The effect of link colour on information retrieval in educational intranet use

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Abstract

One of the most important determinants of the success of intranet sites is their degree of usability. This study aims to contribute towards intranet design guidelines for usability through an empirical investigation using an existing ‘live’ site and realistic tasks. Employing an experimental design, the effect of link colour on both performance and subjective measures was studied. Eighty-six undergraduates carried out an information retrieval task using two versions of the same intranet site. Analysis showed an effect of link colour both on accuracy and rated display quality, with blue links on a white background resulting in better outcomes than black links on a white background. Analysis of navigation behaviour showed that the home page was used more frequently than either the site map or the search function; however, use of these three navigation support functions was associated with poor and inefficient task performance. The results are discussed in terms of schema theory [Norman, D. A. (1988). The psychology of everyday things. Basic Books; Norman, D. A. (1999). Internetworking, 2(1)] and design recommendations are given.

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1. Introduction

The use of intranets is growing in a variety of environments including business (Murgolo-Poore, Pitt, & Ewing, 2002), medicine (Stalidis, Prentza, Vlachos, Maglaver, & Koutsouris, 2001) and higher education (Browning & Williams, 1997). Intranets are internal computing networks that are used by an organisation to disseminate important or useful information to its members; most commonly this takes the form of an internal web, based on the same technology as external World Wide Web (Web) sites. For example, universities often employ intranets as a resource for students that might include lecture notes, course handbooks, etc.

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However, many intranets suffer from poor funding (Curry & Stanchich, 2000; Nielsen, 1999a) and poor design (Nielsen, 1999a). In order to boost productivity of organisations the usability of their intranets needs to be improved (Nielsen, 2001).

One key aspect of both Web sites as well as intranet sites that affects usability is navigation. An important parameter influencing navigation is colour of links (Ling & van Schaik, 2002). Obviously the link colour needs to be sufficiently different from the background colour in order to be visible; however, apart from this constraint, there is an infinitely wide range of colours that can be used for links. The choice of link colour can be based on various considerations. First, interaction of users with a web (Web or intranet) site may improve if the layout of web pages contained in the site fits with users’ mental models or schemas (Norman, 1988, 1999) of web pages. For instance, links may be better recognised if the colour fits users’ prior experience of web pages, for example, in such a schema links in a typical web page may be blue. Second, links may be noticed more accurately and faster if the contrast between link colour and background colour is maximised (Galitz, 1997). If the background is white then contrast would be maximised by employing black links.

One consideration Web and intranet designers need to take into account is the appearance of screen elements. This may have an impact not only on aesthetic preferences of users, but also on task performance (Tractinsky, Katz, & Ikar, 2000). Indeed, screen aesthetics may have a significant impact upon whether a site will be used (Schenkman & Jönsson, 2000). In order to make it possible to study the relationship between task performance and preference found by Nielsen and Levy (1994), both task performance and subjective measures were utilised in the present study.

Information retrieval is an important activity in using intranets as an integrated system for access to learning and teaching materials in educational and other organisations. When using such an intranet in the context of learning and teaching in Higher Education (HE), typical tasks involve finding relevant information related to a programme of study. For instance, learners may need to know how to apply for extensions for their coursework or how to contact a particular member of teaching staff. Such tasks typically consist of the following sub-tasks. First, formulate a question to be answered. Second, decide on an information retrieval strategy. Third, use the strategy to find an answer. The current study focuses on intranet support for the second and third sub-tasks in response to a series of questions related to typical use of an intranet site. Two information retrieval strategies are browsing the site until an answer is found and using a search facility to find one or more parts of the site that may contain an answer. Intranet and Web sites can support these strategies through a search function, index/sitemap, home page, global navigation frame (usually at the top or left of the page) and ‘bread crumb trail’ facilities (see top left corner of Fig. 1).

In order to make informed design decisions relating to web sites in general and navigation frames in particular, guidelines that are based on empirical research are required. Unfortunately, the guidelines that currently exist are often not based on such research (Tullis, 1997; Venkatraman, 2000).

