This chapter explores some of the challenges met by library staff working on a distance learning degree programme for work-based learners, specifically the Social Work Degree at The Open University (OU), in the United Kingdom (UK). We reveal how close collaboration with the academic team writing the degree enabled library staff to integrate information literacy (IL) alongside information and communication technology (ICT) skills throughout that programme, including integrated assessment. We consider how the collaborative process influenced the design of this programme. Examples of activities are provided along with insights into how students value the development of IL skills within their social work practice. We conclude with lessons learnt and implications for practice within distance learning and, more broadly, technology-enhanced learning environments.

Information literacy skills, such as online search skills, are fast becoming essential for study, and increasingly in the workplace. This is especially true within the field of social work, as the development of IL skills by practitioners enables their use of evidence to inform their decision-making and to develop their ability to engage in evidence-based practice.

A series of activities to develop students’ IL skills within the degree programme was developed based on the requirements of the relevant professional bodies and the institution. As a distance learning programme it was key to design these activities so that they support students with low confidence using ICT or working online. Furthermore, based on our experience of
work-based learners, they are often highly discerning about the relevance of skills activities; another challenge to the author-designer. Finally, a key desired outcome is to support learners to develop confidence in their preparedness for practice, including practice-related skills.

The task of building such skills development into modules is not always straightforward. It requires recognition by module leaders of the value of the activities. Support at the module planning stage can then result in integrated, well-designed activities to fit the learner’s study context rather than activities that seem tagged on to the main study materials. Further formal recognition and reward via assessment can bring added benefit, motivating learners to engage rather than skip the activities, ensuring the opportunities to develop the skills are utilised. Through this programme we were able to help the students to develop these skills, and the survey results discussed at the end of the chapter demonstrate the benefit this approach had for the service users they worked with.

/A Related literature

/B Information Literacy

Information literacy is defined by the UK Chartered Institute of Library and Information Professionals (CILIP) as “knowing when and why you need information, where to find it, and how to evaluate, use and communicate it in an ethical manner” (CILIP, 2004). It is seen as a key skill within academic study, and is included in the OU’s levels framework which clarifies what students should be expected to study at each level of their qualification (COBE, 2005). As described by Badke (2009) IL, ICT, and media literacy are overlapping skills sets that have
developed over time from different drivers and seem to be converging. This shows that there is synergy between IL and ICT; that the rapid increase in computing and especially the Internet has led to an exponential growth in readily available information and so the importance of IL to combat information overload has increased (Taha, 2007).

The OU uses Moodle as a Virtual Learning Environment (VLE) to enable online delivery of modules on a standard platform that easily allows the use of a range of online tools within the learning materials. This move to online delivery of learning materials has meant that there is a growing opportunity for the inclusion of electronic library resources as well as an understanding of the need for students to develop their information literacy skills. The use of a VLE to successfully deliver integrated IL skills material to distance learners has been demonstrated at a range of different institutions (Patalong, 2003; Joint, 2003).

One issue with integrated IL activities is that if they are not tied into assessment students may skip them because they concentrate their efforts on those parts of the module that contribute towards their assessment, as described by Kirkwood: “For materials and activities in any medium to be valued, they must be integrated within the pedagogy and aligned with the assessment strategy in order for students to engage fully with the range of learning opportunities offered.” (2006: 328). So for IL to be seen by students as an important part of their studies it must be integrated into the pedagogy of their study material and their developing IL skills must be assessed. A study in the OU’s Faculty of Health and Social Care (Thomas, 2005) showed a low level of student engagement with non-assessed IL material, although this study indicated that those students who engaged with the IL activities valued them. These findings mirror what Laurillard (1979) described when looking at the different learning styles which suggested that students’ learning is deeper the more actively they are required to engage with the material.
Thomas (2005) also shows the importance of library staff working with academics and their ability to act as agents of change encouraging the adoption of online learning and a new way of thinking about the delivery of material to students. This view is shared by Laverty and Stockley (2007) in their discussion about the multi-disciplinary team approach that they have adopted. Owens and Bozeman (2009) also highlight effective librarian-faculty collaboration and share ways in which they have encouraged this approach and the impact this had on the learner experience.

