
Swirling Students: A Study of Professional and Vocational Training Avenues for the Library and Information Industry

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ABSTRACT

Australian education has been traditionally divided between the university sector and the vocational training sector. In Australia, the movement or “articulation” of students between these sectors has interested governments and professional bodies concerned with the associated structural and workforce issues. Such articulation includes movement from vocational training into professional education, from professional education to vocational training, and what has been called a “swirling” combination of movement back and forth between the sectors. The authors have considered why students who already hold a university degree and wish to pursue a career in librarianship/information management choose to undertake a vocational sector qualification in preference to a postgraduate professional qualification in Library and Information Studies (LIS). This article will provide historical context and report the results of research undertaken to investigate the underlying motivation of these students. The methodology included a survey of current students undertaking Vocational Education and Training (VE) in LIS paraprofessional qualifications at Australian educational institutions, and an analysis of statistical data from the VE sector. The study will contribute to a broader understanding of student motivations, career choices, and understanding of the concept of lifelong learning. It may also lead to a re-evaluation of how entry into the LIS industry should be managed.

INTRODUCTION

Australian education is conducted in two distinct sectors: higher education (HE) in the Commonwealth funded universities and vocational education (VE or VET) in state funded technical and further education colleges (TAFE), in the workplace or by accredited private providers. Professional entry to the LIS industry in Australia is achieved through either an undergraduate LIS degree or a postgraduate diploma. Such postgraduate programs have historically been considered equivalent to a North American MLIS. Vocational education training programs, which include those for the LIS industry, are called *training packages*,¹ consist of a framework of “outcomes” or competencies that have been developed in consultation with industry, and result in a series of qualifications within the Australian Qualifications Framework (AQF). Completion of training package qualifications also provides some access, through accredited pathways, to university programs, but such qualifications are not considered to be pre-professional or foundational for undergraduate programs. While there is a long tradition of movement between VE and HE programs, each university program is free to accept or reject applications for credit or advanced standing from individual students from accredited training package programs. Despite the nonstandardized nature of credit and advanced standing outcomes, there has been increasingly strong movement between the sectors particularly since the mid-1990s, largely focused on the upward movement or “articulation” from VE to HE. The structural and workforce implications of this “cross-sectoral” movement between the two major educational sectors in Australia has been of interest to governments and professional bodies.

This cross-sectoral movement is more complex than is often characterized and includes movement in many directions including from VE into HE, from HE to VE, and what has been called a “swirling” combination of movement back and forth between the sectors according to workforce and personal need. By focusing on the less scrutinized movements of students from HE to VE and these swirling students, our research places in the spotlight issues such as appropriate education for work in the LIS industry, the nature of divisions within the workplace and what constitutes appropriate “professional” entry into and education for the LIS profession. This research also raises questions more broadly about the ways in which professions define and corral intellectual endeavor and professional work in an attempt to articulate workplace divisions. It allows us to reflect on the structures underpinning LIS education in Australia and internationally.

BACKGROUND: THE BROAD EDUCATIONAL CONTEXT

Historical Perspectives: Changing Pedagogy

Since the late nineteenth century education and training throughout much of the industrialized world has been shaped by forces associated with changes in the workplace. Such changes include changing work practices, the emergence of “scientific” methods of production, the decline in traditional liberal education and the emergence of “technical” or “scientific” education (White, 1976). Internationally the last quarter of the nineteenth century saw the emergence of technical education schools and vocationally oriented university courses. These occurred in response to the manpower needs of the time and the growing interest in vocationally-specific education (Moodie, 2004). Technical colleges such as the Massachusetts Institute of Technology (MIT) and the Royal Melbourne Institute of Technology (RMIT) (Murray-Smith & Dare, 1987), for example, took their place within the education and training hierarchy alongside traditional universities and the trade-based apprenticeship system (Barcan, 1980). Pedagogically, this led to changes in teaching and learning that involved the application of scientific and incremental skills development for vocationally-specific education (Rushbrook, 1997; White, 1976).

The emergence of the new “scientific” education raised questions about the nature and purpose of education while the emergence of the new “technical” colleges raised questions about the place of the traditional university and its role in the community (White, 1976). These questions and the divisions that accompanied them were to have a direct and long-term impact on education for LIS internationally.

