Core competencies in LIS education: professional, generic and personal competencies for the higher education LIS sector

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Overview

- Introduction
- Research question, approach & theoretical support
- Literature
- Methodology
- Findings & discussion
- Conclusion
- Implications for international quality assessment of LIS programs
Introduction

• Any global quality assessment – LIS programs – would require:
  ➢ as one of its sets of assessment criteria
    ❖ a theoretically and empirically grounded set of competencies
    ❖ to benchmark – particular professional program – addressing the competency requirements of the LIS work place

• LIS work place (in any place in the world):
  ➢ cannot be homogenously described
  ➢ its nature and competency requirements – differ
  ➢ depending on:
    ❖ type of LIS service (academic, public, special, etc.)
    ❖ geographic, socio-economic, cultural location

• Hence – exploring the feasibility of establishing an international means – QA – LIS programs - require input:
  ➢ from different geographic, socio-economic, cultural & sector locations
Introduction

• Paper - input - from Africa/South Africa - much needed global conversation - international QA – LIS programs

• Reports relevant aspects of findings – NRF funded research project – aimed at developing a national professional competency index – LIS higher education (HE) sector in South Africa (SA)

• Such an index – serve to inform LIS education curriculum review and revision

• SA and other parts of the world – higher education libraries – major employers of LIS graduates
World Map - Africa
Research question, approach & theoretical support

• What are the core professional, generic & personal competencies required for the digital age higher education LIS sector in South Africa?

• Study located – pragmativist epistemology – provides philosophical justification for the use of mixed methods research (Bietsta 2010: 95-97) – wider study and the aspect reported here

• Theoretical support:
  - Core Competency Theory (Selznick 1957)
  - Supported by later works of Prahalad & Hamal (1990) and Zhang & Malak (2002)
Literature

• Previous studies (Orme 2008; Choi & Rasmussen 2009; Nonthacumjane 2011; Raju 2014, etc.) – found – ‘blend’ of the following competencies – required for LIS professionals to effectively mediate a highly digitized HE information environment:
  - professional knowledge (discipline-specific knowledge)
  - generic skills (transferable skills that apply to all disciplines)
  - personal attributes (attitudes, values, personal traits)

• Any discourse on QA – LIS programs – would need to consider as one of its sets of assessment criteria – core professional, generic and personal competencies
• Many studies globally – content analysis of job advertisement to compile core competency lists – well established method of researching work place requirements (Orme 2008: 620, 623) – useful in informing LIS curriculum review

• Myburgh & Tammaro (2013: 197) – caution – over-reliance on job advertisements alone to determine core “competencies” for the digital librarian”:
  ➢ inherent danger of “emphasis on the vocational ... rather than the professional aspects of digital librarian roles”

• Much literature – knowledge and skills required of LIS professionals – especially in academic libraries – it is here that evolving technology – major traction

• Various trends evident:
  ➢ discipline-specific knowledge is important
  ➢ generic/transferable skills are valued by employers
    ❖ recurrent findings on ability to embrace change, learn new technologies, have good communication skills, be flexible, be comfortable with constant learning
Methodology

• Quantitative phase - wider mixed methods study
• Attempted to data mine:
  ➢ for “distinctive competencies” (Selnick 1957: 139)
  ➢ that form the “root system” (Prahalad & Hamel 1990: 4) of an academic library
  ➢ by means of content analysis of job advertisements (2014-2016) – 94 professional level advertisements (23 academic libraries – South Africa)
• Content analysis – commonly used descriptive technique – for analysing document content – to discover features and trends (Neuman 2006)
• Details of process of data mining, data reduction and aggregation – full paper
• Provalis QDA Miner – software enabling data mining used text retrieval – used in LIS job advertisements studies (Wise, Henninger & Kennan 2011)
• Results – tabulated – frequency distribution – Microsoft Excel (Tables 1-3)
### Table 1
Professional/discipline-specific knowledge and skills sourced from academic library job advertisements (January 2014-June 2016)

