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E Plus - a practice oriented and transnational approach to enhance graduate employability

Project Report and Reference

Alastair Monger (SSU) and Martina Emke (b.i.b.)

September 2011
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Abstract

This report presents, in an e-book format for ease of reference, researched and evaluated initiatives, models and practices developed to enhance the employability of students of the University and the b.i.b. International College. It concludes the jointly funded stage of the project as planned in the original project proposal.

The project is based on the key themes of work-based learning, industry-focussed learning, international learning and career management learning, and cross-threading I&CT and transnational themes. Many different stakeholders including students, tutors, service support staff and employers from both institutions contributed to the project and its outcomes. The following 4 paragraphs indicate briefly the content of each theme.

In response to increasing evidence that HE institutions should be providing more work-based learning opportunities, EU-funded work experience opportunities for b.i.b. and SSU students going to Southampton and Germany respectively are planned, and a more flexible model combining both work experience and the final year project at SSU is planned.

An industry focussed learning theme describes models for more industry-related activities. These include a more organised approach to using the University as a business context for live activities (eg analysis of University data warehouse data to inform decision making), an “Everybody-Wins” model for “live”/industry-linked activities and an entrepreneurial activity for primarily Technology courses.

An international learning theme describes an experiment designed to enable b.i.b. and SSU students to work collaboratively online in international teams, and consequently enhance their e-portfolio CVs and employability.

A career management learning theme completes this contribution to the employability agenda by sharpening the focus on CVs and gaining employment. It presents the results of studies on the application of Mahara at b.i.b. and software for developing communication skills at interview.

Following achievement of the intended outcomes of the project, including the embedding of some practice, further work includes the on-going EU and other work-based learning initiatives.

In conclusion, diverse, collaborative, shared, scalable and informed practice in our respective institutions should lead in the longer term to improved employability of our students.

This is an updated report of a full draft that was circulated for comment in May to the project stakeholders.
Summary of Key Findings and Initiatives

Overall

- The contrasting educational, industrial and cultural national contexts of SSU and b.i.b. with respect to graduate employability informs a project rationale from which both institutions can benefit jointly and from each other.

Work-Based Learning

- EU Leonardo Student Mobility application for b.i.b. (then SSU) students taking work experience in the UK submitted and awarded.
- EU Leonardo Staff Mobility application for b.i.b./SSU staff to develop transnational placement guidelines submitted and awarded – first flow of b.i.b. staff to SSU in October 2011.
- Work placements opportunities identified in Germany by b.i.b. for SSU students (with one School student now with Roland Berger Global Strategy Consultants in Munich) and an initial transnational placement administration model established.
- Analysis shows very few 48-week industry-based placements in SSU, and so more flexible model based on integrating WBL and the final year project initiated with 2 students for 2011-12.

Industry-Focussed Learning

- "Everybody-Wins" model for primarily on-campus “live”/industry-linked activities established.
- Opportunity for Oracle certification promoted through myCourse site and taken up.
- Principle firmly established of SSU as an employer and business context that can enhance student learning and employability. This led, for example, to the opportunity for students to analyse data from the University's data warehouse and add to their CVs.
- An "entrepreneurial" model for primarily Technology courses presented.

International Learning

- Model established for b.i.b. Hannover and SSU 2nd year students to collaborate online using e-portfolio and other online tools, and enhance their e-portfolio CVs.

Career Management Learning

- Findings from trial of Mahara e-portfolio software for CVs with b.i.b. Paderborn students informs potential wider implementation at b.i.b. and contributes to development of Mahara at SSU.
- Evidence to suggest that some students need to focus more on improving CVs and communication skills at interview, and career building.
- Interviewer software acquired and evaluated.
- Open resources for developing networking skills identified.
Abbreviations

Less obvious abbreviations are defined or redefined when first used in each section of the report. Abbreviations that appear throughout the report are summarised below:

Institutions
The “University” (or SSU) — always refers to Southampton Solent University
b.i.b. always refers to the b.i.b International College
(b.i.b. sites include b.i.b Bergisch Gladbach, b.i.b. Paderborn, b.i.b. Hannover and b.i.b. Dresden)

University Faculties
The “Faculty” (or MarTec) refers to the Faculty of Maritime and Technology (or former Faculty of Technology (FTech))
FBSE — Faculty of Business, Sports and Enterprise
FMAS — Faculty of Media, Arts and Society

School
The “School” always refers to the School of Computing & Communication (SCC) (in the former Faculty of Technology) or the new School of Technology

University Services
LIS - Learning and Information Service, which includes the sections:
CES - Careers and Employability Service
LTU — Learning and Technology Unit

Project
SDP - Strategic Development Programme
AM (Al Monger)
ME (Martina Emke)
1 Introduction

The University and the b.i.b. International College (b.i.b.) are already of course delivering practice that enhances the employability of their students. b.i.b., for example, deliver a successful core 2-month work-based project. On the other hand, the School of Computing and Communications (SOC) delivers a graduate skills development theme on its courses. But can we do more bearing in mind that both Institutions have elevated employability to the core of what they aim to offer? The aim of this project is therefore to jointly research, apply and disseminate evidence-based practice, models and opportunities that should help to enhance graduate employability and improve employment rates - for example, to provide the opportunity of transnational work experience, more industry-focussed learning and to improve career management skills through the use of e-portfolio (Mahara) software.

Why collaborate on an employability project? Firstly, the potential synergy of a transnational collaboration that could lead to wide application of varied transnational and other employability initiatives in both multi-site, multi-Faculty institutions. Secondly, it is underpinned by a well established collaboration that began in 2005 and now prepares, supports and teaches 150 top-up/ final year b.i.b. students studying on courses in all 3 University faculties (not least to enhance their employability with an international experience!).

How was the project to be delivered? Essentially, the project was conceived in four stages: Planning and Initial Research (Stage 1), Research and Development of Practice (Stage 2), Project Report and Dissemination of Practice (Stage 3) and Development of the Curriculum in SOC (Stage 4). Essentially, this report (in Stage 3) concludes the jointly funded Stage 2 of the project undertaken primarily from September 2010 to February 2011.

The project, and this report, contributes to 4 core related employability themes of Work-Based Learning, Industry-Focussed Learning, International Learning and Career Management Learning. The overall rationale for these themes, and approach to the project, are discussed in sections 2 and 3. The models and other practice are described and evaluated in sections 4 to 7. The outcome and/or ongoing development and sustainability of each initiative is emphasised in its sectional context where relevant. The report concludes with an evaluation of project outcomes and further work.

The report is implemented as an e-book to facilitate reference and reuse of its "knowledge-base" of initiatives and practice. The appendices include detailed EU applications, evaluations, flyers, plans etc.
2 Transnational and Institutional Comparative Review

2.1 Introduction

This section provides a positional and comparative review of our respective educational, industrial and cultural national contexts with respect to graduate employability. This therefore provides a background rationale to the project themes discussed in section 3, and should help to indicate at the outset where each institution can gain maximum benefit from this project and its initiatives, and what we can learn from each other.

This following definition of employability is used as a basis for this project:

“a set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy”. (Yorke 2006)

It is drawn from the influential and substantial Learning and Employability Series 1 and 2 publication of the UK Higher Education Academy Enhancing Student Employability Coordination Team (ESECT). This series is based on the work of many authors and cited by many studies, and is a major source of reference for this project.

2.2 Higher and Vocational Education in Germany and the UK

The German educational system is quite complex: although the entire school system is under the supervision of the state, educational administration and legislation is exercised by the Laender (federal states). This means in effect that there are 16 educational systems within the Federal Republic of Germany. Basically, the German education system can be divided into five areas: pre-school education, primary education, secondary education, tertiary education and continuing education. Whereas the transitions from pre-school education to primary and secondary education are quite clearly defined, the same cannot be said about the transition from the secondary level, as table 1 shows:

Post-compulsory education/upper secondary and post-secondary level

(i) Types of education

<table>
<thead>
<tr>
<th>General upper secondary school (Gymnasiale Oberstufe) at the following school types:</th>
<th>15/ 16-18/ 19 years of age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gymnasium/ Berufliches Gymnasium/ Fachgymnasium/ Gesamtschule</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Vocational education and training Berufsdachschule (full time vocational education) Fachoberschule (full time vocational education) duales System – Berufschule + Betrieb (dual system: part-time vocational school and part-time on-the-job training)</th>
<th>15/ 16-18 years of age 16-18 years of age 15/ 16-18/ 19 years of age</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Post-secondary non-tertiary education Berufsfachschule Fachoberschule Abendgymnasium/ Kolleg duales System – Berufschule + Betrieb (dual system: part-time vocational school and part-time on-the-job training)</th>
<th>19-22 years of age 18-19 years of age 20-35 years of age 19-22 years of age</th>
</tr>
</thead>
</table>
At the core of this system lies the “tension between Bildung (personal development) and Ausbildung (training)” (Arthur 2006). The main task of universities, based on the Humboldt tradition, is still seen as providing their students with the freedom to learn and do research, but not necessarily to provide them with a qualification which prepares them for entry into a profession. Conversely the main task of Berufsfachschulen (vocational schools/colleges) such as b.i.b. lies in providing vocational training schemes for their students so that they can find employment quickly. This dichotomy which still prevails in the German education system has led to a number of concerns, notably because it does not provide for a clear strategy for students in the post-secondary non-tertiary sector to go on to the tertiary sector. Another concern is that this strict division does not support the idea of a constant and beneficial exchange between theory and practice, because it does not foster the cooperation between universities or Fachhochschulen (universities of applied science) and employers.

In the UK, institutions (mainly Universities) operate autonomously in a unified national funding and quality framework. This has resulted in a wide range of University missions ranging from research-focussed to teaching-focussed, and varying policies on admissions. However, the secondary sector and associated qualifications (ranging from academic to vocational) reflects a complexity not that dissimilar to that in Germany.

SSU has positioned itself in recent years to provide a student experience that relates theory to practice, and to optimise employability and gaining employment. Furthermore, it seeks to provide access to a wider range of learners through partnerships with a diverse range of schools and colleges in the region, and more flexible opportunities to learners currently in employment.

b.i.b. has taken great care to provide opportunities for their students to develop their academic skills in recent years in order to facilitate their transition to the SSU. However, a closer cooperation between b.i.b. and SSU students during the second year would enable the students to benefit from each other’s knowledge and also ensure that both the theoretical and the practical perspective is considered in their joint project work.

It is clearly vital that b.i.b and SSU continue to develop and deliver a student experience that meets the needs of our respective student markets and ultimately the needs of employers and society.

2.3 Meeting the Industry Need for Employable Graduates

There are many sources (eg CIHE) that show that industry expectation of graduates often centres around the areas of soft skills, (international) work-based learning, work-related learning and entrepreneurship. However, there is often a gap between industry expectation and the skills and abilities graduates bring into the company as indicated in chart 1:
UK and German industry expectation of graduates with well developed “soft” employability skills ("Sozialkompetenzen") such as team-working, communication and conflict management is broadly consistent (UKCES, CHE etc). According to a survey carried out by the University of Freiburg German employers rank these skills as the second most important for gaining employment, after graduate commitment and motivation (Sperling 2008). Much development work has taken place in recent years to develop these soft skills on HE courses, and that is reflected in both SSU and b.i.b. In order to take the existing approaches one step further by giving their students an opportunity to develop their soft skills in an international learning experience, the authors of this report piloted a team-based project which is further described in section 6.

The UK and Germany (CHE) also rank institutions on this provision, although the CHE apply a methodology with a strong emphasis on social competence and, significantly in the context of this project, internationalisation. The industry need for international skills is discussed further in 3.3, and this is an aspect of the project that SSU students can particularly benefit from.

The industry preference for graduates with WBL experience is evident from many sources in the UK (eg Yorke 2006). This is mirrored in Germany by, for example, the renowned Staufenbiel Institut which show in their 2011 study that German employers regard work experience gained in an industry placement as the second most important additional graduate qualification. (Staufenbiel Job-Trends 2011). It is therefore key for both institutions to continue to develop these opportunities particularly with respect to flexibility, quality and access.
The international aspect of WBL is also key to the EU’s flagship initiative “Youth On the Move — promoting the learning mobility of young people” ([http://ec.europa.eu/education/news/news2540_en.htm](http://ec.europa.eu/education/news/news2540_en.htm)) which aims to “enhance the performance and international attractiveness of Europe’s higher education institutions and raise the overall quality of all levels of education and training in the EU, combining both excellence and equity, by promoting student mobility and trainees’ mobility, and improve the employment situation of young people” (COM 2010). This aim mirrors the requirements of EU employers: According to the latest Flash Eurobarometer, European employers in the industry sector and graduate recruiters with international contacts rate international work or study experience as very important for graduates (Flash EB no. 304 2010). Developing foreign language skills was also seen as an area of improvement for future graduates in this survey.

Work-related learning is a term increasingly used in the UK (eg Moreland 2006) to encompass not only work-based learning (ie learning in the workplace) but other learning that is beneficial to industry and employability. This includes learning from activities derived from the world of work (not necessarily in the workplace) and learning how to learn and self-manage (including ones career). In Germany, employers see work-related learning (in our context understood as “Praxisorientierung”) during studying as key to gaining employability (Sperling 2008).

Entrepreneurship (and intrapreneurship within companies) is also increasingly viewed as essential for national and global economies. In an interview with Simon Brown, Director of the Southampton Business School and former chair of Enterprise Educators UK, Simon expressed the view that the UK sits somewhere between the USA (highly focussed on developing enterprise in HE) and Europe which is less so. Germany, in his view, channels ideas to “spin-outs” through highly successful research institutions rather than through educational institutions. Furthermore, he argues that employability skills should be extended from problem-based solving to developing qualities such as creativity and critical thinking.

Rump’s and Eilers’ empirical employer study on aspects of employability in companies (Rump/ Eilers 2005) lists entrepreneurial skills among the “beschäftigungsrelevanten überfachlichen Kompetenzen” (employability skills that are not subject-specific) and sees a big discrepancy between the requirement for entrepreneurial skills in companies and the existing graduate skills in this area (see chart above). The authors claim that this is mainly due to the attitude of seeking security (“Vollkaskomentalität”) which still prevails in German society and which is not compatible with the development of entrepreneurial skills. Lödermann and Scharrer (2010) suggest that in order to support the development of employability skills that are not subject-specific, HEs should develop more learning experiences within their curriculums that allow for the development of these skills.

Overall, enterprise education is developing in the UK (and in SSU) and to some extent in Germany, but has arguably further to go.

Finally, the active planning and development of one’s career (often described as career management) has assumed greater importance in recent years particularly in the UK.
(Yorke 2006). This is reflected in the services and online tools now available in many UK Universities to support students in career management learning. However, there is less evidence of the development of career management learning in Germany.

In conclusion, this brief overview should provide confirmation and pointers to both SSU and b.i.b. for approaches to enhance the employability of our students. It also provides a rationale for the core project themes, drawn from this review and discussed in the next section, that can optimise the benefit that both institutions can gain from the shared knowledge-base of practice developed in this project.
3 Project Themes and Approach

3.1 Introduction

An objective of Stage 1 was to identify core project themes after taking into account the international employability literature and the School’s Employer Engagement Strategy. The Transnational and Information and Communications Technology (I&CT) are linked themes that support and provide a thread across these core themes, and are also discussed in this section. Furthermore, it was essential to establish an overall approach to the project particularly through Stage 2.

3.2 The Four Core Themes

The rationale for the four core themes is based primarily on the discussion in section 2, and should provide ample scope for this project to contribute to enhancing graduate employability for both SSU and b.i.b. These interlinked themes, that are expanded in the respective section of the report, are:

- Work-Based Learning - work placements etc *Providing more opportunities for WBL*
- Industry-Focussed Learning – on-campus activities linked to industry and business – *Models for increasing the relatively little practice evident in the literature*
- International Learning – international teams collaborating online etc – *Harnessing our transnational collaboration to develop enhanced employability skills*
- Career Management Learning – CVs and career building etc – *More focus needed on gaining employment supported by new software tools*

These themes provide a reasonable balance between quite broad coverage of what potentially contributes to employability and yet achieving depth in each theme. There are other areas that contribute to employability such as the development of transferrable skills (team-working, learning to learn etc) and of course more traditional academic-focussed activity. However, these are all relatively well developed and embedded in the curriculum (certainly in the School) and are not therefore a major focus for this project.

Figure 1 below illustrates the project themes and focus (in red/ bold/ italics), and also the key stakeholders that contribute to developing the employable graduate in SSU and b.i.b.
3.3 Transnational Theme

What do we mean by transnational\(^1\) in this context? Essentially it is to enhance graduate employability by providing opportunities for students to work and learn in different countries, industries and cultures. There is substantial evidence in the literature that provides a rationale for offering these transnational opportunities including the following brief selection of references:

A Council for Industry and Higher Education study (Archer, Davison 2008) of 233 employers includes in its header, quoted by Macleod, “The value of [a student’s] international experience goes beyond purely the acquisition of language—it lies in the ability to see business and personal issues from other than your own cultural perspective.” and, in its summary, “Moreover “65% of international employers indicate that having overseas professional work experience makes graduates more employable”.

\(^1\) No distinction is drawn in this report between international and transnational - both terms are used interchangeably.
Bournemouth University commits (Centre for Global Perspectives 2011) to “providing students with an international curriculum and opportunities for cross-cultural learning in an international environment, befitting for a context of ‘global employability’.

We have an opportunity with this transnational collaborative project to build and extend from a well established University-wide collaboration with b.i.b., and offer a distinctive employability-enhancing transnational experience for many of our students.

3.4 Information & Communications Technology Theme

Ensuring that I&CT is harnessed to the full in enhancing employability justifies this focus on I&CT in the project. The theme contributes in three main ways:

- Further develops collaborative and other up-to-date I&CT skills used in industry
- Supports the transnational initiatives (eg SKYPE for interviews)
- Supports career management learning (eg Mahara e-portfolios for CVs)

The STEEL project - Sharing Technology Enhanced Employability Learning (HEA STEEL Project 2011) - is based at Leeds Metropolitan University and funded by the Higher Education Academy. Its aim is to produce a synthesis of evidence-based research in order to inform decision-making by practitioners in the appropriate use of technology enhanced learning for employability and employee learning in higher and further education.

A comprehensive report should become available online in Spring 2011, and three copies of a shorter staff guide were obtained for the University. This contains useful case studies in respect of skills such as using numbers, language and IT effectively, thinking and solving problems, understanding business etc. Copies have been distributed to the team focussing on delivering graduate skills in the School and to the Careers and Employability Service. Apart from case studies on applying e-portfolio software, this publication initiated the acquisition and trial of Interviewer software covered in the Career Management Learning section.

Finally, the Learning and Information Service have contributed with respect to I&CT to initiatives across the 4 key themes of the project. This includes the Business Systems, Careers & Employability, e-Development Centre, Learning Technology Unit and Networking and Infrastructure services.

3.5 Approach

Whilst the project has a clear focus on enhancing employability, it aims to achieve this through varied initiatives across the four themes. These range from making EU applications, researching and developing models to carrying out student-based studies. The approach to each initiative is therefore described in more detail in its context in the report.

Ultimately, the measure of success of this project is the extent to which its findings are valued, prioritised, applied, further developed and persist into the future. The overall approach has therefore sought to:
• underpin the initiatives with reference to the international literature
• implement these initiatives as early as possible to get feedback from colleagues and students in particular
• obtain support, feedback and contributions from the stakeholders identified in Figure 1
• engage with employability, international, chamber of commerce and other networks
• ensure that these initiatives, whilst inevitably requiring up-front work to establish, are sustainable within existing resources in the longer term
• penetrate as widely as possible in both b.i.b. (multi-site) and SSU (multi-Faculty) institutions

This approach is evident throughout the project. For example, "flyers" (refer 11.1.1 (English) and 11.1.2 (German)) were distributed in December 2010 that sought, by providing examples of early initiatives, feedback and contributions from colleagues.
4 Work-Based Learning

4.1 Introduction

There is considerable evidence in the literature that supports the premise that work-based learning enhances graduate employability. b.i.b. recognise this by delivering a core 2-month project-based work experience towards the end of the 2nd year. Further details of how they do this is provided in 11.2.5.

Currently, the opportunities for full-time students to undertake work-based learning on our campus-based courses in the School are primarily the 48-week industrial placement year or the Curriculum Plus Work-Based Learning (C+WBL) unit. Furthermore, there is little opportunity (apart from on international business courses in FBSE) to gain an international WBL experience.

Table 2, based on data from the University SIERRA data warehouse provided by one of the analysts in LIS and the Faculty Information Officer, shows a relatively low and flat number of students taking the placement year in the University (not including Warsash Maritime Academy courses) over the past 5 years. In the case of business computing courses in SCC, this is in spite of (currently) sufficient availability of placement, and active promotion through the year by the course team and the University’s placement service.