They led to debates about a number of key aspects of the LIS discipline such as

- the degree of vocationalism versus “liberal” and professional content that should exist in programs of education for the LIS discipline (Flowers, 1963; Hagger, 1969; Radford, 1977);
- the nature and existence of a central, unique, and identifiable body of knowledge that defines the profession (Bramley, 1975; Chen, 2005; Schmidmaier, 1987; Radford, 1977; Smee, North, & Jones, 2001);
- the boundaries of tasks within the workplace (Freeman, 1997; Pivec, 1975; Ramsey, 1963; Whyte, 1985);
- the appropriate educational models for access to the profession and consequently who can access the profession (Radford, 1977);
- the profile of those who access various educational sectors and are employed in various roles in the profession (Flowers, 1963; McLean & Joint, 2006).

These last two points in particular are complex and of central importance to our research. They raise issues about concepts such as intellect, employment status, gender, the impact of socioeconomic status on educational

outcomes, access to the LIS profession, the assumptions underpinning divisions in the workplace and about those who work in the industry.

In countries such as Australia, New Zealand, and other former British colonies, issues associated with LIS education have been compounded by the existence of dual educational models derived from practices in the United Kingdom (UK) on the one hand and the United States on the other.

In Australia, education based on the UK model is represented by both undergraduate and postgraduate university programs providing entry to the profession. Vocational training for trade and technical employment occurs in technical colleges (Bramley, 1975). Programs in this sector range from three months to two-and-a-half years and are considered distinctive in character and intent. They provide “training” explicitly for industry rather than “education.” The second model is derived from the United States (Asheim, 1971) and reflects its three-tiered model of paraprofessional education, generalist college education, and vocationally specific postgraduate education.

These dual educational influences and the resulting competing educational structures have led to uncertainties about concepts such as “technical,” “vocational,” and “professional.” They have led to vacillation over issues such as examination versus accreditation as a function of the professional association. But they have also resulted more broadly in disagreement about the basic role of the professional association and the most desirable mode of education and qualifications for access to the profession (Harvey, 2001; Myburgh, 2003).

In Australia, educators have tried to define and institutionalize the distinctions between education and training in ways that reflect both these spheres of influence. While concepts of access and educational equity derive from U.S. models, the educational structures have largely mirrored their UK counterparts. What has resulted is the dual-sector approach to education outlined previously in which “training for the hand” and “education of the mind” (Moodie as cited in Wheelahan, 2001, p. 5) occur in separate institutions and boundaries are placed around the extent to which each element occurs in each institution.

As our research will demonstrate, in reality the divisions between the two tiers and the underlying assumptions are questionable and the boundaries between vocational and professional education are blurred.

The Current Context

Australian VE researcher David Curtis (2009) views the current perception of the difference between the two sectors as being associated with funding sources, accreditation, and qualification arrangements. Gabb and Glaisher (2006), in their analysis of international articulation arrangements between sectors, describe university education as emphasizing declarative knowledge that knows about things. Vocational education

and training, in contrast, emphasizes procedural knowledge, knowing what to do, or “know how” (p. 10). The expectation is that those who are trained in VE will have a particular skill set and knowledge base and work in paraprofessional or technical roles. Those who are educated at university will have different kinds of skills and knowledge base and will assume professional roles.

Over the last two decades, however, changes have occurred in the ways education and training are being accessed by the community in Australia, including a growing understanding of the movement between educational sectors. In 2010, it is possible to undertake some vocational training at secondary school (perhaps as a traineeship while at school), or at a VE institution either while working or studying full-time, and finally to use this study for credit toward professional level qualifications. These changes seem to be, as in the past, a response to the changing expectations and needs of the workplace.

Swirling Students

Recent Australian research into articulation between the sectors (Moodie, 2004; Harris, Sumner, & Rainey, 2005, 2006; Curtis, 2009), indicate that movement between the sectors is not the simple linear continually upward progression in terms of education and/or employment of conventional belief. In fact movement between the sectors is multidirectional, influenced by a variety of factors including age, employment status and field of study. Many students show patterns of intersectoral transfer involving either reverse articulation, defined by the National Council for Vocational Education and Research (NCVER) as the “movement of students from higher education into vocational education and training” (2010), or as participating in a continuous process of swirling back and forth throughout their work lives between the sectors. Of participants in the Australian education and training arena today, Curtis states, “Throughout their careers, individuals acquire skills that are relevant to their needs. For some this means further study in the same sector as a first qualification, while for others it means enrolling in the other tertiary sector” (2009, p. 1).