/B Social Work

The use of ICT in social work has been increasing due to the computerisation of many tasks and also a number of UK government directives (Cabinet Office, 1999 & 2000), which require that all services be accessible electronically by 2005 to improve public access. Furthermore, technologies are increasingly being used to interact with service users in more effective ways. These developments have inevitably had an impact on social work education. To fully prepare students for their social work practice their studies must include the most common ICT skills that they are likely to need once they start working (Miller-Cribs, 2001; Ayala, 2008; and Nix, 2010).

The importance of IL within the practice of social work is increasing, as the idea of evidence-based social work practice becomes more important (Thyer and Kazi, 2004; Bilson, 2005; Smith, 2004). Evidence-based practice is a common term discussed within decision-making in health and medicine, but it is also a key concept within social work. Sheldon (2005) conducted two large-scale studies of social workers and their attitudes towards evidence-based practice and showed that although there was enthusiasm for the idea of this way of working there
were a number of obstacles to it actually happening. The most significant obstacles according to this study were lack of time, lack of access, and the cost of materials. The UK’s National Health Service has made a core collection of electronic resources available nationally for all health workers to enable them to access the evidence on which to make decisions; however, no such similar collection has been bought for social workers. This means that each agency must purchase electronic content separately and therefore many social workers have little or no way to view these materials. Without access to evidence to inform their practice they are unable to engage in evidence-based practice.

/A Institutional Context

The Open University (OU) is the only university in the UK dedicated to distance learning. It offers a range of qualifications in different subjects, including professional programmes aimed at work-based learning students. This means that the students are already working as practitioners within the field of their studies, and are studying to gain their professional qualification whilst continuing to work. They are frequently sponsored by their employers to do this. Because of this students are actively required to bring to bear their working experience while they study, and to apply and reflect on the theoretical learning from their studies, relating it back to their work context and work practices. Between 2004 and 2008 a new OU Social Work Degree was developed to meet the changing requirements of social work education in the UK, reflecting the emerging social work practice needs.

The OU’s model of teaching and learning is known as ‘supported open learning’. In the ‘open learning’ model, students learn in their own time, reading module materials, working
through learning activities, writing assignments, and, increasingly, working collaboratively with other students. Depending on the module, the student may learn from module text books provided in print, also available online through the VLE, in addition to a range of supporting material, including broadcast material, made available in a number of formats. The OU, like many universities, is moving to a more electronic delivery of learning and support and exploring practices to engage students in technology-enhanced learning. Although OU students previously studied mainly alone, in dialogue with their tutor with occasional tutor group meetings, through the move to online learning students are now increasingly able to communicate and collaborate together. The ‘supported’ aspect of the model includes support from a tutor and staff in one of the thirteen regional and national centres, as well as from centralized areas, for example, the library.

The OU has a large electronic library and works with the academic teams to embed resources into OU modules and to develop the students’ IL skills. Although IL activities had previously been embedded into some OU modules, the new Social Work Degree was the first undergraduate degree programme in the university to fully integrate and assess IL skills across the award. This approach had not been used previously, because for most modules offered by the OU, library staff had to work with each module team independently. This involved selling the benefits of IL to them and persuading them to include IL activities within the study materials when often there was already too much material planned for inclusion. The Social Work Degree offered us the unusual opportunity to include IL at the start of the award level planning process.

The OU’s social inclusion policy means that it offers a great deal of flexibility for students to choose their pathway through the modules available. In undergraduate programmes, although students are advised to start with the introductory, first-level modules, not all of them
take that advice and may start with modules at a higher level. This makes skills development through the different levels difficult as students may not take the modules in the order expected.

In contrast, the OU Social Work degree requires students to complete a sequence of three core practice learning modules in a set order. Alongside these modules they complete other theory modules, some of which are optional. By concentrating on the defined pathway through the three practice learning modules, we were able to map an approach for IL skills development across three levels for the first time. This meant that we were able to build on, and consolidate, what had been done in previous modules and so develop students’ higher level IL skills in a more comprehensive way.

