



**A virtual practice community for student learning and staff development in health and social work inter-professional education; changing practice through collaboration**

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**GLOSSARY OF TERMS**

Interprofessional education - Centre for the Advancement of Interprofessional Education (CAIPE) definition of IPE: occasions when two or more professions learn from and about each other to improve collaboration and the quality of care (Barr 2002).

IPE at Bournemouth University – Interprofessional education in undergraduate health and social work programmes

Blended learning – A combination of computer-mediated and face-to-face learning opportunities

Technically enhanced learning - Learning opportunities facilitated through computer-mediated environments

Wessex Bay Simulated Community - Web-based learning resource, peopled by health and social care service users and providers.

**GLOSSARY OF ABBREVIATIONS**

VLE – Virtual learning environment

myBU (based on Blackboard) – Bournemouth University VLE

## SUMMARY

Interprofessional education (IPE) has been widely advocated and developed as a means to encourage effective collaboration in order to improve public sector services. An IPE curriculum was introduced at Bournemouth University from 2005 for all nursing branches, midwifery, occupational therapy, physiotherapy, operating department practice and social work students (n=600). Challenges of this ambitious and large scale project included facilitating meaningful interprofessional learning while balancing structural complexities of professional body requirements and the logistics of large student numbers and multi-site teaching. A web-based simulated community was created, known as *Wessex Bay*, as a learning resource to facilitate interprofessional learning around case scenarios.

An evaluation of student and staff experiences of IPE over two years, focusing principally on the use of technology in the education process was implemented. Student and staff data were collected via e-surveys, focus groups and open-ended questionnaires with additional feedback from external reviewers specifically on *Wessex Bay*. Qualitative data were subjected to thematic analysis. Whilst the findings are not claimed to be representative, they provide a rich insight into student and staff experiences of technology enhanced learning in IPE.

The richness and complexity of data has led to a number of project outcomes with wide-ranging implications for interprofessional education. This research has led to the identification of three major territories of praxis in which individuals, both students and tutors, are operating in IPE, namely professional differences and identity, curriculum design and learning and teaching strategies, and technology enhanced learning. For the purposes of this report, we will discuss the findings related to student and staff experiences of technology enhanced learning in IPE.

The evaluation of the findings highlighted three issues; the level of student and staff knowledge and skill in using learning technologies impacted significantly on learning; there was a need to capitalise on the use of web-based learning resources by increasing interactivity within the scenarios; and finally student and staff experiences of the learning resources was enhanced by a positive learning culture to facilitate creative use of materials.

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All project aims and objectives were met, and whilst more focused staff and student development in using learning technology is required, a culture of working interprofessionally among students and academic staff has begun to develop, leading to the sharing of ideas about content and learning processes. Recommendations resulting from the project include the introduction of assessed development of student and staff learning technology skills; development of more interactive web-based learning embedded within the case scenarios; and streamlining of the scenarios to provide fewer, but more developed, cases.

## CONTEXT AND RATIONALE

Interprofessional education has been widely advocated and developed as a means to encourage effective collaboration in order to improve care provision (Barr 2002, Barr and Ross 2006, Whittington 2003) as part of the modernisation of public sector services.

A growing body of evidence has explored the process aspects (Barrett et al 2003, O'Halloran et al 2006, Clarke et al 2007), called for a theorised approach (Craddock et al 2006, Payler et al 2007), and acknowledged and explored the e-learning aspects of IPE (Miers et al 2007, Reynolds 2007).

A new curriculum with substantial interprofessional education (recognising the CAIPE 1997 definition of IPE) at each undergraduate level (30 of 120 credits in each year) was introduced at Bournemouth University in 2005 for Adult, Child health, Mental health and Learning disability nursing disciplines, midwifery, occupational therapy, physiotherapy, operating department practice (ODP) and social work students. Challenges of this ambitious and large scale project included facilitating meaningful interprofessional learning while balancing structural complexities of professional body requirements and the logistics of large student numbers and multi-site teaching - across three teaching sites in Dorset, Somerset and Hampshire and a wide range of practice-based placements.

Blended learning, providing a mix of online and face-to-face interactions and increasingly common as a curriculum strategy (Driscoll 2002, Laurillard 2002, Salmon 2000), was introduced across all curricular areas to support and integrate the dispersed student groups. This approach is supported by a growing acknowledgment of the value of online learning in IPE (Miers et al 2007) both to provide a scenario based context for learning and to facilitate learning across different sites. The introduction of these two educational innovations, one predominantly related to curriculum as *syllabus content* (IPE), and the other to curriculum as *process* (blended learning), presented significant challenges for staff and students.

