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The creation of a university library outreach programme to develop the information literacy of further education students: an interactive approach to support transition

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Abstract

This paper reports on a library outreach programme offered at a UK research-led university which aims to develop the information literacy (IL) of further education students. It details the programme that is offered and how it has evolved and developed. Some interesting traits and perceptions of pre-higher education students in regard to their IL are discussed. There has been increased demand from schools over the years and the programme has been adapted accordingly. While the programme is intended to benefit students and staff in schools, benefits to the University are also realised. A recommendation is made that this type of activity is rolled out on a larger scale with the participation of other university libraries.

Keywords

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1. Introduction

Students starting higher education courses often lack important IL or even the very basics of understanding how to use a library (Lumsden et al. 2010). The importance of these skills is identified in the revised SCONUL Seven Pillars of Information Literacy that states, 'in the 21st century, information literacy is a key attribute for everyone, irrespective of age or experience' (SCONUL Working Group on Information Literacy 2011). Herring (2011, p. 62) supports this idea in his book *Improving students, web use and information literacy,* arguing that

> 'because of the rapid expansion of technology and the ever growing amount of complex information (in a range of formats), which students, school staff and the general public need to review, select evaluate and use effectively, information literacy is one of the fundamental aspects of education for today's students'.

He goes on to say that 'while today's students may be excellent finders of information, they are often found to be ineffective at finding relevant information'.

In 2008 the Library Services at the University of Birmingham, one of 24 leading UK universities in the prestigious Russell Group of universities (Russell Group 2014), were approached by the university's Outreach Department and asked to contribute to their Masterclass Programme (University of Birmingham 2013a). The Masterclass Programme offers a number of free classes on a range of subjects to sixth form/further education students from the West Midlands, UK (these students are typically 16–18 years old studying in Years 12 and 13). The library saw this as an opportunity to help address the apparent information skills gap in school-age students.

This paper begins with a review of the IL literature surrounding school age and further education students, teaching staff, including librarians, and students transitioning into higher education. Next,

the paper describes the skills taught in the library's masterclass and the rationale behind the choices, responding to issues identified in a National Teaching Fellowship Report on the *Perceptions of information literacy in the transition to higher education* (Bent 2008) and the research study on *Information literacy in United Kingdom schools* (Streatfield 2011). The paper then discusses how the traits and perceptions of students, observed by staff members leading these classes, supports the published literature on this topic. Evidence is presented to illustrate the increase in demand for the classes, and the article goes on to describe how the university has developed a formal Library Services outreach policy. The impact of these classes on staff and students is then explored and the paper concludes with recommendations for other university libraries.

2. Literature review

Students entering higher education often have little experience or prior instruction on how to use a library, search effectively for information or evaluate what they find. For example, Lumsden et al. (2010, p.17) stated that 48% of their undergraduate research sample have 'never used a library', with 69% reporting that 'they had received no library research support, or it had been poor' at the point at which they entered higher education. In their study of higher education students, Griffiths and Brophy (2005, p.545) showed that 45% 'use Google as their first port of call when locating information'. Rowlands et al. (2008, p.295) considered the behaviour of young people in their use of the internet and other research tools. They found that 'the speed of young people's web searching means that little time is spent in evaluating information, either for relevance, accuracy or authority' and that they 'have a poor understanding of their information needs and thus find it difficult to develop effective search strategies'. Meanwhile, Prensky (2009) states that there is a difference between digital cleverness and digital wisdom: the former is solely being able to locate information using digital technology while the latter involves both digital technology and the human brain to process, analyse and synthesise information. He goes on to argue that 'digital wisdom can be, and must be, learned and taught' to students. A worldwide survey by OCLC (2005) of people over the age of 14 showed that search engines 'are ranked as the "first choice" for information by 80 percent of all respondents. The library ranks a distant second with 11 percent and the online library third at 6 percent'. A more recent study by Project Information Literacy shows that Google is still 'students' go-to preferred research resource, whether they were college freshmen (88%), high school students (89%), or college sophomores, juniors, and seniors (87%)' (Head 2013, p.25). Whereas library resources have been selected and evaluated for academic credibility by subject experts before purchase and may have gone through an editorial process before publication, search engines provide a large quantity of information from a whole range of resources regardless of quality. This reliance on search engines emphasises the need to teach students more sophisticated search techniques as well as ensuring they can critically evaluate the information that they find.