/A Disciplinary Perspective

In 2001 the UK Department of Health introduced a Social Work Degree as part of the reforms to social work training (Department of Health, 2001). The OU took this opportunity to update and increase the Social Work Diploma modules already offered, to create a full degree programme. Three degrees were produced to meet the Care Council requirements and the different legislation governing social work in each of three different nations - Scotland, Wales, and England. The first graduates (totalling 346) completed their degrees in 2008.

One of the Care Council requirements was for students to engage for set periods in work experience during their studies, so that they are able to apply their learning in practice. Where OU students differ from other UK social work degree students, is that they are mature students (not straight from high school) and they are usually already employed in social work settings, and therefore bring considerable experience of work-based practice. The combination of real
work pressures and demands on study time, mean these students are likely to be highly selective about which activities they engage in, being critically aware of context-specific details and requiring learning to be relevant and of practical value.

Another Care Council requirement which would impact on the approach taken to skills development, was that by the end of their degree students were required to demonstrate ICT skills of a level equivalent to the European Computer Driving Licence (ECDL) (GSCC, 2002). This syllabus covers a range of computing skills, from word processing to working with spreadsheets and databases, to communicating online and finding and retrieving information, the latter relating closely to information literacy, requiring skills in using online search facilities.

During the planning stages for the degree a proposal was put forward to integrate IL and ICT throughout the programme. The case to integrate IL was based on both external (UK) requirements for the Social Work Degree and internal OU policy. The external requirements were those of the Quality Assurance Agency (QAA) Benchmark statement for social work (The Quality Assurance Agency for Higher Education, 2000) and National Occupational Standards (TOPSS England, 2002), which together set out the requirements for achievement of the degree in Social Work. Although not explicitly stated as IL skills, they are clearly IL skills as per CILIP’s definition (2004) and both these documents identify IL skills as core to the programme.

Within the OU the integration of IL is increasingly seen as an important part of OU study to improve the employability of OU students. As a result of this the University Learning and Teaching Strategy (The Open University, 2002) and the Level Frameworks Document (Centre for Outcomes-Based Education, 2002) both have statements that require information literacy within all OU learning materials.
Based on these requirements the inclusion of IL was agreed by the social work team and was written into the degree documentation that was agreed by the university. Furthermore, there was a clear alignment between some of the ICT skills competencies required for the degree, which included skills for working online and for finding and retrieving information, and the development of IL activities in the course.

/A Discussion of Faculty-Librarian Collaboration

The strict external requirements for the degree allowed us to start working with the academic team during the early stages of the planning process. This led to us being able to devise an approach which, once approved, was a firm commitment to the integration of IL across the programme. The benefit of our involvement from the early stages meant that the IL strategy was planned from the start rather than tacked on later. This highlights the importance of the timing of the first contact between library staff and the academic team developing the modules.

Having established the essential presence of IL and ICT within the programme, the next step was to examine how the links and interdependency between IL and ICT might be explored and used to their best advantage. It became apparent that a collaborative approach and interwoven strategy of skills development would strengthen our proposal and therefore offer an improved student learning experience. We could build on the differences between IL and ICT by combining the two skills sets, as well as reinforce what had been covered in previous skills activities. In order to implement this agreement we developed a plan showing possible sequences of learning for ICT and IL, specifically how to create logical skills development and progression across three levels of study, and presented this to the programme team.
To implement the plan, we worked closely with each module team in turn to guide them on how they could incorporate skills development activities into their course material. This built on the experience we had gained from work with other module teams. Since the practice learning courses were to be developed and launched iteratively, the first collaboration took place on the Level One module, enabling a working method to be devised. We subsequently faced the challenge that each module was developed by a different group of academics, and they were not always aware of what had been covered in the previous module. Despite this challenge, consistency was achieved by minimising changes in the staff involved in writing the IL and ICT activities.

This consistency of staffing meant that we could ensure there was coherence within the skills activities and that a clear pathway for progression existed, with the activities in one module building on and developing what had been practised previously. The activities could also be written in a consistent style and approach, including a consistent author 'voice'. More generally, we were able to take a holistic viewpoint over the learning approaches and terminology used within the programme, helping to establish a consistent learner experience. This was important in the development of the assessment strategies for the different modules, where we were not only able to integrate IL and ICT into the assessment but also advise on the strategy overall so that it was aligned to students' skills. The way in which IL was assessed within the degree will be discussed below.