A web-based simulated community was created, known as *Wessex Bay*, peopled by health and social care service users and providers, as a learning resource to facilitate interprofessional learning around case scenarios. The project team drew on their experience of developments and research in e-learning and collaborative practice

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(Hutchings 2002; Hutchings 2007; Mulholland et al 2005; Quinney 2005; Quinney 2006; and the Making Practice Based Learning Work website) [www.practicebasedlearning.org](http://www.practicebasedlearning.org) ). *Wessex Bay* is embedded in the *Blackboard* Virtual Learning Environment (VLE) and utilises the tools of e-learning, including bulletin boards and discussion forum facilities. This virtual community of practice (Wenger 1998) enables the dispersed communities of practitioners, students and tutors, to collaborate and develop interprofessional practice through face-to-face and online interaction.

Student enquiry and effective learning is facilitated within a safe but challenging interprofessional environment, using 'live' individuals situated within an authentic community as case studies (Brown et al 1989, Jonassen & Land 2000, Savin-Baden 2000). These scenarios are developed, managed and 'manipulated' by tutors to actively engage students in blended learning activities including case analysis and decision-making, discussion and debate, and collaborative problem-solving in a variety of interprofessional situations.

The learning activities support preparation for clinical practice by developing awareness of the service user/patient perspective, exploring values, professional roles, awareness of the range of services available and the legal interventions that might be required. They also form the basis of assessed unit learning outcomes. For details of the project aims and objectives, see Appendix 1.

### **How does the virtual community work?**

Students access *Wessex Bay* through the VLE and search for individuals by name, keyword, or map location, to identify the homes of residents and find out about family structures, living situations and care needs. Health and social work/care facilities are located in this virtual community - a health centre, care home, day centres, and social services department with information about people accessing the services and the staff employed there. Resources developed comply with accessibility guidelines (TechDis 2002 ). By using the link below you will see an overview of *Wessex Bay* on the School external site. <http://www.bournemouth.ac.uk/hsc/wessexbay.html> A screen shot of the *Wessex Bay* home page can be seen below.

The virtual community is used by academic staff involved in a range of teaching units, namely 'Preparation for Professional Practice', 'Communication', 'Communication in Groups' and Risk Assessment & Risk Management. Adopting a problem based learning approach (Savin-Baden 2000), pre-set interprofessional student groups are given a trigger related to a community member. For example student midwives, child health nurses and social workers may consider a scenario related to a 14 year old pregnant girl; students from adult branch nursing, occupational therapy, physiotherapy, ODP, and social work may have a trigger relating to an 87 year old man who fell at his care home and fractured his hip. Tutors use bulletin boards to update students on the evolving situation and timed 'chat room' meetings to explore the implications of developments. Discussion forums are used to debate pre-set issues, share interprofessional perspectives, and generate collaborative strategies for assessment, planning, intervention and review of care provision.

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## PROJECT PROCESS

An evaluation of student and staff experiences of IPE, focusing on the use of technology in the education process was implemented. Specifically the use of the virtual practice community, VLE and the range of learning activities and resources associated with them were considered, the aim being to refine these resources through feedback from students, tutors and external evaluators and to disseminate the findings.

### Data collection

Data were collected from one cohort and their teachers before and after IPE unit delivery in year one and year two of the programme. A plan to e-survey the students, before and after units in year one and two and then to conduct uni-professional focus groups each year was not possible due to unforeseen logistical problems, and led to amendments to the project design whilst ensuring the project outcomes were met. In summary, data collection methods were as follows:

Data collection method	Year 1	Year 2
IPE baseline e-survey	√	√
End of unit e-evaluation	√	×
Focus group	√	×
Open-ended questionnaire (based on focus group triggers)	√	√
External review	×	√

#### *Baseline surveys*

To complement the remit of the HEA mini-project, the team collected data concerning student perceptions of IPE in general, prior to unit commencement. A pre test-post evaluation design involved student opinions of their experiences of IPE being canvassed at the beginning of their first year of IPE (response rate 59%; n=352) and again at the beginning of their second year of this programme (response rate 29%; n=162) (Appendix 2).

