

4. Results

4.1. Subject and topic coverage within the teaching of IM

4.1.1. Topic and subject coverage by course

In total, the topic and subject coverage of 218 modules, from 13 courses, were considered within this project. From the sample, it was possible to identify 39 separate topics and subjects that are taught within IM courses within the UK. The last of the topic and subject categories was that of 'Other;' included within which, were those topics which were found to be taught only within one module, within one course. Examples of such topics and subjects were: 'Complexity and chaos;' 'Geovisualisation;' and 'Information warfare and security.'

A contingency table showing the coverage of the 39 topics and subjects within the courses sampled is available in Appendix 4. As can be seen, the majority of the identified topics and subjects are covered within over half of all the courses, with only 9 topics being covered in 46% of the courses, or less. There are however, only three topics which are covered by all 13 courses, these being: 'Knowledge and use of ICTs;' 'Project Management;' and 'Research design and methods.' From the table it can be seen that of these three topics, it is 'Research design and methods' that is taught within the core modules of all but one of the courses considered; whereas, 'Knowledge and use of ICTs' and 'Project Management' are taught within the core modules of 9 of the 13 courses. Other topics which are taught within this number of courses, within core modules, are 'Information Retrieval,' and 'Use of Information Systems;' these two topics being taught within a total of 12 of the 13 courses overall.

4.1.2. Comparison of topic and subject coverage by course and by University

As recommendations have been made for CILIP to accredit institutions as providers of professional information education, rather than accrediting their individual courses, it was thought of interest to compare the coverage of topics and subjects within courses against their coverage within Universities. This comparison is shown within the following graphs. All 39 topics and subjects identified have been grouped within the three areas of the CILIP BPK, with each of the three graphs representing a separate area.

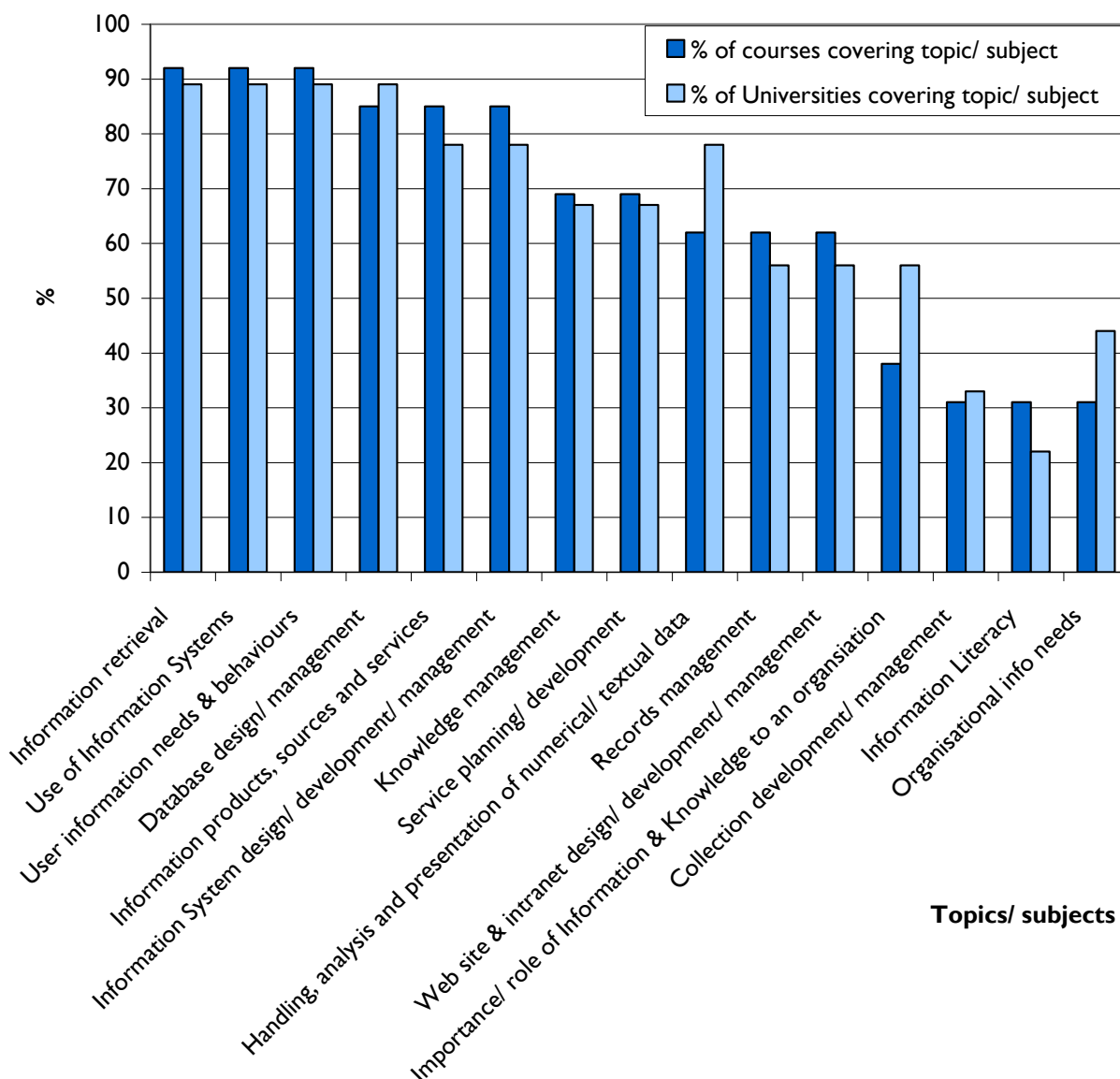


Figure 3: Graph to show percentage of courses compared to the percentage of Universities covering topics and subjects as grouped under the Core Schema area of the CILIP BPK.

As can be seen, the majority of topics and subjects within IM teaching, as grouped within the Core Schema, are covered to the same extent at both course and University level, with only small discrepancies in the percentage of coverage present. However, a larger percentage discrepancy can be seen with a small number of topics. 'Handling, analysis and presentation of numerical/ textual data,' 'Importance/ role of information and knowledge to an organisation,' and 'Organisational information needs,' can be seen to be covered to a greater extent at University than course level. Similarly, 'Information Literacy' is covered to a greater extent at course level rather than at University level.

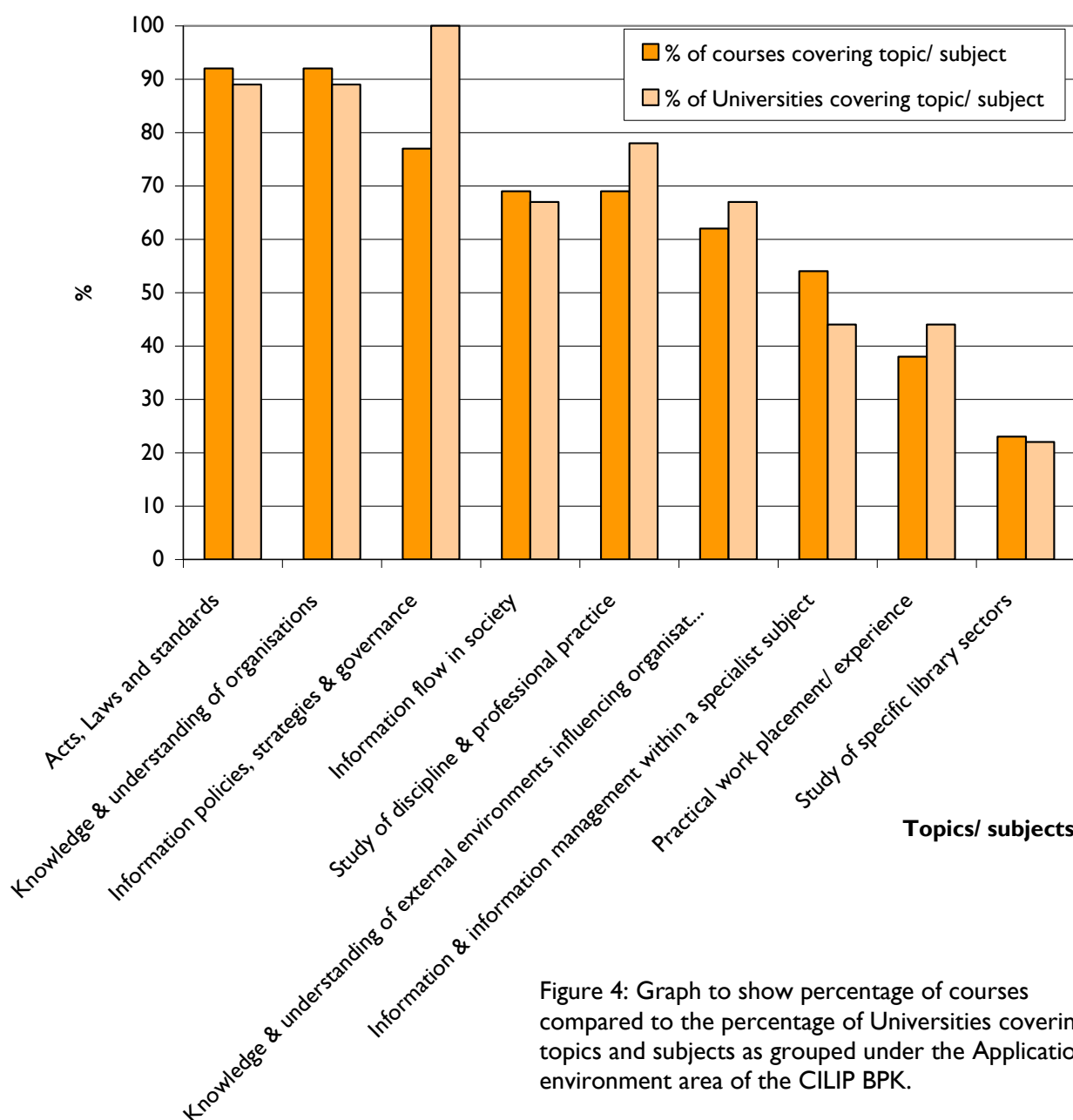


Figure 4: Graph to show percentage of courses compared to the percentage of Universities covering topics and subjects as grouped under the Applications environment area of the CILIP BPK.