Where IL is taught in schools, the literature suggests that the emphasis is largely on finding information. Streatfield et al. (2011) undertook a nationwide survey of library staff at 1,044 schools in the UK. The study found that 61.7% of school library staff concentrate on 'finding information', followed by 'selecting information' (50.4%) and 'evaluating information' (35.9%). The study did not extend to plagiarism. In her interviews with school teachers, Bent (2008, p. 40) suggested that 'there appears to be a growing interest in looking at plagiarism in schools, but many of the teachers admitted that they didn't give it the importance they knew it deserved'. In the same research, 92% of the university students surveyed 'agreed that plagiarism was wrong', while 59.9% of school students said 'they had never thought about the issue before', emphasising the need to address this important issue much earlier in students' education. It follows that referencing practice will also need to be incorporated within any teaching of plagiarism and therefore guidance in this area for teachers is required. For students to successfully make the transition from further to higher education, they will need a spectrum of IL (Herring 2011) that extends beyond the skills which schools currently focus on, if they teach IL at all (Streatfield et al. 2011; Bent 2008).

The literature shows that teachers also lack key information skills such as where and how to search as well as how to evaluate (Williams and Coles 2007). Streatfield et al. (2011) showed that 31% of school librarians were neither qualified librarians nor graduates. They found that those schools which had a qualified librarian in post were more likely to provide a range of IL training, although even in these schools a clear emphasis was put on searching skills (70.9%) compared to evaluation skills (45%). One of the most cited barriers in the Williams and Coles (2007) study was the lack of time and interest by teachers in acquiring these skills themselves, so it is perhaps unsurprising that few teachers made use of their school librarian to assist. Herring (2011, p. 71) highlights that 'one of the key factors in developing successful information literacy programmes in schools is collaboration between teachers and teacher librarians'.

In a study carried out some years ago, Lonsdale and Armstrong (2004) showed that where higher education institutions provided IL support to schools it was delivered primarily to students directly (60%) with much smaller amounts of support for teachers and school librarians (28% and 16% respectively). It seems unreasonable to expect teachers with a distinct lack of time or unqualified librarians to be able to teach IL to school/college students when they do not have these skills themselves. Thus it follows that in many cases students receive little or no IL instruction within schools and so the transition to higher education is more difficult. The evidence suggests that there is a clear need for additional support for teachers and school librarians. A study by Demos (Bartlett and Miller 2011, p. 8) surveyed 509 teachers in England and Wales and found that 'the majority of teachers [they] surveyed were happy to teach digital judgment, but many said they need the materials, support and training to do so'. In her research, Bent (2008) conducted interviews with school teachers, many of whom felt they lacked knowledge in IL, with some suggesting that they would like additional support from university librarians in areas such as delivering training to students, providing continued professional development to teachers and producing teaching material and resources.

Evidence suggests that many students find the transition from school or college to higher education a significant cultural shock (Lumsden at al. 2010; Christie et al. 2008) due to the different styles and learning expectations. A common theme which emerges from the literature (Bent 2008; Crabtree et al. 2007) is that students studying at secondary level had little opportunity to develop academic and information skills. There is a recognition that teaching in schools focuses on the attainment of grades with significantly less emphasis on developing independent learning skills (Crabtree et al. 2007; Lonsdale and Armstrong 2004). A student from Bent's (2008, p.24) study explicitly stated: 'we don't need to be [information literate] really they just give us all the information that we need to pass the exams so you don't really need to think more than where to put the notes.'

If universities desire their students to be better prepared for independent learning (Willetts 2012), there seems to be a clear need for university librarians to help provide support for students, teachers and librarians in schools. Although there appears to be limited literature in this area in the UK, there are pockets of good practice from around the world (Bent 2008; Burhanna 2007; Burhanna and Jensen 2006; Fuson and Rushing 2009; Jansen and Suhre 2010; Martorana et al. 2001; Wingate 2007). Crawford and Irving (2007) have been instrumental in Scotland in implementing a national IL programme that creates a link between secondary schools and higher education.