#### *End of unit evaluation*

Following completion of the year one IPE units, the students were surveyed, focusing on their perceptions of content and learning and teaching processes. This survey used the standard Bournemouth University unit evaluation, transferred to an e-survey

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format. It included ten questions rated on a scale of 1 (strongly agree) to 4 (strongly disagree); (Appendix 3). Respondents could also add additional comments. The response rate was 43% (n=258). Unfortunately when the year two IPE units were delivered, the university unit evaluation system changed, making it impossible to repeat the year one unit electronic evaluation.

#### *Focus groups and Questionnaires*

Nine student focus groups were planned in the first year of the evaluation, one for each professional grouping. Six focus groups (6-10 students per group) were undertaken using an agreed set of triggers (Appendix 4). However due to programme timetables, it was difficult to schedule focus groups with three groups. Those students were sent the triggers in an open-ended questionnaire format with an information sheet. No child health nursing students opted to participate. One staff focus group was also held using the same triggers. In year two, for logistical reasons, the planned focus groups were replaced by an open-ended questionnaire developed from the focus group triggers. This was sent to all students (Appendix 5) and staff (Appendix 6) but the response rate was a disappointing 7% (n=37) and 20.5% (n=8) respectively. Questionnaires were in a web-based format, to facilitate ease of completion on-line; the appendices illustrate the questions, as opposed to the actual presentation.

#### *External review*

Interested colleagues within the JISC (Joint Information Systems Committee) network were approached and seven departments took up guest access to the site. Four completed a brief feedback questionnaire (Appendix 7)

#### **Ethical considerations**

Institutional protocol for undertaking research with staff and students was followed, which included voluntary participation and the confidential record keeping. Participants were informed about the evaluation via e-mail, seeking their involvement. Survey completion was anonymous and not able to be traced back to the respondent. Focus groups were recruited on unit completion and formal consent obtained prior to data collection. Focus groups were given code names and the content of focus group transcripts was anonymised. Access to data was restricted to the project team.

**Data analysis**

The transcriptions from focus groups and the qualitative comments from the e-surveys, questionnaires and external reviewers' feedback were subjected to thematic analysis (Tarling & Crofts 2002, Holloway & Wheeler 2002). The content was coded and then grouped into larger categories to form themes. The base-line survey also yielded statistical data about general perceptions of IPE. As the focus of the project was essentially the use of technology enhanced learning in IPE, this additional rich data set is not discussed in this report, but it is the team's intent to disseminate this material through journal articles.

**Limitations**

The team does not claim that the findings are representative. The surveys had reasonable response rates in the first year but were very limited in the second. Focus groups, by their nature, did not include the views of all professional groups (notably no child health nursing students participated) but do provide an insight into student and staff experiences of technology enhanced learning in IPE. Evaluation methods were not identical over the two years of the project, although the outcomes were met using different but complementary methods.

## **PROJECT OUTCOMES**

The data generated for the project were considerable and this report seeks to provide a flavour of the key issues that emerged. This section considers the evaluation of student and staff experiences and the feedback from external reviewers (project objectives 2, 3 and 6 as outlined in Appendix 1).