As with the first topic group, only small discrepancies in coverage at course and at University level seem to be present within the majority of the identified topics and subjects, as grouped within the Applications environment. However, a large discrepancy can be seen within the number of Universities covering 'Information policies, strategies and governance,' over the number of courses covering the same topic. Discrepancies are also present in the percentage of Universities covering the 'Study of discipline and professional practice' over courses; and the number of courses covering 'Information and IM within a specialist subject,' over Universities.

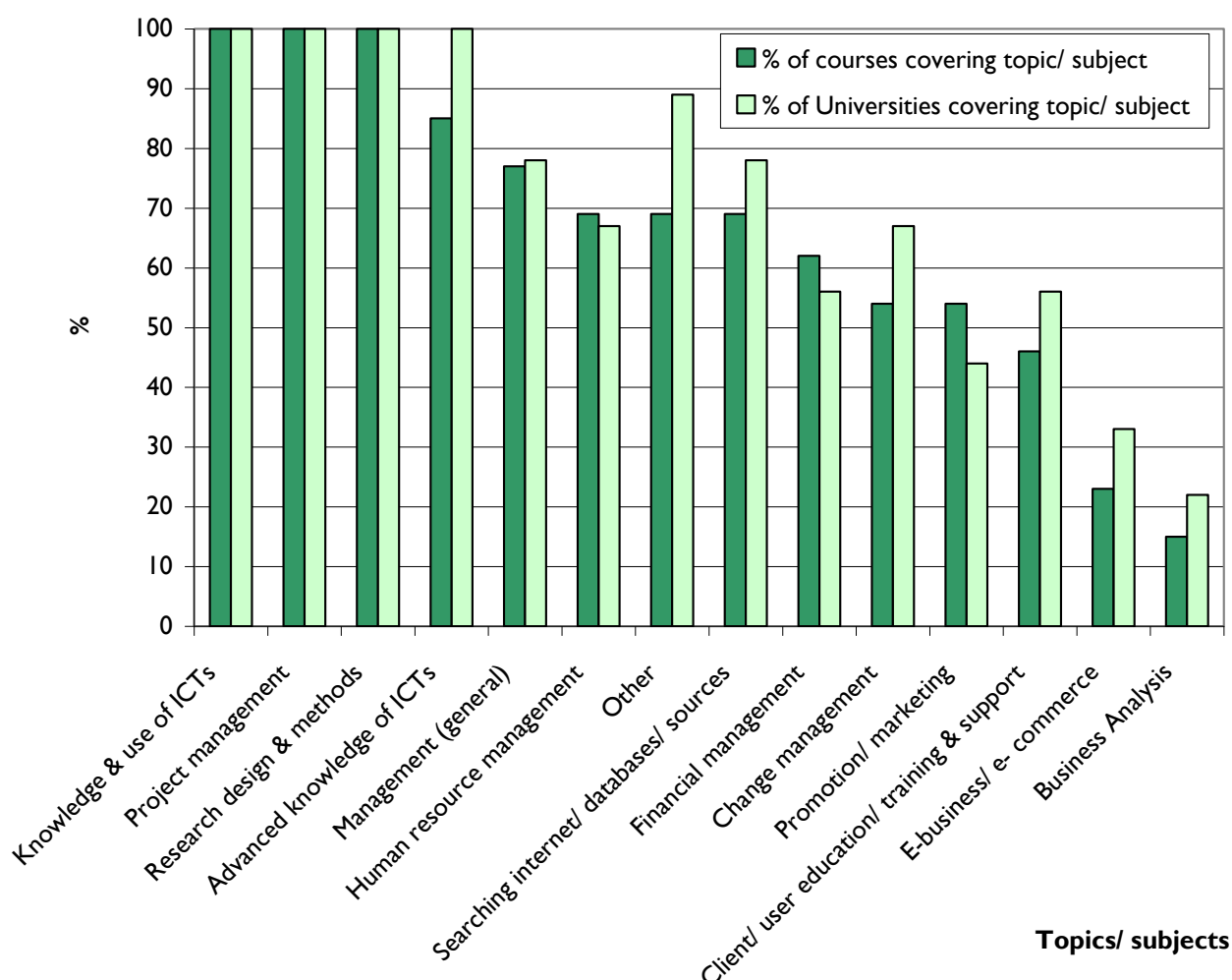


Figure 5: Graph to show percentage of courses compared to the percentage of Universities covering topics and subjects as grouped under the Generic and transferable skills area of the CILIP BPK.

Larger discrepancies can be seen in the coverage at course and at University level, of topics and subjects as grouped within the Generic and transferable skills area of the CILIP BPK. As would be expected, the three topics of 'Knowledge and use of ICTs,' 'Project Management,' and 'Research design and methods;' are covered by all Universities, as they were covered by all courses. However, of the 11 remaining topics, only the coverage of 'Management,' and 'Human Resource Management,' can be seen to be similar between courses and Universities.

4.1.3. Comparison of topic and subject coverage by course level

IM was found to be taught at both Undergraduate and Postgraduate level. However, of the 13 courses considered, over twice as many Postgraduate courses were identified as Undergraduate courses. The Bologna Declaration (1999) established that it was the Undergraduate course completed at the first cycle which was to be relevant to the European labour market whereas, completion of a Postgraduate course at the second cycle was for the purposes of achieving a master's qualification. However, within librarianship and information science education this is not always the arrangement (Audunson, 2005; Kajberg & Lørring, 2005; Broady-Preston, 2007; Johnson, 2007; Tedd, 2008). It was therefore, thought of interest to compare the coverage of topics and subjects within Undergraduate courses against the coverage within Postgraduate courses. The following graphs show this comparison.