The factors influencing these movements between sectors have been identified by Harris, Sumner, and Rainey (2006) as shown in table 1 below.

Harris, Sumner, and Rainey (2006) have derived a typology from their research that describes those who move across sectors as:

- Career developers: those who move between sectors in a largely linear way progressing in the development of their career goals;
- Career mergers: those who draw different educational experiences together to move into a more focused course in a usually non-linear way;
- Forced learners: those who undertake what appeared to be a completely different course for professional development reasons, either through

Table 1. Harris, Rainey, and Sumner Reasons for Transfer between Sectors

 Factors reported by the participants
Vocational

Career advancement (“not wanting to stay in a dead end job and wanting to advance”)
 Requirement of employment
 Changing careers; moving into a new career (“bored in current job and wanting to do something interesting to lead to another employment area”)
 Improve professional practice
 Up-skilling to ensure currency in present profession

Financial

Providing an opportunity to improve financial situation
 Affordability of the course

Institutional

Location of institution; location and reputation of institution; only institution where the specific course was offered

Curricular

Quality of the chosen course; reputation of course; course had a reputation for academic rigour
 Qualification being a requirement for a higher qualification that was a goal; qualification being the next step after completing lower-level qualifications; goal of completing the (VET) course and moving onto university studies
 Flexibility of study mode

Relational

Advice from potential employers
 Influence of family, friends or work colleagues

Personal

Following interests; undertook the VET course for personal interest
 Enhancing self-esteem

choice or when they were encouraged to do so by their employers. Sometimes choice was associated with personal or economic factors;

- Two-trackers: those often older students who are attempting to provide for an alternative career when their current one might not be available. They are often currently employed.

This typology may be useful in the LIS discipline for characterizing those involved in the movement between sectors.

Reverse Articulation. The general statistics associated with articulation suggest that it is a significant factor in Australian tertiary education. There has been, however, some debate over its actual extent. In some cases the limitations of the instruments used for data collection have led to considerable variation in transfer statistics. A key variation appears to be associated with the age of the group being examined. Curtis (2009) found that in the under twenty-four age group VE to HE was 50 percent higher than HE to VE. Research by Golding and Vallence (2000) of a wider age range

suggested, however, that HE to VE transfer was eight times that of VE to HE. Harris, Sumner, and Rainey (2005) in their turn concluded that there were important distinguishing characteristics in the VE sector across all industries that affected reverse articulation. Their findings include:

- Reverse articulation has been increasing rapidly for at least a decade and is three times the rate of VE to HE articulation (reverse articulation is more common among women);
- Over 50 percent of such reverse articulators were between thirty and forty-nine years of age;
- A large proportion of those in the study had moved between sectors more than once with about 25 percent of the VE study participants having moved from VE to HE then returning to VE. The majority were retraining for another career than the one that they had previously been qualified for;
- The choice of VE training was undertaken by the majority because it provided practical skills, enhanced employability, improved career prospects in a current employment situation, provided a vocationally specific education or had been undertaken at the request of an employer.

The Australian LIS Workforce. According to the Australian Bureau of Statistics (ABS) 2006 Australian Census, there were approximately 10,000 librarians, 6,500 library technicians and 8,000 library assistants employed in Australia (2009). The distinction between these groups in the workplace is reflected in the Australian Library and Information Association's (ALIA) salary scales and work-level guidelines (2010, March 1). Educationally, the distinctions between librarians and other LIS qualified staff are defined by the nature of the educational institution the students attend and the qualifications they attain. The national annual enrollment figures for LIS related programs have remained fairly stable over the last ten years, ranging between approximately 2,500 to 3,000 in professional programs and a similar number in paraprofessional programs. Professional program enrollments are divided between postgraduate (two-thirds) and undergraduate (one-third). Paraprofessional program enrollments are at a variety of qualification levels (2010, August 2). The majority of VE students are enrolled in diploma or advanced diploma programs. The vocational qualification is the *Diploma in Library and Information Services* and is comparable to the Information & Library Services NVQs Levels 2 & 3 in the United Kingdom (City & Guilds 2010) and library technical assistant qualifications in North America (American Library Association 2010). Those qualifying with a diploma or advanced diploma from the Library and Information Services Training Package are designated qualified library technicians.