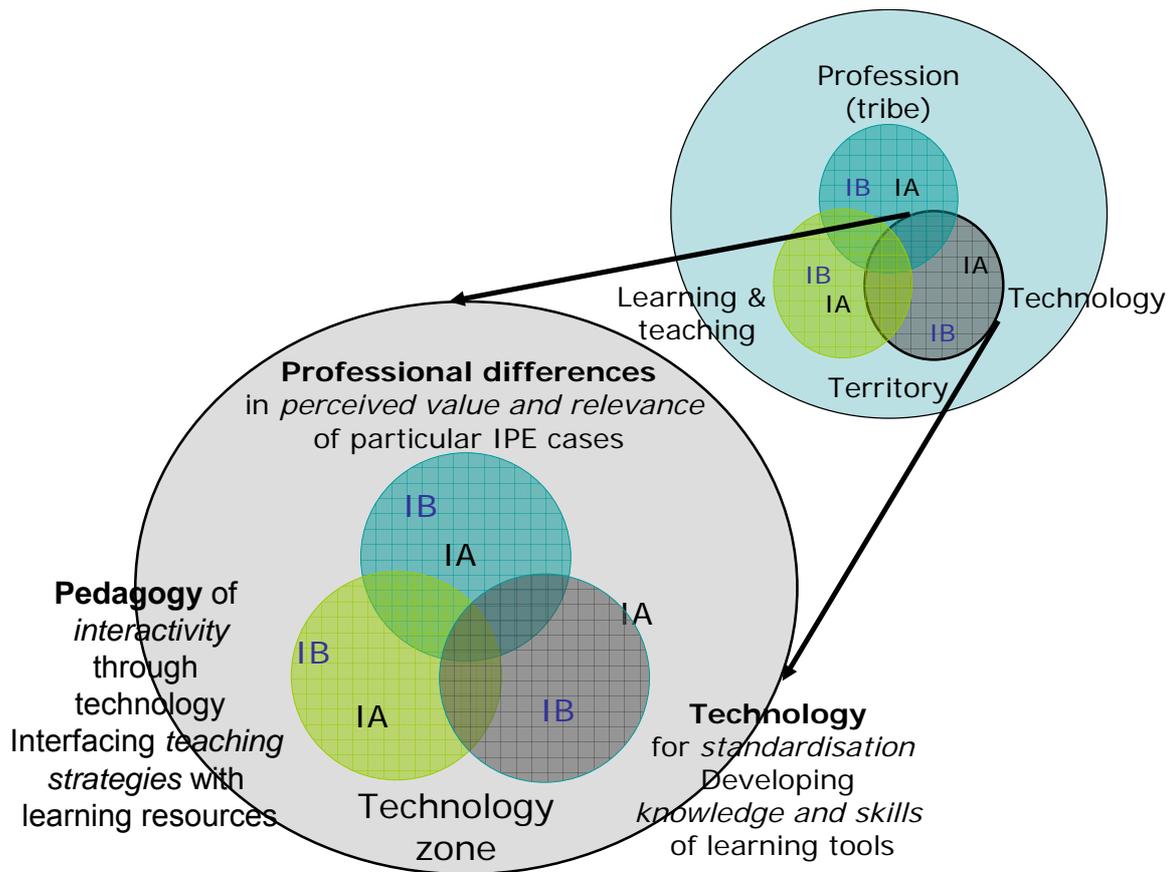
### **Overview of student and staff findings**

The richness and complexity of data collected and analysed has led to a number of project outcomes with wide-ranging implications for interprofessional education generally. The data revealed much about learning and teaching methods, professional identities and the role of technology in learning. However, given the project objectives, the focus in presenting the findings here is the experiences of technology enhanced learning in IPE in health and social care.

The comparative analysis of qualitative data collected from the student (FG) and tutor focus groups (TFG) and open question responses in the student (SQ) and tutor questionnaires (TQ) and student electronic surveys (ES), provided a range and depth of data to corroborate and challenge the identification of particular categories. Emerging categories were grouped into the three major themes. The technology enhanced learning theme is reviewed here and supported by the voices of students (Appendix 8) and staff (Appendix 9) from the different professions engaged in IPE. The narrative should be read in association with the tables.

Figure 1 demonstrates the relationship of the technology theme to a broader tentative IPE praxis model which is considered further in the discussion section. Typical individuals (IA and IB) are located at different points with regard to engagement with technology enhanced learning and identified according to professional differences in use of Wessex Bay case scenarios, differences in pedagogical interactivity, and differences in knowledge and skills of learning technologies.

**Figure 1: Technology enhanced learning zone of praxis**



### **Student and staff evaluations of technology enhanced learning for interprofessional education**

The IPE experience was valued by students and tutors. Students identified benefits of working together within interprofessional groups, for sharing views, gaining an understanding of different professions, and valuing different professional perspectives. However the IPE experience and using technology enhanced learning evoked strong emotions with students feeling frustrated, anxious and confused. Staff described working with mixed professional groups as 'enjoyable', 'challenging' and 'stimulating' (TQ), finding that it added to their own understanding of other professions and caused them to consider how to accommodate 'different world views' (TQ) and helped to develop a sense of 'commonality in purpose' (TQ).

*It was really stressful that week not knowing and being in control of things. Not being prepared. Even though it was new it made it really stressful. When you did*

*get into it I thought it was really good. It was just that stressful bit in the beginning. (FG1, p.17)*

Students emphasised that everyone was learning about working with Wessex Bay and the Blackboard VLE and that both they and some of their tutors had insufficient knowledge and skills to use the technology effectively.