This paper highlights initiatives at the University of Birmingham which seek to address some of the issues discussed in this literature review.

3. The masterclass

Library Services began working with schools in 2008 following contact from the university's Outreach Department; the library was asked to contribute a library-related class to the Masterclass Programme. Each year the university runs over 50 free masterclass sessions, of which 'some relate closely to the school curriculum; others are broader and introduce new topics found in higher

education study' (University of Birmingham 2013a). The two-hour Library Services masterclass was originally designed and developed by two subject librarians who had extensive experience of teaching first year undergraduate students and had developed an awareness of skills that students often lacked at the point of transition from further to higher education. The class was therefore developed with two aims in mind:

- To provide students with the skills that subject librarians regularly observed as lacking in current first year undergraduates and
- To provide the students with skills that would be useful to them during their current further education studies.

In order to engage the students and maintain their interest it was decided that all of the topics would be delivered in an interactive way. Bonwell and Eison (1991), cited in Holderied (2011, p. 24), identify that students favour active learning environments over traditional lectures and define 'active learning' as 'instructional activities involving students in doing things and thinking about what they are doing'. Research by Mann and Robinson (2009) has shown that the most engaging teaching methods for higher education students were practical classes and group discussions in lectures, while PowerPoint slides were rated highly in terms of boredom. Haigh (2007) has found that quizzes encourage student engagement as well as assist in constructive learning. Holderied (2011) has shown 'a four-point increase from the pre-test to the post-test in the development of information-seeking competencies for students in classes using [personal response system] clickers and discussion, compared to classes using the lecture as a primary method of instruction.'

The masterclass in 2008 consisted of:
1. Getting to know an academic library
2. Boolean logic
3. Website evaluation
4. Plagiarism
5. Grades and behaviour

Introducing the academic library was felt to be a useful icebreaker topic as well as a good opportunity to explain the differences between school and academic libraries – for example, the size of the physical buildings and collections and the format and range of services available. This activity made use of the Cephalonian method (Cardiff University n.d.), with students asking questions and the subject librarians answering them. Boolean logic was seen as important to improve effective searching of electronic resources, which included both traditional Boolean search logic and that used by Google. The Boolean logic activity involved explaining Boolean logic, using playing cards as 'websites' and asking students to stand up if their card (website) was found via a certain search. Having taught students how to find information the next logical step was to deal with how to evaluate it, which was done by having students evaluate three websites related to climate change. The students worked in small groups and used a website evaluation flowchart to help them analyse the three sites and then feed back their findings to the whole group for further discussion.

As Bent (2008) found, many school students had limited knowledge of plagiarism. It is vital that students understand how seriously plagiarism is taken by universities. An activity was developed that asked students to decide if various scenarios relating to writing and submitting assignments would be considered an act of plagiarism. Finally, the grades and behaviour activity was based on research that indicated that reading widely and using library resources has an impact on the final degree classification that students attained and was designed to motivate the students (Jager 2002; Stone and Ramsden 2013).

The class evolved over time to take into account comments on the students' feedback forms and also feedback from school staff members, which indicated that participants would have liked activities on additional topics. As the class was constrained to a two-hour time slot decisions were made on which activities to add and which to remove.

Following a review of the feedback, a revised masterclass was developed in 2013 which consisted of:
1. Getting to know an academic library
2. *Wikipedia and Google (including Google Scholar and Google Books)*
3. Website evaluation
4. Plagiarism and when to reference
5. Referencing

The first activity remained largely the same from 2008 to 2013, but some of the questions were modified to increase their relevance to the target audience. Instead of using the Cephalonian method, the activity was changed to use personal response systems (clickers), as this allowed the entire group to participate actively and avoided potential student embarrassment at having to speak in class. From experience gained from teaching the programme in the first few years, the subject librarians realised that it was far more important to discuss resources like Google (Griffiths and Brophy 2005) and Wikipedia that students were likely to use in order to draw attention to their strengths and weaknesses – rather than to teach advanced searching techniques such as Boolean logic. The latter, therefore, was dropped from the class; in favour of a new activity on Google and Wikipedia as it was deemed less relevant given that most of the students attending the masterclass would not have access to sophisticated databases where skills in Boolean logic would be of particular use. To ensure that students can replicate what they have learned after the class, students are only shown resources that they can also gain access to outside the university environment, i.e. the class did not use subscription databases. This also ensures compliance with licensing terms and conditions.