The LIS Discipline. The general focus on the movement of students between VE and HE in LIS in Australia has been on the articulation of

VE library technician students into HE professional programs (Hallam, 2008). This is a valid and long-term historical pathway established at the time the first undergraduate professional program at RMIT was set up in 1970. However, as we will demonstrate, it is not the only pathway between the educational sectors. Despite the long-term nature of such articulation arrangements, little formal research had been carried out, the available statistical information on “upward” articulation being gathered by the HE institutions as part of their enrollment processes. Even less is known about the perhaps more significant pathway of reverse articulation. In a paper profiling those studying in library technician programs in Australia, Carroll (2007a) found a cohort that was largely female (86 percent). Sixty percent were aged between thirty and forty-nine. Forty-seven percent were employed either full-time or part-time while studying. Such a cohort is similar to what Harris, Sumner, and Rainey (2005) found to be one of the prime participant groups in reverse articulation. This group was “dominated by women and mature-aged students studying part-time, and the move occurred some time after completing university. Often they chose to study in a different field of education to improve their prospects in their current career” (2005, p. 48). Findings such as these underline the relevance of our research to the LIS context.

In Australia, the profile of those undertaking LIS education in all sectors closely matches key groups associated with articulation. In the 2008 neXus report into the Australian library industry, Hallam (2008, p. 27) found that of the 2006 enrollments in LIS programs nationally 42 percent were embarking on their first career and 33 percent were career changers. The remaining respondents cited many of the reasons for their enrollment that had been outlined by Harris, Sumner, and Rainey (2005, 2006), such as: up-skilling (which included a move from paraprofessional to professional qualification and preparation for a return to employment after a break); career advancement; and a desire to gain a first LIS qualification to improve their position in their current LIS job. Hallam (2008) also provided some indicative statistics for those enrolled only in library technicians’ programs. Of the paraprofessionals responding to the survey, 38 percent indicated that LIS was their first career, 35 percent were career changers, and 19 percent were returning to the workplace. Hallam found that when the focus shifted to new graduates of professional programs, the figure for career changers rose to between 40 and 50 percent (Hallam, 2008, p. 30). Hallam did not present correlations between career changers and prior qualifications or figures about reverse articulation.

LIS and Reverse Articulation. LIS-specific statistics on the movement between the sectors are difficult to obtain. To date there has been no investigation into the reasons why those with previous HE qualifications choose to undertake a VE qualification in the discipline rather than the postgraduate options open to them. What has been available is broad,

sector specific statistics that can provide some background into the nature of movement between sectors in both directions. Such statistics are gathered for HE from university annual returns and at VE level from an annual *Student Outcomes Survey*. This is conducted by the National Council for Vocational Education Research (NCVER) to establish a snapshot of the directions TAFE students take after completing training. In addition, statistics on enrollments, outcomes, and course profiles are gathered at the training package level by the NCVER on behalf of the Australian government. Both anecdotally and statistically, it would seem that in LIS VE programs across the country there are many students who fall into the category of reverse articulators. NCVER figures indicate that while there has been some variation in the figures over time, approximately 13 percent of VE LIS students held a bachelor's degree or higher, with 33 percent having some prior form of qualification. Table 2 provides an example of the extent of reverse articulation in one program in Australia. It shows the qualifications of students enrolled in the library services training package at a Victorian-based library technician program between 2003 and 2008.

It suggests a rich, diverse, and untapped skill set in those undertaking training for the industry both in terms of formal qualifications and the variety of areas of previous employment. These figures also raise questions central to our research about the reasons for students choosing to follow this VE path, the profile of such students, and the implications of their choices for the LIS workforce.

The figures in table 2 are reinforced by Hallam's LIS industry wide research. This found that 13 percent of those responding to the 2008 neXus survey who had library technician qualifications also held a previous university degree, with 3 percent holding a master's level qualification (Hallam, 2008, p. 33). Figures such as these suggest that the LIS industry may not only reflect the broader educational trends toward reverse articulation but in fact may do so more strongly. Given that it is possible for students with HE qualifications to undertake postgraduate professional education as the basis for entry into the LIS industry, a natural question is why these students choose instead to undertake VE library technician training. Our research into why this qualification path was chosen will help decision makers in the industry to understand the complex motivations, aspirations, and needs of its future student body and workforce.