The benefits of our collaboration with the module teams meant that we could embed the IL activities within the course material, where they were not only a essential part of the student study material but they were also assessed, as recommended by Kirkwood (2006) ensuring students engage in this part of the programme.
/A Programme Planning

/B Plan for skills development

All OU students have in common the need to get up and running using OU systems and services as part of their experience with distance learning. This includes skills in getting online and navigating resources, and other skills in relation to creating and organising work, and communicating online. The process of engaging in such technology-enhanced learning therefore in and of itself requires a base-line of computing skills. In 2006 when the degree was to be launched, such skills were expected to be new to many students, especially social work students whose primary focus was to work with people, not computers. An approach for skills development therefore needed to be designed which recognised the level of support and guidance this student group might need, as well as the specific skills they might be interested in based on their work-based settings. Included within the suite of skills used for distance learning were many of the ICT skills required for the degree. It therefore became logical to use the introduction to technology-enhanced learning as a means to develop a range of skills. Once introduced on the first level module, the students could then develop these further during the second and third level modules and also ideally apply the skills in their work-based settings.

For both ICT and IL skills we decided to mirror the core programme strategy for the main social work teaching, namely to develop skills on the first core module through awareness raising, on the second module through applying, and then on the third module through critically evaluating those skills. This would be done by introducing skills in the context of the students’
study requirements, using technologies as part of their learning experiences. These skills at second level would be extended and students asked to apply them in their practice settings. For this purpose the skills would relate to work-based practice scenarios. By the third level students were expected to critically evaluate their use of skills, contextualised by their work-based practice requirements.

The next step was to map the OU's Level's Framework document onto this structure, to create a clear and systematic progression in the information literacy skills development through the degree. To demonstrate skills progression through the three modules an outline was created based on how we would differentiate between the levels, and this is shown with the IL Learning outcomes from the OU Levels Framework (COBE, 2002) in the table below:

<Insert Table 1 here>

<table>
<thead>
<tr>
<th>Level</th>
<th>Plan for IL skills development through the programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>you will begin to <strong>recognise</strong> and <strong>use</strong>, with guidance, <strong>skills in finding and choosing information</strong> for a specific purpose.</td>
</tr>
<tr>
<td>Level 2</td>
<td>you will learn how to <strong>apply</strong> these skills to identify, <strong>search for and use information accurately and critically</strong> in the context of specific tasks.</td>
</tr>
<tr>
<td>Level 3</td>
<td>you should be able to <strong>use and develop</strong> your skills to <strong>identify, search for and critically evaluate</strong> information in <strong>complex</strong></td>
</tr>
</tbody>
</table>
Table 1: How we planned to implement the IL learning outcomes across the three levels of the programme to develop the students IL skills

Within each of the three levels, activities were developed to cover the different IL skills:

- Be aware of the key information resources in the particular subject area
- Identify a need for (more) information on a topic
- Plan and carry out a search for information on a topic using the most appropriate sources
- Critically evaluate information
- Organise information so that it can be retrieved and presented

This approach meant that students would cover each of these skills at least three times over the course of their degree and would reinforce their previous application of these skills. Although some academics might have preferred the skills work to have been designated to limited parts of the programme and ‘got out of the way’, the pedagogical consideration, that skills development is facilitated by regular opportunities for practice as described by Dewald et al. (2000), strongly influenced the approach taken. Based on this principle we designed activities spread evenly across the three modules and the programme.

The resulting mapping of study time showing ICT and IL, alongside other e-learning components, is shown in figure 1.