*I think it was foreign to everyone at the beginning because it has only been in this year and even the tutors were struggling with Blackboard. They were struggling to get to grips with it the same as we were, who have never used it before. (FG2/3)*

### ***Variations in IT Skill levels***

IT skill levels varied with some students more familiar with the VLE and IT than others. Where students struggled with computers they suggested this affected learning and contributions to group work. Year 2 students identified positive improvements in computer literacy skills over Year 1.

Staff described themselves as having a range of IT skills and a range of attitudes from enthusiasm to reluctance were evident in their responses in year 1 and year 2. They also recognised the range of student IT skills in their teaching groups despite a core study module on information literacy.

### ***IT familiarisation and support***

Students realised the process of IT familiarisation could prove time consuming and frustrating. Though students received an introduction to the VLE and IT systems and were invited to sign up for further sessions according to their requirements, they identified the need for an earlier mandatory session on Wessex Bay and Blackboard to equip them with more skills. Some students felt they should be supported more rather than being self-taught, but others found they could use the systems effectively following a period of practice and appreciated trial and error as a good way to master these systems. Students also became a learning resource helping each other learn the systems. Most students also agreed that when help was asked for, it was given and initial difficulties were soon resolved. Most students could access the Internet from their IPE venue, but students travelling to one outlying site experienced firewall problems. Staff also revealed a mixed level of engagement and preparedness, along with the need to engage in more staff development and self directed familiarisation with the technology.

### ***Tutor's role in technology enhanced learning***

The tutor's role in facilitating learning with Wessex Bay and the VLE was recognised by students. Tutor support for the VLE was described as good with tutors providing notes and links to additional information. Students identified learning benefits when tutors added triggers for Wessex Bay case scenarios and discussion threads in the VLE. However some students considered the tutors' influence was minimal. They felt they had not been informed about the features of Wessex Bay, that tutors had not developed the characters, and did not do enough to help students work with the cases. Students expected tutors to add seminar notes, join in during the virtual classroom discussion, and start threads to develop cases within Wessex Bay. Positive comments on tutor guidance and encouragement continued in Year 2 and negative comments tended to be about knowledge of other professions rather than IT.

Staff reported using a range of features of the VLE; from document management to capturing and organising learning materials, to accessing the case studies situated within Wessex Bay, and as a communication tool. There was an acknowledgement that more time spent preparing for IPE (on an individual level and an institutional level) using the blended learning approach would have been beneficial. A lack of experience and lack of engagement on the part of some staff was recognised.

### ***Wessex Bay and case focus***

Students identified the benefits of relating to real life characters and situations in Wessex Bay. They appreciated the timed release of episodes providing more depth to cases, helping to maintain their interest, and making Wessex Bay realistic. However students also identified the limitations of case study information, wanting fewer characters developed in more depth with greater interaction, and questioning whether the focus of particular cases was sufficiently interprofessional.

Some students and staff suggested the focus of cases was largely health oriented and did not represent the specialities of the different professions. Learning disability nurses, ODPs, some midwives and social workers, stated that their speciality was not represented well in Wessex Bay, making it difficult for them to choose a case they could contribute to from their own profession's perspective. This question of interprofessional focus was also related to the interprofessional mix of students distributed unevenly between IPE groups. Similarly staff reported a wish for more sophistication of Wessex Bay, with added depth and interactivity.

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***Case study information***

Wessex Bay was used in different ways. Some students described how they only used it once to select a case study and print off the information, while others revisited the site for additional episodes added by tutors or to find community links for characters. Students described how these features enabled Wessex Bay to mirror real life. Students tended to avoid choosing characters where the information available was considered insufficient to build a case. This caused frustration and led to disputes within groups. One group resolved their dispute by adding more detail to the case, but other groups were advised not to make any assumptions, just as in a real life case, so felt they were not permitted to build the case. New cases were devised for Year 2 units and students identified the value of the surrounding family network and housing situation information but requirements for more information on property profiles and family finances were also identified, reflecting increasing student expectations.

Staff engaged with the case studies at a variety of levels, from printing them off and handing them out, to using timed release of information to evolve the scenarios and seeing the potential for adding audio. Others were not convinced of the value, expecting the case studies to be more detailed and finding that there were limitations with some in relation to their applicability for a wide range of professions.

***Case study interaction***

Students and staff expected more interactivity with Wessex Bay and felt there was not much they could do in the virtual community. Student suggestions included character time lines, so case studies could progress over a defined time period, revealing new information and development of existing situations, similar to those cases where episodes had been added. A quiz section was also suggested. Year 2 students suggested they could be asked to identify a patient or service user from their practice experiences for analysis rather than using the Wessex Bay community characters.