The website evaluation activity had worked well and thus remained the same. Feedback from the teaching staff that accompanied the students on earlier iterations of the programme indicated that the activity on plagiarism was useful but this needed to be followed up with more information on referencing, both in terms of when and how to reference. This made sense to the subject librarians, as the original programme only taught the students about the risks of plagiarism without giving them the skills to avoid it. The plagiarism activity was therefore extended to include not only avoiding plagiarism but also when to reference. In the 2013 referencing activity students are given a book, journal article or website to reference using a recognised referencing style. The students feed back to the whole group and discuss the references they have created. The students are also shown how to cite within the text. Referencing was seen as a much more important and timely skill for students to acquire than teaching them the common sense linkage between the amount of time and effort spent studying and the likely impact of the final degree classification awarded. Since these changes have been made the plagiarism and referencing activities score highly in feedback that students provide.

4. IL and FE students

The classes have revealed some interesting traits and perceptions of further education students IL which it is useful to explore in a little more detail. Observations of students attending the masterclasses reinforce what has been written elsewhere about what some writers call the 'Google Generation' (e.g. Rowlands et al. 2008; JISC 2007). For example, the students are familiar with Wikipedia and Google, but it is clear that they only have a relatively surface level understanding of these tools. Interestingly these tools rank 9th (Wikipedia) and 1st (Google) in terms of the amount of web traffic in the UK (Alexa Internet Inc. 2013). It is perhaps unsurprising that students only have a relatively surface level of understanding of these tools given the apparent lack of IL support available in many schools, as identified in the literature review.

During the class a Wikipedia entry is edited in front of the students. Wikipedia is an online encyclopedia that anyone can contribute to or edit. Most students seem surprised at how easy it is to edit. This suggests that students are unaware of how the information on Wikipedia is produced or the editorial process. The ability to easily change entries is both a weakness and a strength of

Wikipedia (Viegas 2004). While the site does suffer from vandalism, 'the Wikipedia community rapidly and effectively repair most damage' (Viegas 2004). Stvilia (2005) comments that 'although anyone can participate in editing articles, the results are carefully reviewed and discussed'. The dynamic nature of the site means that it can be kept up to date more easily than its print counterparts and allows corrections to be made very quickly (Black 2007; Xiao and Askin 2012). While many studies have shown that information on Wikipedia is largely accurate and/or comparable to more traditional encyclopedias (for example: Lih 2004; Giles 2005; Lewandowski and Spree 2011), there are still concerns about the completeness of Wikipedia entries (for example: Kupferberg and McCrate Protus 2011) and academic acceptance (as discussed by Xiao and Askin 2012). The class does not tell students not to use Wikipedia but informs them that, like any encyclopedia, it should only be a starting and not an end point to research; it encourages them to follow up the list of references that are at the end of a Wikipedia entry to further corroborate and expand on a given topic.

While many students regularly use Google as a preferred starting point to research (Griffiths and Brophy 2005, p. 545), those attending the classes have largely been unaware of Google Scholar and Google Books. This lack of awareness is regrettable as many of the students will only have easy access to a limited collection from their school library, whereas these Google resources contain a large collection of quality material that is freely available (Jacsó 2008 and Leonardo 2012 provide further information on Google Scholar and Google Books respectively). In the class the students get the opportunity to search these Google resources, explore the size of their collections and consider the strengths and weaknesses of each.