<Insert Figure 1 here – Figure 1: ICT & IL skills development within the Social Work Degree>
The online nature of supported open learning, and growing availability of online library resources meant that the IL activities would take place online, but for two of the three modules the majority of teaching material was in fact print-based. However, instead of placing the detailed instructions within the core module texts (printed books), it was more appropriate to provide printable Adobe Acrobat Reader (PDF) documents to download from the module Web site. From the downloadable instructions we directed students to links to online search tools, tutorials, and other materials such as online databases. Since we anticipated that these would be subject to frequent change, our approach enabled increased flexibility and cost effectiveness by being able to swiftly replace out of date instructions on the module Web sites during the life of the degree.
One consideration that affected how we presented the skills activities to students was their likely level of ICT skills and confidence working online. Being able to develop IL skills depends on students having a certain base level of ICT knowledge and to be fairly confident using the Internet. Faculty experience on similar courses in the past had shown that many of the students lacked ICT confidence. So we designed a ‘belts and braces’ approach for guidance and support building on our work with previous modules and how they delivered similar material. We aimed to provide comprehensive support using screenshots and step by step instructions, especially in the first level course, where the bulk of the skills were introduced.

/A Online Learning Model

/B IL activities

For each module a series of IL skills activities was introduced within the printed study material. These activities directed students to undertake searches relevant to the subject area currently being studied. Students were referred from the printed text to their module Web site for more detailed downloadable instructions. The ICT and IL activities used the same template, to ensure that they were presented consistently and to aid the students in following the instructions. Different parts of the activity were separated into different boxes with clear guidance for any actions that students were expected to take or questions that they were meant to consider. Each activity then ended with a feedback section where the module team gave some general comments on the activity and what the students should have achieved.
The IL activities were flagged within the study calendar, as shown in this example below. This study calendar showed students the resources they needed for each week of study to help them plan their time.

We designed the first level activities so that they gave very detailed instructions accompanied by numerous screenshots. This method provides less confident students with as much support as possible, albeit this is a fairly directive method, and may not necessarily encourage students to learn independently. This approach was aimed at students with low confidence and working on their own (as distance learning students), who might easily be put off if the guidance made too many assumptions about what they were familiar with. As students developed their confidence with the early activities, we designed the IL activities to become more open-ended through the programme. This would then allow the students to investigate areas that interested them personally, whilst still maintaining a structured approach to their learning. Because the Social Work Degree had a set pathway, it enabled us to develop students’ skills across the modules and to refer back to IL activities studied on previous modules to make explicit the fact that these activities were building on each other.

To demonstrate how we developed the students’ searching skills across the three different levels, an example of an activity from each of the modules, developing students' skills in searching for information, is shown in Table 2.

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Activity Task</th>
<th>Activity Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st level</td>
<td>find a journal article in Social Care Online</td>
<td>- Type ‘fully engaged’ in the ‘KEYWORDS’ field and click on the button which says ‘Exact phrase’.</td>
</tr>
<tr>
<td>2nd level</td>
<td>find newspaper articles in NexisUK</td>
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<td>-----------</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Type “poverty” into the first search box ...click on the “search” button.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Think of other terms that could be used to describe the poor and try searching for these terms. Does the way they’re portrayed change when you use a different term? Is one of them seen in a more positive light than the others?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Try searching for words associated with the poor; for example: benefits, scroungers, homeless, gypsies. How are these portrayed in tabloids and broadsheets?</td>
<td></td>
</tr>
<tr>
<td>3rd level</td>
<td>find articles in Web of Science to improve students’ understanding of an article they had previously read</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Note one issue, argument or concept that Garrett referred to that you did not understand or want to find out more about. You will search Web of Science to identify an article which might tell you more.</td>
<td></td>
</tr>
</tbody>
</table>
• Now begin your search to find two abstracts of articles which answer your search question from the Garrett article. Don’t forget that searching is an iterative process, so you will amend the string based on the results it produces.

Table 2: Example searching activities at each of the three levels on the OU Social Work Degree

As these examples show, at the first level we present a very step-by-step approach for students to find a specific resource that we had previously identified. Then at the second level students are given an initial search term and are then asked to think of other terms to search for so they can compare the results when using different terms. Although they are given some ideas to look for they are also free to use their own search terms too. Finally at third level students are asked to identify a search topic based on a journal article that they had previously read and are then free to search for articles which help them to improve their understanding of the issues raised.