Previous research into the use of link colours in web (Web or intranet) pages or hypertext documents is sparse, and investigations into graphical user interfaces and menus have been inconclusive with regard to the production of relevant and sound
guidelines. In particular, there is a pressing need for comprehensive research into web usability that takes into account the different requirements placed on users of intranets rather than Web sites, such as the higher level of engagement that users will have with sites (Nielsen, 1997, 1999a, 2001). Nonetheless, several issues, such as ease of navigation are common to both intranet and Web sites. The need for HCI research focusing on web sites has been highlighted (Nielsen, 2001, 2002).

The current study investigates the effect of link colour. A realistic task scenario was used by employing (a) typical tasks that students in HE usually perform using an intranet facility and (b) an experimental paradigm mimicking users’ interaction with web browsers in actual intranet use.

The hypothesis that blue links on a white background lead to better performance and higher levels of subjective experience than black links on a white background was tested. In addition, the study aimed to produce design advice for intranets.

2. Method

2.1. Experimental design and materials

The study used an independent measures design with two experimental conditions. Link colour was the independent variable. The two levels were blue (the default link
colour in web browsers) and black (having the highest contrast with the default background colour of white). Dependent variables were speed and accuracy of task performance, navigation behaviour, perceived display quality and aesthetic value.

The experiment used an existing intranet site developed by the Psychology Section for its students. The site consisted of a home page (see Fig. 1), six main content pages, a sitemap, a search page and several hundred further content pages. This site included information such as learning resources from taught modules, generic study information, careers advice and staff details as well as links to other university intranet sites and external Internet sites. Two versions of the site were produced, one having blue hyperlinks (HTML code: #0000FF) and the other black hyperlinks (HTML code: #000000) in the navigation menu. The navigation menu only included target words (hyperlinks). The background of all intranet pages was white (HTML code: #FFFFFF) and the text colour was always black.

The experiment ran on personal computers (Intel Pentium, 333 MHz, 64 Mb RAM, Microsoft NT4 operating system, 14 inch monitors). The screen dimensions were 800×600 pixels. In order to ensure both maximum clarity and replicability, contrast was set to maximum level and brightness to minimum level.

Participants were asked a series of questions based on information available on the intranet (see Appendix). Answers to the questions were zero (i.e. answers appeared on the home page itself), one or two links away from the home page. Two sets of rating questions were also presented to participants. In a first rating task, participants completed a set of six questions (DES-R) based on the DES (Display Evaluation Scale; Spenkelink, Besuijen, & Brok, 1993). These questions asked participants to rate their satisfaction with display quality in terms of the height of the navigation area and content area, the size of the navigation area and content area, and finally the combination of height of navigation area and content area and combination of size of navigation area and content area. All six questions were answered on a seven-point scale, where 1 was bad and 7 was good. The DES-R was checked for reliability and was found to be highly reliable (Cronbach’s alpha = 0.93). Scores on each of the items were averaged to give an overall rating. The second scale was Tractinsky et al.’s (2000) aesthetic rating scale which prompted participants to evaluate a typical page of the site (the home page) in terms of beauty, comprehension, complexity, legibility, meaning, order and overall impression. The appropriate (blue or black link) version of the home page was rated on these dimensions using a seven-point scale. The aesthetics scale was checked for reliability and was found to be reliable (Cronbach’s alpha = 0.79). Responses to these questions were combined so that each participant had an overall aesthetics score.

2.2. Participants

There were 86 participants, consisting of 74 females and 12 males. They were all undergraduates in their first week at university. None was familiar with the intranet. Participants worked individually. Of these, 48 took part in the black link colour condition, and 38 took part in the blue link condition. Participants’ mean age was 23 years with a standard deviation of 9.8.
Almost all participants (97%) had some experience of using the web. Only three participants (3%) had never used the Web before. Participants had been using the web from anywhere between 1 month to more than a year, however, the majority (70%) had been using the web for more than 1 year (see Table 1). In terms of frequency, the largest group of participants (36%) used the Internet more than once a week but less than once a day, with a further 28% of participants using the Internet either once or more than once a day.

Participants were assigned to one of the experimental conditions according to the lab class they attended. The experiment was carried out in classrooms with 15–20 participants at a time.