<table>
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<tr>
<th></th>
<th>2006-07</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
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<tr>
<td>Placement Year</td>
<td></td>
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<td></td>
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<tr>
<td>FBSE (note 1)</td>
<td>59</td>
<td>46</td>
<td>49</td>
<td>38</td>
<td>56</td>
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<tr>
<td>FMAS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
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<tr>
<td>FTech</td>
<td>8</td>
<td>5</td>
<td>11</td>
<td>5</td>
<td>7 (note 2)</td>
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<tr>
<td>including the following on “business computing” BSc courses in SCC in FTech such as BIT and Software Engineering (SE):</td>
<td></td>
<td></td>
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<tr>
<td>BIT, SE etc</td>
<td>8</td>
<td>5</td>
<td>9</td>
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<tr>
<td>C+WBL</td>
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<td>FTech</td>
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<td>9</td>
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</tr>
</tbody>
</table>

1. All on BA(Hons) Business Studies, International Business Management, International Marketing Management or International Tourism Management. These are mainly study abroad placements.

2. Includes BA (Hons) Fashion Management with Marketing transferred to FMAS during current year 2010-11.

Table 2 – Numbers of students participating in WBL in the University

Participation in the C+WBL unit across the Faculty is also relatively low even though it has been actively promoted across the University and at business computing and other course option presentations.

A report “Beyond placement extinction” (Walker & Bowerman 2010) reported a downward trend in 48-week placements at UCLan. Reasons found included a barrier of student mobility, an inability to find the “right role” and students preferring to work in part-time employment corresponding to their subject area. Furthermore, a draft SSU Placement
Development Team Report “Survey of external placement procedures” obtained in late April drew findings leading notably to a proposal for “a range of flexible placements to suit employers’ and students’”.

How then might we increase participation in WBL? This section discusses 5 linked initiatives designed to provide (hopefully inspiring) international and more flexible WBL opportunities. Finally, Little and colleagues (Little 2006) draw attention to the need for equal access to these opportunities, and “that some students are not well placed to take advantage of WBL opportunities”. Fully briefing 1st year students as early as possible of the WBL opportunities and expectations is therefore very important.

4.2 EU Leonardo Student and Staff Mobility Projects

“The Lifelong Learning Programme (LLP) provides opportunities for organisations, staff and learners involved in education and training across Europe to work together, learn from each others’ expertise, and widen their experience of other cultures and languages.” (LLP 2011). We should therefore make sure that we apply for LLP funding to support the development of the trans-European work-based learning opportunities that we are seeking to establish for our students.

b.i.b. Hannover and Dresden have taken the initiative in applying for LLP Leonardo Mobility (www.leonardo.org.uk) funding to pilot b.i.b. students taking their 8-week "Projektarbeit" (refer 11.2.5) in the Southampton area in each of the next two academic years. Refer to 11.2.1 for more details about this application including the project objectives and time plan. (Most if not all of these students would then come to the School in the following October for their top-up course). In the return direction, and with reference to the Work placement in Germany initiative (refer 11.2.3), SSU currently has Erasmus ² funds available that can support students on work placements in Europe. It is also the intention, with the established help of the Southampton and Fareham Chamber of Commerce (www.soton-chamber.co.uk) and European Information Service Centre (EISC) (www.eiscltd.eu), to identify international companies who operate in the region and who might be prepared to provide placement and other opportunities.

In support of this development, b.i.b. also submitted a second Leonardo Mobility application to run alongside the student mobility project. It is designed to enhance teaching skills through b.i.b. and SSU staff jointly developing guidelines for quality placements abroad. Refer to 11.2.2 for more details about this application including the project objectives and time plan. b.i.b. were informed in May that both these applications were successful, and detailed planning has now started. This includes the 1st visit of b.i.b. staff in the week commencing the 24th October 2011.

² The highly vocational focus of b.i.b. and its position in the German educational system enables b.i.b. to apply for funds under the Leonardo Mobility vocational programme in the LLP. SSU continues to (and can only) apply for funds under the Erasmus HE programme in the LLP.
The intention is that these initiatives are a start, and that a flexible offering of trans-European work-based opportunities can be collaboratively developed by SSU and b.i.b. for its students in the future (that are not necessarily dependent on LLP funding). This includes each institution helping to identify and administrate the work-based placements for each other.

4.3 Work Placements in Germany

In order to initiate the provision of the opportunity for an international work placement, b.i.b. readily agreed to help find (and potentially help administrate) 48-week placements in Germany using its network of employer contacts. An outline of the nature, requirements, selection process, finance and other details was circulated initially to School colleagues involved with the placement year (refer 11.2.3). A student flyer (11.2.4) was then published in myCourse in conjunction with colleagues discussing this opportunity with students. Note that enthusiasm to learn German (rather than fluency) was a requirement, hence removing language as a barrier stopping many students from pursuing this opportunity. However, in order to minimise risk in this first experimental initiative, applications were sought from students performing at at least 2.2 level (with no referrals) and with evidence of having learnt to work in a team. (It is important to ensure that students are aware as early as possible on the course that they will need to satisfy certain criteria in order to secure many of the WBL opportunities).

Encouragingly, around 15 from the business computing courses expressed an initial interest yielding 3 concrete applications (and a further very late incomplete application). Whist the three applicants were clearly enthusiastic, only one application could ultimately be put forward to the company(s) for consideration. The CVs and letters of application of two of the applicants were incomplete and not of a standard that would be likely to attract employers. Partly in order to make this a learning experience, further information was sought from the 2 applicants (how many companies would give this 2nd chance?) and the students were provided feedback and advised to seek further help from the Careers and Employability Service (CES). This issue is discussed further in 7.1. It should be emphasised that other factors including modest performance in the 1st year and insufficient IT background on the games course were the primary reasons for not forwarding these applications.

The applicant put forward was interviewed by telephone (SKYPE had been suggested) by representatives of Roland Berger (www.rolandberger.de), a global strategy consultants, who were “very impressed” and subsequently the student was offered a contract.

Although the University has experience of placements abroad (eg International Tourism) the experience in the Faculty is limited. The student (who first had to transfer from the 3 to the 4 year course) was advised to contact Margaret Jenness to apply for Erasmus funding and the CES with respect to Health & Safety and other considerations for working abroad. The student took the initiative to send an (unofficially) translated version of the “SSU Employers Guide for Placement” to the company. (The IVT project discussed earlier should also contribute to the further development of international placement guidelines). Following further work relating to risk assessment and other issues that have to be
addressed with placements the student is now on placement in Munich.

The remaining opportunity at Roland Berger was offered to students on the BA Business Studies. Isobel Chick (Placement Coordinator) produced a flyer (based on the Faculty model) and emailed (and discussed) this with the students in March 2011. Unfortunately no student has expressed interest, although this may be partly due to the fairly late stage of the academic year.

It is the intention to evaluate and decide whether to continue this initiative with stakeholders as early in the next academic year as possible. This will be based on the experience of the placed student, and improvement/streamlining of a process which will enable this initiative to continue and scale-up in an efficient and effective way. The support provided by CES in handling applications and documentation is essential.

It is encouraging that this initiative appears already to have stimulated interest in 1st year business computing students. It is the intention to use the experience of the student placed this year to help promote the opportunity if the initiative continues.

4.4 Integrating the Final Year Project and WBL

The benefits of core WBL in the 2nd year on all courses at b.i.b. for enhancing employability, employer engagement etc are evident in 11.2.5. In order to achieve these benefits in the School, the 2nd year would need to be redesigned (although there might be a way to achieve this whilst maintaining the current interdependent, thematic, “long-thin” structure). Furthermore, resources would be needed initially to find the companies, set up the documentation etc. It is also a possibility to pilot this approach.

Even though it is probably the case that the resources required for delivery (after settling down) would not exceed that required for the delivery of equivalent on-campus credit, it is probably not realistic in the short-term to introduce a compulsory form of WBL in the 2nd year (or any other year) in the School. It seems sensible therefore to try to make the most of the structures we currently have. There is also some scope for more active promotion of the current placement year and C+WBL provision, particularly taking into account the current focus in the University on employability.

The b.i.b. WBL model has a much tighter coupling of the placement with a specific project. As discussed in 11.2.5. this project is similar in many respects to the School’s final year project. It therefore poses the question of whether WBL might be more attractive to School students with this closer link – “a killing of two birds with one stone” perhaps? It has of course been the case for many years that students have successfully based their final year project on work undertaken in the placement company.

Finally the University of Surrey, which is recognised as having a mature and successful Work Integrated Learning (WIL) scheme, have identified that “only 50% of our undergraduates participate in our Professional Training work placement scheme” and
they need to “**diversify our approaches to WIL by integrating ... forms of WIL that do not require a commitment to a year long placement**” (Jackson 2010).

**A more flexible way forward?**

One possibility is a part-time (average 2.5 days a week during term-time over the academic year) WBL opportunity that enables the student to undertake both a company-based School final year project (40 credit points) and the C+WBL unit (20 credit points). The learning outcomes of the project and C+WBL units are mutually exclusive, and this could therefore be undertaken within existing course structures. Consultation with stakeholders suggested there is also no reason why the project product cannot be used by the student as the C+WBL unit portfolio to evidence achievement of the C+WBL learning outcomes.

This approach could also offer more flexibility to both the employer and the student (neither of whom may wish to pursue a full placement), and offers the student an opportunity that effectively and efficiently integrates work experience, WBL and focussed project work. It can also be a WBL opportunity for direct-entrant final year students (eg from b.i.b.) and placement year students who wishes to gain more work experience.

Initially, consultation with the C+WBL tutor, SDP WBL manager, the Project tutor and other course management team members showed general support for at least trialing this idea. The Dean of LIS then identified the Business Systems, e-Development Centre and Network Infrastructure teams as being supportive services in LIS for providing opportunities. Following discussion with the service heads, a “flyer” (11.2.6) including project descriptions (11.2.7) was circulated to the students (and via the b.i.b.-SSU myCourse site for b.i.b. students) by the Placement team in the Careers and Employability Service (CES). Two students on placement in 2010-11 have taken this opportunity to strengthen his WBL with the same external company. This initiative also provides an example of using the “University as Employer and Business” discussed in 5.4.

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**Similarly to 4.3, it is the intention to evaluate and decide whether to continue this initiative with stakeholders as early in the following academic year as possible. This will be based on the experience of the placed students, and further development of a process which will enable this initiative to scale-up in an efficient and effective way. The support provided by CES in handling applications and documentation is essential.**

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Finally, the work involved in setting up and delivering industry-based final year projects (not necessarily based on WBL) is often considerable. This is referred to in 5.2 in the case of Clearvision. Ways need to be found to facilitate this if the proportion of industry-related projects is to be increased.
5 Industry-Focussed Learning

5.1 Introduction

This section presents and evaluates varied models that could be applied on our on-campus courses. In general, however, there is comparatively little evidence of innovative practice of developing practical, discipline-based employability on mainly traditional campus-based courses and this, in our view, presents a gap in knowledge.

Furthermore, evidence of visiting speakers and “live” case studies was collected by a survey by one of the Academic Leaders for the Periodic Academic Review (PAR) of Computing in March 2011. 4 staff (out of 20 in the School) submitted a return indicating that “live” case studies (ie with direct industry involvement) had been incorporated in their units. This shows scope for developing practice, certainly in our School, and this was reflected in the first of the PAR recommendations.

5.2 “Everybody-Wins” Model

Figure 2 presents a proposed and experimental model for “live”/industry linked activities on campus-based courses where everybody - the students, company and tutor(s) potentially can win. It is abstracted, synthesised and extended primarily from two case studies (James 2008, Kemp 2008) and from Kolb’s long established Learning Cycle.

The Web Design for Industry unit in the School provides a further example of practice that is consistent with this model. A web design company provides a specification for a web site from which student teams then develop solutions. The company provides a prize to the winning team, and then uses the product at least as a basis for the final delivered web site - ie everybody wins! This took place for 3 years before the Managing Director (MD) had to reluctantly discontinue because of a change of role.

It was the intention to test this model with Clearvision (www.clearvision-cm.com), a local software company that develops configuration management solutions that link to IBM software. The relationship has been established over 3 years with Clearvision (primarily through the MD). This has resulted in 3 final year projects which require the student to develop mainly prototype (or proof of concept) solutions to meet new software requirements. The company has initially presented the possible projects to the students in September, has then provided software, support, regular meetings etc during the year, and then attended the Technology Poster Day in June to view and take possession of the software product. Two of the projects were highly successful in that both students were offered jobs by the company - one of whom accepted.

We wanted to scale-up and extend the relationship to a more productive level. During mid-August 2010, an exchange of emails took place which set this activity up in the context of a level 5 software engineering unit for early in 2011. In order to provide an idea (even for the non-technical reader) of the “live” nature of this activity, the text of these emails can be found virtually unedited in 11.3.1. Highlighted phrases show the vitality of this activity including “live”, “get to market early”, “market moves on too quickly”, etc.
Unfortunately, it was not possible for the University to do this activity this academic year, but hopefully it will be scheduled for next year. The time involved in engaging, building-up, maintaining and operating the relationship with Clearvision over 3 years has been considerable (if only measured in the number of emails!). However, ways must be found to enable initiatives like this to be prioritised and realised.

5.3 Professional Certification

Getting additional benefit for students studying on our courses for comparatively little additional work and cost on the part of the student is clearly a laudable aim. Many
University courses for example are expected to have, and do have, professional accreditation. In the School, for example, the business computing courses have had British Computer Society (BCS) accreditation for many years. It has not caused undue work in updating the curriculum to maintain accreditation, and has often been a beneficial process. The benefit to the student is that BCS professional membership, after acquiring experience, can only enhance employability (although it is not clear the extent to which this is the case in IT/Computing in comparison to, say, gaining employment in accountancy). Other courses, such as the MSc Six Sigma Quality course in the Faculty, essentially lead to both an academic qualification and industry certification.

There are also additional benefits when particularly practical subjects in the curriculum can be aligned to professional product certification such as Cisco networking systems and Sage accounting software. Essentially, these certificates are intended to validate that specified skills have been acquired for that particular product certificate—for example Microsoft Office Specialist Master.

Microsoft³ argue that “Microsoft Certifications bring valuable, measurable rewards to students, IT professionals, their managers, and the organizations that employ them. These certifications are designed to provide the recognition you need to help you excel in your career and provide employers with validation of your skills.” (Microsoft 2011). It is difficult to verify this claim for certification in general, although the argument again is that if certification can be gained for comparatively minimal cost to the Institution and student (and some would argue does not compromise academic integrity) then it could just tip the balance in gaining specific employment.

The IEEE Computer Society (whilst admittedly offering its own Certified Software Development Associate course) states that certification “bridges the gap between your education and work requirements and verifies your understanding of fundamental software development practices” (IEEE 2011). This reflects a reasonable and cautious view of their value.

In the School, the Network Fundamentals level 4 unit on most of the business computing and networking course have been aligned to the Cisco certification enabling students to proceed to full certification if they wish to.

So what more can we do on our courses in the School and b.i.b. to provide certification opportunities for students? The practical databases software skills covered in the databases theme, which is delivered on most of the courses, matches well (and designed independently of) the Oracle SQL⁴ Certified Expert certificate. Following a straw poll survey revealing about 15 (20%) of students interested, a myCourse “Oracle Certification” site has been created to help and guide the student (11.3.2). This contains guidance, forums etc about the SQL Certified Expert and other possible courses (including Java and other software certification). Jim Reeves, a current final year Software Engineering

³ Microsoft provide students with Microsoft professional tools and supporting resources at no cost (via www.dreamspark.com) to facilitate the taking of Microsoft Certification examinations.

⁴ SQL – Structured Query Language implemented by enterprise database software suppliers such as Oracle.
student who had previously gained the certificate, provided invaluable advice and feedback about Oracle certification and the myCourse site, and also offered and provided guidance to peer students.

As implied at the beginning of this section, it was important to try to get a student discount and other benefits under (constrained) schemes that Oracle offer. However, communication with Oracle proved to be an immensely frustrating, misleading and ultimately very disappointing process over many months as described below.

Mr A, who at that time was head of the Oracle Academy (OA), and apparently and coincidentally had recent links with SSU, was contacted in September 2010 about possible University membership. Essentially, the OA offers (at a cost to the University of around £430 pa) course materials, software and other resources for specified Oracle courses to be delivered in a University. However, at this time, we were not in a position to align our databases theme with the Oracle courses available, and to become trained as certified instructors to deliver these courses. Mr X therefore suggested the alternative of the Oracle Workforce Development Programme (WDP) which is focused on work-based learner opportunities for certification and apparently did not have these constraints. The WDP programme appeared to offer discounted exam, resources and test fees for an annual subscription of around £430.

Ms B, the WDP regional representative, was then contacted. Application and resource estimate forms were completed (including an explicit estimate of 10-15 students) and sent to Ms B promptly. Months of sending “chasing” emails and chasing unanswered questions followed before contacting Mr A again (who had always tried to be as helpful as he could be). Eventually, Ms B responded tersely by saying that at least 100 students were required to qualify for the WDP! This was also questioned by Mr A but no further communication was forthcoming from Ms B.

One more attempt was made by contacting Mr A again in February. Mr A contacted Mr C who appeared to be senior to Ms B. A terse response from Ms B was again to ask for the exact number of students and courses. The students were contacted again with a response of 6 students still interested in taking various certificates particularly after completing their SSU course studies. This was communicated to Ms B at the beginning of March, but no response has been forthcoming. Finally, the helpful Mr A appears to have left Oracle!

This is a cautionary tale of the potential difficulties of engaging large highly commercial companies and engaging the right people (that is certainly not as easy as ABC!). The use of educational terminology (Academy, University etc) by such companies might also give a false hope of productive industry-academic engagement. The close coupling of courses with commercial organisations also clearly carries risks. In spite of this outcome, the students were still (and will be in the future) encouraged to take the certification exams privately at a non-discounted rate to enhance their employability.

Oracle were not going to be contacted again. However, an apologetic Mr C made contact in July resulting in a provisional agreement to come to SSU in September to discuss professional certification with colleagues.

Finally, the international pervasiveness of most software and certification schemes means that this initiative potentially benefits both SSU and b.i.b. students.

The Oracle Certification site will be updated annually from now on and students encouraged each year to pursue certification.
5.4 The University as Employer and Business

The University’s Faculties and Services have provided opportunities for many years for students to undertake business development and other activities in the context of its courses. This experience can significantly enhance a student’s CV. For example, final year Software Engineering students have worked in teams (in the context of the Process Analysis and Requirements Engineering unit) to specify requirements and develop business applications for various University services. The University also employs its graduates, and provides WBL opportunities such as the current internship scheme linked to Masters study.

Although some might argue that that this is rather introspective, nevertheless the University is a large business, and the University ought to be easier for its staff to engage with in setting up mutually beneficial activities. However, initiatives tend to be adhoc and overly dependent on personal contact. There is perhaps a need for a more strategic and organised approach to facilitate opportunities.

In the first instance, the following request was sent to senior level in the University including establishing the principle.

“With reference to my and other Strategic Development Programme (SDP) employability related projects, could you help respond in your position to the following strategic question:

Is the University willing in principle to consider itself as a (major) employer to be engaged with fully in respect of the SDP employability/employer engagement agenda? This could include, for example, enabling access to its own (non-sensitive) business processes and data to enable richer case studies to be used on its courses, and providing WBL opportunities?"

More specifically, I would like in my initiative to get hold of non-sensitive data from the University’s data warehouse to use as a case study, perhaps enabling students to help develop models etc that could help with University decision making. In my view, this would enhance their employability." For some years now, members of the data warehouse team have given a talk to my final year students on our data warehouse, and we have talked about this possibility”.

The response from senior management and from the SSU data warehouse team (included in full below) was very encouraging although of course subject to data protection and similar issues.

What we can do is provide you with a dump of the data warehouse on your academic server, but I must stress the importance of this data being for your eyes only. From that data you could then extract a subset into a schema viewable by the students but it is imperative that any identifying or personal information be obfuscated and the responsibility for this would lie with you, as well as any repercussions should something slip through the net. So it’ll be your thumbs in the thumb screws!

Before any data goes live to the students we’d also like to take a look at it to be certain there’s nothing in there which might be contentious. Then once we’re happy with the subset of data for the students we can drop the schema with the warehouse done for security reasons. I’d rather not have it lying around somewhere for longer than it needs to be.

I’m just pitching this as an idea at this stage so if anyone has any ideas as to a more efficient way (giving Al a database link to the warehouse for example which we then drop once he’s done?) then I’m all ears. In principle are you happy with having to do the obfuscating yourself Al? I’m afraid we haven’t got the time to do this for you as we are currently snowed under with SDP projects so any solution for this will need to involve minimal developer time at our end.
The context, design and outcome of this initiative are discussed in 11.3.3. This activity has now been embedded in the delivery of the final year Advanced & Distributed Databases unit.

5.5 An Entrepreneurial Skills Learning Model

The Faculty of Business, Sports and Enterprise (FBSE) delivers several units which provide opportunities for students to develop entrepreneurial skills. The University also provides opportunities more widely through the Student Entrepreneurship Programme. However, there is less development of entrepreneurial skills on other courses such as business computing and networking.

The following model was provided by Anne Nortcliffe, the Lead Placement Tutor for Engineers of Sheffield Hallamshire University. Anne is a fellow member of the Higher Education Academy (HEA) Employability Network, and responded immediately to AM’s call for “industry-focused” learning models that could enhance employability particularly on courses such as computing.

Anne initially emailed:

“To tackle this issue for our computer network, computing and networking engineering, computer information security students. I operate Project Based Learning module, where all the learning outcomes are employability and technical skills development, a tall order in terms of learning, teaching and assessment. So my solution was to create the opportunity students in groups to operate real micro businesses for two semesters, appropriate combination of assessment from dragon dens to self reflection. The module is setup with all the risks minimised (i.e. cotton woolled as much as possible)”.