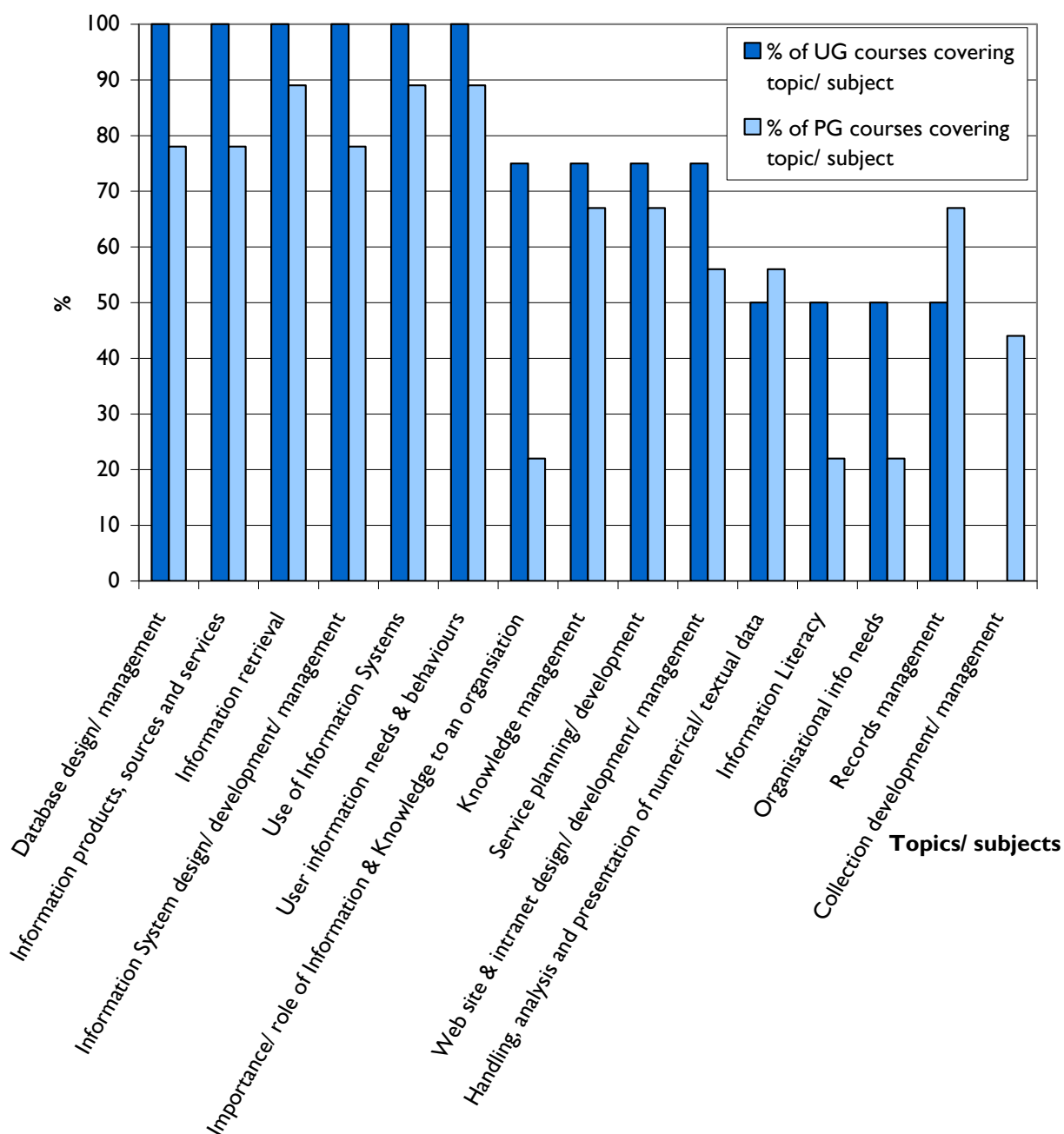


Figure 6: Graph to show percentage of Undergraduate courses compared to the percentage of Postgraduate courses covering topics and subjects as grouped under the Core Schema area of the CILIP BPK.

As can be seen from the graph there is very little consistency between the coverage of the identified topics and subjects between the Undergraduate, and Postgraduate courses.

Of the 15 identified topics, it can be seen that whereas 6 are covered by all of the Undergraduate courses, none of the identified topics and subjects can be shown to be covered by all of the Postgraduate courses. Also, where 'Collection development and

management,' is covered within just under half of the Postgraduate courses, none of the Undergraduate courses cover the subject.

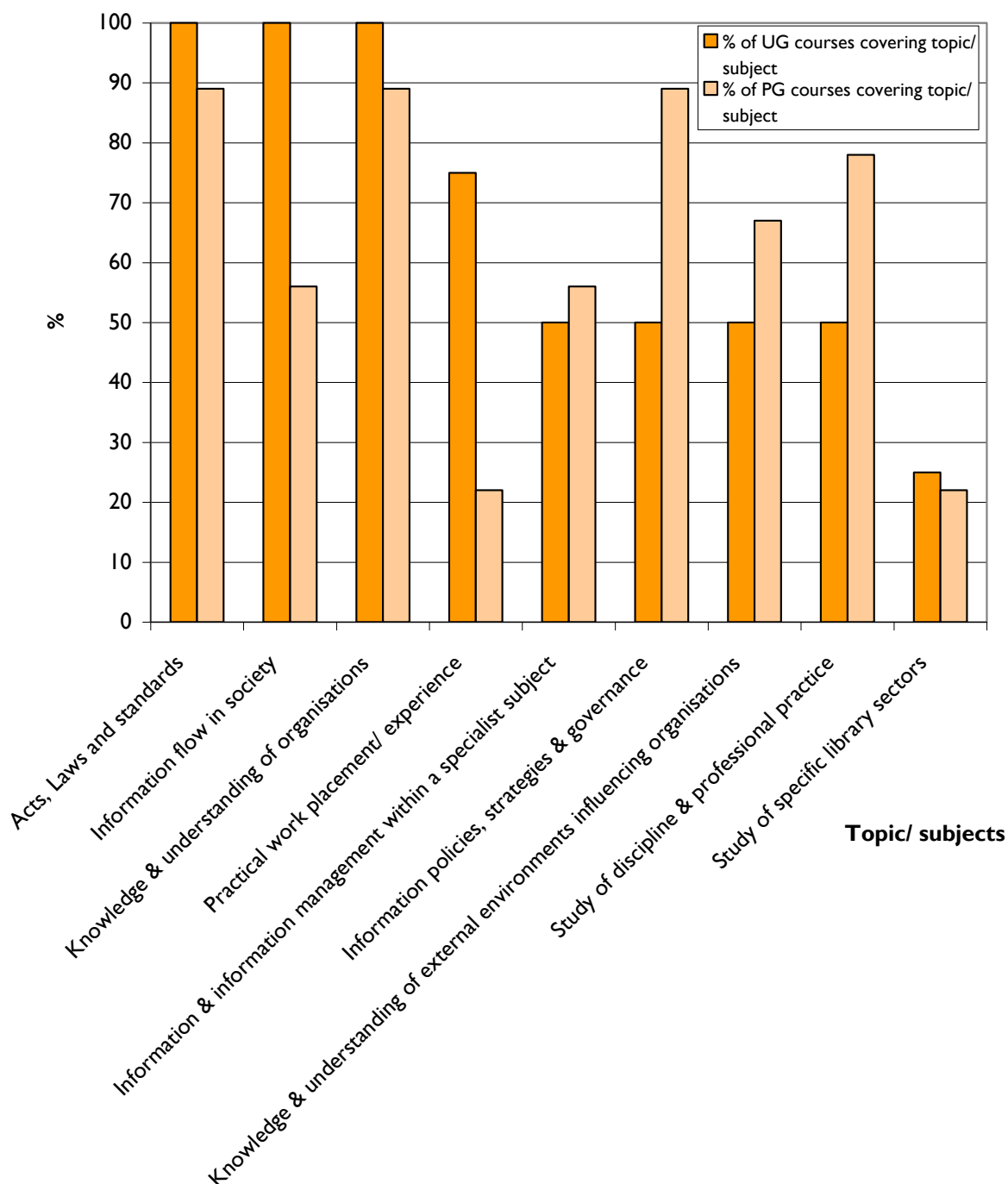


Figure 7: Graph to show percentage of Undergraduate courses compared to the percentage of Postgraduate courses covering topics and subjects as grouped under the Applications environment area of the CILIP BPK.

Again it can be seen that there is little consistency between the coverage of identified topics and subjects by Undergraduate, and Postgraduate courses. Of the 9 identified

topics, 3 can be seen to be covered by all Undergraduate courses, whereas again, none of the identified topics are covered by all of the Postgraduate courses.