/B Accessing resources

At the time of setting up the degree the library offered a service to module teams by which content and services could be introduced in a supportive framework, called MyOpenLibrary. This personalisable mini-portal provides students with a core list of library resources selected for them by the module team and library staff. Given the vast and growing range of library resources, and how intimidating this might appear to new undergraduate students, it was felt appropriate to build students’ confidence and guide them to relevant
materials, through a gradual and managed introduction to the wealth of different materials available.

It was decided to use MyOpenLibrary on all three modules, gradually extending the links to be included. Students are able to personalise it by adding other items (Ramsden, 2003) and thus develop their own selection of material to support their studies. The interface for MyOpenLibrary is split into different sections for different types of content. Each section holds a set of links to key items selected for their relevance to the module. For the second and third level modules additional materials were included. Students can access MyOpenLibrary during their study on other modules and can continue to develop their collection of resources.

Students were also expected to use RefWorks (an online bibliography management tool) to manage references and create bibliographies for assignments. Their use of RefWorks was introduced within the ICT activities in the level one module and was then developed through the degree. The rationale behind the introduction of RefWorks so early in the degree was to enable students both to understand how a database works (as part of their ICT skills development) and also how to reference material in their written work.

\textit{Student support}

Students who had queries about any of the IL activities were directed to contact the Library Helpdesk. The Library Helpdesk offers support to students in using electronic resources and with their skills development. We were able to use the queries received from students to refine and improve the IL activities for each following year. One example of this process resulted
in a reduction of the number of enquiries received about RefWorks (which students found particularly challenging) the following year.

/Impact on Student Learning

A small-scale study called *Prepared for Practice?* was conducted as part of the Practice-based Professional Learning Centre for Excellence in Teaching and Learning to look at how well graduates of the OU Social Work Degree felt that it had prepared them for working in social work. As part of the study graduates were asked about their views on IL aspects of their degree. Thirty-three graduates were sent an online survey six months after graduation, resulting in nineteen responses. The first section looked at their social work skills and in the second section they were asked to answer a series of questions about either IL or ICT and ten students answered the questions about IL. The survey was part quantitative and part qualitative and Figure 2 shows the quantitative data from part of this survey:

<Insert Figure 2 here – Figure 2: Graduate perceptions of IL within Social Work>
These responses reveal that six months after graduation the majority continue to perceive that IL skills bring value to their practice. Furthermore, the majority agree that the skills are being used in their practice and that the degree prepared them well for this. The majority agreed that they have extended the IL skills learned on the degree to other areas of their practice. We can conclude that the IL activities on the degree programme were understandable and realistic for the students to undertake, as none indicated that they needed help from colleagues in order to use these skills in their practice.

For the qualitative section the questions were designed to call to mind specific occurrences where they had used either their IL or ICT skills by encouraging recall of feelings and motivations. This provides us with evidence of how they had developed their IL skills and use in their practice and the impact on service users. For social work students the link to the
possible benefit to service users is arguably one of their key motivators and is the rationale behind evidence-based practice.

In answer to questions asking them how they had used their IL skills, what they had achieved and the impact this had on service users all ten responses mentioned being able to search for, or find, relevant information for a particular situation. Eight of them mentioned the use of this as evidence for their practice and how it informed what they did, three of them mentioned the importance of keeping-up-to date with new information in a particular area and one mentioned being able to evaluate what they had found. This shows the importance of evidence-based practice to graduates and how their use of research literature has made an impact on the service users they work with. One of them explained exactly how their research of an issue had impacted on their work, and the benefit of this to the service users they were working with:

“The research I used recently helped to inform the decisions that were made regarding placing siblings together in a long-term foster placement. It benefited them in that they were placed together rather than in separate placements.” (Respondent 14)

Another response talked about the importance of evidence-based practice more generally and how important it is to develop this within social work as a subject compared to other health professions:

“Through the use of research during my placement in mental health and my studies of K315 I gained an appreciation of the need for social work to assert itself in a field where social work is said to have a theoretical hole at the centre of the enterprise and that this causes it to leave social work and social work values at the mercy of more powerful empirically informed professions such as psychiatry.” (Respondent 16)
Other questions asked whether these skills were ones that they had learnt during their studies, or whether they already had them and eight of them said that they had developed these skills during their studies while two said they already had some skills in this area. This shows the importance of developing IL skills within the programme as they are skills that the students didn’t have before studying.