The module has been researched and evaluated by the HEA engineering subject group, results and conclusions can be found at: [www.engsc.ac.uk/downloads/nortcliffe-report-final.pdf](http://www.engsc.ac.uk/downloads/nortcliffe-report-final.pdf)” (Barker and Nortcliffe 2009)

AM then raised the following questions probing the feasibility of such activities:

How were you able to ensure that all the student groups were able to raise some start-up capital? Did you get entrepreneurs/employers involved in the guest lectures, Dragon’s Den etc? Do you generally feel that the effort is sustainable in the longer term and could scale-up?

Anne replied:

“The university gave me £1000 start with, with this I supplied the student £50 and mobile phone. HSBC generously give them £50 each year. The students are contractually obliged to return £100 and the mobile phone, or what is left in the account if less, so this funds the following groups of students. So I have built into the module 50% business failure,
actual commercial rate of failure is 1 in 3 Dragons are originally friends who are local CEOs, who volunteer, but as word has got around through my networking local businesses, etc., I have no shortage of volunteers including previous graduates.

Local accountants firm guest lecture the accounts lecture, so does Inland Revenue do lecture, head of our H&S on commercial responsibility of H&S. The rest is me. First year operation I learnt with the students, each year the students bring new challenges. Ethics proving interesting with computer Information security students.

We are looking to scale the whole module to across the entire computing programme of over two hundred students, I will co-ordinate and have team of tutors (hand-picked). This will result in 30 groups of students who will need 3000 pounds to initiate the activity.”

Overall, although there is of course significant upfront work (as for any innovative teaching, learning and assessment activity), Anne has provided convincing evidence that this is a model that could work on our courses. In the School, Group Project (at level 4) and Graduate Development (at level 5) appear comparable to Anne’s Project-Based Learning Module, where this could be delivered.

Finally, the HE Entrepreneurship Group (HEEG) held a STEM-University Enterprise Network (UEN) event on the 13th April 2011: Entrepreneurship for STEM - Science, Technology, Engineering and Mathematics in an Entrepreneurial World. This is a pointer to colleagues who may wish to develop further entrepreneurial activities in their units and courses.
6 International Learning

6.1 Introduction

The discussion in sections 2 and 3.3 argued that gaining international experience and working effectively and collaboratively using I&CT should significantly enhance employability. This section describes and evaluates an experiment designed to enable international teams of students to work collaboratively using online tools on an enterprise database research and application development activity.

Working and learning online in international groups is not a new idea! AM took a University of London postgraduate online course in Online Education and Training in 2002-03. This involved working collaboratively in varying groups drawn from a total cohort of over 200 students from different cultures around the globe. It was a stimulating experience, and even though the technology has moved on considerably since then, the technologies and collaborative working theories at that time worked well. Joris et al’s discussion of internationalisation, learning and I&CT is largely as relevant today as it was then (Joris 2003).

So why do this now? Consistent curricula at levels 4 and 5 in b.i.b. and SSU (that enables a large number of b.i.b. students to progress to final year study in all 3 faculties) provides an uncommon online international learning opportunity for the students of both institutions. It also offers the opportunity to get up-to-date with, fully exploit and test in an international context, the current provision of myCourse, myPortfolio and other communication tools. Furthermore, there is the potential synergy of studying the subject from two contrasting contexts and perspectives. Finally, enquiries have revealed no comparable activity in SSU or b.i.b.

The activity will also help b.i.b. students prepare for final year study in SSU. This includes personalised early access and experience of myCourse and myPortfolio, further development of English skills, familiarisation with the approach to teaching, learning and assessment at SSU and getting to know online some SSU students.

This experiment is indeed an international collaboration in itself! Sheila Baron organised the learning context as unit leader of the Database Application Development (DAD) unit. ME organised the participating b.i.b. students from Hannover, and AM coordinated from Cologne!

6.2 Design

Joros et al also provide a useful discussion of issues which have been taken into account in assessing the feasibility and design of this experiment.

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5 b.i.b. and SSU have collaborated in respect of sharing teaching and learning resources over the years, eg an Oracle database is located in b.i.b. Paderborn as part of an international distributed database system that supports the teaching of the final year Advanced & Distributed Databases unit.
Curriculum
Essentially, this is an enterprise database research and development activity underpinned by skills in database design, SQL and basic knowledge of the DMBS. This is consistent with the databases curriculum and learning outcomes, and its scheduled delivery in the first two years, at both b.i.b. and SSU.

Teaching, Learning and Assessment
The enterprise database application development activity is essentially Assessment 2 of DAD scheduled from January to May 2011. Refer to 11.4.2 for the assessment brief, and to DAD in myCourse for the underpinning ProSoft Case Study, associated electronic forums etc. It is not part of the b.i.b. assessment scheme, and will not gain (at least at this time) SSU credit. However, the work submitted by the b.i.b. students will be marked and feedback provided. As indicated in the introduction, this should help the student in preparing for SSU.

The brief and myCourse site describes how the students must initially collaborate in teams (in a preparation phase) using online using discussion forums, e-portfolio and other online tools. This is followed by an individual phase culminating in an online report submission. This activity was e-facilitated and monitored by the tutor throughout.

Up to 4 groups of 4 selected students were planned – 3 from the School and 1 from b.i.b. This should enable the teams to continue to function and complete the activity even if a b.i.b. or SSU student decides to withdraw. For this initial experiment, student groups were selected to minimise risk of failure.

Intercultural Differences
It is important to be aware of cultural nuances in an international learning group. The predominantly “binary” mix in this instance was monitored (eg in the forums) throughout in case of a need to intervene to clarify cultural or language misunderstandings and issues.

I&CT
The SSU and b.i.b. students are experienced in online tools such as forums, wikis etc. However, myPortfolio/Mahara was introduced as an alternative to wikis.

b.i.b. Student Company Context
The timing coincided with the b.i.b. internship (refer 11.2.5) in March-April, and provided an opportunity for the activity to also draw (with approval from the company) upon databases in the real-world.

Minimising Risks
As implied above, there should be no study risks to either b.i.b. or SSU students. Specifically, there is absolutely no problem at all if any b.i.b. student wishes to withdraw for work or personal reasons. Moreover, the b.i.b. student could, for example, contribute fully to the team activities but not submit the report.

Student Feedback
An informal initial meeting was held with the students in Hannover on the 4th October 2010 to explore potential interest in this activity. Useful feedback was obtained (including
detailed written feedback from one student) that contributed to the design of the experiment. Questionnaires were planned to research student perceptions of enhancing employability before (11.4.3) and after the experiment.

6.3 Outcome

A plan (11.4.1) from January to May was produced to ensure the timely briefing of students, creation of usernames etc. Following the second meeting in Hanover held on the 12nd January with 7 interested students (out of 15), 2 students committed to the experiment.

All started according to plan with the 2 b.i.b. students assigned to teams, usernames provided, welcome and further information from the unit leader. Invitations to the b.i.b. students from the SSU team to join the team were extended and accepted through myPortfolio. Both students completed the questionnaire before the activity started. They tended to agree that working online in an international team would enhance their employability, although they had contrasting views on the importance of CVs and career building.

Due to internship commitments, they were not in fact able to devote the time required to participate in the team preparation exercises within the timescales prescribed to fit in with the SSU students’ assessment schedule or indeed to attempt the assessment. Nonetheless, both have since reviewed the materials and exercises involved. They both report that these were at an appropriate level for their existing knowledge of databases and cover topics that have not yet been covered in their studies at bib. They believe that at least two of the topics (access control and concurrency control) will be covered at b.i.b. during the summer term.

Both reported that they felt that they could have engaged effectively with the work had the timing not coincided with their internships (Projekt, and that it would have been of value to them to have been able to do so, in order to gain familiarity with SSU learning and teaching practices and expectations of students as much as for the subject matter. Both students’ preference would be for engaging in such a project during the autumn term.

One of the students also commented that, at least from the point of view of a Games Development student, the idea of participating in this project in place of doing an internship was not of interest, due to the relatively low level of relevance of the database subject to his chosen career.

6.4 Evaluation and Conclusion

Unfortunately, there is insufficient data and feedback from the experiment to draw any firm conclusions about its potential for enhancing employability. However, an international learning model has been established which could be extended and tested in the future.
In the light of the feedback it is felt that it will be worthwhile considering re-running the experiment with the timings adjusted to better match the b.i.b. students’ workload. Furthermore, it would be desirable for this activity to be credit-bearing. The main reason that more b.i.b. students did not participate was the lack of credit. ASQS indicated that, although not straightforward, this is a possibility for the future. It would be dependent on a re-alignment/rescheduling of activities at b.i.b. and SSU, but both the departmental head at b.i.b. and the unit leader were positive about achieving this. It probably would also scale-up, and could potentially extend to other subject areas. However, pre-enrolment (which was achieved as a trial 2 years ago) would be essential to facilitate automatic myCourse logins etc.

There is also the potential for jointly delivering more focused topics and activities over a shorter period of time. For example, the topic of data protection involving 4 hours of study over 2 weeks, say. This would provide the desired international learning experience, and be easier to co-schedule in our respective courses.

The model is largely established but further development will depend on the continuation of the b.i.b. collaboration in the future.
7 Career Management Learning

7.1 Introduction

Services, resources and curriculum opportunities for career management are now generally well developed in UK Universities. This includes specialist services, for example at Sunderland (Careers and Employability Service), Greenwich (Guidance and Employability Service) and SSU (Careers and Employability Service).

In SSU the Careers and Employability Service provides access to advisors and extensive resources are available online to the student for enhancing their employability (eg “CareerBox”) and for finding employment (including “Jobshop Online” and “Graduate Jobs South”). The School develops CV, interviewing and other related skills on its courses primarily through the graduate development (GD) theme, and the “CV & Career Building” unit is available University-wide (at levels 4 to 6) as a Curriculum+ unit. At b.i.b., CV development is covered in the 2nd year and job opportunities at its wide network of employers are provided online.

There is growing evidence (eg JISC 2011) of the effective application in recent years of e-portfolios⁶, but less evidence of the effective use of e-portfolios to support specifically CV and career building (Brady 2008). The GD theme requires students to implement a file-based e-portfolio structure to hold digital items. The University has also recently introduced Mahara - an open source e-portfolio tool. Although the CV & Career Building unit now uses Mahara, its application is not yet widespread in the University and there is little research evidence of its effective use in SSU. There is no known use of e-portfolio software in b.i.b.

However, in spite of this provision, is there a case for trying to raise awareness and potential engagement with these curriculum opportunities, resources and tools? Anecdotal evidence from the “Work Placements in Germany” initiative (refer 4.3) suggests that this might be the case. The CVs and letters of application of 2 of the 3 applications were not of a standard that would be likely to attract the interest of employers. Furthermore, only a very small percentage of students from the entire University took the CV & Career Building unit last and this year. Might some students benefit more in establishing their careers by taking this unit rather than 20 credit points of discipline based content? Finally, might Mahara be a more engaging, effective and efficient tool to help students in their CV and career building in the longer term? Section 7.2 below discusses a study which addresses these questions.

Improving CVs, letters of application and approaches to applying for jobs should help, but what about the interview? The STEEL project (discussed briefly in 3.3) cites research (by Milner 2008) that a lack of communications skills can be a ‘deal-breaker’ for many employers, and so interventions to improve these skills is often necessary. BBC Breakfast News reported on the 7th April 2011 a survey by Monster, the recruitment agency, that

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⁶ “An e-portfolio is a purposeful aggregation of digital items - ideas, evidence, reflections, feedback etc. which presents a selected audience with evidence of a person's learning and/or ability” (JISC 2011)
suggested that interviews were getting harder. There is also anecdotal evidence emerging that too many School students are not succeeding at interview for placements next year. Section 7.3 below discusses an interviewing software tool that might help with this.

In a meeting with Nicky Hirst, Communications Officer at the Southampton and Fareham Chamber of Commerce, about this employability project, Nicky emphasised that networking is a key skill in business. Networking can open up business, job and other professional opportunities. Whilst some authors (Moreland 2006) include networking as a key employability skill, many other published “lists” do not explicitly include this skill. There is also comparatively little in the pedagogic literature of how it can be developed. Clearly, a large proportion of the younger generation of students have developed online social networking skills, but what can we do to develop their professional face-to-face networking skills and promote greater use of professional networking sites such as LinkedIn? Section 7.4 presents an open, tested resource to develop networking skills produced by the Birmingham City University that should be useful widely in b.i.b. and the University.

Finally, it may become increasingly helpful in applying for jobs in a European context to have a Europass CV. This is discussed further in 7.4.

7.2 Promoting Career Building and Mahara for CVs

Introduction
The main aim of this initiative is raise awareness in SSU and b.i.b. of the potential of Mahara for CVs, and the “CV and Career Building” unit. This was achieved primarily by a study (refer 11.5.2) undertaken by a class of 1st year business b.i.b. Paderborn students (most of whom will go to SSU in October 2013) tutored by Sarbina Schmidt and overseen by Tina Oberhoff-Richbell.

Proposal
AM met with Sarbina and Tina at Paderborn on the 10th December 2011 to propose a study with the following objectives:

1. Evaluate the CV and Career Building unit as a beneficial alternative (for some students) to 20cp of discipline-based content at level 6.
2. Evaluate the application of Mahara as a supporting tool for CV and Career Building.
3. Make recommendations with respect to the potential application of Mahara at b.i.b.

The evaluation should address:

- Usability, functionality and reliability of Mahara
- Potential need for e-portfolio design skill training
- Student perception of value for career management and employability
- Student interest in the Curriculum CV and Career Building unit

The students would be taught (in the context of an English class) producing a CV, writing letters of application and other related skills (and supported by access to the January Workshop on “CVs and Applications” in the CV & Career Building unit in myCourse).
However, the students additionally (and in the context of learning English) were required to:

- Develop their CV and collect other supporting items in a Mahara portfolio.
- Use Career Box to initiate their career management.
- Contribute to the development of a questionnaire to evaluate Mahara etc.

Sam Moss, of the Learning and Technology Unit (LTU) and who has a special interest and responsibility for Mahara at SSU, was also kept informed about this study.

Implementation
The study took place through February and March 2011. Students were provided with myCourse usernames and passwords, and made aware of the help resources available in Mahara for designing and implementing e-portfolios. The class undertook this without the benefit of an induction that SSU students would normally have.

Outcome
The students have produced an interesting and useful report which provides an overview of the study including background, methodology, evaluation, conclusion and the questionnaire. Please refer to 11.5.2 for the summative feedback that was provided to the students and to the report itself in the appendix. A summary of important findings is:

1. 100% of the students are of the view that assistance in career management and employability should be provided by Universities and Schools
2. “The overall impression of Mahara is a good one”
3. Overall satisfaction with the myPortfolio Help and other resources
4. Confirmation (of the Mahara community view) of the need for improved navigational design expected in Version 1.4
5. The need for e-portfolio design training
6. Not well known (yet) in Germany
7. 50% are interested in the “CV and Career Building” unit, but not necessarily as an alternative to 20 credit points of discipline-based study

Martina Emke (of b.i.b. Hannover) and Tania Schmidt (of b.i.b. Bergisch Gladbach) were also provided with myCourse/ Mahara usernames and were kept informed about this study. The reason for this was to facilitate wider use in b.i.b. if a recommendation to use Mahara in b.i.b. is made and accepted.

The class were not, understandably, in a position to provide a fully informed recommendation for its application in b.i.b. For example, the class were not fully aware of the ongoing development of Mahara in Germany and the existence of Europass CVs (refer 7.4).

7.3 Improving Communication Skills at Interview

*This section was contributed by Victoria Simpson of the Careers and Employability Service.*
As part of the CV & Career Building Unit, students at SSU currently undertake a mock job interview with a member of university staff. Students receive a written statement of feedback to include in their portfolio, and are required to reflect on the effectiveness of their self promotion (interview technique) within their unit Reflective Statement. Delivering mock interviews is the most time-consuming and resource-intensive aspect of the unit for staff, but each year students report that the interview simulation and feedback is one of the most valuable aspects of the unit.

The STEEL project (refer 3.3) drew attention to the possibility that Interviewer software may be an efficient and effective means to help students improve their skills at interview. The Careers & Employability Service were very receptive to trialling this software in order to evaluate if it could be an effective alternative to the mock job interview process. A free copy of Interviewer was obtained from the supplier and passed on to the Service.

During April 2011 Interviewer was trialled by 2 Careers Advisers, 2 students, 2 graduates and a Learning Technologist. A webcam was attached to a computer within a small interview room and each user was asked to spend 30-45 mins with the programme and then provide qualitative feedback in the form of a short review of their experience of the software (refer reviews in 11.5.1).

Users highlighted that by viewing a video of their answers to each set question, Interviewer enabled them to be self-critical of their own performance. They could review how they looked on camera, and were able to assess their responses against the useful hints and tips provided by the programme after each question had been attempted. There was positive feedback about the relevance of the interview questions – it was felt that the themes and topics were both realistic and suitably challenging.

Limitations of the software included frustration at the technological delay in re-playing the video, the artificialness of the simulation, and frustration that the programme could not provide personalised and specific feedback. It was noted by users that it could not offer the same level of evaluation as an ‘expert’ real person - it does not offer critical opinion and cannot talk back!

From the feedback obtained it can be concluded that although the software may be a useful tool for self evaluation (reflection on how to answer interview questions), it is not a substitute for feedback from an actual interviewer. Users suggested that the software could be effectively used if an expert (eg. Careers Adviser/ Trainer) was involved in the process eg. reviewing the video and then offering further feedback expanding on issues relating to relevance and effectiveness of answers, and non-verbal signals such as body language. Suggestions were also made as to how a university careers service could use its own staff expertise to create a similar resource to Interviewer (rather than paying the £250 to purchase a one year licence).

Finally, it was noted that students can access interview preparation/practice resources via CareerBox (Get That Job, Job-Getting Web Links). Use of these resources is heavily promoted to students on the CV & Career Building unit (in addition to the mock job interview experience) during workshops, to support them in reflecting on their performance at interview. Although none of these websites within CareerBox offer a facility for the user to video their answers and play-back for review, sites such as Be My Interviewer (http://www.jobsite.co.uk/bemyinterviewer/) and the Interview section of resources offered by the University of Kent Careers Advisory Service (http://www.kent.ac.uk/careers/interviews/mockivs.htm) supply opportunities for the
user to be asked a question, be given time to offer an answer, and then reflect on how this may meet interviewer expectations.

Interviewer\(^7\) could be a useful additional resource to support students with interview preparation, but is not sophisticated and ‘virtual’ enough to replace the experience of a mock job interview. However, as a result of this trial, the reviews and suggestions offered by users (for how to make interview preparation resources more accessible, relevant and real-life) will be discussed further by the Careers & Employability Service, and by academic staff teaching the CV & Career Building unit.

The outcome of this trial is discussed in 11.5.1.

### 7.4 Developing Networking Skills

Ruth Lawton, a fellow member of the HEA Employability Network, pointed out the resources of the “Creating Future Proof Graduates: Transformative Learning Through Critical Incidents” based at Birmingham City University (http://www2.bcu.ac.uk/futureproof). The project was funded by the National Teaching Fellowship Scheme of the Higher Education Academy and was completed in December 2009. The project provides researched, practical resources to help develop graduate skills relating to employment and gaining employment including ethical dilemmas and (of particular relevance to this transnational project) cultural awareness.

In addition to a key overall project role, Ruth focussed on developing networking skills. and confirmed research showing that “networking and social confidence was a skill highlighted by both employers and recent graduates as often not found in recruitment processes but very valuable in graduate employment across industries. This led to the development of a board game which has been working very successfully with all levels of HE (including staff!!)” in universities including Kingston, Middlesex and Exeter.

Essentially, the board game consists of “True or False?”, “Multiple Choice” and “Interactive” networking questions that enable a group of 4 (say) players to progress around the board to a “Pinnacle of Success”. These question cards (which can be easily printed at least in a paper form), the rules of play and a lesson plan are freely available for download. An example multiple choice question is in Figure 3.

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\(^7\) A German language version is planned for release.
7.5 The Europass CV

Europass (europass.cedefop.europa.eu) is a European Union initiative set up to establish a transparency framework for qualifications and competences, and is coordinated by a network of National Europass Centres across Europe. According to the UK National Europass Centre:

“Europass helps individuals highlight their abilities in an effective way. It promotes the mobility of individuals throughout Europe by removing barriers to working, studying or training in Europe. It is free and enables people to present their competences, skills and qualifications in a clear way.” (UK National Europass Centre 2011).

Furthermore, Europass consists of five documents “that help potential employers, educational establishments and training providers understand which subjects have been studied, what training has been completed or how much experience has been gained working. It also records non-formal learning and language skills.”

In addition to the Europass Diploma and Certificate supplements, the Europass CV, the Europass Language Passport and the Europass Mobility should help in gaining employment in the EU in particular. The Leonardo Mobility (4.2) and Work Placements in Germany (4.3) initiatives potentially lead to experience that could be recorded in the Europass Mobility.