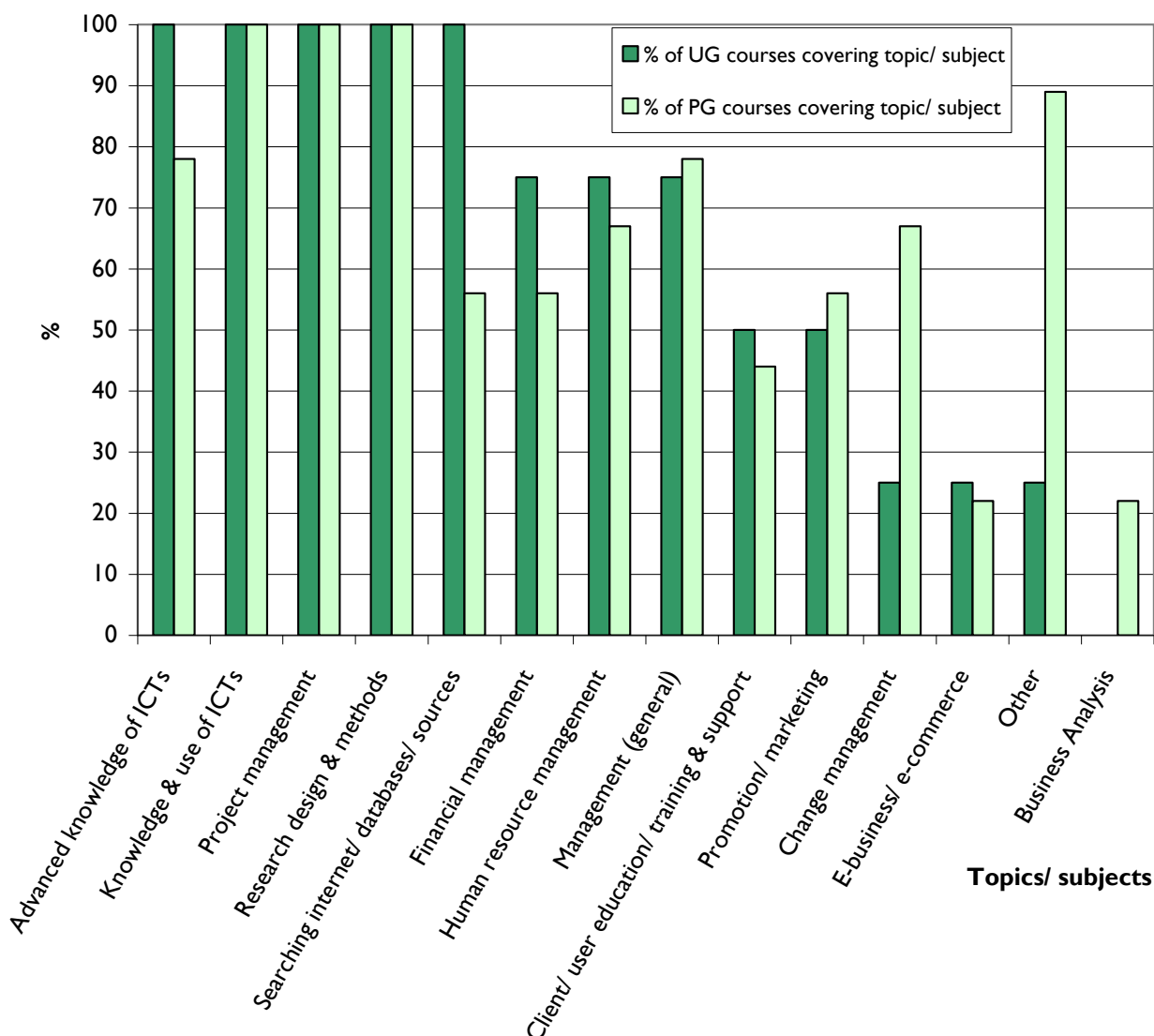


Figure 8: Graph to show percentage of Undergraduate courses compared to the percentage of Postgraduate courses covering topics and subjects as grouped under the Generic and transferable skills area of the CILIP BPK.

More consistency can be seen between the coverage of topics and subjects grouped within the Generic and transferable skills area of the CILIP BPK, than within the other groupings. Consistency can again be seen between the coverage of topics within the Undergraduate courses, and of the 5 topics covered by all Undergraduate courses, 3 of these are also covered by all Postgraduate courses. These subjects however, are those

highlighted within the previous section, these being: 'Knowledge and use of ICTs,' 'Project Management,' and 'Research design and methods.' Only a small discrepancy in coverage of 'Management (general)' can be seen between the Undergraduate and Postgraduate courses, and although represented by a small number of courses at either level, consistency is present with the coverage of 'E- business/ e- commerce.' However, there is a large discrepancy with the coverage of 'Other' topics between course levels, with almost 90% of Postgraduate courses offering topics outside of the identified categories, against just over 20% of Undergraduate courses. There are also a small number of Postgraduate courses covering 'Business Analysis,' yet none of the Undergraduate courses cover this topic.

4.1.4. Comparison of topic and subject coverage by CILIP accredited and non-CILIP accredited courses

The coverage of topics and subjects within the 10 CILIP accredited courses sampled was compared to the coverage of topics and subjects within the 3 courses not accredited by CILIP. This was to identify whether consistency was present within the teaching of IM within these CILIP accredited courses, and to identify any differences that may occur against the IM teaching within those courses which were not CILIP accredited. This comparison is shown within the graphs below.

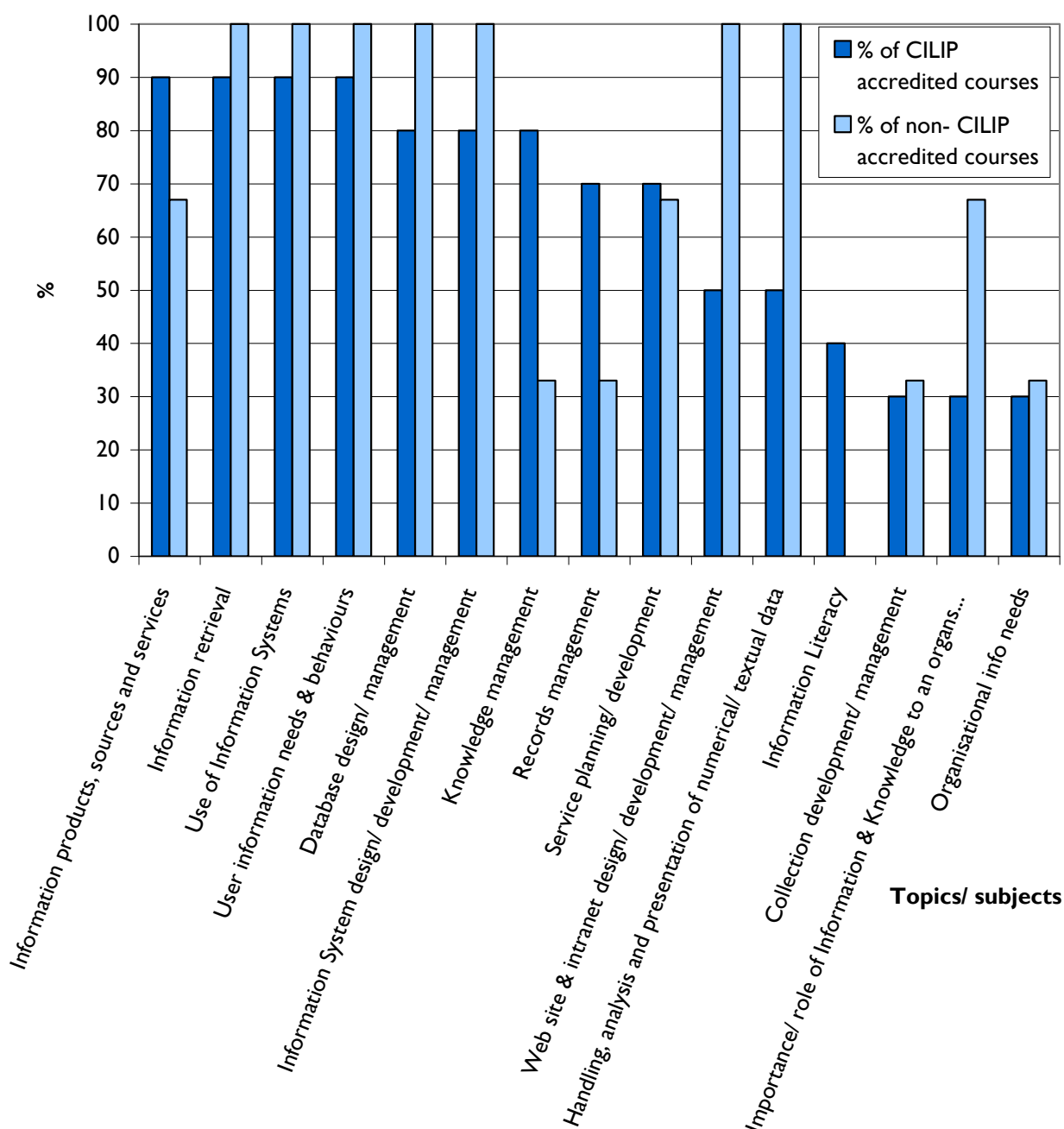


Figure 9: Graph to show percentage of CILIP accredited courses compared to the percentage of non-CILIP accredited courses covering topics and subjects as grouped under the Core Schema area of the CILIP BPK.

As can be seen, there is no complete consistency between the coverage of identified topics within the CILIP accredited courses. Consistency is greatest within the topics of 'Information products, sources and services,' 'Information Retrieval,' 'Use of Information Systems,' and 'User information needs and behaviours,' where 9 of the 10 courses include these topics within their teaching. Consistency seems to be greater within the non-CILIP accredited courses, with all 3 courses covering 7 of the 15 topics within their content.

There are a number of discrepancies between topic coverage within the CILIP accredited and non-CILIP accredited courses. However, there are only minor discrepancies between coverage of 3 topics: 'Service planning and development;' 'Collection development and management;' and 'Organisational information needs;' although, the latter two topics are only covered by a small number of courses of either accreditation type. 'Information Literacy' is a topic only covered within CILIP accredited courses but only 4 of the CILIP accredited courses actually cover this topic.

