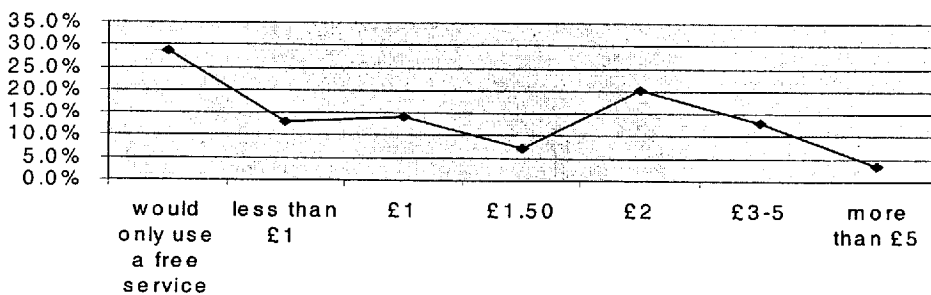


Fig. 4 Maximum price a student would be willing to pay for an electronic document delivery

The two least used information sources are TV/radio and e-mail discussion groups. The former may be subject to increasing commercialisation, which may effect the quality of TV and radio programmes. Only one-third of the respondents is subscribed to e-mail forums. The interviews and focus groups revealed that discussion forums are often considered as lacking quality and providing information that is not really relevant to the

course of study. Generally, the more time students spent on the Internet, the more likely they were to subscribe to e-mail discussion forums.

2.3 The Impact of the Work Environment on Part-time and Distance Learners

For mature students the work environment represents an important access channel to information resources. When asked for the character of their current employment contract, the majority of respondents answered that they were working on either a full-time (76%) or a part-time (15%) basis. Science and engineering students, in particular, tend to work more flexibly, with over a quarter of them in part-time or casual work. Their flexible work patterns give these students a greater opportunity to visit their university library (43% at least once week). This compares favourably with the business students, of which over half (58%) have never seen their university library at all. This group is perhaps more likely to take their information from the Internet, considering that all business students had access to the WWW from work and 85% from home.

We were surprised to find that only one of our students claimed to be unemployed considering the governmental efforts for better access to HE among those without a job [8]. Vocational training schemes, supported by Training and Enterprise Councils or Local Enterprise Councils, seem to receive a higher backing than formal academic qualifications. Governmental support is minimal and does not cover the full tuition fees, referring the unemployed who aim for a postgraduate degree to university access funds and family support [9]. As a result, it was no surprise to find that 44% of our students received full and 15% part-funding from their employers. The remaining 41% of students were self-funding and, indeed, during the interviews we heard many times that the reason for pursuing their programme on a part-time basis was the fact that they had to finance themselves.

We were not able to establish a correlation between those employers funding the studies of their employees and the provision of information services by the same company. The provision of electronic information resources by the employer had no effect on the number of library visits or the hours students spent on the Internet. The interviews and focus groups revealed that there was a greater level of satisfaction among those students who had access to a company library. Especially, international corporations offered extensive library resources, which often included a physical library that offered an international inter-library loan service, portal services and e-mail discussion forums. Respondents working in smaller companies often found a substitute in library and information resources offered by professional associations.

Internet access at work was granted to 87% of all students. In addition, the employer provided general electronic information resources for 43% of the students, which was welcomed by the respondents with one-third of the students being moderate to frequent users of this information service. On the other hand, internal company information was of little use to the respondents and could not be really integrated in the course of study.

A majority of mature students are members of professional associations (62%), whose information services are valued highly as another important work-related information channel. Only five respondents were not satisfied with the information that was provided by this body, which appears negligible considering that over half of the members of professional associations judged their information service to be very good or good.

3. Discussion and Conclusions

Most of the HE institutions did not provide sufficient support for part-time and distance learning students to pursue their courses successfully. A particular concern was the recognition by students that they would be able to achieve better results if they had better access to information resources.

As a result, it was not surprise to see employers emerging as a blessing for a lot of students working for multi-national corporations, as they normally provide well-maintained company libraries and access to electronic information services. But not all students have the luck to work for these corporations, and especially employees of smaller, national companies, who want to enhance their careers prospects in a changing economic climate of the global community, are the ones to suffer most from restricted access to information resources.

Even though it is realised that an upgrade of existing facilities need to be evaluated on the basis of cost-benefit considerations, simple operational changes could be achieved without high capital investment. Mulvaney and Lewis report on the implementation of a new distance learning initiative for the education library at Birmingham University that was mainly based on operational changes but implemented nearly all the recommendations given by distance learning students [10]. Surprisingly, more than two years later, hardly any of these changes had been introduced to the central library service. The changes made at the education library covered nearly all the recommendations that were given during the focus group meeting but unfortunately, these respondents are unlikely to be the beneficiary and will remain standing in front of closed library doors.