Finally, myPortfolio now enables an Europass CV to be automatically generated.
8 Conclusion

8.1 Overall

The initiatives described in this ebook and currently underway elsewhere in the University (and beyond) point to a diverse, sizeable and growing body of practice that could beneficially impact on graduate employability across the disciplines. It also shows that these initiatives depend on collaborative stakeholders, and what can be gained by going beyond institutional and transnational borders. It is also essential of course that best employability practice is disseminated, shared and cohered within the institution (and in a manner not necessarily distinct from teaching and learning practice).

However, it also shows the challenge on the ground of realising in practice the laudable institutional aims of enhancing employability. In particular, there is evidence throughout the initiatives in this ebook that the implication of relating the curriculum to industry (codes of practice, risk assessments, H&S, industry-based project contracts and IP, identifying and maintaining industry contacts, producing acceptable CVs etc) are often considerable intellectual and/or time-consuming and/or motivational challenge to overcome for both colleagues and students. Streamlining processes that meets these requirements in a collaboration of student, academic, industry and service stakeholders is essential if these initiatives are to be scalable and sustainable. This is particularly the case for SSU, for example, if the current very low level of participation of full-time students in work-based learning (whether 48-week, flexible or transnational) is to increase.

It is also important to be aware that the employability literature and network show that further research is needed in order to provide evidence and reach a consensus of what will work in the longer term. Informed practice is essential if it to be adopted more widely.

In summary, diverse, collaborative, shared, scalable and informed practice in our respective institutions should lead in the longer term to improved employability of our students.

8.2 Evaluation of Project Outcomes

Each of the revised main intended outcomes following the initial research report were achieved as indicated below:

1. Develop activities to enhance employability on the databases units (led by AM and on most of the School’s courses).

The database theme comprises Introduction to Databases (level 4 - 180 students), Database Application Development (DAD) (level 5 – 60 students) and Advanced & Distributed Databases (A&DD)(level 6 – 40 students). Depending on the course, some students do not take the level 5 and 6 units.

Three initiatives have enhanced employability for these students as follows:

- Professional Certification –Relates to all three units (refer 5.3)
• International Learning – DAD, but also impacts on A&DD (refer 6)
• University as Employer and Business – A&DD (refer 5.4)

2. Develop structures, models and exemplars to promote employability practice on the School’s and b.i.b.’s courses.

Sections 4, 5, 6 and 7 contain models, practice etc throughout to promote employability.

3. Develop an “Employability/Employer Engagement” knowledge base, informed by research and the outcomes of 1. and 2. above, which enables both Institutions to share practice.

This report ebook, with practice focussed in easily accessible sections, should enable this practice to persist for colleagues in SSU and b.i.b. This report is available in the myCourse “SSU-b.i.b. Employability Development Project” site.

8.3 Further Work

The original project envisaged a final stage of “Development of the employability curriculum in the School from June 2011 to February 2012”. Employability is established as a key strategic priority for the new School, and so it is the intention to continue the WBL initiatives to a level and later timeline as discussed in section 4. This includes the University’s commitment to the Leonardo Mobility projects over the next 2 years discussed in section 4.2. Furthermore, further supportive development work in the School with respect to the “Everybody-Wins” and other industry-focussed models discussed in section 5 will continue.

Two of the three initiatives in AM’s databases subject are now embedded as discussed in sections 5.3 and 5.4 and should be sustainable within existing course delivery resources. Further development of the International Learning initiative is dependent on significant numbers of b.i.b. students continuing to study at SSU.

8.4 Reflection

We both take the view that involving and securing contributions from many different stakeholders - staff, students, service support staff, employers etc, and the varied initiatives, has strengthened the project and its outcomes. It grew into something bigger than expected, and project management skills were fully tested in order to deliver this ebook report on time.

The preparation stage 1 (April 2011 to August 2011) proved invaluable “to hit the ground running” for Stage 2 at b.i.b. in September. However, communicating with colleagues in the School and Services at SSU would have been much more efficient and effective if an approach based on SKYPE had been agreed and setup with as many colleagues at SSU as possible before coming to b.i.b.

SKYPE is visual (newer PCs have web cams built-in), facilitates working on documents with speedy text interchange, can indicate when you are online and available and is cost free
between communicating PCs. Apart from the project authors who communicated weekly over SKYPE, only one text-based SKYPE call was made with a colleague in SSJ. The email communication, and occasional attempted fixed line call, that prevailed through Stage 2 probably resulted in a 15% loss of efficiency (approximately 4 hours per week for the 3.5 days per week available for the project) in inefficient discursive email exchanges, repeat emails etc.
9 References

9.1 Transnational and Institutional Comparative Review


CHE - Centrum für Hochschulentwicklung: www.che.de

CIHE - Council for Industry and Higher Education: www.cihe-uk.com


UKCES - UK Commission for Employment & Skills: www.ukces.org.uk

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9.2 Project Themes and Approach


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HEA STEEL Project, 2011: steelproject.wordpress.com/

9.3 Work-Based Learning

EUROPEAN COMMISSION, Lifelong Learning Programme: www.lifelonglearningprogramme.org.uk
9.4 Industry-Focussed Learning


JAMES, X., 2008. New real world application to enhance database teaching. HEA Teaching, Learning and Assessment of Databases

KEMP, X., 2008. Embedding employability and employer engagement into postgraduate teaching: a case study from environmental management systems. HEA Geography, Earth and Environmental Sciences

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9.5 International Learning


9.6 Career Management Learning


JISC. e-Portfolios - An overview: www.jisc.ac.uk/eportfolios


UK NATIONAL EUROPASS CENTRE, 2011: old.europass.org.uk/home.asp

YORKE, M., MORELAND, N., LITTLE, B. et al, 2004-06. Learning and Employability Series 1 and 2. Higher Education Academy
10 Summary of Contributors to the Project

Many colleagues, students and others have contributed to the project. In particular, many conversations with b.i.b. colleagues whilst based at Bergisch Gladbach from September 2010 to February 2011 helped shape the project.

This is a summary of key contributors and their contributions:

**Work-Based Learning**
Karina Goerner (b.i.b. Dresden) - Leonardo Mobility application (with ME)
Margaret Jenness (Academic Partnerships Manager) - Leonardo Mobility application
Management Team of LIS - Project with WBL initiative
Isobel Chick (Careers and Employability Service) – Handling the WBL applications process
Micheala Hermes (b.i.b. Bergisch Gladbach) – “Projektarbeit” (leading to the Project with WBL initiative)

**Industry-Focussed Learning**
Clearvision plc – Providing an “Everybody-Wins” model activity
Jim Reeves (Final Year SE student) – Oracle Professional Certification
Anton Jenkins (Business Applications Support) - Arranging the data warehouse
Anne Nortcliff (Sheffield Hallamshire University) - An Entrepreneurial Model

**International Learning**
Sheila Baron (SCC) - The DAD international learning experiment
Tutors and students from b.i.b. Hannover

**Career Management Learning**
Sarbina Schmidt/ Tina Richbell-Oberhoff, and PBE1H0 class (b.i.b. Paderborn) – Mahara study
Sam Moss (LTU) - Mahara study
Victoria Simpson - Interviewer evaluation
Ruth Lawton (Birmingham City University) - Networking Resources

The following networks also made valuable contributions to the project:
JISC Employability Development Network
Southampton and Fareham Chamber of Commerce (Nicky Hirst – Communications Officer)
HEA Teaching International Students Network
11 Appendices
11.1 Project Themes and Approach

11.1.1 Project “Flyer” in English

SSU (School of Comp. & Comms.) - b.i.b. SDP Employability Development Project

E plus - a practice oriented and transnational approach to enhance graduate employability

Employability of our students is very important to both b.i.b. and SSU - the core 2 month 2nd year work-based project at b.i.b. and the 3rd year industrial placement at SSU are essential elements of our respective employability provision. What can we jointly do and share more?

Possibilities, and first initiatives, include:

- More external funding to support employability initiatives?
  eg two joint EU Leonardo Mobility bids (by Feb 2011) for funding to support b.i.b. students to do an industrial placement in England, and for staff to support the project including the joint development of placement guidelines which support b.i.b. students in serving a successful placement abroad. SSU students will certainly benefit from the outcome of these pilot projects, in particular from the placement guidelines, but funding for industrial placements in Germany is only possible under the EU Erasmus scheme. The possibilities in this area are currently being looked into.

- More international experience for our students?
  Placements found for 4 SSU students in Germany next year

- Further to above, develop online, collaborative, international learning activities on our courses?
  eg An online, collaborative enterprise database research and development activity for 2nd year SSU and b.i.b. students in March-April 2011 (also helps prepare b.i.b. students for final year)

- More “live” on-campus industry projects?
  eg 2nd year SSU students to develop software for a configuration management software company (Clearvision) in January-March 2011

- More professional certification?
  eg Oracle Database “SQL Expert” and other certification promoted to SSU (including b.i.b.) students

- More development of e-portfolios and CVs to support job applications?
  eg b.i.b. students at SSU can also now use Mahara e-portfolio software to develop their CVs

We would welcome any interest or ideas for this project!!!

Please contact either:
Al Monger - b.i.b. Bergisch Gladbach - al.monger@solent.ac.uk or 0049-(0)2202-9527-143
Martina Emke - b.i.b. Hannover - martina.emke@bib.de or 0049-(0)511-28483-22
Bettina Oberhoff-Richbell - b.i.b. Paderborn - bettina.oberhoff@bib.de or 0049-(0)5251-301-1
11.1.2 Project “Flyer” in German

Eplus — ein praxiorientierter, transnationaler Ansatz zur Stärkung der Beschäftigungsfähigkeit von AbsolventInnen

Die Beschäftigungsfähigkeit unserer Studierenden ist sowohl für b.i.b International College als auch für die SSU sehr wichtig. Das zweimonatige praktikumsbasierte Projekt im zweiten Ausbildungsjahr am b.i.b. und das Praktikum im dritten Studienjahr an der SSU sind wichtige Elemente zur Förderung der Beschäftigungsfähigkeit.

Was können wir darüber hinaus gemeinsam tun?

Möglichkeiten und erste Initiativen beinhalten:

- Weitere externe Fördermittel zur Unterstützung von Beschäftigungsinitiativen?
  

- Mehr internationale Erfahrungen für unsere Studierenden?
  
  Praktika für 4 SSU-Studierende in Deutschland, die im nächsten Jahr stattfinden.

  
  Z.B. ein gemeinsames Projekt im Bereich Datenbankentwicklung für SSU-Studierende und Studierende des b.i.b in Hannover von März bis April 2011 (dient auch als Vorbereitung der b.i.b-Studierenden auf das 3. Jahr).

- Mehr “reale”, campusbasierte Projekte in Zusammenarbeit mit potentiellen Arbeitgebern?
  
  Z.B. SSU-Studierende im zweiten Studienjahr, die zwischen Januar und März 2011 Software für ein Softwaresystemhaus (Clearvision) entwickeln.

- Mehr Zertifikate?
  
  Z.B. das Angebot an SSU-Studierende des dritten Studienjahres (inclusive b.i.b-Studierende) ein Zertifikat zum “SQL Expert” für Oracle Datenbanken oder ähnliche Zertifikate zu erwerben.

- Vermehrter Einsatz des e-Portfolios und des e-Lebenslaufs zur Bewerbungsunterstützung?
  
  Z.B. können b.i.b-Studierende an der SSU jetzt die Mahara e-Portfolio Software zum Schreiben ihres Lebenslaufs benutzen.

Wir freuen uns über Ihr Interesse an unserem Projekt und auf Ihre Ideen!!!

Bitte wenden Sie sich an eine der folgenden Kontaktpersonen:

Al Monger – SSU/b.i.b. Bergisch Gladbach - al.monger@solent.ac.uk oder 0049-(0)2202-9527-143
Martina Emke - b.i.b. Hannover - martina.emke@bib.de oder 0049-(0)511-28483-22
Bettina Oberhoff-Richbell - b.i.b. Paderborn - bettina.oberhoff@bib.de oder 0049-(0)5251-30
11.2 Work-Based Learning

11.2.1 EU Leonardo Student Mobility Project – IVT (in English)

IVT: E+ - Enhancing employability through a quality placement in the UK

Summary:

This project will enable b.i.b. International College students to serve a placement in an English company. To achieve this, Southampton Solent University (SSU) and b.i.b International College will collaborate to place the German students in appropriate English companies. Preparatory seminars with the students will take place in Germany prior to the placements. Additionally, the SSU will offer accompanying meetings (face-to-face and/or online) during the placements in Southampton to help the students settle in. The sending organisations are b.i.b. International College in Hanover, Germany, and Dresden, Germany. Further project partners will be the English companies offering placements.

The target group of this project consists of b.i.b. International College students who are on an Information Technology course. The exact name of this course differs, depending on Federal State regulations: “Staatlich geprüfte/r Informatiker/in” in Hanover/Lower Saxony, and “Staatlich geprüfte/r Technische/r Assistent/in für Informatik” in Dresden/Saxony.

The 8-week placement is a compulsory part of the Information Technology course, and the students cannot complete this course successfully without having served their placement. The placement, which is usually served in Germany, must take place during the second course year. This project will allow 10 students to serve their compulsory placements in England with the placements taking place between February and April 2012 and 2013. The exact dates of the placements depend on Federal State regulations.

It is expected that this project will
- support students in finding suitable employment after their graduation,
- enable participating students to develop their (international) team working skills
- increase the participants’ European mobility,
- encourage the participating students to share their experience with students throughout b.i.b so that more students will become interested in serving an international placement,
- enable participating students to develop their English language and intercultural skills.

Project aims:

This project will both greatly enhance the employability of the participating students and strongly increase the value of the Information Technology course. The participants will be given the opportunity to broaden their knowledge and develop their skills in the field of computer science and to acquire intercultural skills. At the same time they can develop their own personality, being faced with the challenges entailed in living and working abroad. Working in an English company will force the participating students to compare their already existing skills and knowledge to the requirements of an unfamiliar work environment, thus encouraging them to critically evaluate and further develop their skills. This process will prove very useful for their later careers.

Working and living in a foreign country is an invaluable experience—the working conditions differ from the home country, the work processes vary. So the participating students need to adapt and learn new skills, they need to make contact and to quickly get by in a strange environment and in a foreign language. This encourages the students to find new creative ideas which ideally prepares them for their later careers. Through their placement they will find it easier to look for employment in many European countries and to get the jobs they want.

Furthermore the participating students will realize that to succeed in their professional lives they need to constantly develop their skills and update their knowledge. This is not just a requirement of modern work life but will also further enhance graduate employability.
Schedule:

Right from the start both b.i.b International College and the SSU have been determined to closely collaborate on this project. Therefore it was agreed that the first meeting should take place prior to the official project start in Dresden, Germany, on 10 January 2010. The participants were Karina Görner (Head of b.i.b. International College Dresden), Alastair Monger (Academic Leader, Faculty of Technology), Margaret Jenness (Academic Partnerships Manager) and Martina Emke (Project coordinator, b.i.b International College Hanover).

During this meeting the project partners agreed on the following schedule:

Until Feb 2011: applying for grants under the EU’s Leonardo IVT mobility programme (Initial Vocational Training).

Until Jun 2011: discussing project organisation and sending the guidelines that are currently used at b.i.b for the domestic placement to the SSU.

Jun 2011 - Jan 2012:

a) b.i.b: informing students and staff about the project, receiving student applications, deciding on the five participants of the first flow, holding a preparatory seminar at b.i.b. Hanover, organising suitable placements for the first flow (in close cooperation with the SSU).

b) SSU: finding English companies that can offer suitable placements for the five students of the first flow, supporting the communication between b.i.b. and the participating English companies, advising b.i.b. regarding work regulations and placement-related requirements, helping students find suitable accommodation (in close cooperation with b.i.b.

Feb - Apr 2012:

a)b.i.b.: sending five students (four students from Hanover, one student from Dresden) in the first flow.

b)SSU: providing student support via face-to-face and / or online meetings.

May 2012:

b.i.b. and SSU: debriefing project participants; disseminating first project results at both organisations, evaluation workshop results and experience (“What went well? What should / could be improved in the next flow?”)

Jun 2012 - Jan 2013:

a) b.i.b.: informing students and staff about the project, receiving student applications, deciding on the five participants of the first flow, holding a preparatory seminar at b.i.b. Hanover, organising suitable placements for the first flow (in close cooperation with the SSU).

b) SSU: finding English companies that can offer suitable placements for the five students of the first flow, supporting the communication between b.i.b. and the participating English companies, advising b.i.b. regarding work regulations and placement-related requirements, helping students find suitable accommodation (in close cooperation with b.i.b.

Febr - Apr 2013:

a)b.i.b.: sending five students (four students from Hanover, one student from Dresden) in the second flow

b)SSU: providing student support via face-to-face and / or online meetings

May 2013: debriefing project participants in a final workshop in Hanover, evaluating the whole Leonardo IVT project, writing a final report and disseminating project results.
11.2.2 EU Leonardo Student Mobility Project – IVT (in German)

IVT: E+ - Enhancing employability through a quality placement in the UK

Zusammenfassung:


Als Ergebnis erwartet werden eine bessere Vermittlungschance der Auszubildenden in ein Arbeitsverhältnis nach Abschluss ihrer Ausbildung in Deutschland, eine Verbesserung der Teamfähigkeit der Entsendeten, höhere Bereitschaft der Teilnehmenden zur Mobilität innerhalb Europas, eine Ausstrahlung der Erfahrungen der Teilnehmenden auf andere Auszubildende an der Einrichtung und ebenso eine gestiegene sprachliche und interkulturelle Kompetenz der Teilnehmer.

Projektziele:

Als Ziel setzt sich dieses Projekt die verbesserte bessere Vermittlungschance der Auszubildenden in ein Arbeitsverhältnis nach Abschluss ihrer Ausbildung in Deutschland, eine Verbesserung der Teamfähigkeit der Entsendeten, höhere Bereitschaft der Teilnehmenden zur Mobilität innerhalb Europas, eine Ausstrahlung der Erfahrungen der Teilnehmenden auf andere Auszubildende an der Einrichtung und ebenso eine gestiegene sprachliche und interkulturelle Kompetenz der Teilnehmer.

Die Beschäftigungsfähigkeit und der Wert der Ausbildung werden durch die Teilnahme an diesem Vermittlungsprogramm wesentlich erhöht. Die Teilnehmerinnen und Teilnehmer eines berufstypischen und kulturellen Wissens des Aufnahmelandes an und gewinnen dabei gleichzeitig auch Erfahrung über ihre eigene Mobilität, Wandlungsfähigkeit und die Möglichkeit der Entfaltung ihrer Persönlichkeit. Was sie bisher gelernt haben, können sie in der beruflichen Praxis erproben, anwenden, anderen demonstrieren, gegebenenfalls überprüfen und gar modifizieren. Als junge Arbeitnehmer können sie die Erfahrungen aufarbeiten und gewinnbringend an anderer Ort einsetzen, d.h. ein Transfer findet zwischen dem im Vermittlungsprojekt Erfahrenen und den Problemstellungen, die sich am eigentlichen späteren Arbeitsort auftun, statt.


Des Weiteren lernen die TeilnehmerInnen verstehen, dass das Arbeitsleben von einem lebenslangen und unter Umständen informellen Lernprozess begleitet wird und ohne ihn nicht erfolgreich stattfinden kann. Ständige
berufliche Weiterbildung ist ein Anspruch an jegliche Form der modernen Arbeit und dient nicht zuletzt der
Sicherung der eigenen Beschäftigungsfähigkeit.

Zeitplan:

Bei dem Projekt war uns von Anfang an eine sehr enge Zusammenarbeit mit der aufnehmenden englischen
Partnereinrichtung wichtig. Daher fand am 10.01.2011 ein Treffen zwischen Karina Görner
(Niederlassungsleiterin b.i.b Dresden), Alastair Monger (Academic Leader, Hauptansprechpartner für das IVT-
Projekt), Margaret Jenness (Academic Partnerships Manager) und Martina Emke (Projektleiterin b.i.b) in
Dresden statt.

Dabei einigten sich die Parteien auf den folgenden zeitlichen Ablauf bzw. Arbeitsplan:

- bis Feb 2011: Antragstellung durch das b.i.b

- bis Juni 2011: Feinabstimmung zwischen den Partnern, insbes. in Bezug auf Eignungskriterien englischer
Unternehmen gemäß der b.i.b. Praktikumsleitlinien

Juni 2011 - Januar 2012:

a) bib: Information der Studierenden und Lehrenden, Bewerbungen, Auswahl der Begünstigten, sprachliche,
fachliche und kulturelle Vorbereitung, organisatorische Vorbereitung der Praktikumsplätze (in enger
Zusammenarbeit mit der SSU)

b) SSU: Auswahl geeigneter englischer Praktikumsunternehmen und Unterstützung der Kommunikation
zwischen Unternehmen und b.i.b., Unterstützung bei der Unterkunftssuche

Februar - April 2012:

- bib: erste Entsendung (4 Auszubildende aus Hannover, 1 Auszubildende(r) aus Dresden)

Mai 2012: Nachbereitung der Teilnehmer in einem Workshop und Verbreitung der Ergebnisse; Evaluation ("Was
war gut, was sollte beim nächsten Flow verbessert werden?)