This is a small-scale study of thirty-three individuals, 10 of whom chose to answer about IL. and so these results can only be seen as indicative, but they present a strong picture of the importance of IL within social work and how evidence-based practice in social work can improve the service given.

/A Assessment of Online Learning

Students were expected to demonstrate their commitment to ICT and IL skills development through their assessment in the degree. Regular assignments with a small percentage allocated to skills work were designed so that students would not be intimidated and could see their skills work as a regular feature in which they could gradually increase in competence and confidence.

/B Formative

The assessment of IL was influenced by the assessment which needed to take place for ICT skills. One of the considerations was that skills development needed to take place over time, to maintain 'fluency' and to keep currency with emerging related skills (for instance as interface updates are introduced). In addition, since students had different levels of familiarity with the
skills, it would be beneficial to offer opportunities for self-directed learning and practice. We therefore introduced online interactive quizzes which would provide immediate feedback, and could therefore be used as diagnostic or self-assessment tools. Due to the intensive occurrence of ICT activities on the level one module, it was decided that there were already sufficient practice opportunities that additional online quizzes were not necessary. However, since on levels two and three, learners were intended to engage increasingly in independent study, formative online quizzes were introduced. IL questions were included in these, integrated alongside ICT, to practice new and review existing skills.

/B Use of online quizzes

In addition to the need for formative practice, another key factor played a part. In order to demonstrate that the ICT skills had been achieved before graduation, ICT skills were assessed directly and marks awarded for them (creating summative assessment). This would thereby provide an audit trail for the ICT skills achieved. Students submitted several assignments per module, in which they demonstrated computing work they had completed. However, it was necessary to provide sufficient summative assessment points to cover the range of ICT skills required to be demonstrated. It was therefore decided that as well as formative online quizzes on levels two and three we would use them summatively on all three modules. And since IL had been included in the formative online quizzes, it was also included in the summative online quizzes for those courses on levels two and three.

Each module has three summative quizzes, spaced equally throughout each module. Each quiz assessed skills and knowledge which had been introduced in activities during that study
period or occasionally reviewed items studied in earlier modules. The quizzes (and their formative equivalents on levels two and three) provided sequences of ten to fifteen questions. The questions were divided into clusters around different topics, such as IL, ICT, and ethical terminology. Within a topic the questions might include some sequences building on each other. The IL questions in the quizzes covered a range of skills, including: identifying functions within a database interface screen; selecting what Boolean operators should be used to combine specified keywords into an effective search string for a given scenario; what to think about when evaluating information; picking the most relevant reference from a list for a situation; referencing; copyright and plagiarism. In addition, different question types (such as multiple choice, drag and drop, text input) could be used to develop a variety of demonstrations of a skill.

For instance, the two questions in Figures 3 and 4 show progression from developing the student's ability to construct a reference through sequencing its component parts in the correct order, to later inputting text to enter the actual reference details.

<Insert Figure 3 here – Figure 3: Drag and drop online quiz question to correctly order details of a reference>
How do you construct an end-of-text reference for a journal article? Place the following bits of information into the right order for the Harvard referencing style (as used in K116). Use the mouse to drag and drop the boxed words into the empty spaces. Alternatively, use the tab key to select an empty space, then use the spacebar to cycle through the options.

<table>
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**Huffman, E.G**

*Clinical Social Work Journal*, vol. 34, no. 3, pp. 319-33.

‘Psychotherapy in prison’,

You are a K216 student writing an assignment and are in the process of inserting your end of text references. Type in the missing details so that the references are correct, according to the course Assessment Guide. You may need to look up some of the information required. Type the text into the spaces provided and pay attention to spacing, capitals and punctuation. (Since the CMA system is **not able to let you format text in italic** you may skip this referencing requirement when inputting your answer.)

This is echoed in an audio case study (K113, Audio 1, section 2). The legal requirements are also relevant (HSC Resource Bank). This was discussed using another approach (Howe, K113, Offprints, pp. 18-19).