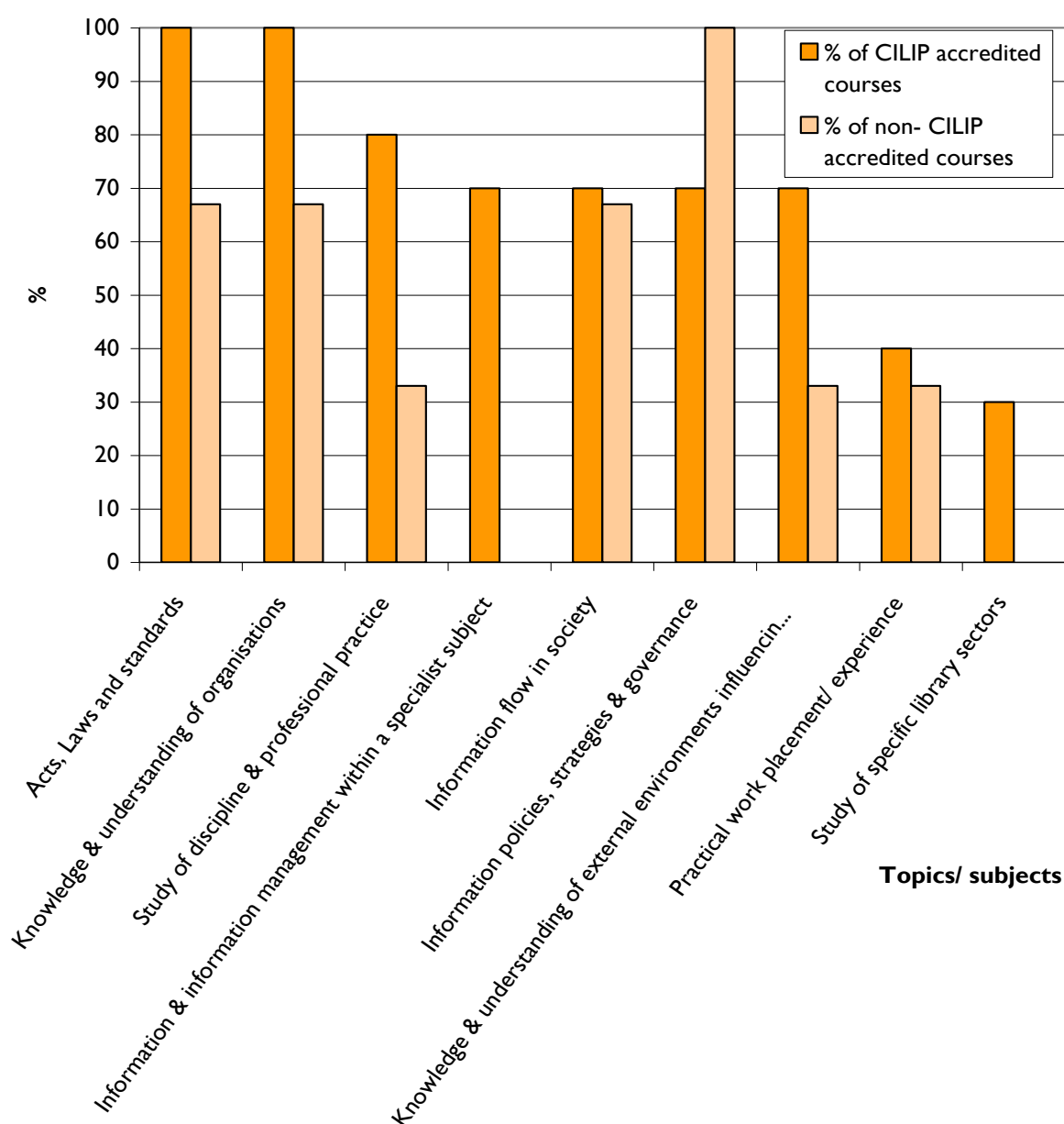


Figure 10: Graph to show percentage of CILIP accredited courses compared to the percentage of non-CILIP accredited courses covering topics and subjects as grouped under the Applications Environment area of the CILIP BPK.

Within this graph it can be seen that unlike the previous topic grouping, there is consistency within the CILIP accredited courses, with all courses teaching two identified topics: ‘Acts, laws and standards;’ and ‘Knowledge and understanding of organisations.’ Within this grouping there is also only consistency between the non-CILIP accredited courses within the teaching of one identified topic, ‘Information policies, strategies and governance.’ All but two topics have large discrepancies within their coverage between the two course types; and two other topics- ‘Information and IM within a specialist subject’ and ‘Study of specific library sectors’- are only considered within CILIP accredited courses.

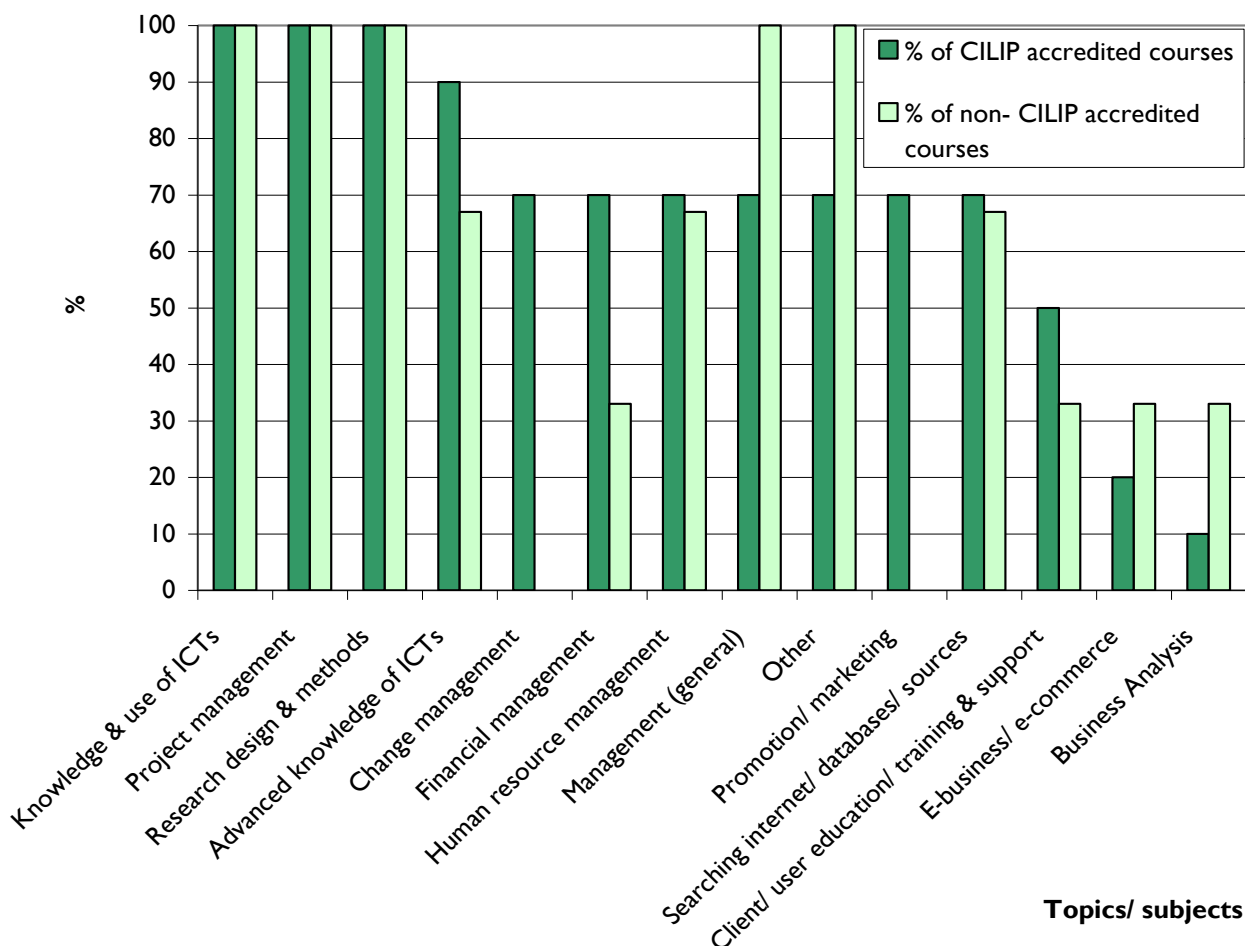


Figure 11: Graph to show percentage of CILIP accredited courses compared to the percentage of non-CILIP accredited courses covering topics and subjects as grouped under the Applications Environment area of the CILIP BPK.

As with previous comparisons of topics grouped within the Generic and transferable skills area of the CILIP BPK, consistency is present between all courses sampled in the teaching of the topics: 'Knowledge and use of ICTs;' 'Project Management;' and 'Research design and methods.' Following these, all but one of the CILIP accredited courses can be seen to cover 'Advanced knowledge of ICTs' within their teaching. Within the non-CILIP accredited courses consistency is present within the teaching of 'Management (general),' and all courses interestingly cover topics coded within the 'Other' section. There is similar coverage of the topics 'Human Resources Management' and 'Searching internet/ databases/ resources' between the two types of course. However, there are noticeable discrepancies present within the coverage of the remaining 9 of the 14 topics, with 'Change management' and 'Promotion/ Marketing' only present within the teaching of the CILIP accredited courses.