THE RESEARCH CONTEXT

Our research was undertaken in 2009 in Australia and examined the motivation of students who were qualified to undertake postgraduate qualifications in the LIS discipline, but who instead elected to undertake VE LIS qualifications. Our subjects were students currently or recently enrolled in the two year LIS library and information services training package.

Table 2. Prior Qualifications of Students in the Library Technicians' Program of a Victorian LIS Training Provider 2003–8

Study Year	Total Number of Students	With Prior Higher Education Qualification	With Prior Non-Higher Education Qualification	Total With Some Prior Qualifications in any Sector
2008	332	79 (24.0%)	70 (21.0%)	149 (45.0%)
2006	286	46 (16.0%)	57 (19.9%)	103 (36.0%)
2005	321	45 (14.0%)	50 (15.6%)	95 (29.5%)
2004	284	53 (18.6%)	72 (25.4%)	125 (44.0%)
2003	305	47 (15.5%)	67 (21.9%)	114 (37.3%)

Objectives of the Study

The study aimed

- to develop an overview of the level of education, age, gender, and employment status of those currently enrolled in the VET diploma and advanced diploma in library information services in Australia, who hold tertiary qualifications;
- to determine the motivation of those who, upon enrollment in the VET program, already held another tertiary qualification that would have enabled them to undertake postgraduate qualifications in LIS had they wished;
- to ascertain commonalities or differences between the characteristics of students in the LIS sector and those in other sectors;
- to identify any factors that might contribute to our further understanding of educational choices by students in the LIS sector and in the broader educational community.

METHODOLOGY

A literature review was conducted to identify Australian research into the composition nationally of VET students and their educational background. Background statistical data were collected from the in-house enrollment agencies of educational institutions delivering VET LIS programs and from agencies such as the National Council for Vocational Education Research (NCVER), so that comparisons between the LIS industry programs and the broader industry programs at a national level could be made.

Further data were collected by a survey of graduates or current students of the diploma in library and information services, who had a tertiary qualification prior to commencing the diploma.

A questionnaire sought information about

- the age, gender, and first language of respondents;
- current employment mode, and whether in an LIS or other workplace;

- reasons for selecting the diploma in library and information services;
- awareness of postgraduate courses in library and information management;
- reasons why a paraprofessional rather than a professional qualification was preferred;
- the type of tertiary qualification held prior to commencing the library technician qualification.

Minor adjustments were made to the layout and wording of the questionnaire following a pilot with seven students who had prior tertiary qualifications and were currently undertaking the diploma in library and information services at Victoria University Melbourne.

A purposive sampling technique involved sending the questionnaire to educational institutions in all of the Australian states and territories that offered the diploma in library and information services. Managers of these programs were requested to distribute the questionnaire to all students that met the criteria for the sample. The questionnaire had to be distributed by this method as NCVER cannot release personal student information. With this limitation, there was representation within the sample of students from educational institutions in all states of Australia, except for Tasmania and the Northern Territory.

Fifty-four responses were received representing approximately 3 percent of the total student body in that the average intake of students into diploma and advanced diploma LIS training packages has been approximately two thousand students annually (National Council for Vocational Education Research, personal communication, April 2007). As NCVER figures indicate that approximately 13 percent of LIS VE enrollments per annum are reverse articulators, the sample represents approximately 20 percent of those who matched the research profile.

FINDINGS

SPSS 17.0.2 was used to analyze quantitative data. The personal background of respondents, including variables such as age, gender, and first language showed a wide variation of demographic characteristics. The highest number of respondents were aged between twenty-five and thirty-five, with 68 percent under the age of forty-five, as shown in the following table.

Males represented 11.1 percent (six) of the sample, while females accounted for 88.9 percent (forty-eight). English was the first language for 70.4 percent (thirty-eight), while Chinese was the next most highly represented at 9.3 percent (five). Other first languages included Farsi, Russian, Spanish, Vietnamese, Sinhalese, Indonesian, and Punjabi.