Juni 2012 - Januar 2013:

a) bib: Information der Studierenden und Lehrenden, Bewerbungen, Auswahl der Begünstigten, sprachliche,
fachliche und kulturelle Vorbereitung, organisatorische Vorbereitung der Praktikumsplätze (in enger
Zusammenarbeit mit der SSU)

b) SSU: Auswahl geeigneter englischer Praktikumsunternehmen und Unterstützung der Kommunikation
zwischen Unternehmen und b.i.b., Unterstützung bei der Unterkunftssuche

Februar - April 2013:

bib: zweite Entsendung (4 Auszubildende aus Hannover, 1 Auszubildende(r) aus Dresden)

Mai 2013: Nachbereitung der Teilnehmer in einem Abschlussworkshop; Gesamtevaluation des Projektes;
Abschlussbericht und Verbreitung der Ergebnisse
11.2.3 EU Leonardo Staff Mobility Project – VETPRO (in English)

VETPRO: Enhancing teaching skills by jointly developing guidelines for quality placements in Europe

Summary:
This project will enable six teachers / lecturers from b.i.b International College, Germany, to develop and expand their teaching knowledge and abilities by jointly developing guidelines for an international placement with lecturers from Southampton Solent University (SSU). The cooperation with the project participants from the SSU takes place both online (via audioconferencing, forum exchanges and wiki collaboration) and during two one-week staff visits at the SSU. Altogether three teachers (two from Hanover and one from Dresden) will be sent to Southampton in each of the two flows that are envisaged in this project. Preparatory seminars (linguistic and intercultural preparation, introduction into the usage of online tools) will take place in Hanover and Dresden and will be supported by a compact workshop with English companies during the participants’ visit at the SSU. The first flow will be from 22 - 29 October 2011, with the second flow following in October 2012.

The participants targeted in this VETPRO project are teachers / lecturers who have supported and supervised b.i.b. students in their 8-week domestic placements and hence possess sound experience in this area. This project provides the opportunity for these teachers to further develop their (social) skills and knowledge and gain international project experience. Additionally, the teachers will be able to develop their English language skills and their intercultural skills as well as discuss the use of online tools for supporting students during a placement abroad. The result-oriented cooperation with the English-speaking lecturers from the SSU provides the opportunity to gain valuable experience in international team work, both face-to-face and ICT-supported which makes it easier for teachers / lecturers to empathize with students serving a placement abroad and to understand the particular challenges of an international placement.

Project aims:
The aims of this project are for teachers / lecturers to

- enrich their work by cooperating and exchanging experience with their colleagues at the SSU in an international project,
- gain experience in international team work,
- confirm the English language skills and the intercultural skills the teachers / lecturers already possess and encourage them to further develop these skills,
- reflect upon their own teaching by comparing it to the teaching of their colleagues from the SSU and to the requirements of English companies that provide placements for German students,
- further develop their own teaching skills and teaching methodology / paedagogy and / or further develop their skills in the area of computer-assisted teaching (practice-oriented teaching).

Schedule:
Until Feb 2011: applying for grants under the EU’s Leonardo VETPRO mobility programme (Vocational Education and Training Professionals).

Until Jun 2011: planning the project in detail (b.i.b and SSU), introducing the placement guidelines that are currently in use at b.i.b International College as a basis for further discussion, broadly discussing project organisation (b.i.b. and SSU).
Jun 2011 – Sept 2011:

a) b.i.b.: informing b.i.b staff about the project, deciding on the participants that will take part in the first flow, jointly organising the first flow (setting up an agenda for the visit, organising flights and accommodation, providing information material about the SSU / Southampton, etc.).

b) SSU: informing SSU staff about the project, deciding on the participants that will take part in this project, setting up the online tools that will be used in this project on the SSU’s Moodle platform, jointly organising the first flow (setting up an agenda for the visit, providing help with accommodation if needed and information materials if needed, etc.).

Oct 2011:

b.i.b. and SSU: holding a preparatory face-to-face seminar with the German participants at b.i.b. with an integrated online part during which the participants will get to know the participants from the SSU.

b.i.b.: sending two teachers / lecturers from Hanover and one from Dresden to the SSU (22 – 29 Oct).

SSU: holding a workshop (participants: SSU lecturers, bib teachers / lecturers, company representatives) at which first ideas for the guidelines for international placements will be discussed; bib teachers / lecturers and SSU lecturers will share online and offline teaching experience.

Nov 2011 – Dec 2011:

b.i.b. and SSU: debriefing project participants; disseminating first project results at both organisations, evaluation workshop results and experience (“What went well? What should / could be improved in the next flow?”).

Jan 2012 – May 2012: using the online tools for further collaboration on the guidelines for international placements, sharing teaching experience (online and offline).

Jun 2012 – Sept 2012:

a) b.i.b.: informing b.i.b staff about the project, deciding on the participants that will take part in the first flow, jointly organising the first flow (setting up an agenda for the visit, organising flights and accommodation, providing information material about the SSU / Southampton, etc.).

b) SSU: informing SSU staff about the project, deciding on the participants that will take part in this project, jointly organising the first flow (setting up an agenda for the visit, providing help with accommodation if needed and information materials if needed, etc.).

Sept 2012:

b.i.b. and SSU: holding a preparatory seminar with the participants of the second flow in which the participants of the first flow will be included (online and / or offline) to ensure a transfer of knowledge and experience.

Oct 2012:

b.i.b.: sending three teachers / lecturers

SSU: holding a workshop to further develop the guidelines for international placements (participants: SSU lecturers, bib teachers / lecturers, company representatives); providing opportunities for bib and SSU staff to share experience and knowledge.

Nov 2012 – Dec 2012:
b.i.b. and SSU: debriefing project participants; disseminating project results at both organisations, evaluation workshop results and experience.

Jan 2012 – May 2012:

b.i.b. and SSU: sharing teaching experience (online and offline), completing the joint guidelines for international placements, organising and holding a final workshop with all project participants in Hanover during which the final version of the guidelines will be introduced, evaluating the whole Leonardo VETPRO project and writing a final report.
11.2.4 EU Leonardo Staff Mobility Project – VETPRO (in German)

VETPRO: Enhancing teaching skills by jointly developing guidelines for quality placements in Europe

Zusammenfassung:


Zielpersonen dieses VETPRO-Projektes sind DozentInnen, die bereits die 8-wöchigen Pflichtpraktika bei b.i.b. International College betreuen und somit über Erfahrung in der Begleitung Auszubildender während eines Inlandspraktikums besitzen. Diese Erfahrungen und das damit verbundene Fachwissen werden durch die Teilnahme an diesem Projekt um die Auslandsdimension erweitert: Insbesondere sprachlich-kulturelle Aspekte sowie die Nutzung von Online-Tools in der Betreuung von Praktikanten im europäischen Ausland werden jetzt eine besondere Rolle spielen. Durch die ergebnisbezogene Projektzusammenarbeit mit den englischen DozentInnen machen die beteiligten DozentInnen wertvolle Erfahrungen im Bereich internationaler Teamzusammenarbeit, sowohl in der Präsenz zusammenarbeit als auch IKT- unterstützt, so dass sie sich besser in die Rolle der Auszubildenden versetzen können, deren Arbeitsalltag im Auslandpraktikum sicherlich oft als ähnliche Herausforderungen an sie stellt.

Projektziele:

Durch dieses Projekt werden die folgenden Ergebnisse für die DozentInnen angestrebt:

- eine Bereicherung der eigenen Arbeitswelt durch die (fachliche) Zusammenarbeit und den Austausch mit DozentInnen aus England

- die Gewinnung internationaler Arbeitserfahrung

- eine Bestätigung der Fähigkeiten, die man im sprachlich-kulturellen Bereich bereits besitzt und den Anstoß zur Weiterentwicklung

- eine Reflexion der eigenen Unterrichtspraxis durch Vergleich mit den KollegInnen von der SSU und durch die Anforderungen der englischen Unternehmen an deutsche Praktikanten (praxisorientierter Unterricht)

- einen Anstoß zur Weiterentwicklung der eigenen Lehrfähigkeit im methodisch-didaktischen Bereich und / oder im Bereich des computerunterstützten Unterrichts.

Zeitplan:

bis Feb 2011: Antragsstellung durch das b.i.b

bis Juni 2011: Feinabstimmung zwischen den Partnern, Vorstellung des Pflichtenheftes, das am b.i.b für alle Praktika verbindlich eingesetzt erste Diskussionsgrundlage, erste Organisationsüberlegungen

Juni 2011 - September 2011:

a) bib: Information der Lehrenden, Auswahl der Teilnehmenden des ersten Flows, Einrichtung der Online-Tools in Abstimmung mit der SSU und organisatorische Vorbereitung des ersten Flows (Buchung der Flüge, Unterkunftssuche, Zusammenstellung der Information über Southampton, etc.)
b) SSU: Information der Lehrenden, Auswahl der Teilnehmenden, Einrichtung der Online-Tools in Abstimmung mit dem b.i.b. organisatorische Vorbereitung des ersten Flows (insbes. Programm und Unterkunftssuche)

September 2011:

b.i.b und SSU: Vorbereitung der Dozent:innen und Organisation eines ersten Kennenlernens der Teilnehmenden unter Nutzung der Online-Tools

Oktober 2011

bib: erste Entsendung (2 Dozent:innen aus Hannover, 1 Dozent:in aus Dresden)

SSU: Durchführung des Kompaktworkshops und Beginn der Zusammenarbeit an den Praktikumsrichtlinien

November 2011 - Dezember 2011: Nachbereitung der Teilnehmer, Verbreitung der Erfahrungen und Ergebnisse aus Southampton; Evaluation ("Was war gut, was sollte beim nächsten Flow verbessert werden?")


Juni 2012 - September 2012:

a) bib: Information der Lehrenden, Auswahl der Teilnehmenden des zweiten Flows, organisatorische Vorbereitung des zweiten Flows (Buchung der Flüge, Unterkunftssuche, Zusammenstellung der Information über Southampton, etc.)

b) SSU: Information der Lehrenden, Auswahl der Teilnehmenden, organisatorische Vorbereitung des ersten Flows (insbes. Programm und Unterkunftssuche)

September 2012:

b.i.b und SSU: Vorbereitung der Dozent:innen und Organisation eines ersten Kennenlernens der Teilnehmenden des ersten und des zweiten Flows unter Nutzung der Online-Tools (Weitergabe des Wissens / der Erfahrung aus dem ersten Flow ist wichtig!)

Oktober 2012:

bib: zweite Entsendung (2 Dozent:innen aus Hannover, 1 Dozent:in aus Dresden)

SSU: Durchführung des Kompaktworkshops und Weiterführung der Zusammenarbeit an den Praktikumsrichtlinien

November 2011 - Dezember 2011: Nachbereitung der Teilnehmer, Verbreitung der Erfahrungen und Ergebnisse aus Southampton;

Januar 2012 - Mai 2012:

Weiterer synchroner und asynchroner Erfahrungsaustausch, Fertigstellung der Praktikumsrichtlinien, Abschlussworkshop mit allen Teilnehmenden in Hannover mit Vorstellung der Praktikumsrichtlinien, Gesamtevaluation des Projektes, Abschlussbericht
11.2.5 Placements in Germany – Info. for Colleagues

1. Introduction

Experience of working and living in another country should significantly enhance the employability of a graduate. This is one of the main reasons why b.i.b. currently send approx. 145 students to study at SSU. As an initiative of the joint School of Comp. & Comms. and b.i.b. “Enhancing Employability” project, b.i.b. have provisionally agreed to find and help coordinate four 48-week placements for IT/Computing students in Germany for 2011-12.

2. Industry

The companies are likely to be SMEs (probably in the Cologne region) with experience of taking and supporting placement students. The work is likely to involve working as a part of supportive team in an IT development or other appropriate functional area. English will be commonly spoken at work when necessary to help the student. It is proposed to place two students in each of two companies to facilitate additional and mutual support.

3. Requirement and Selection

The students will need to have good application/software development skills, to have achieved at least a 2.2 profile in their 1st year, and to be performing at at least a 2.2 level in their second year. Fluency in the German language is not a requirement, although it is expected of course that the student makes every effort to improve their German language skills before and during the placement. Selected candidate students will need to attend interview.

Note – If insufficient students are identified from the School, then this opportunity could be made available to FBSE and FMAS.

4. Finance

Students on placement need around €1000 minimum (about £830) per month to live in Germany. The salary for students on placement is generally lower than in the UK, but should still be sufficient at around €12000-€15000 p.a. to cover basic living costs.

It may be possible to provide limited additional funds to cover interview travel expenses, and initial language classes at SSU. (Funds are unlikely to be available from the EU Lifelong Learning Programme or other sources particularly for this trial year).

5. Administration

In addition to securing placements, b.i.b. can provide (for a fee to cover costs to be negotiated) administrative/pastoral support for the student placements, and (if required) can oversee the academic requirements of the placement on behalf of the School.

6. Plan

It is proposed to identify candidate students by December, and to have interviewed and selected successful candidates by March. This initiative will be evaluated at the end of the year, and may be continued and extended to other Faculties if successful.
11.2.6 Placements in Germany – “Flyer” for Students

A similar flyer was produced, distributed to and discussed with the BA (Hons) Business Studies students by Isobel Chick.

Would you like to improve your employability by taking a placement year in Germany? IF YES, THEN READ ON!

WHAT IS IT? - As part of a joint employability initiative with the b.i.b. International College in Germany, the Business Computing course team can offer the opportunity of 2 “paired” placements in each of 2 companies in Germany—one possibility identified to far is Roland Berger Strategy Consultants in Munich.

WHY DO IT? – There is considerable evidence that companies value applicants who have gained international work and cultural experience.

WHAT IS THE JOB? – This is to be discussed and decided, but would reflect the knowledge and skills gained from your course, as well as the requirements of the company and your interests.

CAN I AFFORD TO WORK AND LIVE IN GERMANY? - Our colleagues at b.i.b. advise us that the salary will be sufficient to cover at least the minimum €1000 (about £830) needed to cover basic living costs.

BUT I CAN’T SPEAK GERMAN! – English will be commonly spoken at work to help you, all that is expected of you is the commitment to learn or improve your German language skills before and whilst you are there.

WHAT SUPPORT WILL BE AVAILABLE? – b.i.b. and the course team will work closely to provide academic, pastoral and other support that may be needed.

WHAT IS REQUIRED? – Normally, you must have achieved at least a 2.2 profile in the 1st year (with no referrals), and that you have demonstrated a commitment to improve your employability skills (eg team working) in particularly the Group Project and Graduate Development units. Preliminary use of the new SSU Mahara software for CV building would also be an advantage.

HOW CAN I APPLY? – Submit to Al Monger a brief CV and accompanying letter of application indicating areas of work relating to your course that you are particularly interested in. Indicate also your current level of foreign language skills (if any).

WHAT NEXT? – Selected candidates will be invited to a SKYPE interview with one or both companies during February/ March. Successful candidates will be informed as soon as possible after that to enable sufficient time for language and other preparation for the placement.

For further information or an informal chat, please contact Jennifer Muskett or Al Monger.
11.2.7 WBL at b.i.b.

Introduction

This is the outcome of a structured interview with Michaela Hermes (b.i.b. Bergisch Gladbach) about the core “Projektarbeit” work-based learning undertaken by all b.i.b. students.

What is the b.i.b. “Projekt Arbeit” ie Project Work?

All students (IT, media, business) undertake a 2-month work-based project towards the end of their 2nd year (February to April). At b.i.b. Bergisch Gladbach, for example, this totals approx. 100 students placed in approx. 50 (mainly SME) companies in mainly the Cologne region.

This contrasts with around 60 students on our 2nd year Computing/BIT courses.

What is the nature of the project?

The project is a planned, focussed development project that meets a specific company need. For example, development of a departmental information system for Toyota.

The projects, and their assessment (also refer below), are broadly comparable in product and time to the SCC final year project, but focussed over a shorter period of time - 5 days a week over 2 months (say 8 weeks x 40 = 320 hours) in contrast to 2 days a week over 30 weeks (say 30 weeks x 12 = 360 hours)

Why do they offer it?

b.i.b.’s market and delivery focus is on providing courses which enhance the employability of their students. The Projektarbeit has been offered for many years, and has proved beneficial beyond doubt to b.i.b., their students and the companies. It has also helped maintain a high level of employer engagement to feed into course design and delivery.

How is b.i.b. able to engage this number of companies?

The project has run for many years and a high proportion (at least 50%) of the companies remain in the scheme for many years. However, b.i.b. normally can easily find replacement companies. Furthermore, it is not a requirement that the company pays the student (although many do). (This is normally not a problem for the unpaid student in that they just travel to another (often nearer) location in Cologne rather than to b.i.b.). The quality of the projects is generally high, and this helps retain companies. The task of contacting companies is generally spread around the team, although there is one nominated person for each subject area. They do however try to deploy colleagues who take an interest in employer engagement.

This could compare to Academic Leader (External Development) coordinating overall, with course leaders (and others) helping to find and engage with companies.

How is the project assessed?

Essentially, the project is assessed on product (40%), documentation (40%) and report from the company (20%). It is discriminated from 1 (good) to 4 (pass), 5 and 6 (fail).

The final project report is broadly comparable to the SCC report, although more product focussed. However, the b.i.b. project does not have deliverables comparable to the SCC Project Feasibility
and Review Reports, partly because of the shorter period. The initial (unassessed) plan is broadly comparable to the informal SCC project proposal.

How is the project administered and supervised?

All the projects (names, title, companies) are maintained in a database on the intranet accessible to all tutors from the 6 geographically dispersed b.i.b. sites. There is an overall project coordinator for each course, and course tutors are allocated students. Normally the student is expected to email the tutor a brief summary of the week’s work, and the tutor provides support on an exception basis. A “one-page” contract is signed by the three parties—b.i.b., the company and the student.

This interesting mix of project and placement, and appears quite efficient from the tutoring point-of-view.

How does the student prepare for the project?

During the 2nd year, students are assigned to companies, and must produce a plan. They draw upon previous and current learning to help construct this plan.

What issues have emerged?

The project is generally regarded as being successful by all concerned—b.i.b., the companies and the students. There is a view held by some that the period should be extended to 3 months (say 12 weeks) because the effective work period will often be closer to 6 weeks because of start up and close down. However, it would not be straightforward in the b.i.b. course delivery structure to change this.

The proportion of students who are difficult to place, or who do not perform, is below 5% A contributory factor is the effort made to match the right student to the right company/project. Students are also placed in b.i.b. if necessary - an approach also taken at SSU.
Flexible Work Based Learning opportunity in SSU linked to your Final Year Project

**WHAT IS IT?** - As part of a University employability initiative, we are offering the opportunity to all final year business computing students (on BSc BIT, Computing etc) to apply to work on focussed University business systems and e-development projects that can be linked to your 40 credit point final year project unit and the 20 credit point Curriculum Plus Work-Based Learning (WBL) option unit. You should therefore be able to work a flexible 0.5 week on the project and gain valuable work experience.

**WHAT ARE THE PROJECTS?** – There are several exciting project possibilities (indicated on the attached sheet) relating to the ongoing development of the University’s business systems involving the application of contemporary technologies. The project identified will be carefully agreed to reflect the requirement of the final year project, the needs of the University and the preferences of the student.

**WHAT ARE THE POTENTIAL BENEFITS?** – Working on live projects and gaining work-based learning experience should significantly enhance your employability. Moreover, there will be flexibility to gain this experience whilst studying for the other 60 credit points of units on your course. It also offers an opportunity to blend both theory and practice as you work and study through the year.

**RELATIONSHIP OF THE PROJECT AND WBL UNITS** – The learning outcomes of these units are different and mutually exclusive. However, there is a significant economy in that you can use the project as part of your WBL portfolio to demonstrate achievement of the WBL unit learning outcomes. You will study these units as normal including access to your WBL tutor and allocated project tutor.

**WHAT ARE THE CONDITIONS?** – It is expected that you will work consistently in a largely self-managed manner on the project to the agreed plans in your project proposal, feasibility and review reports. You will be expected to work as part of a team and liaise regularly with the University project manager and other stakeholders. Whilst the position is unpaid (due to University regulations for full-time students), there may be related part-time paid opportunities including those available through Campus Jobs.

**WHAT IS REQUIRED?** – You must have achieved at least a 2.2 profile (or equivalent) in the first two years of your course (with no referrals). You should also possess general employability skills such as team-working, problem-solving ability and the ability to work on your own initiative.

**HOW DO I APPLY?** – Application is via a CV and covering letter by 10th June. Your covering letter should include an indication of the project areas relating to your course that you are particularly interested in.

**WHAT HAPPENS NEXT?** – Short-listed candidates will be invited to an interview. Successful candidates will be informed as soon as possible after that to enable sufficient time for preparation for the project, and to satisfy University regulations relating to work experience.

*To send applications, or for further information or an informal chat about this opportunity, please contact Isobel Chick (isobel.chick@solent.ac.uk)*
11.2.9 LIS Projects Attached to “Flyer” in 11.2.6

Business Systems and Network Infrastructure Teams (up to 3 positions)

1. Business analysis. Requirements gathering and specification, business process mapping and design, identifying and resolving data quality issues etc.
2. Systems integration. Using established methods for building interfaces to pass data between University business system databases stored in Oracle, SQL Server and MySQL.
3. Application development. Development of end-user interfaces, small applications and portlets required for staff and students using a range of development languages such as PL/SQL, Java and Ruby on Rails.
4. Data warehouse reporting. Development of a University data warehouse dashboard and/or small portfolio of reports to present management information and support senior management decision-making.
5. Systems migration. Faculties/Services still use Access databases and Excel spreadsheets to support some of their day-to-day administration. These need to be migrated to Oracle databases and an appropriate front-end interface developed for users.

e-Development Centre (EDC) Team (1 position)

The e-Development Centre here at SSU can offer a junior programmer's position over the period of one term for 2011-2012. The person will be working alongside 2 other programmers. It is very much about being a part of a team.

