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## Transfer of academic information literacy skills to workplace contexts (Paper)

### **Abstract or Résumé:**

This paper reports preliminary results of a study analyzing transfer of information literacy skills learned in a compulsory undergraduate course at the University of Pretoria. Twenty-three alumni with a range of disciplinary backgrounds, and currently working in a diversity of workplaces, participated in critical incident interviews which explored transferability of the skills learned in the course, and information practices in the workplace.

### **1. Introduction**

In the information age, success in the workplace is facilitated by the application of information literacy skills, which allows workers to find and access the information needed for analysis and decision-making, and to use that information efficiently, effectively, and ethically. That skill set is information literacy (IL), sometimes also referred to as information fluency in studies of the workplace.

Although students do not necessarily believe that the skills learned as students will transfer to their workplaces (Detlor *et al.*, 2011) and although they often are not enthusiastic about IL training (Smith and Hepworth, 2007), employers strongly believe that these skills are critical for workplace success (Cheuk, 2008; Forster, 2017). Employers express concern that graduates do not come to the workplace with adequate IL skills (Sokoloff, 2012). Problems with the transfer of IL to workplace can partially be ascribed to the differences between academic and workplace context (Lundh, Limberg and Lloyd, 2013) and limited understanding of information behaviour in rapidly changing workplaces and the link with IL (Byström, Ruthven and Heinström, 2017). The inherent complexities of skills and knowledge transfer from formal teaching to praxis and from one context to another (Prince *et al.*, 2015) also contribute.

All graduates of the University of Pretoria, with the exception of students in Engineering, are required to complete a compulsory, one-year credit-bearing course in IL during the first year of their academic programs. Due to the vast number of students for each intake (approx. 9,000) from an array of faculties, a generic approach in teaching IL, bringing its own shortcomings and challenges (Haugh, 2005), must be followed (De Boer, Bothma and Du Toit, 2011). The course covers IL as a concept, information sources and resources, libraries and portals, constructing search strategies, searching the web, databases and online journals, organizing and retrieving information on the computer, ethical and fair use of information, referencing techniques,

evaluating information, and documenting information and creating new knowledge (Bothma *et al.*, 2016). However, it is currently unknown whether the skill set developed in this academic context is transferred successfully to the myriad workplaces in which graduates find employment and how graduates compensate, adapt or improvise to cope with demands in their workplaces for IL skills. Students in South Africa come from a range of socio-economic backgrounds and although some grew up with computers, many come from homes and schools where they do not have access to computers and Internet connections or IL training (Hart, 1999; Paton-Ash and Wilmot, 2015).

## **2. Purpose of the Study**

This paper reports preliminary results of a study that examined the transfer of academic IL skills to workplace contexts. The study interviewed 23 alumni from the University of Pretoria who completed a compulsory credit-bearing IL course between 2006 and 2016. The skills explored are those that allow workers to find and access the information needed for analysis and decision-making, and to use that information efficiently, effectively, and ethically. The study sought to identify: (i) which skills are transferred; (ii) how skills are transferred and influence workplace information practices; (iii) how graduates compensate, adapt or improvise to cope with demands in their workplaces for IL skills that might not have been covered in their academic studies but that are required for their specific workplace contexts; and, (iv) the long-term outcomes of academic IL training. Our intention is to use understanding of academic IL transfer to the workplace to tailor generic academic IL training to promote effective and ethical workplace information practices and cultures.

## **3. Methods**

The study design uses an exploratory sequential mixed methods design (i.e., collecting qualitative data to inform development of a questionnaire for a large-scale quantitative survey). This paper focuses only on the qualitative data for critical incident interviews, which included a short profile questionnaire collecting descriptive quantitative data. A critical incident referred to an incident in the workplace where it was important to find and use information. The interviews focused on four basic questions, in addition to sub-questions and follow-up questions: Can you please share your experiences with any incident at your workplace during the last 6 months where it was important for you to find and use information? Overall, can you tell me more about the IL skills you use in your workplace? Are there any other examples of critical incidents where you needed information at your workplace you would like to share? Is there anything else you would like to share about IL skills that you use, require or developed at your workplace? We used convenience and purposive snowball sampling to include 23 participants with a range of disciplinary backgrounds. We conducted some face-to-face interviews; most interviews were conducted online through Skype. Interviews lasted between 20 and 30 minutes, were digitally recorded, and were transcribed for thematic analysis. Phase two of the study, not yet completed, will survey a large sample of graduates from the University of Pretoria, to test generalizability of the interview findings. The study received ethics approval from the University of Pretoria Faculty of Engineering, Built Environment and Information Technology Faculty Committee for Research Ethics and Integrity. As required by this Committee, workplace supervisors, as well as participants, provided informed consent.

#### **4. Results**

The short profile questionnaires focused on participants' degree fields, subject majors, years in full time employment, job sector/industry, and a subjective assessment of how information-intensive their current jobs were. Participants had degrees in Information Science, Publishing, Multimedia, Computer Science, Informatics, Law, Veterinary Science, Architecture, Business Economics, English, Philosophy, Visual Arts, and History. They represented a wide array of occupations, e.g., lecturing and research, administration, web design, legal advice for occupational health, software design, audiology, and actuarial accounting. Six participants experienced a high need for information; the others all reported very high importance of information. Searching for and sharing information were integrated aspects of every workday.

Analysis of the interview transcripts focused on: (i) which skills are transferred; (ii) how skills are transferred; and, (iii) how graduates compensate, adapt or improvise to cope with demands in their workplaces for IL skills that might not have been covered in their academic studies but that are required for their specific workplace contexts; and (iv) the long term impact of IL training. Although it was not the focus of our study, the thematic analysis revealed that most participants did not find that the compulsory IL course was particularly useful at the time; many of them grew up with computers and believed themselves to be information literate. They admitted that other students might have benefitted more as many children in South African schools do not have access to computers and the Internet. In spite of their familiarity with computers these participants highlighted lessons in the course that served them well in workplace, e.g. the use of Boolean operators, analysis of information needs and use of search vocabulary, the need to evaluate information and information resources, and appropriate reference techniques. Many noted how much better they coped at the workplace than colleagues who did not complete such an IL course – especially older colleagues. Some recalled learning productivity software, such as Word and Excel (these are actually covered in a computer literacy skill course running simultaneously with the IL course). For most participants, learning IL skills and software productivity proficiency came with experience, and more importantly workplace experience. Their awareness of information needs, information landscapes, the value of personal contacts and the reality of accountability for poor information practices intensified once they entered workplace. Transferring the IL skills they learned always happened sub-consciously.

All were confident about their skills to cope in workplace. Some participants received formal training in the workplace specifically focused on needs specific to that context, in particular on how to use internal information repositories. Senior colleagues were useful information sources. Indeed, internal information sources and personal contacts were important across a number of workplaces. Participants spoke about the importance of information seeking and information sharing amongst colleagues and peers in the workplace, as well as the value of information management skills. Although the latter is covered in the IL course, none of the participants made a specific connection to that training.

#### **5. Conclusion**

These results reinforce that IL instruction is less successful when offered generically, without specific reference to an immediate application. In addition, the importance of contextualized,

experiential, and ongoing learning in the workplace was clear. Because many workplaces emphasize knowledge sharing among colleagues, IL instruction should highlight the social nature of information practices, the value of social capital, organizational and environmental awareness, and consequences of poor workplace information practices. We need to identify approaches to align generic academic IL abilities to a diversity of interdisciplinary, rapidly changing workplaces and adult life-long learning.

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