2.3. Research procedure

In both colour conditions, participants were presented with instructions before completing a practice task which consisted of a series of three information retrieval questions. They were told that a series of questions would appear at the top of the screen. After reading each question they were told to click on the button labelled ‘Show website’. The homepage of the Psychology intranet site was then displayed in the browser window (see Fig. 1). Participants were instructed to find the answer to each question using the intranet site. Once they found the answer they had to click a button labelled ‘Your answer’. A dialog box then appeared into which participants entered their answers. Once they had typed their answer, they were shown the next question. Participants were instructed to work as quickly and accurately as possible.

When all participants had completed the practice task, any questions were answered before participants went on to the main part of the task in which they completed a series of 10 further questions which were also presented.

After the experimental trials, participants answered rating questions (DES-R and aesthetics scale). Next, participants indicated their preference for the relative height of the navigation and content areas. For this purpose, they used a mouse to vertically control the proportion of the screen occupied by the navigation area at the top and the content area at the bottom. Finally, participants answered a number of demographic questions (age, sex, use of the web) that were also presented on

<table>
<thead>
<tr>
<th>Length of time</th>
<th>Percentage</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 month</td>
<td>5</td>
<td>&gt; 1/day</td>
<td>9</td>
</tr>
<tr>
<td>&gt; 1 month</td>
<td>1</td>
<td>1/day</td>
<td>19</td>
</tr>
<tr>
<td>&gt; 2 months</td>
<td>1</td>
<td>&gt; 1/week</td>
<td>36</td>
</tr>
<tr>
<td>&gt; 3 months</td>
<td>6</td>
<td>&gt; 1/month</td>
<td>15</td>
</tr>
<tr>
<td>&gt; 6 months</td>
<td>14</td>
<td>&lt; 1/month</td>
<td>18</td>
</tr>
<tr>
<td>&gt; 1 year</td>
<td>70</td>
<td>Not used the Web</td>
<td>3</td>
</tr>
<tr>
<td>Not used the Web</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
computer. Participants took approximately 30 min to complete the experiment. When data collection was complete, participants were thanked and then debriefed.

2.4. Data collection

Experimental software was used that was written in Microsoft Visual Basic version 6. The software used the web browser control (based on version 5 of the Microsoft Internet Explorer web browser) built into Visual Basic to display intranet pages which enabled participants to navigate through the site. The program recorded all participants’ computer interaction including the sequence of web pages followed for each task (which incorporated time spent on each page) and all answers that they gave, as well as the time taken to answer questions.

2.5. Data analysis

For the purpose of analysis, the task performance data were divided into correct and incorrect answers which were each examined in terms of efficiency (i.e. number of pages loaded), speed (i.e. reaction time) and use of intranet support functions (home page, search and sitemap). Subjective measures were display quality and aesthetic value.

3. Results

T tests indicated there was no difference between any of the performance and subjective measures of the most experienced participants (more than 1 year’s experience of using the Web) and those who had been using the Web for less than 6 months (all tests \( P > 0.05 \)).

3.1. Analysis of task performance

3.1.1. Accuracy

Numbers of correct responses were examined (see Table 2). Link colour had an effect on hits, \( t(84) = 2.26, P < 0.05 \), with blue links leading to more correct answers than black links.

3.1.2. Efficiency

Numbers of links visited were examined (see Table 2). A two-way mixed measures ANOVA with correctness of answers (correct, incorrect) and link colour as independent variables showed the number of visited links before giving incorrect answers was higher than that before correct answers, \( F(1,61) = 24.53, P < 0.001, \) \( MS_{correctness} = 248.53 \); neither the effect of link colour nor the interaction effect was significant, both \( P > 0.05 \).
3.1.3. Speed

Times to retrieve information until a response was made were examined (see Table 2). A two-way mixed measures ANOVA with correctness of answers (correct, incorrect) and link colour as independent variables showed the time to retrieve information before incorrect answers was higher than that before correct answers, \( F(1,61)=34.84, P<0.001, \text{MS}_{\text{correctness}}=9.24 \times 10^{10} \); neither the effect of link colour nor the interaction effect was significant, both \( P>0.05 \).

3.1.4. Use of intranet site functions supporting information retrieval

The use of intranet support functions (home page, search and sitemap) was examined (see Table 2). A two-way mixed measures ANOVA with type of intranet support function and link colour as independent variables, showed an effect of support function, \( F(2,168)=293.78, P<0.001, \text{MS}_{\text{support}}=4203.45 \); the effect of link colour and the interaction effect were not significant, both \( P>0.05 \). Pairwise comparisons with Sidak adjustment showed that more extra visits to the home page\(^1\) were made than visits to the search page and the sitemap (both \( P<0.001 \)), with no difference between visits to search page and sitemap (\( P>0.05 \)).