The person who takes on this work will need to have very good programming skills in an OO language such as Java as well as good understanding and skills in web technologies such as CSS, XML and JQuery. The programming team work with Visual Studio 2008 to develop applications and web controls using VB.Net for delivery to the ASP.Net platform.

The project is to redevelop:
- The Graduate Jobs South web application - http://www.graduatejobsouth.co.uk/
- Jobshop Online - http://jobshoponline.solent.ac.uk/
- Campus Jobs (available in myCourse)

Into one unified job search application that is fully integrated with the SSU Portal. The three applications have in the area of 30,000 registered users across the South Coast region. Graduate Jobs South is used by students from several universities. This is a high profile project with senior level stakeholders in all the participating universities as well as several hundred employers.

Other programming work on other projects will be taken on by the team to meet the operational demands of SSU.

The candidate will need to be a good team worker, easy to work with, calm under pressure and very reliable with a commitment to a career in programming and willingness to learn and follow instruction. This is a terrific opportunity for the right person to gain some enterprise level work experience.

Your contribution to the project will be scoped and focussed (by mutual agreement) to enable you to meet the requirements of the final year project unit. The development work will then take place on a 0.5 week basis mainly through the Autumn term. The Spring term can then focus on the evaluation and completion of other academic project objectives.
11.3 Industry-Focussed Learning

11.3.1 Development Activity with Clearvision

This is unedited transcript of a personalised exchange of emails during August 2010 between SSU and Clearvision—a software change and configuration management (CM) company.

SSU ➔ Clearvision – August 15th

I am leading a project that is looking to develop collaboration between industry and academia to mutual benefit, and to enhance graduate employability skills.

An example might be for Clearvision to provide a case study (with commercially sensitive information stripped out of course) relating to CM or the business in general. 2nd year students (say) could then work on this, probably in groups, with a supporting session from Clearvision (as already offered and not yet taken up!!).

The benefit to Clearvision could then be to take the best output from the student work + early identification of students to take a Clearvision-based final year project as we currently do. The model could then be repeated from year-to-year without necessarily that much modification or extra work.

Would you be interested in trying to take our collaboration further in this respect?

Clearvision ➔ SSU – August 16th

In principle yes. To commit I need to understand more regarding the deliverables i.e when is it required by, how much material is required from us? In brief I need to know how much time we need to commit and by when. Do you have an example of what is required?

SSU ➔ Clearvision – August 17th

We will probably trial this with 2nd year students early in the New Year. The development scenario could still be based on the applications you require like those developed by Rob and Julian, eg a desktop alert application. There would be less time available per student though, see teams of 4 working 3-5 hours per week over 7 weeks, and they have less experience. There would also be a limit to how much coding could be implemented.

One way it might be delivered is that you provide a briefing session in which you set out the business need, outline software requirements, the methodology (an example user story), available software, testing etc. The students then work on the development with any necessary contact with Clearvision through the tutor only. The work would then be assessed at the end, and the best (hopefully usable) output made available to you.

Capable students interested in taking this development further (during the summer say?), or other Clearvision projects as final year projects, can then be identified.

Clearvision ➔ SSU – August 16th

Following our conversation today, we agreed on the following:
Looking for our involvement to start in January 2011
We will start to define the nature of our involvement now
Clearvision will discuss SCM challenges in a real live business environment and through the use of live workshops demonstrate the challenges of not having the right tools
Clearvision would start the workshop off with ~2 hour workshop to set the scene
Solent Uni would then manage the majority of the following workshops (CV can assist as required and might assist more on this first occasion)
We will all start pinning down our thoughts regarding progress of this course.

QUESTIONS
The course content would be joint IPR between CV and Solent University.
We need to meet to discuss and possibly try run this concept?

High level perspective of how the course would run

Run this as a live workshop
- Demo problem with change management - Use the example of Chinese whispers with a long technical sentence. Start off with a bug described verbally. The information must be passed on from person to person and see what comes back.
- Demo problem with no version control - Ask two people to follow a set of instructions using the white board as the example file(s). Ask them to make various changes. Then tell them to fall back to a revision in the middle to see if they can remember the actual state of the file. Ask another student to note how the file looked at a particular point in time.
- Gerry to overview software change management and version control by pointing out how it solves both the live examples above.
- Discuss the different methods for capturing requirements (old fashions waterfall - Requirements written away from the customer - then reviewed). Develop, Test, Release) verses more recent Agile concepts e.g.
- Write the story with the customer in the meeting and all other stakeholders, only write the stories planned for that iteration.
- Write the tests at the same time as the code
- Integrate feature
- Baseline code
- Next features
- Small iterations
- Release new version of product - get to market early

(Mobile phone industry would never survive using the waterfall method. Why, do they use Agile concepts?)

ANSWER: The market moves on quickly.

- Set the students a project to develop a Product. Gerry (Solent University) will act as the customer and know exactly what the product should do.
The students will be assigned roles (SCRUM leader, Team Leaders, Developers, Tester). The students job is to extract from the customer exactly what is required and to write the Agile stories. Students will be put into more than one team.
- Students must decide:
  - What tool to use to write the Agile stories in
  - How to plan an iteration
  - How often to meet to track progress
  - etc

The goal is to get them working as a development team i.e working all together on a real product and experiencing the challenges of managing changing requirements, in a distributed way where by not all developers are in the room at the same time.
11.3.2 Home Page of myCourse Oracle Certification site

This site is accessible to any myCourse user without an enrolment key.
11.3.3 Analysis of Data from the University’s SIERRA Data Warehouse

Advanced & Distributed Databases (A&DD) Context

"Modelling and Analysing Multi-Dimensional Data for Decision Support” and “Data Mining for
Decision Support” are 2 of 5 themes covered in this level 6 20 credit point unit. In addition to the
theory, students undertake practical work using a large Oracle-supplied data warehouse of the
sales of products to customers over time of a fictitious company. In order to bring this subject to
life, the data warehouse team have given a talk of the University’s SIERRA data warehouse for the
past 8 years. This talk in particular discusses in some technical detail the structure of the
enrolment system (ie students enrolled on courses). It therefore made sense to provide a view of
this part of the data warehouse for the students to analyse.

Each core theme (including these 2 themes) consists of an optional advanced topic that flows from
the core activity. An additional advanced topic “Analysis of Data from the University’s SIERRA data
warehouse” was made available in the A&DD myCourse and presented to the students for the start
of the advanced topic work in March 2011. This essentially provides an opportunity to analyse
enrolment data from the data warehouse and potentially produce an analysis that informs
University policymaking.

Analysing real data presents a real challenge in line with the rationale and aim of the advanced
topic. The quantity and nature of data in a real data warehouse exposes the student to issues that
are not easily designed into a fictitious scenario. Further to this challenge however is finding
something useful for the University, and this can be put on the CV! – everyone benefits!

Generating a View and Description of “Student-Course” Data from the Warehouse

The view does not contain name, address, contact or any information that could identify a
particular student. Furthermore there is no course name, course leader or any information that
could identify a particular course or unit. It is however possible to enable aggregate information at
the Faculty and University level. Analyses of potential interest and value to the University (and this
project!) could relate to:

- Changing demographics of the student population including geographical location, gender and
  status
- Changing patterns of full-time, sandwich and other study modes
- Changing patterns of students taking trailing and repeat units

Although the students are of course familiar with some of the educational terminology (courses,
students etc) of this domain of analysis, a detailed “Description of the Enrolment Data in SIERRA”
was also provided.

The view was implemented in a schema named WH on the STUDENT Oracle databases. An APEX
workspace named STUDWH was also implemented to facilitate student access.

Outcome

Whist there was interest in this possibility, most students had already chosen and undertaken work
in their advanced topic earlier in the year (as required by the unit scheme of work). It is not
therefore expected that there will be significant results that can be evaluated from this initiative
this academic year. However, the activity will be established in the unit scheme of work for next
year.
### 11.4 International Learning

#### 11.4.1 DAD International Learning Experiment Plan

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timing</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview of the ProSoft case study, assessment and Database Application Development (SMD293) myCourse site. Plus overview of APEX and resources in Theme 3 of the Introduction to Databases (SMD289) myCourse site.</td>
<td>Briefing meeting Hanover - 12(^{th}) January</td>
<td>Al Monger</td>
</tr>
<tr>
<td>Participating bib students identified by Martina Emke (probably 4)</td>
<td>By 17(^{th}) January</td>
<td>Martina Emke</td>
</tr>
<tr>
<td>At SSU: Student briefing and team organisation + intro to concurrency</td>
<td>w/ c 24(^{st}) January</td>
<td>Sheila Baron (included FYI)</td>
</tr>
<tr>
<td>At b. i. b: student briefing (online or face-to-face)</td>
<td></td>
<td>Al Monger</td>
</tr>
<tr>
<td>myCourse, iSQLPlus and APEX usernames notified to bib students</td>
<td>By 25(^{th}) January</td>
<td>Al Monger</td>
</tr>
<tr>
<td>Assessment team work starts</td>
<td>By 31(^{st}) January</td>
<td>Sheila Baron</td>
</tr>
<tr>
<td>bib students notified of teams (1 per team of normally 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>... Assessment progresses ...</td>
<td>On-going Tutor support</td>
<td>Sheila via team e-facilities plus Al by SKYPE</td>
</tr>
<tr>
<td>Assessment hand-in</td>
<td>7(^{th}) May</td>
<td>Students</td>
</tr>
<tr>
<td>Populate Mahara CV with the skills and experience gained</td>
<td>By 7(^{th}) May</td>
<td>Students</td>
</tr>
<tr>
<td>Informal assessment feedback</td>
<td>11(^{th}) May (during the bib visit to SSU)</td>
<td>Sheila Baron</td>
</tr>
<tr>
<td>Survey and focus group student feedback of the experiment</td>
<td>11(^{th}) May (during the bib visit to SSU)</td>
<td>Al Monger / Sheila Baron</td>
</tr>
<tr>
<td>Assessment mark and feedback. Update CV</td>
<td>w/ c 30(^{th}) May</td>
<td>Sheila Baron</td>
</tr>
</tbody>
</table>
11.4.2 DAD Assessment Brief

The full assessment is included as it shows the pedagogical application of the online tools and methods.

Southampton Solent University
Assessment Brief
Assessment Details

<table>
<thead>
<tr>
<th>Unit Title:</th>
<th>Database Application Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Code:</td>
<td>SM2393</td>
</tr>
<tr>
<td>Unit Leader:</td>
<td>Sheila Baron</td>
</tr>
<tr>
<td>Level:</td>
<td>Year 2 (FHEQ level 5)</td>
</tr>
<tr>
<td>Assessment Title:</td>
<td>Enterprise Database Application Development Issue</td>
</tr>
<tr>
<td>Assessment Number:</td>
<td>2</td>
</tr>
<tr>
<td>Assessment Type:</td>
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</tr>
<tr>
<td>Restrictions on Length:</td>
<td>1500 words</td>
</tr>
<tr>
<td>Individual/ Group:</td>
<td>Individual</td>
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<tr>
<td>Assessment Weighting:</td>
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</tr>
<tr>
<td>Issue Date:</td>
<td>17th January 2011</td>
</tr>
<tr>
<td>Hand In Date:</td>
<td>6th May 2011</td>
</tr>
<tr>
<td>Planned Feedback Date:</td>
<td>w/ c 30th May 2011</td>
</tr>
<tr>
<td>Mode of Submission:</td>
<td>Electronic – via MyCourse</td>
</tr>
<tr>
<td>Number of copies to be submitted:</td>
<td>1</td>
</tr>
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Assessment Task

Introduction

This is the second of two in-course assessments for the unit, both of which are based on the ProSoft Case Study. A copy of the case study was distributed with the first assessment and can be found on the MyCourse site for the unit, together with SQL scripts to create the extended ProSoft database and test data.

This assessment is designed to assess all the unit learning outcomes (see below) but with the emphasis on numbers 1 and 4 which were not assessed in the first assignment.

1. Compare and contrast a range of approaches and techniques for addressing the issues facing modern enterprise level databases.
2. Evaluate and design database solutions based on an analysis of business requirements.

3. Apply knowledge of database application development techniques.

4. Use electronic collaboration tools.

Following a team based preparatory phase (see next section), each individual will research, prepare and submit a written report discussing one enterprise database application development issue. The list of recommended topics is shown below:

I. Concurrency control in relational databases
II. Access control in relational databases
III. Use of stored program units in enterprise database applications
IV. Portability issues between different database platforms
V. Using Apex to develop an interface to a database application.

Preparatory phase

Although the summative assessment will be based on an individual written report, this will draw on (and should make clear reference to) team-based design and implementation exercises relating to the ProSoft case study. The team exercises reflect the topics listed above and will be undertaken primarily as directed learning based on material presented and discussed in the timetabled class sessions (and posted on the MyCourse site each week).

The exercises will cover the following:

i) Concurrency control quick quiz
ii) An analysis of access requirements for each identified user group
iii) An analysis of requirements for stored program units
iv) Database portability issues quiz
v) An outline design for an Oracle Apex application for ProSoft

A team will normally consist of four students. Each team will be provided with a range of electronic collaboration facilities for their exclusive use, including a discussion forum and an e-Mahara site.

Each team will be required to upload the outputs from the preparatory exercises to the forum on a weekly basis. The forum should also be used to record any issues arising from these exercises (eg additions / amendments required in the light of further analysis). Each exercise output uploaded should be clearly annotated with the names of those who contributed to it (ie excluding those who did not participate).

The weekly uploads and other activity recorded in these collaboration tools will be monitored by the tutor on an on-going basis and guidance will be given where appropriate.

On completion of the above exercises each team will agree a distribution of topics between its members and submit this to the tutor by the deadline shown on the MyCourse site. (See list of topics in the next section.) **Note that no two members of the same team may submit a report on the same topic.**

International team working opportunity

Some teams will include one 2nd year bib student who will be joining the final year in October 2011. This is part of an initiative that aims to enhance employability by giving students the opportunity to work in international teams using electronic collaboration tools. It will also help prepare the bib students for final year study at Solent, and introduce them to some of the SSU continuing students they will be studying with in the following year. Arrangements will be made to get feedback on this trial from both the bib participants and their fellow team members.

In addition to use of eMahara and the myCourse forums and other collaboration facilities, international teams may setup their own resources to facilitate team meetings. For example, they may wish to use the conference call facility in SKYPE to facilitate team meetings.

Individual Topic Development Phase
For the final few weeks of the unit, class sessions will be devoted to issues surrounding the preparation of the report and implementation work relating to each individual’s chosen topic. Outside class each individual will conduct further research on their chosen topic.

During this period, the unit’s General Discussion Forum should be used to share reviews of useful sources of information and discuss topic specific queries with other students (including those from other courses) who are undertaking the same topic. Examples of an appropriate format for information source reviews will be provided by the tutor.

Please note that your use of both the team collaboration facilities and the general discussion forums will be used to assess learning outcome 4 (see introduction and assessment criteria).

What needs to be submitted

Each individual will prepare and submit a written report discussing their own chosen enterprise database application development issue and relating their findings to the team outputs from the preparatory exercises (or improved versions thereof).

The list of recommended topics is repeated below:

1. Concurrency control in relational databases
2. Access control in relational databases
3. Use of stored program units in enterprise database applications
4. Portability issues between different database platforms
5. Using Apex to develop an interface to a database application

Note that it may be possible to undertake a different topic of your own choosing provided this is formally agreed in writing by the unit tutor. However, you should note that there will be no class support for additional topics.

Content and presentation of the report:

The report should be formally presented and include: title page, contents page, in-text referencing (as well as references and bibliography sections), page numbers and appropriate appendices.

It should cover each of the following elements:

(a) A discussion of the key issues and requirements associated with the chosen topic from an organisational perspective:

This section should outline why the topic is important to organisations and discuss the range of capabilities required by organisations to meet their needs in relation to the topic. For example, all organisations need to comply with the Data Protection Act. Access control measures are important in assisting companies with DPA compliance. In order to meet organisational access control requirements organisations also need to be able to allow access to different parts of the database to different individuals or groups of individuals. For stored program units, this section will discuss why these are useful to organisations and hence what they are used for (eg to achieve consistency of data and across different applications, and to allow auditing of database activity)

(b) A referenced description of how the chosen issue is handled in RDBMS in general (ie discussing either built-in DBMS functionality or additional development or DBA language constructs) and where appropriate outline the Oracle approach

How this section is structured will vary for different topics. For example for concurrency it should discuss common strategies for concurrency control and then outline Oracle’s approach including the language constructs used to define transactions etc. For access control it will discuss the language constructs provided by the SQL standard (giving Oracle syntax examples relating to the case study), then further discuss Oracle’s additional access control features. For stored program units this section will discuss the range of functionality available from Oracle and then compare this (in general terms) to what is available from other RDBMS providers. For Apex this will discuss the Apex application development approach and its advantages and disadvantages in relation to non-proprietary front end development tools.

(c) Discussion of your design solution for or how the issues discussed impact on the Prosoft case study.

This section will discuss how the functionality and/or language constructs discussed in the previous section can be applied to the case study. For most topics, it is expected that this section will significantly develop and extend the work completed
during the team preparatory exercises. Your final design should be included in the appendices of the report. For concurrency, portability and Apex this section will relate the issues discussed in the previous section to the particular circumstances of the case study.

(d) **Sample implementation work for the case study.**

The amount of implementation work required will vary according to the topic chosen. For stored program units and Apex this section will form a large proportion of the work (and therefore the marks). For access control and portability it will provide examples relating to the case illustrating issues discussed in the report. For concurrency control there will be very little in this section.

(e) **Bibliography and references.**

Feedback and marking will be based on the Assessment Criteria and Feedback Sheet shown on the next page.

With the exception of the final section on 'use of electronic collaboration tools', the weighting of the different sections will vary according to the topic chosen.
**DAD Assessment 2 Criteria Descriptor**

(Each level subsumes the requirements of each lower pass grade.)

<table>
<thead>
<tr>
<th>0-39</th>
<th>40-59</th>
<th>60-69</th>
<th>70+</th>
</tr>
</thead>
</table>

a. **Compare and contrast approaches and techniques for addressing the issues facing modern enterprise level databases**

Learning Outcome 1

<table>
<thead>
<tr>
<th>Does not reach the required threshold</th>
<th>Identifies a range of business issues and requirements related to the selected topic.</th>
<th>Clearly defines organisational issues and requirements in relation to the chosen topic.</th>
<th>Provides detailed analysis of a comprehensive range of pertinent organisational issues and requirements.</th>
</tr>
</thead>
</table>

b. **Description of how the chosen issue is handled in RDBMS in general (including, where appropriate an outline of the Oracle approach)**

<table>
<thead>
<tr>
<th>Does not reach the required threshold</th>
<th>Evidence of understanding of key aspects of how the chosen issue is handled in RDBMS (and Oracle) illustrated using case study related examples.</th>
<th>Provides evidence of ability to illustrate most aspects of RDBMS (and Oracle) approach to chosen issue through well chosen case study examples. In-text references included.</th>
<th>In-text referencing and case study examples evidence a thorough understanding of all relevant aspects of the RDBMS (and Oracle) facilities relating to the chosen issue.</th>
</tr>
</thead>
</table>

**Evaluate and design database solutions based on an analysis of business requirements**  
LO2

**Apply knowledge of database application development techniques**  
LO3

c. **Analysis and design for Case Study**

<table>
<thead>
<tr>
<th>Does not reach the required threshold</th>
<th>Design work results in a reasonable solution in relation to the selected topic.</th>
<th>A thorough analysis of case study results in a detailed design reflecting the importance of topic related issues to the case study.</th>
<th>Case study analysis indicates an evaluative approach and design work is credible in relation to accepted business practice.</th>
</tr>
</thead>
</table>

d. **Implementation (Prototype and/or technology proving)**

<table>
<thead>
<tr>
<th>Does not reach the required threshold</th>
<th>Implementation work indicates appropriate application development skills and reflects issues relevant to the selected topic.</th>
<th>Implementation work and related discussion evidence ability to apply appropriate techniques to ensure that the chosen topic is effectively addressed.</th>
<th>Implementation work and related discussion evidence ability to apply an extensive range of development techniques and effectively address the chosen topic.</th>
</tr>
</thead>
</table>

**Use of electronic collaboration tools**  
Learning Outcome 4

**Contributions to Forums and Participation in Preparatory work**  
weighting 20%

<table>
<thead>
<tr>
<th>Does not reach the required threshold.</th>
<th>Significant contributions to preparatory exercises evidenced in team forums and relevant contributions made to unit discussion forum.</th>
<th>Contributions to all preparatory exercises evidenced in team forums. Unit forum contributions provide useful commentary on sources identified.</th>
<th>Team forums provide evidence of a team leadership role and unit forum contributions evidence wide reading across a range of topics</th>
</tr>
</thead>
</table>

* Weighting for categories a to d depends on topic selected
Learning Outcomes

This assessment will enable students to demonstrate in full or in part the learning outcomes identified in the unit descriptors.