4.2. Courses by Department: an indicator of an IM discipline

Although the availability of IM degrees within Universities fulfils a criteria of a discipline as outlined by Stankosky (2005); the titles of the University Departments offering the courses sampled were coded, to assess whether IM Departments were present within UK Universities and therefore, fulfilling a further criteria of a discipline as outlined by Becher & Trowler (2001). The pie chart below shows the proportion of University Department's by title. As can be seen, a third of the Department titles included either 'Information' or 'Information Studies.' A further third included a combination of 'Information Science' and 'Computing' or 'Computer Science.' One title included 'Business Studies,' and no Department title was present within another institution. Of the 9 University Departments offering IM courses, only one is entitled IM.

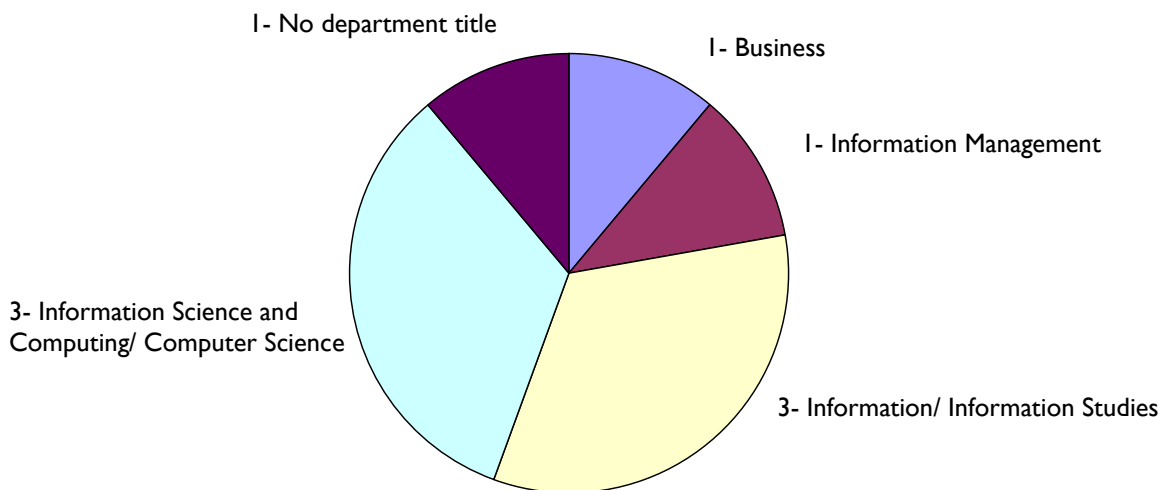


Figure 12: Pie chart to show proportion of academic departments offering courses in IM by title

4.3. Requested skills, experience and knowledge within IM job descriptions

4.3.1. Requested prior experience

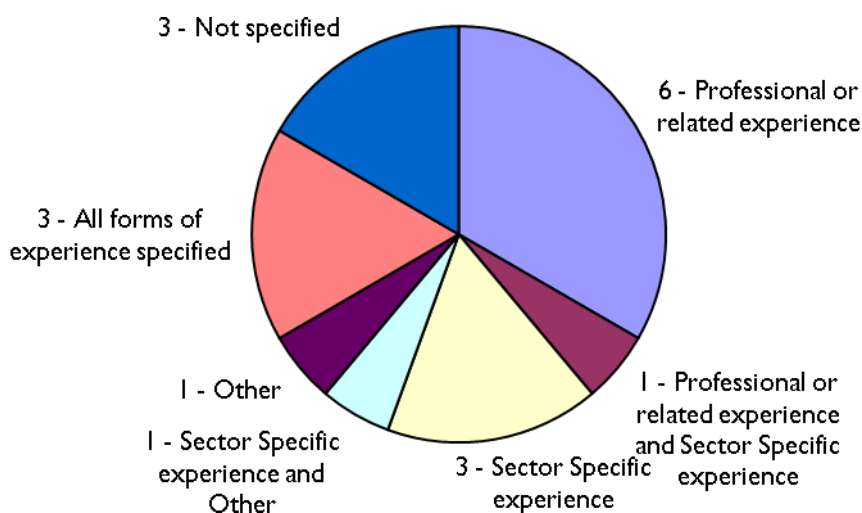


Figure 13: Pie chart to show the proportion and number of advertisements by type of experience requested

The majority of job advertisements sampled requested that applicants had prior experience of some kind. Three categories of experience were identified, these being: ‘Professional or related experience;’ ‘Sector specific experience;’ and ‘Other.’ As can be seen, a third of the advertisements sampled requested that applicants had prior

professional or related experience; with a further advertisement requesting applicants had both this type of experience, as well as experience specific to the sector. Three advertisements requested sector specific experience; with a further advertisement requesting this type of experience along with other kinds of experience.

4.3.2. Identified skills and areas of knowledge and experience

| Previous skills, experience & knowledge | No. of Jobs | % | Frequency of request |
|--|--------------------|----------|-----------------------------|
| Other/ unclear | 9 | 50 | 15 |
| Specialist subject knowledge | 9 | 50 | 10 |
| Knowledge & use of ICTs | 6 | 33 | 8 |
| Human Resource Management | 4 | 22 | 4 |
| Change management | 3 | 17 | 3 |
| Information products, sources & services | 3 | 17 | 3 |
| Information Provision | 3 | 17 | 3 |
| Knowledge management | 3 | 17 | 3 |
| Knowledge of acts, laws & standards | 3 | 17 | 5 |
| Project management | 3 | 17 | 3 |
| Financial management | 2 | 11 | 2 |
| Handling, analysis and presentation of numerical/ textual data | 2 | 11 | 2 |
| Information retrieval | 2 | 11 | 2 |
| Knowledge & use of Information Systems | 2 | 11 | 6 |
| Promotion/ Marketing | 2 | 11 | 2 |
| Website & intranet design/ development/ management | 2 | 11 | 3 |
| Client/ user education/ training/ support | 1 | 6 | 1 |
| Management (General) | 1 | 6 | 1 |
| Research/ Searching internet/ databases/ sources | 1 | 6 | 1 |
| Service Planning & Development | 1 | 6 | 1 |
| Specific software | 1 | 6 | 3 |

Figure 14: Table to show the number and percentage of job advertisements requesting the identified skills and areas of knowledge and experience, along with the frequency of the request for those skills, experience and knowledge.

From the analysis of the 18 advertisements sampled, it was possible to identify 21 categories of skills, or specific areas of knowledge and experience, which prospective applicants were requested to possess. This included an 'Other' category, within which were included those skills or areas of knowledge and experience which were requested by only one advertisement, and had not already been identified as a category within the

coding scheme. Examples included: 'Counselling skills;' 'Political Awareness;' and 'Good general knowledge.'

As can be seen, none of the identified categories of skills, experience and knowledge were requested by all, or even the majority of advertisements. Skills, experience and knowledge falling within the 'Other/ unclear' category were the most frequently requested by the advertisements; requests appearing within half of all the advertisements sampled. Only 'Specialist subject knowledge' was requested by as many advertisements, although was not requested as frequently. A familiar category in 'Knowledge & use of ICTs' also appears at the top of table. However, it was only requested within a third of the advertisements.

4.4. Identified duties within IM job descriptions

From the advertisements sampled it was possible to identify 26 categories of duties of post that were outlined within the job descriptions. 'Other/ unclear' was again one of the identified categories. From the table below, it can again be seen that none of the identified duties were included within all, or even the majority, of the advertisements sampled. 'Human Resource Management' can be seen to be the most frequently included duty, although it is only outlined within 39% of the advertisements. The next most frequently included duty involves 'Information policies, strategies and governance.' However, it is only included within a third of the advertisements. Other duties which appear in this number of advertisements are: 'Advocacy;' 'Client/ user education/ training/ support;' and those included within the 'Other/ unclear' category. These 3 categories of duties appear at around equal frequency within this proportion of advertisements.

| Duties of post | No. of Jobs | % | Frequency of request |
|--|--------------------|----------|-----------------------------|
| Human Resource Management | 7 | 39 | 13 |
| Advocacy | 6 | 33 | 7 |
| Client/ user education/ training/ support | 6 | 33 | 8 |
| Information policies, strategies & governance | 6 | 33 | 10 |
| Other/ unclear | 6 | 33 | 8 |
| Database design/ development/ management | 5 | 28 | 6 |
| Handling, analysis and presentation of numerical/ textual data | 5 | 28 | 7 |
| IM Responsibility | 4 | 22 | 5 |
| Internal liaison | 4 | 22 | 9 |
| Knowledge management | 4 | 22 | 5 |
| Management of specific services | 4 | 22 | 4 |
| Promotion/ Marketing | 4 | 22 | 5 |
| Research/ Searching internet/ databases/ sources | 4 | 22 | 5 |
| Information System design/ development/ management | 4 | 22 | 4 |
| Collection development/ management | 3 | 17 | 3 |
| External liaison | 3 | 17 | 6 |
| Information retrieval | 3 | 17 | 3 |
| Service planning & development | 3 | 17 | 4 |
| Web page & intranet design/ development/ management | 3 | 17 | 5 |
| Enquiries & reference | 2 | 11 | 3 |
| Financial management | 2 | 11 | 3 |
| Production of printed materials | 2 | 11 | 4 |
| Records management | 2 | 11 | 4 |
| Change management | 1 | 6 | 1 |
| Project management | 1 | 6 | 1 |
| User Info needs | 1 | 6 | 1 |

Figure 15: Table to show the number and percentage of job advertisements including the identified duties of post, along with the frequency by which those duties were included.