3.1.5. Associations between accuracy and other objective measures

The number of visited links and time to retrieve information were positively correlated both for correct answers, \( r=0.57, P<0.001 \), and for incorrect answers, \( r=0.77, P<0.001 \). Home page visits were negatively correlated with number of correct answers (\( r = -0.24, P<0.05 \)) and positively correlated with number of links, both when giving a correct answer (\( r = 0.33, P<0.005 \)) and when giving an incorrect answer (\( r=0.37, P<0.001 \)), and with time to retrieve information when giving an incorrect answer (\( r=0.27, P<0.05 \)). Use of the search facility was positively

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### Table 2

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Black links</th>
<th></th>
<th>Blue links</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>S.D.</td>
<td>M</td>
<td>S.D.</td>
</tr>
<tr>
<td>Total number of correct responses</td>
<td>7.57</td>
<td>(1.91)</td>
<td>8.58</td>
<td>(1.37)</td>
</tr>
<tr>
<td>Average number of visited links (correct responses)</td>
<td>5.04</td>
<td>(2.05)</td>
<td>4.52</td>
<td>(1.18)</td>
</tr>
<tr>
<td>Average number of visited links (incorrect responses)</td>
<td>8.15</td>
<td>(4.38)</td>
<td>7.08</td>
<td>(4.40)</td>
</tr>
<tr>
<td>Average time to retrieve information (correct responses)</td>
<td>72.82</td>
<td>(29.97)</td>
<td>70.12</td>
<td>(24.67)</td>
</tr>
<tr>
<td>Average time to retrieve information (incorrect responses)</td>
<td>131.75</td>
<td>(61.45)</td>
<td>120.64</td>
<td>(71.84)</td>
</tr>
<tr>
<td>Number of extra visits to home page</td>
<td>4.96</td>
<td>(5.06)</td>
<td>4.74</td>
<td>(5.06)</td>
</tr>
<tr>
<td>Number of visits to search page</td>
<td>3.10</td>
<td>(3.71)</td>
<td>2.53</td>
<td>(3.38)</td>
</tr>
<tr>
<td>Number of visits to sitemap</td>
<td>2.58</td>
<td>(3.45)</td>
<td>2.42</td>
<td>(3.32)</td>
</tr>
<tr>
<td>Display quality</td>
<td>5.04</td>
<td>(1.09)</td>
<td>5.52</td>
<td>(0.99)</td>
</tr>
<tr>
<td>Aesthetic value</td>
<td>5.01</td>
<td>(0.78)</td>
<td>5.17</td>
<td>(0.68)</td>
</tr>
</tbody>
</table>

\(^1\) The initial page for each information retrieval question was always the home page, which is not included in the calculation of extra visits.
correlated with number of links when giving a correct answer (answers \( r = 0.50, \ P < 0.001 \)) and an incorrect answer (\( r = 0.48, \ P < 0.001 \)) and with time to retrieve information when giving an incorrect answer (\( r = 0.29, \ P < 0.05 \)). Use of the sitemap was positively correlated with the number of links when giving a correct answer (\( r = 0.44, \ P < 0.05 \)). No association was found between any of the navigation behaviour measures (use of homepage, sitemap and search page).

3.2. Analysis of individual information retrieval questions

Cochran’s Q test showed a difference in the number of correct answers between the 10 information retrieval questions, \( Q(9) = 154.54, \ P < 0.001 \). Performance was best on Tasks 7 (99% correct), 1, 3 and 8 (94% correct answers each) and worst on Tasks 4 (71% correct), 9 (69% correct) and 10 (61% correct).

More detailed analysis of tasks with the worst performance revealed that in Task 10 the most common mistake (71%) was giving an incorrect answer with other information from the paragraph in the intranet page that contained the correct answer. This indicates that participants comprehended the information incorrectly.