Extenuating Circumstances

The University’s Extenuating Circumstances procedures are in place if there are genuine circumstances that may have affected your academic performance. Remember however you need to be ‘fit to study’, this means that you can either submit your assessed work or declare extenuating circumstances, but you cannot do both.

A summary of guidance notes for students is given below:

http://blade2-5.solent.ac.uk/DocMan8/rs/NSExact=ASQS/PPG/1234570925

Academic Misconduct

Any submissions must be your own work and, where facts or ideas have been used from other sources, these sources must be appropriately referenced. The University’s Academic Handbook, includes the definitions of all practices that will be deemed to constitute academic misconduct. You should check this link before submitting your work.

Procedures relating to student academic misconduct are given below:

http://blade2-5.solent.ac.uk/DocMan8/rs/NSExact=ASQS/PPG/1234570157

Ethics Policy

The work being carried out by the student must be in compliance with the Ethics Policy. Where there is an ethical issue, as specified within the Ethics Policy, then the student will need an ethics release or an ethical approval prior to the start of the project.
**11.4.3 Student Perception of Enhancing Employability Questionnaire**

**International Learning – An Experiment with Database Application Development**

**Questionnaire for the Participating b.i.b. Students**

---

**REASONS/EXPECTATIONS FOR TAKING PART**

*For questions 1 to 4 below, indicate clearly to the RHS as follows:*

1 - strongly agree, 2 – agree, 3 – tend to agree, 4 - neutral, 5 – tend to disagree, 6 - disagree, 7 - strongly disagree

1a) Working in an international team would enhance your CV and employability?
1b) Working online using collaboration tools would enhance your CV and employability?
1c) Working in an international team using collaboration tools would enhance your CV and employability?

2a) Placing more importance on your CV and Career Building would enhance your employability?
2b) Gaining experience of using an e-portfolio tool such as Mahara would help in developing and maintaining your CV?

3) You would learn more about enterprise database systems?

4) It would be an opportunity to prepare for SSU (teaching, learning and assessment approach, myCourse, getting to know peer students, improve English skills etc)?

---

5) Which other reasons/expectations for taking part in the DAD project are important for you?

---

**PRIOR ATTACHED VALUE/EXPERIENCE/KNOWLEDGE/SKILLS**

6a) What prior experience (if any) have you had working in an international team or with others from another nation/culture?

6b) What prior skills/experience have you had working with online tools (such as forums, e-portfolio tools, wikis, software development tools etc) for development work?

7) What prior skills/knowledge (in outline) have you got with enterprise database systems (eg concurrency, database access control, stored program units, database portability, enterprise database development tools such as Oracle/APEX)?
11.5 Career Management Learning

11.5.1 Interviewer Software Trial - April 2011 - User Reviews

STUDENT A
INTERVIEWER FEEDBACK/REVIEW

- Firstly, I thought in terms of what it offers to help you improve your interview technique, that the program was very poor. Little is offered apart from quite generic information. So much more would be able to be gained from using a careers adviser as opposed to a computer program.
- From the types of interviews I selected that I wanted to trial, there were only two questions per interview, which in truth is not a real reflection of how many questions you would be asked in an interview.
- The program fails to pick up on things like, appearance, mannerism etc things that as a very basic program it would not be able to do. But these are important in an interview.
- You don't get any feedback on your actual answer, it doesn't tell you what you did well and what you did wrong. All it does is provide you with generic information, I don't believe that this works with something like an interview. The fact that it fails to do that makes it nowhere near as effective as a mock interview with a careers adviser.
- Not sure if this was to do with the program or the computer, but it was extremely slow when it came to saving the videos so that I could look back at it.
- The one good thing is that it gives the user a chance to look back at your answers as if they were a third party. This allows you to see what you look like when faced with a question for the first time, and the response you come out with. However I don't believe that you are provided with enough assistance to evaluate your answers properly as what you may think you said was good enough when in truth it wasn't, so you have to do a lot of the evaluating yourself.
- However if "Interviewer" was used by both careers adviser and student it could work. So if a student does the interview, then saves the video for the careers adviser to look at later and evaluate it themselves they can then invite the student back to review it together, with the careers adviser highlighting positives and negatives to the student so they can see where they went wrong, how they could have phrased something better or what they could have added to an answer.

STUDENT B
FEEDBACK/REVIEW

Pros –
A working programme, immediately available to view, responses are recorded.

Cons –
Regarding the interface of the technology: font size and foreground and background colour not adjustable
Recording of answers limited to 2 mins.
Printouts of questions and hints not possible – would need to make notes if wanted to retain the information.
No feedback on performance, only self evaluation of recorded interview.
Questions cannot be added to the programme in preparation for a specific interview.
Selection of interviewer seems a nice feature but is unrealistic – in real life an interviewee cannot choose their interviewer.
Does not offer preparation for a panel interview.

Suggestions –
Students could use one of the freely available video recording applications as tools to record the answers to questions which are provided by the careers advisers in a simple document that could also feature hints and examples and could easily be printed out by students for their study at home.
This approach would allow students to interview each other using the web camera integrated in nearly all laptops and other devices. Additionally this solution features a nearly unlimited availability of training opportunities as it is independent from opening hours and the number of computers in quite areas on our campus.
You could also use such free software to record mock interviews in students 1st. Afterwards the careers adviser can point out the mistakes while reviewing the video with the student.
When no meetings with advisers are booked in students 1st the installed software and webcam may also be available to students for self-training purposes.
Instead of developing our own software it is probably much more useful to combine the knowledge and experience of all our careers advisers with all our printed resources to create a comprehensive knowledge base (structured website) accessible online for students and staff.
GRADUATE A
INTERVIEWER FEEDBACK/REVIEW

Cons

• I'm not sure if it a limitation of the trial version, but the number of questions seemed limited, and whilst it is understandable why, the subjects are a little bit vague.
• No direct feedback from program - would have like the suggestions and hints and tips to be more obvious and perhaps pop up automatically.
• Watching myself and hearing my own voice is an uncomfortable experience.

Pros

• I do like the feedback available under the interviewer: Especially useful is the "What the interviewer expects as an answer"
• The questions included were reminiscent of interviews I have had so I can vouch for the validity and the fact that they are appropriate
• Good selection of topics for interview (albeit a little bit vague - see cons above)
• Interface is very easy to use and seemed logical to me.

Conclusion

Overall I think this software is best used in conjunction with a trainer, i.e Someone who can watch the videos back with the interviewee and offer advice on what needs to be improved. After watching myself a few times I wasn’t sure if I was doing the correct thing. Also it would be useful to have someone familiar with the software helping out and the feedback is not inherently obvious (you have to click for it) even though it is quite easy to find.

The software would be beneficial in conjunction with a longer session on interview techniques. I am not convinced it would be beneficial as a stand alone tool where the user is by themselves, I believe the software says as much in the help video where they recommend showing the videos to a "friend".

GRADUATE B
FEEDBACK/REVIEW

If the university was to purchase this equipment, the set up of the web cam would need to be considered. Currently it is placed too high which results in an unnatural glance up to the “interviewer”.

People take in information in different ways so the video and text option of instructions was great.

Saving the video was a slow/ tedious/ frustrating process. Playback was often slow and jumping too. Eventually I had to restart the programme due to a runtime error, as the camera had stopped working. This time I did not run the programme full screen, the programme seemed to speed up a little.

The text hints and interviewer angle sections really help you to assess the way you word your answer.

I found that I looked far too laid back on camera, maybe this was because I had no-one to engage with or impress.

The questions are good because they are so brief that it presses you to give a detailed answer.

Stressful questions – “Tell me a story.” Totally stumped by that one!

The programme highlighted how brief my answers actually are when I don’t use examples to highlight my skills. This definitely shows how the programmes video aspect can help you assess your answers. When you answer a question you don’t necessarily have a sense of how long you have been speaking unless you see it back.

CAREERS ADVISER A
FEEDBACK/REVIEW

The general idea of the software is clever, the ability actually see yourself on screen - body language, tone, etc and the opportunity to answer interview questions could be very helpful for those inexperienced in interviews.

The instructions are clear and easy to follow, it is user friendly.
However, I found the software slow at saving the video answers - I don't know if this was just for my session. I had to restart a couple of times as the system went into "not responding" mode, maybe the software needs to be loaded onto a PC with more memory. This 'slowness' resulted in the interview losing its flow and therefore taking even more away from the fact that it is not a real interview. I was getting bored and restless whilst it was saving.

I could review each answer immediately after answering it (albeit 5 mins after it had saved) but couldn't review the interview as a whole, I don't know if this was because I didn't answer every question and maybe to review the interview as a whole the candidate needs to answer all the questions - this was not clear in the instructions. This is potentially a flaw in the system, I feel the candidate should be able to review the answers to the questions they chose to answer in sequence in case they didn't want to answer all the questions - time constraints, irrelevant questions etc.

Is it worth investing in? I'm not sure, I think there is already virtual interviewers on CareerBox which does the job, OK you can't see yourself but does seeing yourself actually help? I'm not sure.

Does it provide a suitable alternative to the mock job interviews? In it's current format I don't think so, the students would need to be able to save their interview in order to look back and reflect on it. I don't see how a student could do the interview, watch it back and make notes/reflection all in one session which at the moment is what they would have to do. Even then how does the student know whether or not their interview performance was good, they can read the advice and may feel they covered all the points but that is their personal interpretation. What is so good about the mock job interview, is not only that the students have the opportunity to answer questions (which have been tailored to the job they are applying for) it is also about those important extras such as: greeting the interviewer, body language, dress. Granted observing themselves back is valuable, as many people have mannerisms they are unaware of - maybe the best thing to do would be to record the mock interviews?

Is it worth investing in? Having a go at an interview, seeing how you could look/come across it maybe helpful. I think it could be helpful for international students, give them a feel for what a UK interview is like.

CAREERS ADVISER B

FEEDBACK/REVIEW

Having the facility for an interviewee to watch themselves on video is interesting and quite exposing, but the situation felt artificial because there was not a 'real' someone asking the questions. This did not make the experience feel like real life. It became too easy to become frustrated and not take the process seriously. The programme could not feedback whether the content of answers, tone of voice or body language were appropriate. The software only gives the facility for self assessment. How does the user know what is effective/ineffective about the answers they have given?
The hints on how to approach answering a particular type of question were useful but some of the text tips given by the interviewer were a little too vague and generic.
It took a long time to save the video after giving a response to a question. I was unable to play-back the entire interview at the end.
There are similar interview preparation/practice resources already available to students via CareerBox. However, none of these tools/websites enable the user to video their responses.
This Interviewer programme could be a useful addition to interview preparation resources, but does not replace the effectiveness of a real-life mock job interview.

LEARNING TECHNOLOGIST (MEMBER OF UNIVERSITY STAFF)

FEEDBACK/REVIEW

I thought it was very straight forward - especially with the icon visible on the desktop.
The whole process was very clear and I liked the option to choose your interviewer (can't remember if they were all white tho...)
Only thing - the videos took a while to load once recorded - plus where do they 'sit'? Do they get deleted as soon as the window is closed down?
11.5.2 A Study of Mahara by b.i.b. Paderborn Students and Feedback

Feedback on Career Management Learning Study of Mahara by PBE1H0

Dear all in PBE1H0 who contributed to the study,

We all found your report very informative and interesting, and clearly you have put a lot of work into it. Very well done, and a real credit to you and your tutors at Paderborn! The report, including your findings, will be included in the final ‘ebook’ report of the joint b.i.b.-SSU study: ‘E plus - a practice oriented and transnational approach to enhance graduate employability’ that will be published in May. Here is some further feedback:

From Victoria Simpson of the Careers and Employability Service
One suggestion is some amendment to the first paragraph on page 10 (4. Evaluation) - to give a bit more context to the CV&CB unit.

May be expand the language to say something like “... with courses like CV & Career Building. At SSU CV & Career Building is an optional Curriculum Plus programme unit offered by ... delivered by the Careers & Employability Service and supported by its online employability resource ‘CareerBox’. Furthermore the evaluation discusses the use of ...”

Another suggestion is to consider amending the beginning of the first paragraph of 4.1.
For example “Unless students have participated in a careers education programme or have sought one-to-one careers advice and guidance, many students will have had little opportunity to consider their methods of self promotion and the development of a CV. This is a crucial tool in the job-getting process.”

From Sam Moss of the Learning and Information Unit
Promotional video (Page 14) - The reason the promotional video did not work for you in Germany is that it sits on our flash server which is only available to UK students.

Starting to use Mahara (Page 14) - With reference to the 4th paragraph, SSU students normally get a 1 hour induction to Mahara. You did not have the benefit of this, and perhaps explains why it took time to find out how to use Mahara.

Reliability (Page 16) - You found that Mahara did not crash “at any time and seems to be well-tested, reliable “, but you only gave a reliability mark of 2.67!!

Themes (Page 19) - Just to let you know that it will be possible to create your own themes etc in Mahara Version 1.4.

German CVs (Page 20) - There is an “Export Europass” link in myPortfolio that will generate your CV in German and other languages. Refer to the EU Europass website for more info.

My Friends (Page 20) - The friends “block” can be easily removed by clicking ‘x’!

Logging-in (Page 20) - It is only possible to login via myCourse. It may be that some of you tried to login via mahara.solent.ac.uk

“Fewer clicks” (Page 21)
In response to the Mahara community, navigation will be improved in Mahara Version 1.4.

Mahara in other languages (Page 22)
Mahara is available in German and other languages.

Further info.: 
- This is an example of a website in German created using Mahara: http://www.mahara.at/view/view.php?id=24190
- This is the person who translates the Mahara ePortfolio into German: http://mahara.org/user/view.php?id=11

Thank you - Al Monger, Martina Emke, Sam Moss, Victoria Simpson – 11th April 2011
Career Management Learning –

A study of

designed and conducted by

Sarbina Schmidt and the students of the Business Class PBE1H0

and based on an outline proposal by

Alastair Monger

February/March 2011
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1. INTRODUCTION

Nowadays, graduates face another challenging and partly frustrating task after having finished their studies: Apart from being highly-qualified, well-trained and socially competent, individuals struggle hard to gain access to the dynamic and constantly changing job market.

In the light of this present tendency, Al Monger, Academic Leader of the Faculty of Technology at Southampton Solent University decided to analyse the way students are supported in career management in order to determine how university could provide more expert advice. One crucial aspect in the given context seems to be an effective application. Although the students know that their future career depends on the first impression a company gets of a potential employee, some of them do not succeed in writing an informative, convincing application and thereby highly-skilled graduates fail to reach the required standard and finally to get the desired position. Southampton Solent University tries to assist the students with a wide range of programs and special services. Nevertheless, this help does in certain cases not attract the students’ attention and the university is seeking for other ways of reaching them. The modern age of technology requires a change of thinking – not only with regard to teaching, but also with regard to addressing the target group.

In cooperation with Samantha Moss, Learning Technologist at Southampton Solent University, Al Monger wanted to find out if the use of the open source e-portfolio tool Mahara to develop a well-structured CV fosters confrontation with the given topic. Since there has been no use of this software at b.i.b. International College so far, Al Monger turned to the German partner institute to find a group of inexperienced students to test the software and give feedback on their impressions.

A Business Class consisting of 22 first year b.i.b. Paderborn students accepted this exciting and interesting challenge and designed as well as conducted a corresponding study in the English lessons run by Sarbina Schmidt. The project report at hand is the result of this research nearly lasting 1½ months. We, the students of the class PBE1H0, hope to make a little contribution to Al Monger’s ambitious project. We wish him all the best and continued success in his valuable pursuit of increasing employability.
2. BACKGROUND

The following two sections provide an overview of the open source software Mahara (2.1 About Mahara) and give a summary of the profile of the participants who tested the e-portfolio tool in the given context (2.2 Profile of Survey Participants).

2.1 About Mahara

Within the study of the Mahara system in cooperation with Southampton Solent University it has to be dealt with the question what is meant by Mahara.

To answer this question, it is important to know that the software was established by New Zealand’s Tertiary Education Commission’s e-learning Collaborative Development Fund (eCDF). The word Mahara has its origin in the language of the indigenous population of New Zealand and means ‘think’ or ‘thought’.

In general Mahara is an open source e-portfolio system which means that it is available to everyone who wants to create an own electronic portfolio that can be visible on the Internet. An e-portfolio is a folder that includes the same information as a non-electronic portfolio but with the use of new opportunities given by the Internet for example blogs and hyperlinks.

At Southampton Solent University, the e-portfolio can be used to demonstrate the students’ achievements to a selected audience. (cf. http://www.mahara.org)

2.2 Profile of Survey Participants

The study at hand was designed and conducted by a Business Class studying at b.i.b. International College and is based on an outline proposal by Alastair Monger, the initiator of this project.

b.i.b. International College enables students to become professionally qualified depending on their educational background and qualifications. Those who start their professional studies with a Certificate giving access to the German ‘Fachhochschule’ (German: “Fachhochschulreife”) have the possibility of adding a Bachelor’s degree to their professional state degree. International partner universities offer the following degrees: Bachelor of Science in Information Technology or Bachelor of Arts in Design and Business. (cf. http://www.bib.de/Who_we_are.aspx)
Especially the cooperation with *Southampton Solent University*, based in the South of England ([http://www.solent.ac.uk/Homepage.aspx](http://www.solent.ac.uk/Homepage.aspx)), is an attractive and frequently chosen option.

The Business Class PBE1H0 specialising in Media, Marketing and Event Management started studying at *b.i.b. International College* in Paderborn, North Rhine-Westphalia, in October 2010. In their first semester, the students were given the opportunity to conduct this study.

The overall profile of the participants in the survey leads to the following interesting facts and figures relevant to the project.

### 2.2.1 General Information

#### 2.2.1.1 Basic Demographic Data

Relating to nationality, gender and age, our class is constituted as shown below:

Most of the 22 students are Germans; only two members of the class were born in a foreign country: One of them has a Turkish, the other one a Serbian origin. The class consists of 13 male and 9 female students whose average age is 21 years, although the majority is 19 years old. The age range goes from 19 to 26 years (cf. Figure 1).

![Figure 1: PBE1H0 – Age Structure](image)

#### 2.2.1.2 Education

Pie chart 2 contains the diversification of the different types of school qualifications in our class. It shows that 45% of the class members finished Grammar School and passed A-levels (German “Abitur”). The other 55% attended a Business College and
succeeded in getting the “Certificate giving access to the German Fachhochschule” (German “Fachhochschulreife”).

![Figure 2: PBE1H0 – Qualification](image)

2.2.1.3 Computer Skills

The following bar chart (cf. Figure 3, unit is number of students) reveals wide-spread skills in Microsoft Office. Moreover half of the students are confident in the usage of the Internet e.g. social networks. Fewer are familiar with other programs like Adobe. In general one can detect only basic computer skills.

![Figure 3: PBE1H0 – Computer Skills](image)

2.2.1.4 Work Experience

Figure 4 illustrates which different kinds of jobs the members of our class have already gained insight into.
The variety of answers is so large that some kinds of jobs are subsumed under “others”, which accounts for 9% of the group. Most of the students had part-time jobs (35%) and/or completed internships (22%) in different business sectors. 16% had jobs during their summer holiday, some worked for the German tour company Robinson Club in Egypt, others stayed in Germany and helped out as waiters. Except for 9% who do not give any feedback, every student in our class has already experienced some kind of professional life.

2.2.1.5 Future Career Plans

The majority of the students plan to work as managers, but the areas are very diverse. As you can see in figure 5 most of us would like to find an employment in the marketing and/or event sector. 17% do not know what to do in future yet.
Looking at pie chart 6 you realise that 77% of the students in our class want to take the chance of studying at SSU to get a Bachelor's or even a Master's degree. Only 23% are already sure of not taking this opportunity.

![Pie Chart 6: PBE1H0 – Study at SSU?](image)

Bearing the results of figure 6 in mind, pie chart 7 comes around with a surprise. 77% want to study at SSU, but living in the UK after having graduated is only taken into account by 41%. 45% do not consider staying in the UK at all. 14% have not made their decision yet.

![Pie Chart 7: PBE1H0 – Work in the UK?](image)

2.2.2 Project Specific Data

2.2.2.1 Mahara and Social Network Services

The survey reveals that none of those students being questioned ever used Mahara before. In addition, none of them knows the software at this time.
With regard to e-portfolios in general at least 14% state to have created an e-portfolio before and 9% are aware of somebody else having used such a tool to do so, namely *Drupal*, *Pebble ePad* and *Moodle*. However, the answers showed that many students did not even know what the term ‘e-portfolio’ really stands for, as some of the 14% confused it with social networks such as *Facebook*.

Nevertheless, there is a general interest in working with e-portfolios: 50% definitely want to try out an e-portfolio tool at the beginning of the study, 36% do not want to work with it and 14% are not sure and give too little information to clarify the reasons for this attitude (cf. Figure 8).

![Figure 8: Interest in Work with E-Portfolio](image)

Those willing to work with e-portfolios hope to gain benefits by presenting themselves as well as exchanging experience and information. Furthermore they expect an easy way and assistance in building their CV, as well as finding a job.

Though there is only little knowledge of e-portfolios, the vast majority (91%) of the students of the Business Class PBE1H0 are members of social networks, many of them in various ones. The “number one” social network is *Facebook*, attended by 86% of the group, followed by *StudiVZ* (36%), a popular German network for students. None of them uses a professional network like *XING*.