The questionnaire asked about current employment status and, if respondents were employed, whether this was in the library and information

Table 3. Ages of Respondents

Age	Number	Percentage
18-24	1	1.9
25-30	14	25.9
31-35	8	14.8
36-40	7	13.0
41-45	7	13.0
46-50	6	11.1
51-55	4	7.4
56-60	6	11.1
61-65	1	1.9

industry sector. Sixty-one percent (thirty-three) of the respondents were currently employed and of these, 33 percent (eleven) were employed in the library industry. Others were employed in a range of other industry sectors, including hospitality, education, retail, property, and health and community industry sectors. Employment status of respondents is shown in the following table.

Interestingly, as far as educational background was concerned, 31.5 percent (seventeen) of respondents held a postgraduate qualification, with 59.3 percent (thirty-two) holding an undergraduate degree. The remaining respondents held a diploma (7.4 percent) or an advanced diploma (1.9 percent). Most common areas of study represented by these other qualifications were Arts, Education, Science, and Business. Seventy percent of qualifications held by respondents were awarded by Australian educational institutions. Table 5 shows the year in which tertiary qualifications were completed.

The questionnaire explored factors related to the choice of a vocational course as opposed to a professional (tertiary or higher education) course and whether respondents were in fact aware that tertiary courses in library and information management existed. Seventy-four percent (forty) of the respondents were aware that the course provided a vocational rather than a professional qualification. The main reasons for choosing a vocational rather than a professional course were:

Table 4. Employment Status

Employment Mode	Number	Percentage
Full-time permanent	5	9.3
Full-time contract	2	3.7
Part-time permanent	6	1.1
Part-time contract	6	11.1
Short-term contract (less than six months)	15	27.8
Casual	20	37.0

Table 5. Completion of Tertiary Qualification

Year	Number	Percentage
2006–2008	6	11.1
2000–2005	19	35.2
1995–1999	9	16.7
1990–1994	6	11.1
1985–1989	5	9.3
Pre-1985	9	16.7

- cost;
- to find a job;
- practical skills based course;
- length of course;
- geographical location;
- lack of confidence in undertaking a tertiary course;
- flexibility of course delivery;
- english proficiency a barrier to undertaking a tertiary course;
- career change.

Forty-two (77.8 percent) of the respondents were aware that there were LIS courses that awarded a professional qualification. Of the twelve (22.2 percent) that were not aware of this, four (7.4 percent) would have preferred to undertake a professional course.

Respondents were also asked, in an open question, how they found out about the course they were undertaking. A wide range of sources were mentioned, and results are shown in table 6.

Finally the respondents were asked to rate overall why they had chosen a certificate/diploma/advanced diploma in library and information services. The reasons stated for selection of the course were, in order of frequency:

Table 6. Source of Course Information

Source	Number	Percentage
Internet	17	31.5
Friends or family	8	14.8
ALIA	6	11.1
Career advisor	6	11.1
Work/Colleagues	4	7.4
From a current student or graduate	3	5.6
VTAC guide	2	3.7
Marketing information	2	3.7
Employment consultant	2	3.7
Open day	1	1.9
Other	3	5.6

- acquisition of vocational skills to enhance employability;
- cost;
- flexibility of study mode;
- to familiarize themselves with the library industry before undertaking professional qualifications;
- length of the course;
- recommendation from someone they knew outside the institution;
- reputation of the institution;
- recommendation by a current student;
- employment agency recommendation;
- recommendation from employer.

Although location of the offering institution was not included as a variable in this question, six (11.1 percent) respondents made a comment about location, stating that it influenced their choice of course.

Respondents were then asked to rate the three most important reasons for choosing their course. The primary reason was the acquisition of vocational skills that would enhance employability. The second was cost. In equal third place were flexibility of study mode and the opportunity to familiarize themselves with the industry before undertaking professional qualifications.

DISCUSSION

The findings of this study essentially replicate the results of much of the wider educational research conducted in Australia. The reasons that Harris, Sumner, and Rainey (2005, 2006) found for transfer between educational sectors generally are reflected in our industry-specific study, such as, for example, the large percentage (88.9 percent) of women reverse articulators. Our findings that all respondents, with one exception, did not hold tertiary qualifications in librarianship and information management suggest that they were undertaking a VE program in order to embark on a different career. As one respondent stated: "I found out about the Diploma in LIS from a careers advisor. After working as a commercial lawyer for over thirteen years, I felt I needed a career change. I thought my research and customer service skills would be a good match for a library job." The one respondent who did hold a tertiary LIS qualification had been working in a different industry for many years, and as a result of redundancy had decided on a skills update in order to find a job in the LIS industry. There was no other case in the sample of a respondent choosing a program on the basis of wanting to improve professional practice.