**References**


The drag and drop activity in Figure 3 requires recognition and then sequencing—a simple task compared to the text input question shown in Figure 4. This places demands on the learner, needing to actively identify information based on contextual information, requiring exact knowledge and accurate input. We found that many students find it exceptionally difficult to reference accurately and it therefore became a priority to break down the skills required into manageable and incremental steps, to enable them to improve their proficiency to a level that was acceptable. The online quizzes gave instant feedback to students, and so proved to be an excellent means by which to provide practice opportunities in a variety of ways for a skill which would otherwise be difficult and unrewarding to practice.

/B Written assignments

The skills of searching for and identifying relevant information to support discussion, and practice decisions, as well as the ability to reference correctly, were also assessed in written assignments where marks would be given according to the quality demonstrated. As they progressed through the degree students would be expected increasingly to draw on resources outside the module material. To further motivate students to progress their referencing skills, in the final module the technical skills of referencing were awarded discrete marks, in addition to discrete marks for the presentation of references, that is appropriately drawing upon and citing references within the written text. Finally, in the final module End of Course Assessment (ECA) - the examinable component - students were set a research task to inform the main assessment. They were asked to plan and evaluate a search, and to include in their ECA details of what they searched for and what results they found, as well as a summary of how well their results met
their expectations. They also received marks for their technical and presentation skills in referencing.

As a result of these various approaches, the formative assessment encouraged practice through engaging interactive online quizzes, which provided instant feedback. Students were encouraged to develop their referencing skills in the knowledge that at the end of the degree they would be assessed directly on this skill in their ECA. The net result was that students engaged in IL proactively and noted improvements in their skills, and benefits in their practice.

/A Conclusion

As educators we owe it to our students to prepare them for the work contexts in which they practice. The interconnectedness of ICT and IL skills means these skills become key enablers for technology-enhanced learning and technology-enhanced work practices. This chapter has shown that recognising this synergy inspired a collaborative approach on a practice-based learning degree, and informed an integrated programme of skills development. Furthermore, external drivers from professional bodies convinced the wider team to accept this into the assessment strategy, spanning each level of the degree in recognition of the need to enable skills development over time and building a clearly identified sequence of skills.

Traditionally, part of the challenge has been convincing academics at the planning stage, and students at the learning stage, that IL activities are worth engaging in. Having the facility to identify outcomes, such as learner perceptions of where IL brings most value, in this case their accounts of its benefits to service users in their social work practice, helps library staff make a case to academics for specific IL activities. This can then inform study time allocation, and how
activity designers create motivating activities for learners. The online nature of the activity delivery makes it possible to close the feedback loop by editing the activities swiftly, and reuse activities across the institution.

We have highlighted the importance of library involvement from an early stage in order to ensure that IL skills development fits cohesively with the overall approach of the programme, allowing meaningful opportunities for practice and development of the skills, rather than being added on at a later stage. This also conveys to the students the intrinsic value of this activity as part of academic (and work) practices. To support students in the early stages, tensions exist between very specific instructions versus more generic and open-ended instructions, which are less supportive. By taking a programme view and designing increasing flexibility of choice, a developmental approach can be taken, enabling students to access support when they need it, whether within guidance documents, from online webpages or via a helpdesk.

It was further made possible by the affordances of the online delivery of the modules. This enabled the introduction and development of skills using interactive online activities, a range of powerful search tools, and facilities for skills development with rapid feedback and support. Our evaluation shows the importance of IL within social work and how its development enables evidence-based social work practice. This means that the relevant information can be found and passed on to service users and colleagues so they can make informed decisions. This is increasingly important to students wanting to engage with evidence-based practice; needing to find reliable evidence on which to make decisions or offer advice to colleagues and service users.

This chapter has shown how this approach to IL integration has been achieved by ensuring a close collaboration between the academic staff developing the teaching materials and specialists in skills development, both library staff for IL and dedicated ICT teaching staff. All
members of the team were able to draw on their differing experience and knowledge to improve the quality of the finished degree course. The knowledge gained from the experience of colleagues and students is now informing practice, and forging and strengthening links across modules and teams within both the Faculty of Health and Social Care and the library.


Centre for Outcomes Based Education. 2005. *Undergraduate levels framework*, Milton Keynes: The Open University.