Searching for information on the web leads naturally into getting students to consider website evaluation. Although information-seeking skills are often covered in schools, research shows that the evaluation of information is less regularly taught (Streatfield et al. 2011, p. 17). As part of the website evaluation activity students are provided with a checklist to help them to assess the information they find online (although it could easily be adapted for print resources). When the classes first started in 2008, a website evaluation flowchart offered as an open educational resource (OER) from another university was used. It provided a useful starting point for students; however, the librarians teaching the classes felt that the simplistic flowchart was not always sufficient and sometimes led to incorrect conclusions regarding whether or not the websites would be suitable for academic purposes. With this in mind, a website evaluation checklist was developed by the teaching team which improved on the flowchart by asking more searching questions and providing relevant examples that would lead students to analyse the information found at a deeper level (see Figure 1). Since the introduction of the checklist, the answers that the students provide for this activity have greatly improved, demonstrating their increased ability to critically evaluate the information found.

Figure 1: Website evaluation checklist

	Notes
Is it related to your essay?	☐ When you search the web you will get thousands of results. Stick to the ones that are directly related to your essay topic and do not get distracted! ☐ Consider the country / countries that this information refers to and only use if it is appropriate to your topic.
Who produced the website and the material within it?	☐ Anybody can post material onto the web, it is important to identify the author or organisation and check their credentials. The 'About Us' section of a website can be useful for checking these details.
Is the material on the website primary or secondary?	☐ Primary material – is first hand information produced by the author / organisation eg, data from their experiments, photographs, maps etc. ☐ Secondary material – uses, interprets, evaluates, criticises and / or comments on primary material eg, a newspaper article that comments on the results of an experiment. ☐ Example – The novel Harry Potter is a primary source as it was created from the mind of its author – J.K. Rowling. The book Critical Perspectives on Harry Potter by Elizabeth Heilman is a secondary source as it analyses the Harry Potter novels. ☐ Secondary material cannot exist without the primary material and involves third party interpretation (which could be inaccurate). A good secondary source will always take you to the primary material which allows you to check the interpretation and come to your own conclusions.
Is the material up-to-date enough for your essay?	☐ Check when the web page was last updated (you can often find this information near the bottom of the page or look for clues within the text). It is not uncommon for people to publish material on the web and then not remove / update it. ☐ Some topic areas change more rapidly than others, for example the law changes daily as new legislation is released so a website that has not been updated since 2005 may be very out-of-date!
Is the material biased?	☐ Check to see if the website gives a balanced viewpoint. Websites are created by individuals or organisations that wish to promote their own point of view. This may (intentionally or unintentionally) lead to bias. Consider why the web page has been written. ☐ Look at the way the material has been written and the language that has been used. For example, is the language sensationalist? Check to make sure that all claims are backed up with appropriate primary / secondary material. ☐ It is good practice to use a variety of sources of information so that you can see (and assess for yourself) all points of view on a topic.

Two popular activities with students cover plagiarism and referencing. School age students attending the masterclass normally have a basic understanding of plagiarism but are often unaware of some or the subtler, yet important, aspects of this topic. For example, many students recognise that buying an online essay and submitting it for marking is plagiarism, but are unaware that they need to reference a piece of information that they have paraphrased. A recent research study shows that over 55% of teachers said that 'students don't have sufficient understanding of what is plagiarism and what counts as legitimate research' (Association of Teachers and Lecturers 2008, para. 12). One teacher from this study commented (para. 13):

> I have found once students clearly understand what plagiarism is, its consequences and how to reference correctly…plagiarism becomes less of a problem. I think the majority of students who engage in plagiarism do it more out of ignorance than the desire to cheat.

Linked to plagiarism is the more positive topic of referencing, which is widely regarded by students as a useful skill. When shown the general principles in the referencing activity students normally gain confidence in referencing quickly. While there is freely available software to help with referencing it is important that the students understand the reasons why citations are used in academic writing and appreciate that there are various referencing styles. As well as creating a reference list this activity also deals with how to cite correctly. While some students appear to have

referenced in the past, our experiences suggest that this is a new concept to the majority of the students, which is a concern for librarians and teachers.

5. Increasing demand

The Library Services masterclass has proved to be popular, and demand increased significantly from 2008 when the service first launched (see Figure 2).