The cost of the VE course was the second most common reason for choosing it. Given that many graduates already have a significant Higher Education Loan Program (HELP)² debt, it is not surprising that they might see a library technician qualification as a cheaper alternative entry

point into an industry that they are attracted to. Ten of the fourteen respondents in the twenty-five to thirty years age group selected cost as one of the main factors in influencing their choice of a VE course. As one said, for example: "I couldn't afford to do a post graduate qualification, it is too costly and I already had a HELP debt;" and another: "the cost associated with a postgraduate qualification was a deterrent for me at the time." Some of the students in the older age groups commented that paying for a more expensive HE course was not practical. One student, for example, observed: "No need for another university degree and feel it would not be worth it in terms of time and cost, given my age, and the HELP fees I would incur."

Location of the offering institution was commented on as an important factor by some respondents, reflecting a similar comment in the Harris, Sumner, and Rainey study (2006). This same study also found that the reputation of the course and the reputation of the offering institution were also factors affecting choice of program. Similar findings appeared in our study in which reputation of the institution, a recommendation by a current student, or a recommendation by someone outside the institution were mentioned as reasons for choosing the course. Flexibility of study mode, also identified by Harris, Sumner, and Rainey (2005), was the third most popular reason for choice in the current study. This is exemplified by comments such as: "I wanted a course which I could do by correspondence or attend classes, but that I wasn't locked into having to attend."

It is reasonable to assume that the 20 percent of respondents who were already employed in the library and information industry were seeking a vocationally specific education. Just under a third of the respondents employed in the industry had received a recommendation by their employer that they undertake the diploma of library and information services. Friends or family as a source of information about the VE course was also given by 14.8 percent of respondents. These results for these two factors are similar to the related findings by Harris, Sumner, and Rainey (2005). One of the reasons for transfer to the VE sector identified by Harris, Sumner, and Rainey (2005) was "enhancing of personal esteem." We see this perhaps reflected to some extent in several responses in our study indicating that the reason for choosing a vocational rather than a professional course was a lack of confidence in undertaking a higher education/professional course. As one respondent said: "I had no money for a university course, thought reemployment would be more rapid, had lost confidence in my ability to study and perform academically."

"Forced learners" identified by Harris, Sumner, and Rainey (2005) are those who undertook an entirely different course from their original qualification/career for professional development, personal, or economic reasons. One factor influencing related course decisions in Australia is

the requirement by Centrelink³ to be actively job seeking while receiving unemployment benefits. Some comments on the questionnaires, supported by experience of students at Victoria University as observed by the authors, is that mature aged unemployed people are often directed to the LIS VE courses by Centrelink advisors. This category of student might well be described as a “forced learner.”

It is interesting that 73 percent (sixteen) of the respondents in the twenty-five to thirty-five years age bracket listed as a main reason for undertaking a VE course that it offered vocational skills that increased employability. There were many comments about this issue such as: “I had no faith that a professional qualification would lead to a job”; “through talking to people in the industry, (I know) it is a lot easier to get ongoing work as a library technician rather than a librarian. My objective is ongoing work. . . .”

Our study found that 60 percent of respondents undertaking courses were currently employed, compared with 47 percent in the industry-wide study. Of those employed in a variety of jobs, 13 percent were employed full time and the remainder (87 percent) were employed either part time or in casual positions. Such a result might be expected in a sample of respondents undertaking either full- or part-time study. Carroll’s (2007b) research indicates a strong relationship between work and study concluding, “There is an important nexus between having work in the industry and undertaking education in it” (p. 184). This may help explain preferences for part-time flexible study and/or work options as people juggle work, family, and study commitments. Carroll (2007b) also found some evidence to suggest a relationship between security of ongoing employment and the uptake of further study or upward articulation.