In Task 9 the most common mistake (71%) was failing to give an answer. Of those failing to answer, none of the respondents visited the page containing the correct answer, but 68% used one or more of the three intranet support functions (home page, search and sitemap) and 45% visited the page leading to the page containing the correct answer (either with or without the support functions). Furthermore the answer was not available from the sitemap and the answer was difficult to find within the many search results that were displayed when using the search page to find an answer.

In Task 4 the most common mistake (57%) was failing to give an answer. Of those failing to answer, 85% used one or more of the three intranet support functions and none visited the page containing the correct answer. Of those answering incorrectly, 70% used one or more of the three intranet support functions and none visited the page containing the correct answer. If the search page was used correctly, the page containing the correct answer would be included, but appear last, in a large set of search results. The sitemap did not contain the correct answer.

These results from Tasks 9 and 4 indicate that the titles of the main intranet pages may not provide sufficiently unambiguous information to perform typical intranet tasks successfully. In addition the results also show that neither the search page nor the sitemap were helpful.

3.3. Analysis of subjective measures

3.3.1. Display quality

A t test showed an effect of link colour, with displays rated higher when links were presented in blue than black (see Table 2), \( t(84) = 2.11, \ P < 0.05 \).

3.3.2. Aesthetic value

A t test showed no difference between the two experimental conditions in terms of aesthetic value (see Table 2), \( P > 0.05 \).
3.3.3. Association between subjective measures

A significant correlation was found between perceived display quality and aesthetic value, \( r = 0.49, P < 0.001 \).

4. Discussion

In this section we discuss findings from the current study, make design recommendations and outline future research. A number of salient results were observed. First, the experiment showed that link colour did have an effect on both accuracy and perceived display quality; better outcomes were achieved with blue links rather than black links in the navigation menu. These results indicate that, although a minimum contrast will be required for links, maximising contrast does not necessarily maximise users’ interaction with an intranet site.

Furthermore, the results are compatible with schema theory (Norman, 1988, 1999), with screen appearance fitting with users’ mental models or schemas of web pages, in this case by coding links in the navigation menu of intranet pages using blue, the default link colour used in web browsers. Although Norman (1999) focused on presentation format rather than colour, our explanation of the findings of the current experiment fits with Norman’s interpretation—in terms of schema theory—of the results obtained by Benway and Lane (1998). Benway and Lane found that users did not pay attention to links to ‘important information’ that were deliberately presented by designers of a Web page. However, their users instead looked for links presented the way they are typically presented in a Web page (as lists of links), using their schema of a Web page and ignoring the important information because its presentation did not fit their schema.

Second, concerning the validity of task performance, more links were followed and more time was spent before giving incorrect answers than before correct answers. This finding indicates that users genuinely tried to find answers to the information retrieval tasks even when they answered questions incorrectly. Related to this, speed and efficiency measures were significantly correlated. Again this implies that users genuinely examined the pages they visited for relevant information rather than clicking through at a fast rate without careful attention to the information presented.

Third, in terms of the use of intranet support functions, more extra visits to the home page occurred than visits to the sitemap or the search page. This result indicates that the home page was used more as a performance aid to find an answer in the tasks. However, use of both the home page and the search page was positively correlated with inefficiency in using the intranet site both when giving correct and when giving incorrect answers and with slower performance when giving incorrect answers. Use of the home page was also negatively correlated with accuracy. Use of the sitemap was positively correlated with inefficiency when giving correct answers. These findings indicate that although the home page and the search page were used as performance aids, they were usually only used if an answer could not be found without the use of these aids. To a lesser extent the same was also true for the
sitemap. Furthermore, use of the home page was indicative of poor task performance. It should be noted that although the home page of the intranet site used in this study may have served as an anchor for participants to which they returned if they experienced difficulties in performing a task, in reality the home page did not provide more information to aid task completion than the other main pages in the site, whereas the sitemap and the search page had been specifically designed to support information retrieval. These results contrast with those obtained in a landmark study by Ahuja and Webster (2001), who found that performance was correlated with perceived disorientation but not with behavioural (page visit) measures. One possible reason for the difference in results is that Ahuja and Webster used global behavioural measures (pages—of any type—visited and revisited) whereas the current study focused on specific types of page, that is pages that are intended as providing a specific support function in web use. Furthermore, the predictive power of behavioural measures and perceived disorientation could not be compared in the current study because the latter was not measured, although our study found no relationship of performance with perceived display quality and aesthetic value.