4.5. Indicators of an IM profession.

4.5.1. Education level and qualifications

Of the 18 job advertisements coded, only 2 requested prospective applicants be educated to a specific level. The first of these two advertisements requested that applicants be educated to 'degree or postgraduate level.' This level of education was to be within Information Studies, or a related area. The second advertisement allowed more flexibility, requesting applicants were either 'educated to degree level or equivalent,' or had 'demonstrable intellectual ability to work at that level,' or had 'a professionally related qualification.'

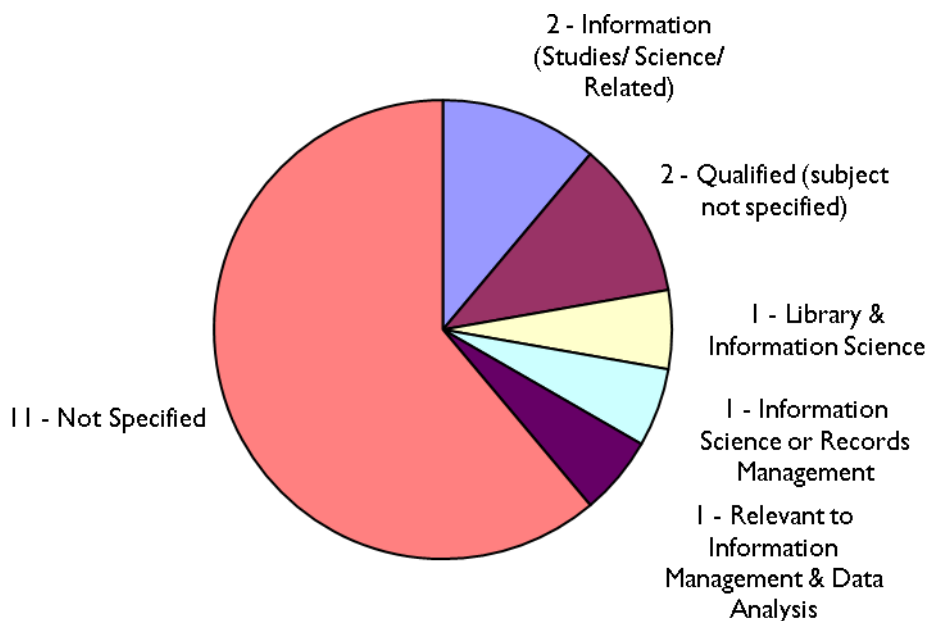


Figure 16: Pie chart to show the proportion and number of advertisements by qualification requested

Only 7 of the 18 advertisements requested applicants have a qualification. However, of this 7, not all specified which subject the qualification should be in. As can be seen only one of the advertisements request applicants have a qualification which is relevant to IM. The majority of other requests were for qualifications simply related to Information or Information Science.

4.5.2. Professional Status

Only one of the posts advertised requested applicants had an affiliation to a Professional Body. The requested affiliation was with CILIP, and Chartered membership was the required level. However, this membership was only desirable for the advertised position, rather than essential.

4.6 Employment sectors

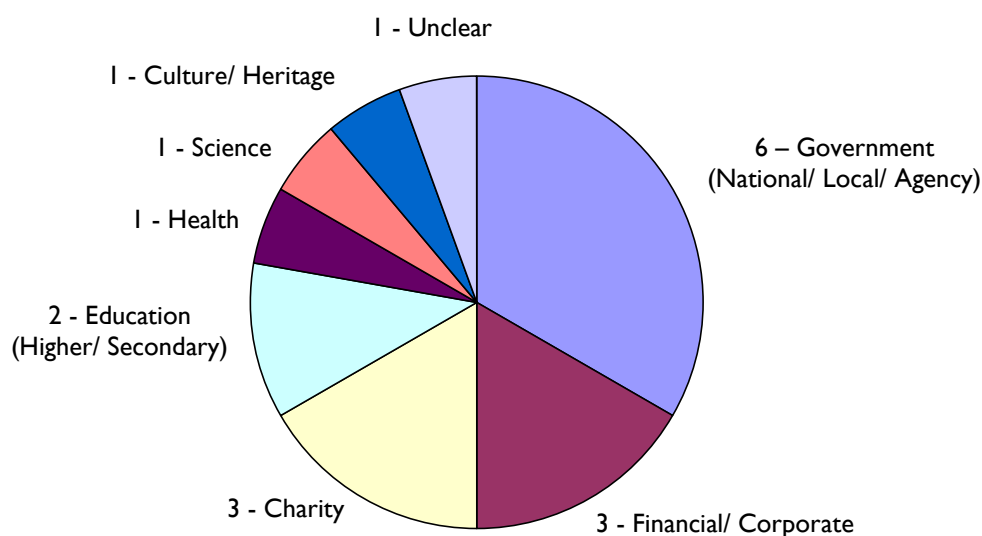


Figure 17: Pie chart to show the number and proportion of advertisements included within each sector.

It was possible to identify 8 different employment sectors within which the posts included in the job advertisements were based. It can be seen that the majority of advertised posts are within the previously described emergent or non-traditional market of library and information work. A third of advertised posts were found within the Governmental sector; 3 further posts were based within the Financial/ Corporate sector, and another 3 within the Charity sector. Only 2 of the advertised posts were found within the traditional sector, being based within Secondary and Higher Education.

4.7 Source of advertisements

| Source of advertisement | No. of advertisements | % |
|-------------------------|-----------------------|----|
| CILIP Gazette | 5 | 28 |
| Guardian Jobs | 10 | 56 |
| Jinfo | 3 | 17 |

Figure 18: Table to show the number of job advertisements identified by source.

As can be seen, the majority of the sampled advertisements were taken from sources considered to advertise posts outside of the traditional library and information work market. Over half of the advertisements used were taken from the Guardian Jobs website. Fewer than 30% of all the advertisements considered were sourced from the CILIP Gazette.

4.8. Comparison of IM teaching against IM practice

Data collected for the coverage of topics and subjects within IM courses were compared to data collected for the requested skills, experience and knowledge, and outlined duties of posts within job advertisements. For the purposes of this comparison the skills, experience and knowledge requested within the job advertisements, were combined with the duties outlined, as it would be expected that an applicant would meet the criteria specified, as well as carry out the duties described. Where categories appeared as both a skill, or area of experience and knowledge, and as a duty of post, the counts for both occurrences of that category were combined for the purposes of the comparison. A table showing the percentage of advertisements including a category, and the rank position of that category is available in Appendix 5. A similar table showing the percentage of courses covering a topic or subject category and the rank position of that category is available in Appendix 6.

As there were small differences between the coding schemes used for the different data sources it was only possible to compare those categories which appeared in both schemes. In total, 24 categories were identified for comparison. Those categories which are unique to a particular coding scheme have been highlighted within the tables referenced above.