### 2.2.2.2 Expected Benefits of Mahara

The pie chart “Expected Benefits of *Mahara*” (cf. Figure 9) illustrates that the main advantage of *Mahara* is considered to be its good possibility to create and update one’s own CV (36%).
16% of the students mention circulating one’s CV via e-mail is another benefit of the e-portfolio tool, especially in the current age of modern technology. Furthermore, 12% state that Mahara could make a contribution towards decreasing the unemployment rate. The professional layout of a CV leaves a lasting good impression and may finally lead to the invitation to a job interview, in which the candidate may demonstrate his/her skills.

In addition, each time 8% of the class members consider the following aspects to be valuable benefits of the use of the open source software in the given context:

- the general standardisation of CVs,
- the fact that Mahara seems to give a more detailed account of a person’s qualification and character,
- the impression that a Mahara CV looks more professional than a standard CV,
- the use of Mahara as a social network in order to stay in contact with friends, classmates, employees, etc.
3. Methodology

This section describes briefly the approach to conduct the study. At the beginning it is explained how a questionnaire was created (cf. section 3.1) and afterwards it is outlined how the students designed their own individual e-portfolios (cf. section 3.2).

3.1 Development and Evaluation of a Questionnaire

First the class split into groups to develop the content to be included in the questionnaire. Subsequently the students gathered ideas in class to add more questions and to discuss the aim of this specific questionnaire.

Finally, the decision was taken to divide the questionnaire into two parts: The first part describes the profile of participants and the second part consists of a systematic review and evaluation of the usage and effectiveness of Mahara as a supporting tool for CV development.

Before the students started working with Mahara, they filled out the first part of the questionnaire. Then they took a look at certain tools for assistance and in the end, each member of the class created his/her own profile. Having gained a deeper insight into e-portfolios, the students were able to answer the questions included in the second part.

The entire questionnaire can be found in the appendix.

3.2 Design of Individual E-Portfolios

At first the members of the class PBE1H0 were provided with the access data for their myCourse (http://mycourse.solent.ac.uk/) accounts by Samantha Moss, whereupon they watched instruction videos and looked in detail at the e-portfolio of Samantha Moss to get an example of an ideal profile.

Afterwards they started to create their own profiles and thereby tried out which options Mahara offers. The group compiled the CV (personal statements, academic career, personal goals, etc.), uploaded a photo and changed the structure as well as the design of the profile. Moreover, the classmates were requested to add each other as “friends”.
4. Evaluation

The evaluation of the questionnaire deals with the necessity and value of assistance in career management by school/university in general and with courses like the Curriculum CV and Career Building unit offered by the Business Computing BIT and Computing programme at SSU (section 4.1). Furthermore it discusses the use of Mahara with its benefits, drawbacks and possible improvements (section 4.2).

4.1 Necessity and Effectiveness of Career Management

As a rule students do not have any experience with the development of a CV, although it is one of the crucial points in the process of getting a job. But who is responsible for teaching the students how to meet the demands of an ideal application? 100% of the students in this class consider that the assistance in career management and employability should be provided by school/university because nobody else does. Educational institutions can give students professional help with learning standards and basics as well as special requirements. Especially if formalities change they can keep students up-to-date, for instance with regard to the change from paper-based CVs to online CVs. It is the responsibility of educational institutions to support students in getting a good employment and to facilitate their first steps into a professional life. In the end, the reputation of the university depends on the success of its students.

In the context of this prevailing attitude, 50% of the students would be interested in choosing the Curriculum CV and Career Building unit. From their point of view, it is essential for their future career because otherwise they are not getting taught in writing a letter of application or a CV. A mistake made in an application could leave behind a bad impression. With that course students are given the opportunity to improve their job application skills and according to that they increase their chances of getting a job.

But these students are also of the opinion that this unit should be an additional one and not replace a course like ‘Marketing’ or ‘e-Business’. They would rather choose the Marketing or e-Business class than the CurriculumPlus option if they had to make a choice. But everything is a matter of time. The problem arising from an additional participation is that the studies at SSU are fairly time-consuming and a
supplementary unit would stand for more time that could not be spent on the other units for which the students get credit.

Moreover mentioning the Curriculum CV and Career Building unit on the university leaving certificate may lead to a negative impression. Without any further information, recruiters could consider this unit to be an effective way to get credit points easily. More essential for employers are credits gained in relation to issue-specific units.

Last but not least, everyone has to take this decision on his/her own.

4.2 Usage and effectiveness of Mahara

4.2.1 Assistance

The so-called “myPortfolio Help Site” supports the students in creating their CV with certain tools: a promotional video (section 4.2.1.1), a help-pack presentation for tutors (section 4.2.1.2), an activity (section 4.2.1.3) and navigational videos (section 4.2.1.4).

The following sections are meant to give an overview of the different tools and to summarise the overall impression of the students (section 4.2.1.5).

4.2.1.1 Promotional Video

The promotional video “e-Portfolios at Solent University” (cf. Figure 10) demonstrates the benefits of e-portfolios. It is an animated and funny method, especially helpful for inexperienced students, to learn about the value and development of an e-portfolio.

Figure 10: Assistance – Promotional Video
4.2.1.2 Help-pack for Tutors

There is a presentation created for tutors (cf. Figure 11) to illustrate what an ideal profile should look like. Keeping this in mind, the students should be able to design their own individual account afterwards. Although entitled “help-pack for tutors”, the PowerPoint slides are also accessible to students.

![Figure 11: Assistance – Help-pack for Tutors](image)

4.2.1.3 Activity: Create an Online CV

The short tasks subsumed under the heading “Activity: Create an online CV” (cf. Figure 12) have been designed for an easy start with Mahara.

![Figure 12: Assistance – Activity](image)
The six tasks comprise the following topics:

- fill out your CV builder,
- create view,
- themes,
- layout,
- title,
- access permissions.

4.2.1.4 Navigational Videos

These videos (cf. Figure 11) show how to create CVs by means of Mahara step by step. They provide the students with the basic knowledge in a very concrete way which is essential for those who do not have any experience with the software.

![Figure 13: Assistance – Navigational Video](image)

4.2.1.5 Overall Impression

We used a six-point scale (1=very helpful, 6=not helpful at all) to rate the help resources offered by Southampton Solent University. The average rating of the PowerPoint presentation “help-pack for tutors” and the “activity: create an online CV” is 2.9, the one of the “promotional video” is 3.0 and the “Navigational videos” 3.4.
All in all the students seem to be satisfied with the assistance with the Mahara e-portfolio. Nevertheless you can see that some of them have certain ideas for improvement. With the support of the given tools, the students are able to create their own e-portfolio, but to find an adequate supporting tool they have to spend a lot of time on searching for it.

Although the videos show how some ideas are put into practice, they only give a first impression and are not very helpful to create a well-structured, detailed online CV. With sound and comments, the navigational videos would be more useful. As a consequence, the students like the written material most ("help-pack for tutors" and the "activity: create an online CV") since they include fairly explicit information.

A fundamental drawback is the fact that unfortunately the promotional video embedded on the myCourse website did not work. We had to watch it on the video-sharing website http://www.youtube.com/watch?v=KOFSrV3QOWM, where the promotional video has been uploaded by SSU.

Having a look at the question whether an e-portfolio design skill training would be useful, the students of the class PBE1H0 come to the conclusion that there is a definite need. There occur several problems while working with Mahara: For instance, it is not that easy to find out how to drag and drop the different sections into the final version of the CV and it takes a lot of time to figure out the solutions on your own. Furthermore, some of the instructions are not very helpful and hard to follow.

As a consequence, the students would be interested in a more detailed step-by-step instruction and an expert to assist the creation of the profile. The average rating of the need for a “design skill training” is 2.2 (1=very helpful, 6=not helpful at all).

4.2.2 Satisfaction

The members of the class were asked about their overall satisfaction with Mahara’s usability (section 4.2.2.1), functionality (section 4.2.2.2), reliability (section 4.2.2.3), design (section 4.2.2.4) and given options (section 4.2.2.5).

To get an overview of their opinion, a six-point scale (1=satisfied, 6=dissatisfied) was used to rate Mahara in the given context. In general one can state that the students are quite satisfied with it.
4.2.2.1 Usability

The average rating of the usability of the software is 3.64 (cf. Figure 14, unit is number of students) which is the worst result of all in this category.

The main reason for the bad rating seems to be the confusing structure of Mahara. Many students had problems to orientate themselves because of the difficult structure of the site. The route to get to special options is very long (e.g. from “Profile: My CV” to “My Portfolio: My Views”, cf. Figures 15 and 16). The next time you need certain features, you cannot remember the several steps you have to take to get there and as a result, you are forced to search again from the very beginning.
4.2.2.2 Functionality

With regard to the software’s functionality (cf. Figure 17, unit is number of students) the students mainly agreed on opting for the mark “3” which leads to an average of 2.9.

4.2.2.3 Reliability

Mahara’s reliability is best with an average of 2.67 (cf. Figure 18). Within the testing phase, Mahara did not crash at any time and seems to be a well-tested, reliable software.
4.2.2.4 Design

The chosen marks referring to the design are wide-spread (cf. Figure 19, unit is number of students). Except for the mark “1” all marks are represented.

It maybe concluded that the perception of a design is related to personal taste and as a consequence there will never be a design that appeals to everyone.

4.2.2.5 Given Options

At last the part “given options” (cf. Figure 20, unit is number of students) reaches an average of 2.82. The opinions in this section of the questionnaire differ a lot – similar to the evaluation of the usage of the software. All in all you can tell from the varying answers that it is unclear what is precisely meant by the headings (e.g. the difference
between academic and career goals or between academic and work skills), but for a deeper insight, have a look at the analysis of benefits and drawbacks in the following section.

**Figure 20: Given Options**

### 4.2.3 Benefits and Drawbacks of Mahara

While logging-off and working with the open source e-portfolio and social networking software *Mahara* there occur some problems which should be specified. Indeed all students notice some drawbacks which will be confronted with the benefits of *Mahara*. This confrontation finally reveals the strengths and weaknesses of the software in the given context.

#### 4.2.3.1 Benefits

For the students the most positive part of *Mahara* is that they can add their friends and tutors to stay in contact with them, since everybody has a post wall where friends can leave messages. It is also helpful that every other member can look at your profile so that other students get ideas how to create their own e-portfolio and see how to work with *Mahara*.

The students of our class state that *Mahara* is a fast and cheap way to create a CV to present oneself to a selected audience. With *Mahara* you can summarise your work skills and career in order to grant recruiters immediate access. Therefore, *Mahara* provides an easy way to publish one’s data. By means of this software, a candidate can send his/her individual e-portfolio to a company having advertised a vacancy.
In addition, one’s CV can be altered fast and easily and Mahara is also a valuable tool because the internet does not offer so many applications to create an e-portfolio.

4.2.3.2 Drawbacks

For all of us this project was the first time we worked with Mahara. Thus the software and its functions were not clearly defined for everybody. The orientation within myCourse took a lot of time for most students. Especially the structure of the e-portfolio (see Figures 15 and 16 once more) was not easy to understand and quite confusing.

Not all options, functions and opportunities were obvious or ‘visible’ enough to the students e.g. where to change your profile the way you want it to look like and the connections between the sections. Firstly we tried out to change our profile at My Portfolio: My Views and later we noticed that we can change it under “edit content” (cf. Figure 21). But this direct link was not visible at first sight. Therefore, a bigger font size of the words “edit content” would be better.

Figure 21: Structure – Edit Content

In addition, the students would value the possibility to create an own theme (cf. Figure 22) and a wider range of fonts in order to create a more individualised CV.
Another aspect to mention is that it is not common to create an online CV in Germany and that the structure is orientated towards British conventions and not towards the ones of any other countries. Therefore we do not know if companies outside the UK appreciate this kind of online CV.

In the given context, some functions like “My Friends” (cf. Figure 23) are not relevant for an employee and seem to be non-serious for an application.
As far as myCourse in general is concerned, some students had problems logging in (cf. Figure 24). Despite entering the correct password and name, some students of our class were not allowed to enter. Several tries finally lead to success.

![myCourse Login Failure](image)

**Figure 24: myCourse – Login Failure**

### 4.2.4 Suggestions and Improvement Ideas

Since several students had problems with creating their own CV by means of Mahara we asked what could be improved. Apart from only one person who would not improve Mahara at all, the majority of our class sees some room for improvement. The most frequently criticised element of Mahara is its design. 14 persons consider the layout to be confusing and not well-structured. The distance between the different sections is quite long and it could be fewer clicks from one section to the others. As a consequence, an easier, more user-friendly realisation would be desirable. Especially new users have to spend much time on exploring Mahara before they are able to navigate well.

Overall the handling of Mahara suffers from the page’s surface which is structured in a confusing way. MyPortfolio’s front page comes along in a too overloaded and badly structured way (cf. Figure 25). This problem could be solved in parts, if the surface became easier to handle.
In addition, the CV itself could be improved. It does not leave much room for the user’s creativity, since the different sections are given and you cannot change them. Four persons express the wish for more individuality and creativity in this context. This percentage does not seem to be significant. But it has to be taken into consideration that PBE1H0 is a Business Class, not a Media Class. If people who are more creative and interested in design were confronted with the software and the options it offers, the amount of complaints about this aspect would be higher.

Moreover, three people state a spell-check feature would be helpful, especially for people whose native tongue is not English. Two students would appreciate different languages in Mahara.

Summing up one can see that the overall impression of Mahara is a good one. Nevertheless some students being questioned are not really pleased with the current structure of the platform. It would definitely be an improvement if some of the ideas mentioned above could be put into practice. However, all of us are not members of a computing class. As a consequence, we cannot judge if the implementation of our proposals can be considered at all.
4.2.5 Further Areas of Application

The students of our class see several further areas of application of Mahara:
An essential additional part could be the presentation of projects having been realised by the student so that companies get a better idea of the way the potential employee works. With these work samples the company is able to judge the experience and creativity of this person and is able to distinguish whether the person fits into the concept of the company or not. Other possibilities are to publish photos or videos which are relevant to the person presented in the e-portfolio. Such aspects are vital to get a lucent and detailed view on the experience this person has gained.

Another point is that companies seeking for employees or trainees should be able to access every e-portfolio in order to send a written request directly to the person. Furthermore contact details of former companies should be listed so that the viewer is able to get a closer look at the person’s work experience. If a company is really interested in employing a candidate, it should be given the possibility to contact people to whom reference is made.

Detailed information can help the future employer to see whether the potential new employee is really appropriate for the job vacancy. This should include personal interests like working abroad or favourite departments.

A further benefit could be the use of a database to filter desired skills and specialisations of the person’s CV. Especially for students of b.i.b. International College this could be interesting for presenting their own skills, qualifications and additional strengths and weaknesses while looking for an internship (projects). Moreover companies should be enabled to search for students for a specific project by means of this database. Accordingly both, companies and students who use Mahara can benefit from it.

All in all it is essential to expand the open source software options of the e-portfolio as far as possible to offer the viewers a closer look at the person they are confronted with.
5. **Conclusion**

Most students (68%) would like to go on working with the open source e-portfolio tool *Mahara* in the near future, because they like the given structure and judge it as a beneficial and useful system, mentioning that the different sections of the CV give a good and professional overview of a candidate’s qualification and experience. They are fond of the idea of an e-portfolio in general and the fact that it is online and thereby easily accessible. In addition, it is a cheap alternative to sending paper-based applications to different companies by mail and it is a chance for the students to enter the British employment market.

However, they dislike that it is not very easy to handle and not well-known in Germany (cf. section 2.2.2.1 Mahara and Social Network Services). As a consequence, they fear that German companies reject an application based on this tool since the recruiters do probably not want to spend time on an unknown system. Most of the 15 students, who would like to work with *Mahara* in the near future, state that it has to improve, before it can be recommended for the given purpose without limitation. For instance, the software could be more successful if the layout were neat and arranged in a better way. It should be dealt with the remarks made in the previous sections in a critical way, so that drawbacks of the tool could be eliminated to a certain extent.

With regard to the question if the benefits of *Mahara* outweigh the effort, different opinions arise: Eleven students state that the benefits outweigh the efforts and ten students contradict this statement. One student has not made up his/her mind yet. This result may have its origin in the circumstance that a professional tutorial was missing in the course of this study. Thus, the students had to work hard, confronting themselves with the software, the layout/structure of a British CV and many more challenges at the same time. As declared in section 4.2.1.5, an e-portfolio design skill training would have been appreciated.

All in all it was a valuable experience to conduct this study and the Business Class PBE1H0 hopes to have given an interesting insight into the necessity, usage and effectiveness of the open source e-portfolio system *Mahara*. 
6. REFERENCES

Factual information about the open source e-portfolio system Mahara and the two institutions referred to in this study, namely Southampton Solent University and b.i.b. International College can be retrieved here:

**Mahara**

http://www.mahara.org
[accessed 4 April 2011]

**b.i.b. International College**

http://www.bib.de/Who_we_are.aspx
[accessed 4 April 2011]

**Southampton Solent University**

http://www.solent.ac.uk/Homepage.aspx
[accessed 4 April 2011]
http://mycourse.solent.ac.uk/
[accessed 4 April 2011]
http://www.youtube.com/watch?v=KOFsV3QOWM
[accessed 4 April 2011]
APPENDIX
QUESTIONNAIRE

Thank you for taking the time to fill out this questionnaire. 
Your input is very valuable!

Part I – Profile of participants

1. General Information

1.1 Name
___________________________________________________________________

1.2 Gender
 Female    Male

1.3 Age
_________ years

1.4 Nationality
___________________________________________________________________
2. Education & Career

2.1 Qualification

- General higher education entrance qualification *(Allgemeine Hochschulreife)*
- Certificate giving access to the *Fachhochschule* *(Fachhochschulreife)*

2.2 Computer skills

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2.3 Work experience

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2.4 Future career plans

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

2.5 Do you want to join the Business Top-up Programme and study at Southampton Solent University?

- Yes
- No

2.6 Would you like to work in the United Kingdom?

- Yes
- No
3. Mahara software & Use of social network services

3.1 Have you ever heard of Mahara software before the study?

[ ] Yes  [ ] No

Please specify in which context.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3.2 Have you ever used Mahara software before the study?

[ ] Yes  [ ] No

Please specify in which context.

________________________________________________________________________
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3.3 Have you ever used another e-Portfolio web application before?

[ ] Yes  [ ] No

Please specify.

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3.4 Are you aware of anybody having used Mahara or another e-Portfolio web application?

- Yes
- No

Please specify.

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3.5 Are you interested in working with e-Portfolios in general?

- Yes
- No

Please specify.

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3.6 Are you member of a social network (e.g. Facebook)?

- Yes
- No

Please specify.

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3.7 Are you member of a professional network (e.g. XING)?

☐ Yes  ☐ No

Please specify.

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3.8 Which benefits can be provided by applying Mahara as a supporting tool for CV development?

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Part II – A systematic review and evaluation of the usage and effectiveness of Mahara as a supporting tool for CV development

1. Assistance with the e-Portfolio

1.1 How helpful is …

<table>
<thead>
<tr>
<th>Feature</th>
<th>Very helpful</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not helpful at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>myPortfolio – help-pack for tutors?</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
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<tr>
<td>e-Portfolio – introductory video?</td>
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<td>1</td>
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<td>the activity – create an online CV?</td>
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<td>the videos – create an online CV?</td>
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<td>1</td>
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<td>6</td>
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Please specify.

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1.2 Is there a potential need for e-Portfolio design skill training?

<table>
<thead>
<tr>
<th>Importance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not important at all</th>
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<tr>
<td>Important</td>
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Please specify.

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2. Evaluation of the necessity and effectiveness of career management in general and Mahara in particular

2.1 How valuable is assistance in career management and employability provided by school/university?

<table>
<thead>
<tr>
<th>Very valuable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not valuable at all</th>
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<td>Please specify.</td>
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2.2 If you were given the opportunity, would you be interested in choosing the Curriculum CV and Career Building unit (Curriculum Plus Option)?

☑ Yes  ☐ No

Please specify.

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__________________________________________________________________
2.3 How satisfied are you with Mahara’s (myPortfolio’s) …

- usability?

| Satisfied | 1 | 2 | 3 | 4 | 5 | 6 | Dissatisfied |

- functionality?

| Satisfied | 1 | 2 | 3 | 4 | 5 | 6 | Dissatisfied |

- reliability?

| Satisfied | 1 | 2 | 3 | 4 | 5 | 6 | Dissatisfied |

- design?

| Satisfied | 1 | 2 | 3 | 4 | 5 | 6 | Dissatisfied |

- given options?

| Satisfied | 1 | 2 | 3 | 4 | 5 | 6 | Dissatisfied |

Please specify your overall impression.

________________________________________________________________________
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34
2.4 What are the major benefits and drawbacks of applying Mahara as a supporting tool for CV development?

- **Benefits**

- **Drawbacks**

2.5 Do you see room for improvement?

- Yes
- No

Please specify.

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2.6 Do the benefits outweigh the effort?

Yes  No

Please specify.

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__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
3. Future usage of Mahara at SSU and/or b.i.b.

3.1 Would you personally apply Mahara as a supporting tool for CV development in future?

[ ] Yes  [ ] No

Please specify.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

3.2 Are there any other areas of application of the software?

[ ] Yes  [ ] No

Please specify.

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