Fourth, perceived display quality and aesthetic value were, first, both reliably measured and, second, correlated. The latter finding provides evidence for the validity of these constructs. However, because it showed an effect of link colour, perceived display quality was a more sensitive subjective measure than aesthetic value. Although aesthetic value was not affected by link colour in the current study, it is expected that larger differences in user interfaces for intranet sites will have an impact, just as in other types of user interface (Tractinsky et al., 2000).

4.1. Design implications

Based on our findings the following implications for intranet design are made. Web pages should normally capitalise on users’ schemas and follow the default colour for links that is used in web browsers. This confirms speculation by Nielsen (1999b).

Regarding the content of intranet sites, the results from Task 10 indicate that in addition to being correct, information given in an intranet site must also be unambiguous. In terms of intranet support functions, the results from Tasks 9 and 4 indicate that a sitemap needs to be sufficiently rich in relevant links and that search functions need to avoid overwhelming users with an unstructured or large set of search results.

The effect of link colour on human–computer interaction in intranet pages that was found in the current study needs replication to confirm guidelines derived from empirical studies, in particular future investigations should examine the use of link colour not only in the navigation menu but also in the content area. Our results are applicable to web pages using white as a background colour and black as colour for normal text. Further research is required to discover whether this guideline is independent of foreground and background colour.

The relationship of performance measures with behavioural and subjective measures needs further investigation, combining behavioural measures from the current
study (including use of sitemap and search page) and subjective measures used in other research (e.g. perceived disorientation as used by Ahuja and Webster, 2001).

Using these types of quantitative measure, further large-scale studies are required to identify generic intranet design characteristics that reliably result in quantifiably superior outcomes and others that result in poor human–computer interaction in web-based systems. This approach of developing design knowledge is similar in spirit to Sutcliffe (2000) in his quest for the effective utilisation—in HCI design—of knowledge from cognitive science. However, this type of work contrasts with and complements usability discount engineering (Nielsen, 1993), which typically uses small samples (five to seven users) with think-aloud techniques and which is a form of formative evaluation of a specific human–computer interface (e.g. an intranet site) during system development.

Furthermore, other web page design parameters also need to be investigated experimentally such as orientation information, using a range of stimuli from full-scale realistic web sites to detailed parts of web user interfaces, depending on the purpose of the research and with the aim of gaining theoretical, methodological and design knowledge. In fact, as a corollary to Nielsen (2002), we strongly believe that a concerted and co-ordinated HCI research effort is required to develop and disseminate the required knowledge as a basis for enhancing the interaction of users with web sites.

Appendix. List of information retrieval questions presented to participants

<table>
<thead>
<tr>
<th>Information retrieval question</th>
<th>L^c</th>
<th>P^b</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. “Using the campus map, on which road is the Centuria building located?”</td>
<td>3^c</td>
<td>94</td>
</tr>
<tr>
<td>2. “Where is the Drop In Study Skills Centre (DISSC) located?”</td>
<td>3</td>
<td>76</td>
</tr>
<tr>
<td>3. “Name one of the two organisations that offer ethical guidelines.”</td>
<td>2</td>
<td>94</td>
</tr>
<tr>
<td>4. “What is PsycINFO?”</td>
<td>2</td>
<td>71</td>
</tr>
<tr>
<td>5. “Who should you contact to report any problems with the Psychology intranet site?”</td>
<td>1^c</td>
<td>79</td>
</tr>
<tr>
<td>6. “What is the name of the LRC library catalogue?”</td>
<td>3</td>
<td>76</td>
</tr>
<tr>
<td>7. “What is the telephone number of Dr. Dave Woodhouse?”</td>
<td>2^c</td>
<td>99</td>
</tr>
<tr>
<td>8. “What is the name of student employment service?”</td>
<td>2</td>
<td>94</td>
</tr>
<tr>
<td>9. “What is the telephone number of the LRC?”</td>
<td>3^c</td>
<td>69</td>
</tr>
<tr>
<td>10. “Who deals with requests for coursework extensions?”</td>
<td>3</td>
<td>61</td>
</tr>
</tbody>
</table>

^a Minimum number of intranet pages to visit in order to find answer.
^b Percentage of correct answers.
^c Scrolling on last page required.
References