The 2005 Harris, Sumner, and Rainey study found that 50 percent of reverse articulators were aged between thirty to forty-five years of age. In keeping with these findings, our study indicated that 51.9 percent of respondents were aged thirty-one to fifty years of age. However the largest age group in our sample was twenty-five to thirty (25.9 percent). This suggests that in the LIS industry at least an increasing number of young graduates are enrolling in VE courses after completing a tertiary degree, a fact that may reflect some of the complexities outlined by Curtis (2009). A comparison of the age of respondents with the date on which their highest tertiary qualification was completed indicates that 20.4 percent (eleven) were in the twenty-five to thirty years age group and had completed the qualification between 2000 and 2005.

These results have implications for the way in which LIS educators market their offerings in Australia. It is noteworthy that 26 percent of respondents were not aware that their VE course did not give them a professional qualification. Moreover, 22.8 percent of respondents were not aware of the existence of HE courses in LIS. These results seem to support

our personal observation that many people outside the LIS industry seem not to be aware of its career structure and do not differentiate between librarians and library technicians. For example, one respondent commented, in explaining why a vocational rather than a professional course was chosen: "I wasn't really aware of the different roles in libraries. . . . My lack of awareness of roles was the main reason." This respondent has now commenced a master's degree in LIS.

This lack of knowledge helps explain why, in seeking information about courses, 31 percent of respondents chose to do so through an Internet search, possibly not understanding the need to differentiate between VE and HE. Only 11.1 percent of respondents knew about the Australian Library and Information Association (ALIA) as an information source on education for the profession. As we have seen, a large majority of the respondents found out about the VE courses from a range of personal information sources such as work colleagues, current students, friends, family, employment consultants, and careers advisors. Somewhat unexpectedly, a careers advisor or an employment consultant recommended 14.8 percent of respondents to undertake a VE course. This raises the question of how well informed these professionals are about the career structure of the LIS industry.

Some students who have graduated from a university course appear to enroll in the VE course because they want to use it as a testing ground or as a "try before you buy" service before undertaking the expensive and perhaps more demanding professional program. This is suggested, for example, by comments such as: "I felt I didn't know anything about what a library career means to me. I reckon a TAFE [i.e., VE] course . . . will show me what the industry is going to be like." Some respondents preferred the VE course at this stage of their careers but did not rule out doing an HE course in the future. "I am happy to do a vocational course. It does not rule out a professional course in the future;" "I wanted to get a taste of the library industry before committing to further tertiary [i.e., postgraduate] studies"; "The technician's course led to a part time casual position at . . . library which will lead to more permanent work within the library sector and ultimately I see myself re-engaging with formal education at a postgraduate level within the next few years." A student who had previously studied in the VE sector observed: "I always felt that TAFE offered a sustainable platform to dive into an industry and so I chose that route again, knowing that if I ever feel like getting a professional qualification in LIS, I can do so." This is an interesting concept that poses some challenges for the industry in promotion and recruitment and opens up discussion about concepts such as traineeships and internships.

Related to this is the inclusion in the VE course of placements as a means of gaining direct experience in the industry. We see this in comments such as: "the technician's course led to work experience" and "gave

me the opportunity to experience work in at least two different libraries to confirm this was the new career I needed.” Other comments, however, indicated that respondents were not aware that HE courses in LIS also included industry placements/work experience, such as “university library courses do not offer me the opportunity to try library studies out and see if I like it.”

CONCLUSION

This study contributes to our understanding of pathways into the library and information industry and of employer needs and expectations, and it provides a more complex picture of the LIS student cohort than has hitherto been available.

The data collected provide evidence of changing patterns of entry into the LIS industry and the factors influencing student educational choices. A broad summation, for example, is that there has been an increasing number of young females, whose first language is English and who have a tertiary qualification, who choose to undertake a VE course as a pathway to a career in the library and information industry.

The research also suggests that the key typologies offered by Harris, Sumner, and Rainey (2006) to describe reverse articulators across industries are valid in the LIS industry. It is possible that this may be useful internationally in helping to understand the movements of student cohorts in other countries. Certainly the educational trends discussed in this article suggest that there are important questions to be addressed by library educators and employers about determining acceptable pathways into the LIS industry and improving articulation processes between VE and HE programs.

NOTES

1. It should be noted that not all programs delivered within the VE sector are training packages.
2. Australian Government Scheme for government supported university places, for which students repay their fees depending on their salary level after completing their university courses.
3. The Australian Government Statutory Agency supports the unemployed and other people in need.

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