<table>
<thead>
<tr>
<th>Professional/Discipline specific knowledge &amp; skills</th>
<th>Freq.</th>
<th>Relat. freq. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant experience (e.g. three years cataloguing experience, two years in a higher education library/research environment)</td>
<td>187</td>
<td>25.65</td>
</tr>
<tr>
<td>Relevant qualification (LIS related and/or other specialist qualification (e.g. Computer Science, IT, Information Systems))</td>
<td>81</td>
<td>11.11</td>
</tr>
<tr>
<td>Metadata creation and management (including cataloguing, subject analysis and classification) and relevant metadata standards (e.g. RDA, AACR2, DDC, MARC21, Dublin Core, LCSH, LCC, National Library of Medicine (NLM), Medical Subject Headings (MESH)) - including application of standards to digital objects</td>
<td>81</td>
<td>11.11</td>
</tr>
<tr>
<td>Knowledge of scholarly electronic information resources (including databases and search engines)</td>
<td>40</td>
<td>5.49</td>
</tr>
<tr>
<td>Library ICT/systems operations (Linux platform, web applications using open technologies (e.g. PHP, MySQL), scripting languages, programming (e.g. Java, Python) and networking skills)</td>
<td>30</td>
<td>4.12</td>
</tr>
<tr>
<td>Active LIS professional involvement</td>
<td>29</td>
<td>3.98</td>
</tr>
</tbody>
</table>

Table continues ...
Table 2
Generic skills sourced from academic library job advertisements
(January 2014-June 2016)

<table>
<thead>
<tr>
<th>Generic skills</th>
<th>Freq.</th>
<th>Relat. freq. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General computer proficiency/computer literacy</td>
<td>77</td>
<td>12.22</td>
</tr>
<tr>
<td>Communication skills (oral and written)</td>
<td>48</td>
<td>7.62</td>
</tr>
<tr>
<td>Leadership skills</td>
<td>41</td>
<td>6.51</td>
</tr>
<tr>
<td>Interpersonal skills</td>
<td>40</td>
<td>6.35</td>
</tr>
<tr>
<td>Planning and organizational ability</td>
<td>38</td>
<td>6.03</td>
</tr>
<tr>
<td>Teaching and training skills</td>
<td>34</td>
<td>5.4</td>
</tr>
<tr>
<td>Teamwork skills</td>
<td>25</td>
<td>3.97</td>
</tr>
<tr>
<td>Supervision skills</td>
<td>15</td>
<td>2.38</td>
</tr>
<tr>
<td>Building strategic partnerships/relationships</td>
<td>14</td>
<td>2.22</td>
</tr>
<tr>
<td>Research and development</td>
<td>11</td>
<td>1.75</td>
</tr>
</tbody>
</table>
Table 3
Personal attributes sourced from academic library job advertisements
(January 2014-June 2016)

<table>
<thead>
<tr>
<th>Personal attributes</th>
<th>Freq.</th>
<th>Relat. freq. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work independently</td>
<td>20</td>
<td>18.18</td>
</tr>
<tr>
<td>Attention to detail</td>
<td>14</td>
<td>12.73</td>
</tr>
<tr>
<td>Ability to work under pressure</td>
<td>12</td>
<td>10.91</td>
</tr>
<tr>
<td>Initiative</td>
<td>10</td>
<td>9.09</td>
</tr>
<tr>
<td>General knowledge</td>
<td>10</td>
<td>9.09</td>
</tr>
<tr>
<td>Creative</td>
<td>5</td>
<td>4.55</td>
</tr>
<tr>
<td>Responsible</td>
<td>5</td>
<td>4.55</td>
</tr>
<tr>
<td>Adaptable</td>
<td>5</td>
<td>4.55</td>
</tr>
<tr>
<td>Innovative</td>
<td>4</td>
<td>3.64</td>
</tr>
<tr>
<td>Committed</td>
<td>3</td>
<td>2.73</td>
</tr>
<tr>
<td>Intellectual curiosity</td>
<td>2</td>
<td>1.82</td>
</tr>
<tr>
<td>Passion for technology</td>
<td>2</td>
<td>1.82</td>
</tr>
<tr>
<td>Diligence</td>
<td>2</td>
<td>1.82</td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>2</td>
<td>1.82</td>
</tr>
<tr>
<td>Pro-active</td>
<td>2</td>
<td>1.82</td>
</tr>
<tr>
<td>Personal credibility</td>
<td>2</td>
<td>1.82</td>
</tr>
</tbody>
</table>
Methodology

  - triangulated findings – from job advertisements
  - with relevant aspects national online questionnaire survey (23 university libraries – South Africa)
    - senior LIS professional targeted
    - 68% return rate (207 potential respondents identified – 140 responded) - used SurveyMonkey (survey software)
    - between 5 and 15 responses from each university library
Findings & discussion

• Researcher’s earlier exploratory/qualitative – aspect of the study (Raju 2014) found:
  - mixture of discipline-specific, generic & personal competencies
  - required of modern LIS professional – digital age higher education library

• Similar finding emerged – studies globally:
  - Orme (2008) – UK
  - Nonthacumjane (2011) – Norway & Thailand
  - Haddow (2012) – Australia