Figure 2: Number of students attending Masterclass sessions 2008-2011

Year	Classes	Total number of students
2008	4	135
2009	2	170
2010	6	290
2011	7	420

The increase in demand was thought to be due to two factors: word of mouth (among teachers and librarians), and an increase in students taking the Extended Project Qualification (EPQ). The EPQ, which is equivalent to half an A Level (AQA 2013; Daly and Pinot de Moira 2010), started in 2008 and has given secondary education students the opportunity to undertake a piece of independent research on a topic of their choice. In order to successfully achieve this, the students need research and information skills which the literature review has shown are often lacking (Streatfield et al. 2011; Bent 2008). Feedback from teachers and librarians who have accompanied students to the sessions suggests that the IL class provides the skills necessary to be able to complete such a project effectively.

In light of increased demand for the library's masterclass sessions, the original method of operating this scheme was unsustainable. A key driver for change was that requests came in on an ad-hoc basis, sometimes with short notice and to a variety of staff members at the library. This caused logistical problems in terms of resourcing available staff (each class ideally requires one staff member per ten students), finding suitable rooms and time spent liaising between the school and university. The library also received an increasing number of requests to visit and run the class within individual schools. The library originally met such requests, but this proved to be costly in terms of staff travel time, especially as this activity was in addition to staff members' normal work.

In order to address these issues, as well as to improve the overall services that the library offers to further education students, a library outreach policy was developed. The original impetus for the policy was to cope with demand for the face-to-face classes, but the opportunity was used to review other support that the library offered to schools, such as tours.

The key points of this policy relating to the student information skills classes include:
- Specifying a fixed number of classes per year (typically six to eight)
- All classes to be pre-timetabled before the start of each academic year
- A maximum of 40 students per class
- All classes to be run on campus
- A pool of library staff created (three subject librarians and six support staff) and rotated across the classes.

Each year the university's Outreach Department advertises six of the library's masterclasses as part of the wider university Masterclass Programme. Details of the Masterclass Programme are sent to schools within the West Midlands as well as published on the masterclass website (University of Birmingham 2013a). Schools interested in booking places on one of these six classes are asked to contact the Outreach Department directly. Further classes are scheduled if the six advertised sessions are insufficient to meet demand. Each year this includes two large additional classes requested by the Outreach Department specifically as part of their Access to Birmingham scheme (University of Birmingham 2014). The classes are mostly run in the spring

and summer terms which fits in well with students starting the EPQ as well as avoiding the autumn term when subject librarians have many other teaching commitments. The classes preferably require a learning space that includes group study computers, white boards and movable furniture. Such learning spaces on campus are limited and only comfortably hold around 40 students.

Other key points of the policy include:
- Production and maintenance of student and teacher packs;
- Creation of a single Library Services webpage relating to the services that the library offers FE and sixth form students and staff;
- Hosting an annual event for librarians and teachers on delivering the class;
- A separate small budget for catering and teaching equipment; and
- Two distinct central points of contact for all enquiries: one for tours and visits, the other for enquiries and further information on classes.

The student pack contains all of the activities that are delivered in the face-to-face classes plus an extra activity on effective searching of electronic resources (Boolean logic, selection of keywords, synonyms etc.). Some of the activities in the packs go into more detail than time allows for the two-hour face-to-face class. The teacher pack, which accompanies the student pack, provides notes and guidance to allow teaching staff (including school librarians) to deliver the classes themselves. The student and teacher packs were an integral part of the policy, aiming to ensure that the Library could always meet demand as well as further extending the support offered to schools beyond the West Midlands. The packs were professionally produced by the university's Design and Publications Department in order to be appealing and have a high quality appearance that would be hard to achieve with simple Word documents (University of Birmingham 2011).

Once a year since 2011, a day's event is hosted which instructs school librarians and teachers how to teach these skills within their own institutions. This event was set up to give confidence in teaching IL to school staff. As has been identified in the literature review, many school staff have not had sufficient training in teaching IL and often lack these skills themselves (Streatfield et al. 2011; Bent 2008). The free event is normally hosted towards the end of the summer term and advertised via numerous channels including the School Library Association (SLA) (School Library Association 2013) and the contacts of the university's central Outreach Department. The event works through all of the activities that are included in the student pack and gives tips on how best to teach the activities based on the experiences of the presenters. Participants take part in most activities as if they are the students. Discussion about the activities is encouraged throughout the day so that participants can learn from the presenters and share ideas with each other. As part of the day a member of staff from Library Services' customer support team provides a short presentation on how schools in the local area can arrange a visit to the library. Delegates come from across the UK, but this presentation is still relevant as it raises awareness that it is possible for students from schools to visit academic libraries and make use of their facilities within the guidelines of the individual institution. The event has evolved each year; it was originally a half-day event, but this proved to be insufficient time to cover all of the material and so it has been expanded to a six-hour event including a complimentary lunch. Optional tours of Special Collections are offered during the lunch break, with an optional tour of the main library available at the end of the event.