A number of suggestions come from the students themselves:

- special library opening hours for part-time students (two 'long' evenings per week, also operated during vacation periods)
- an electronic reservation service, which would allow students to book material in advance
- closer liaison between subject librarians and departmental staff to check on the availability of reading material
- special introductory sessions which are subject-related and focus on the information needs of part-time students
- alternative reading lists to those of full-time students, which would take pressure off existing resources
- evaluation of websites by lecturers on the quality of information
- postal loans for distance learning students
- increased information networking between students, departmental and library staff

An emerging question, which will need to be addressed by lecturers teaching part-time and distance learning students, is the integration of electronic information resources into the curriculum. Even though publishers are increasingly investing in ICT as a substitute for the existing distribution models, some issues remain unresolved. Adequate pricing mechanisms are not sufficiently developed yet and copyright regulations will need to be adapted [11]. As long as solutions are not found to these problems, publishers will be reluctant to make further high capital investments in ICT channels. Subject-specific information pools that target mainly part-time and distance learning students are likely to be driven furthest down the agenda.

Until these issues are resolved, the best possible solution would be the implementation of subject-related gateway services through commercial information service providers. This would allow students to experience a slow adjustment from the traditional university library to the electronic information network. Our research has shown that mature students

work under particular financial constraints, as they often do not receive financial support from their employer and have family commitments. As a result, the success of such a new service will ultimately depend on the utilisation of a suitable pricing mechanism. Students are only prepared to make a minimal contribution, which raises the question of how to recover the remaining costs. The students in this study showed a high level of appreciation for advertising in electronic information services, which might need to be considered as one possible contribution in a gateway service. In addition, electronic bookshops are highly used among part-time and distance learning students, which might need to be regarded as an important augmented product to the subject gateway.

The study has shown that the information needs and practices of part-time, distance learning and mature students in a lifelong learning environment have been rapidly transformed by the use of ICT in the higher education sector. Even though electronic facilities make the information-gathering exercises of part-time and distance learning students easier, there is still a long way to go until the institutional information layer will be optimised in HE sector. Adjustments will need to be made by information services departments to guarantee the future success of undergraduate and postgraduate programmes. The distinct information needs of part-time and distance learners are often not recognised by universities, and only few programmes offer a specialised information service provision for these students.

Clearly, the major problems associated with part-time and distance learning studies are the emerging time constraints, as nearly all students studying in this mode also hold demanding full-time jobs. As a result, key demands on the implementation of better information practices centre around the optimisation of time management. Ultimately, according to Freeman, this would mean recognising the student as a consumer of higher education information services [12]. In a country where students pay tuition fees higher than in any other European country, it must be questioned whether British learners have the right to request unique support. Key demands made by students relating to information services are listed above.

With an increase in distance learning courses, more universities provide specialised distance learning units, which have been welcomed by our respondents. Compared to the part-time students, whose needs go often unaccounted among full-time students, more specialised services are offered for distance learners. Not surprisingly, a lot of part-time students feel like the fifth wheel of the higher education community, dragged along but with no special support. Considering that part-time study opportunities foster the integration of local communities with their local HE institution, there might be a need to increasingly create part-time in addition to the existing distance-learning units.

The study has shown that the emerging conflicts between traditional and electronic information resources is embedded in a much wider transformation of our cultural practices, of which education is just one. The recognition of the book as the primary educational resource is still apparent, especially among mature students. On the other hand, the introduction of the Internet in a lot of work environments has led to an increased use of these facilities. Due to the time constraints, students are often forced to use electronic resources even though they would prefer to use a traditional university library. Critics have argued that the increased use of ICT among students leads to an information overload, leaving the student stranded on piles of information, robbed of the ability to transform this information into knowledge. Ultimately, it must be assessed to what extent library and information services take responsibility for this development and are liable to create and optimise the learning environment for distance learning and part-time students.

The study has shown that most of the student needs could be satisfied with the implementation of a subject-related gateway. Students had particularly difficulties identifying the quality of information that is provided on the Internet. If an information

service provider would guarantee the academic relevance and quality of material through either expert abstracts and/or a grading system of material, a better assurance could be given to students that they are going into the right direction with their literature reviews. Ideally, the gateway service should provide the following facilities in order of their importance:

- a good subject-related search engine
- access to an abstract and indexing service, including international references
- access to newspaper and magazine archives
- access to websites of relevant governmental departments, NGOs or professional associations
- e-mail discussion forums and electronic bulletin boards

Some of the demands students made will be easier to implement than others. Where a new service needs to be provided, cost-benefit calculations must decide on the usefulness of specific facilities.. Existing library services often only need to make small operational changes to meet the needs of part-time and distance learning students better. In some institutions, awareness should be raised of the fact that individual members of library staff have the potential to transform the learning experience of part-time and distance learning students from pain to pleasure. Part-time and distance learning students put a lot of time, effort and money into their educational development – all stakeholders in the education community should recognise that, and help to make their experience enjoyable in order to create a truly learning society.

4. Acknowledgement

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