• 2015 online survey – university libraries – South Africa:
  - 96% of respondents – mixture of discipline-specific, generic & personal competencies – important/very important
  - to a digitally oriented academic library environment
Findings & discussion

• While much consensus – South Africa and globally – combination – three categories of competencies – necessary to mediate – technology-driven HE information landscape

• Previous job advertisement studies (Orme 2008; Partridge, Lee & Munro 2010; Haddow 2012; Raju 2014) – revealed a ‘move to the generic’:
  - generic skills – most required skills set but with disciplinary knowledge still valued by employers

• But the current job advertisement study – discipline-specific knowledge tallied a higher frequency count (729) as opposed to 630 for generic skills – see Figure 1
Figure 1: Importance of competency categories to the academic library environment (N=98)

- **Discipline-specific knowledge**
  - Most important: 59
  - Important: 24
  - Least important: 15

- **Generic skills**
  - Most important: 14
  - Important: 74
  - Least important: 10

- **Personal attributes**
  - Most important: 15
  - Important: 25
  - Least important: 53
Findings & discussion

• Is the pendulum swinging back in the direction of discipline-specific knowledge?:

  ➢ because pervasive impact of technology – causing LIS professionals to use core professional knowledge together with new technology to

  ❖ remain relevant
  ❖ epistemologically frame their participation in the new digital environment
Findings & discussion

• Other findings relevant to QA (current study and previous global studies):
  
  ➢ profession related experience - most frequent requirement
  
  ➢ qualification is a common competitor – in the main a LIS qualification but also a recent trend of other specialist qualifications (Computer Science, IT, IS)
  
  ➢ metadata creation & management – high up in the required professional competency listings
Findings & discussion

• “It would behove library schools to develop curricula in support of new and emerging skills sets required by academic libraries” (Triumph & Beile 2015: 734) – skills sets showing traction in the current study:
  ➢ knowledge of the scholarly communication process & use of new technologies to facilitate this process
  ➢ bibliometrics & altmetrics for research impact reporting
  ➢ knowledge of and skills in open access initiatives (journals, monographs, OERs)
  ➢ digital curation (including digitization and preservation for discoverability, use and re-use – digital resources, including research data)
  ➢ research data services

• More detailed findings – full paper
Findings & discussion

• Need for inclusion of generic (transferable) skills as well as personal attributes (attitudes & values)- together with discipline specific knowledge in LIS curriculum design and development

• Current study and previous studies (globally) – show generic transferable skills such as customer/learner focus, communication, collaborative, interpersonal and teamwork skills - near the top of generic skills lists:
  - critical in the education of the digital librarian (Myburgh & Tammaro 2013)
  - emphasized in the ACRL 2016 top trends in academic libraries

• Teaching & learning skills – emerged in the study – increasingly required skill – not surprising:
  - given that the “democratization of access” to information - made possible by technology and the resulting “emancipation” of the end-user (De Bruyn 2007: 109) – who now needs to be taught how to navigate the complex digital information terrain
  - traditionally – teaching & learning – not part of education & training of LIS professionals
Findings & discussion

• Personality traits – critical personal competencies:
  
  - ability to cope with change - critical for ‘Librarian 2.0 (Partridge et al. 2010)
  - adaptable and flexible (Haddow 2012)
  - learn new technologies, troubleshoot for solutions, comfortable with constant learning - digital librarian (Myburgh & Tammaro 2013)
  - ability to work independently, pay attention to detail, work under pressure, exercise initiative and have good general knowledge - reflected in the current study, amongst others, as work place requirements

• Challenge for LIS programs:
  
  - “while some of these skills can be taught, others are closely related to an individual’s personal attributes” (Haddow 2012: 246)
Conclusion

• Paper attempts:
  - to present a theoretically and empirically grounded set of professional, generic & personal competencies
  - as a contribution to a global conversation seeking to explore the feasibility of establishing an international instrument for assessing quality of LIS programs

• Establishing core competencies - dynamic area requiring continuing empirical research – in order to meaningfully inform:
  - LIS work place competency requirements
  - LIS programs preparing graduates for these work places

• While the essential content of the core competency lists – likely to remain the same the ranking position within the lists will change depending on:
  - current technology, geographic, socio-economic, cultural and sector imperatives
Implications for international quality assessment of LIS programs

• Hence any international means of assessing the quality of LIS programs – needs to be:
  - in broad strokes
  - flexible
  - sensitive to geographic, socio-economic, cultural, sector and other necessary imperatives

• As Ocholla (African), Dorner (Australasian) & Britz (American-based) (2013: 135) point out:
  - it is difficult to have a “uniform instrument in the assessment and evaluation of LIS education”
Thank you!

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