The newly created website (University of Birmingham 2013b) for the first time allowed the library to promote, in one publicly facing place, its support for schools, including information on the classes, student and teacher packs and how to visit the library (see Figure 3). This has helped the library to respond to enquiries in a more informative and time efficient way.

Figure 3: University of Birmingham Library Services outreach website homepage
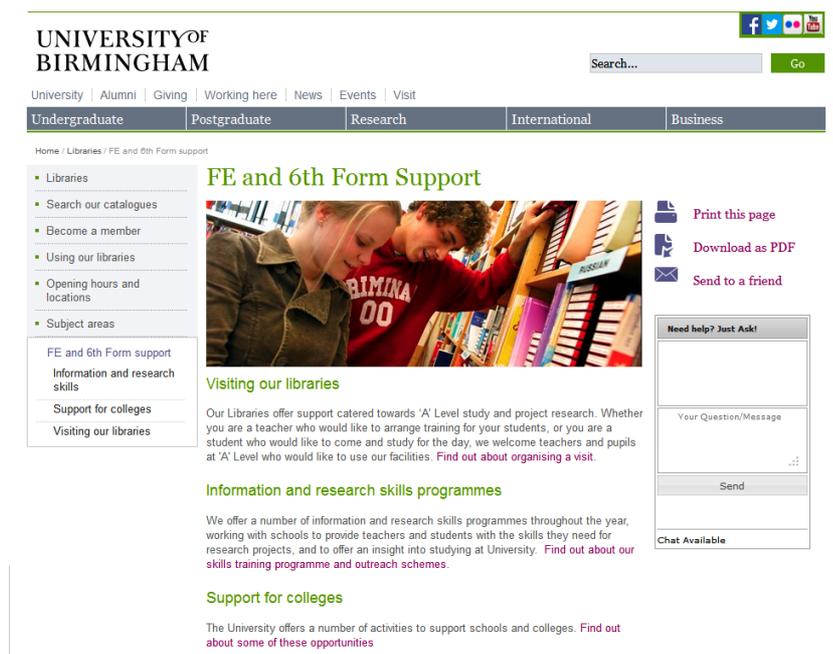
The final aspect of the outreach policy concerned visits to the library by school and further education students. A standard letter was placed on the new website which students could download and ask their teacher to sign (University of Birmingham 2013c). The students then bring the signed letter with them on their first visit to the Library in order to gain reference access. Teachers interested in bringing a group of students can email the Library using the new email address and members of the library customer support team liaise to arrange a mutually convenient time for the visit. Visits are normally allowed throughout the year with the exception of the first two weeks of the autumn term and the summer revision/exam period.

6. Impact

Feedback from students who have attended the classes has been positive, with most students rating the classes as either good or very good via training feedback forms. From comments received it is clear that a few students do not always recognise that IL is a transferable skill; if the examples are from a subject area that they are not studying they may fail to see the relevance. It is therefore important to inform students explicitly that these skills can be used with any topic and that they are relevant to their level of study. However the majority, when asked, stated that they were either likely or very likely to use some aspect of what they had learned in the future, with the plagiarism and referencing activities being mentioned the most often.

In 2011 and 2012 an annual event focusing on teaching information and research skills was hosted at the university. This event, aimed at school librarians and teachers, has proven to be very popular in both years. The 2011 half-day event was attended by 30 school staff from across the UK. In response to feedback the event was extended to a full day in 2012 and was attended by 25 people. Feedback from the events was extremely positive, with a number of people stating that the event had exceeded their expectations and one librarian stating that it was 'quite probably the most useful course I have been on in 25 years of librarianship'. The feedback also emphasised the need for training and teaching resources for use by staff in further education establishments as identified by Bent (2008) and Streatfield et al. (2011).