4.8.1. Coverage of categories as grouped within the Core Schema and Applications Environment areas of the CILIP BPK

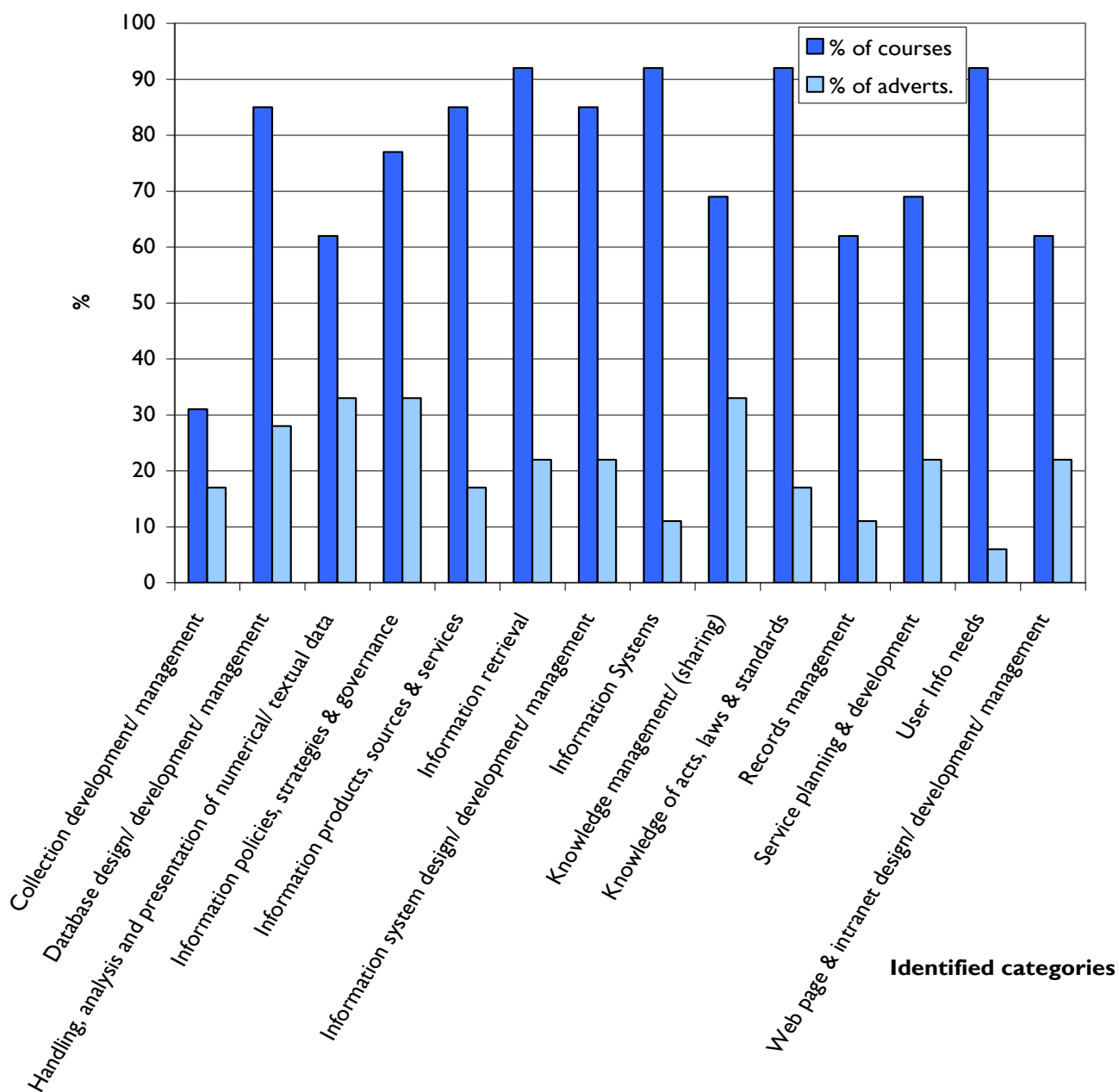


Figure 19: Graph to show percentage of courses compared to the percentage of advertisements covering the identified categories, as grouped under the Core Schema and Applications Environment areas of the CILIP BPK.

As can be seen, there are large discrepancies between the coverage of all of the identified categories between the courses and the advertisements.

4.8.2. Coverage of categories as grouped within the Generic and transferable skills area of the CILIP BPK

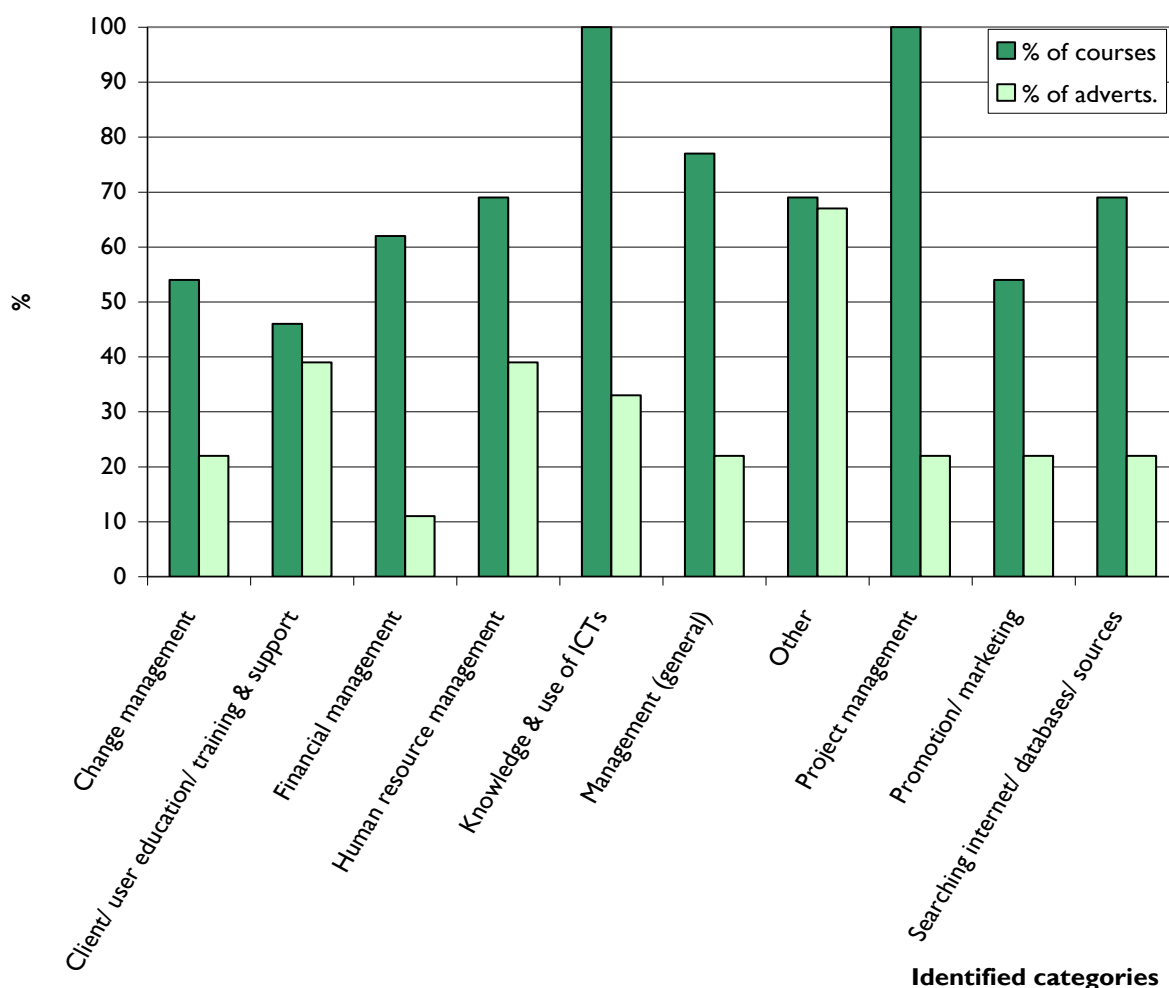


Figure 20: Graph to show percentage of courses compared to the percentage of advertisements covering the identified categories, as grouped under the Generic and transferable skills area of the CILIP BPK.

There are again large discrepancies between the coverage of the majority of the identified categories, by the courses and the advertisements. However, there are two categories with only small discrepancies present, these being: 'Client/ user education/ training & support;' and 'Other.' Of these two, the smallest discrepancy is between the coverage of 'Other' topics etc., there being a difference in coverage of only 2%.

4.8.3. Comparison of category ranking

| Identified category | Course ranking | Advert. ranking | Identified category | Course ranking | Advert. ranking |
|--|----------------|-----------------|--|----------------|-----------------|
| Knowledge & use of ICTs | 1 | 6 | Knowledge management | 13 | 7 |
| Project management | 2 | 13 | Other/ Unclear | 14 | 1 |
| Acts, Laws and standards | 3 | 18 | Research/ Searching internet/ databases/ sources | 15 | 15 |
| Information retrieval | 4 | 10 | Service planning & development | 16 | 16 |
| Use of Information Systems | 5 | 23 | Financial management | 17 | 21 |
| User information needs & behaviours | 6 | 24 | Handling, analysis and presentation of numerical/ textual data | 18 | 4 |
| Database design/ development/ management | 7 | 8 | Records management | 19 | 22 |
| Information products, sources and services | 8 | 20 | Web page & intranet design/ development/ management | 20 | 17 |
| Information system design/ development/ management | 9 | 11 | Change management | 21 | 9 |
| Information policies, strategies & governance | 10 | 5 | Promotion/ Marketing | 22 | 14 |
| Management (general)/ of services | 11 | 12 | Client/ user education/ training/ support | 23 | 2 |
| Human Resource Management | 12 | 3 | Collection development/ management | 24 | 19 |

Figure 21: Table to show comparison of category ranking within course coverage and advertisement coverage.

The table above shows the ranking of the 24 common categories between the courses and advertisements, as arranged by percentage of coverage. As may have been expected, the ranking of the majority of categories is completely dissimilar between course coverage and advertisement coverage. However, there are a number of categories which can be seen to have similar, if not identical, rankings. ‘Database design/ development/ management;’ ‘Information system design/ development/ management;’ and ‘Management (general)/ of services;’ all have rankings within 1 or 2 places of each other. ‘Research/ Searching internet/ databases/ sources,’ and ‘Service planning & development,’ have identically placed rankings, at 15th and 16th, respectively. Yet, no consistency is present between those categories ranked highest within either course coverage, or advertisement coverage.