The student and teacher packs have been well received, with a number of staff at secondary schools approving of the resource and continuing to use them. Some respondents have informed the library that they are using the complete pack while others are just using certain sections e.g. referencing. The branding and the reputation of the university associated with the packs and

teacher event provided one school librarian with the support that she needed to make a successful case to embed IL teaching into her school curriculum, something she had been trying to achieve, without success, for over six years.

Feedback from the school staff indicates that this type of event, material and support is fairly limited across the UK. Further anecdotal evidence received since 2008, as well as a desk-based benchmarking exercise against the websites of other HE institutions, would seem to confirm that the University of Birmingham is at the forefront in this area of activity.

Whilst the primary impetus for the programme was to develop IL in the further education sector, there have been many additional benefits to the university. One of the benefits is that the subject librarians have a greater understanding of the level of IL that students have at the point of entry to university. Before offering this programme subject librarians often overestimated students' capabilities in this area; now they have a more realistic grasp and have adapted training material accordingly so that it starts at a lower, more appropriate, level with less prior knowledge assumed. Some of the activities have also been adapted by subject librarians for re-use with undergraduate students. The programme has also helped to raise awareness of the effectiveness of active learning.

As well as informing the subject librarians, the IL classes have also offered valuable continued professional development opportunity for Library Services' support staff, for example information assistants. While the primary role of these staff is to support the hands-on aspects of the classes, a number, with support from the subject librarians, have gone on to lead some of the activities.

On a wider level the programme is useful for raising the profile of Library Services and the university by publicising the range of support that it can offer to further education students. In addition valuable links with local schools have been made.

7. Conclusion

The library outreach programme developed at the University of Birmingham over the last five years has been very successful and received considerable positive feedback. It continues to evolve and current consideration is being given to more general academic skills such as time management and note taking, primarily due to feedback from the annual training event. The programme fills an apparent need in IL provision which, as the literature review and benchmarking of other university websites shows, does not appear to be met comprehensively elsewhere. The programme covers a range of IL, and the creation of a supporting teacher pack and training event means that these skills can now be disseminated to school staff, who in turn can pass them on to their students, not only in the local vicinity of the university but also further afield.

While the programme is well advertised to schools within the local area, and the packs and training day have extended the reach to other parts of the UK, it is felt that there is still a role for other university libraries to play within their local communities in order to further extend IL training across the country. Therefore it is recommended that other university libraries consider:
- Establishing and rolling out a similar library outreach programme and
- Collaborating and communicating with local further education establishments.

From a practical and strategic level, there are a number of suggestions on how to implement such an outreach programme. From a strategic level it is advisable to liaise with the institutional outreach/widening participation department before establishing a policy in order to understand the institution's current work and needs in this area.

An institutional library outreach policy should then be developed which should take into account:
- The amount of staff time that should be allocated to this activity;
- Whether all classes are to be hosted at the university or whether staff should travel to visit schools;

- Consideration of schools that the institution wishes to target (at the University of Birmingham it was decided to allow all schools that were interested to participate);
- Establishing a library outreach team; and
- Allocating a budget for teaching materials and costs of hosting events.

On a practical level, institutions would need to:
- Identify key library contacts for arranging and delivering events, e.g. a generic library outreach email address;
- Select appropriate times of the academic year to host outreach events, e.g. avoiding exam time or the start of autumn term;
- Consider the learning aims and outcomes of each teaching class and whether material; already exists that can be re-used or re-purposed, or whether relevant material needs to be written from scratch;
- Consider how and where to advertise outreach provision;
- Develop a central webpage that details all of the support that the library can offer to schools/colleges as part of the library outreach programme; and
- Select rooms for classes that are appropriate for the teaching activities, e.g. flexible learning spaces.

If all further education students had access to IL classes or materials similar to those offered by the University of Birmingham, it is felt that students would be better equipped to deal with the demands of independent study and research, whether this be in further education, higher education or in the workplace.

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