Some staff attempted greater interaction but lacked learning technology skills, for example in the use of time released material when it became obvious that the additional material had to be removed and released again for the second wave of students undertaking IPE.

***Blackboard VLE***

Student comments focused on the range of information resources, site navigation and system familiarisation particularly in using the virtual classroom and discussion boards. Students in Years 1 and 2 were impressed with the range of resources provided and following their second year of using the VLE, demonstrated increasing expectations, such as receiving assessment results online.

The VLE was described as a valuable information resource and one that students used frequently. They identified benefits of linking to resources such as lecture notes for access and review in their own time; sharing of work via the discussion board and emails; linking to other course units; communicating with tutors; networking with other students; and accessing from home. Students described how these features enabled self-directed learning, flexibility and choice. However some staff observed that not all students participated; staff responsibilities in relation to this were explored.

***Navigation***

Students identified difficulties navigating through the VLE, given the number of menus and folders necessary to scroll through, and Wessex Bay, particularly interpreting the maps. While some students thought the maps were useful, others found them confusing. Students suggested it would be helpful to have an index of hospital and residential services with basic information about facilities and more precise map information. While some students reported improvements in Year 2, others still experienced difficulties finding what they wanted.

***Use of the virtual classroom***

Students found accessing and using the virtual classroom for an online synchronous discussion problematic and believed their tutors were also having difficulties. Students felt that some problems could have been avoided if more information and skills had been developed earlier.

***Use of discussion boards***

The limited experience of student group members in using the VLE discussion boards was identified. When tutors added a discussion thread not all students in the group responded to it. While students demonstrated growing familiarity with discussion boards in Year 2, some students and staff reported they were not used and e-mailing individuals was preferred.

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### **External review**

Four HEIs (Higher Education Institutions) out of seven approached, provided feedback on Wessex Bay. Guest access was provided for 3 months and then the external reviewers (ER) were invited to comment using some open ended questions (Appendix 7). Respondents were a mixture of generic learning technologists and health and social care academics. Most of the feedback was positive, seeing immediate applicability to a number of academic disciplines, viewing the resource a work in progress, with potential for further development.

Four key areas were prominent within the feedback; the look/feel of the site, the level of interactivity, the value of scenarios as learning objects and the potential for uni-professional and interprofessional student groups. Some were impressed with the ease of navigation, general organisation and the professional feel to the site, although one felt that the 2-dimensional presentation was disappointing (ER1). There was general agreement that the level of interactivity particularly around learning activities should be developed further in order to maximise the web interface. The potential as a learning resource however was evident:

*I like the way that the activity builds, with role play of the community member, or other professionals, being played by student groups. (ER2)*

The scenarios were viewed as a key strength. This gave the site a very people-focused feel, appropriate to the professions it was aimed to support and were viewed as sufficiently flexible to be used by different academics with different needs:

*Could be used as part of a blended learning approach that we use to promote a patient centred approach in education of therapy students. (ER4)*

The site was designed with interprofessional learning in mind and as such aimed to engage all users:

*The site did not appear to favour any particular profession (for example, through the use of particular vocabulary), and hence I, as a complete outsider, did not feel excluded, and felt able to explore. (ER2)*

However it was always intended that the resource could also be used uni-professionally and in fact this has been the case within the School. This potential was picked up by one reviewer:

*The interprofessional aspect would be good, but it may be that staff would only want to extrapolate parts of it and modify the scenarios etc. (ER3).*

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## **DISCUSSION**

Drawing on the various perspectives elicited in this evaluation a number of issues emerge of pertinence to IPE education generally but in particular the use of a technology enhanced learning approach. This section will consider some themes to emerge from the findings in this area and then will move on to site these within a broader framework, and a tentative model will be proposed. The section concludes with a reflection from the team on the challenges inherent in the project journey including some lessons learned from the experience. Finally we look forward to possible developments in IPE using web-based materials.

### **Emerging themes**

Within any area of education, curriculum content and process are inevitably linked. Whilst the findings presented on the surface relate principally to the learning teaching methodology, (technology enhanced learning), the curriculum content drove the selection of the methods and the learning methods influenced the curricular content. With this in mind three themes became apparent within the findings that illustrate this interaction between method and content but in the context of interprofessional education.

### ***Development of learning technology knowledge and skills***

Fundamental to successful educational delivery is the competence of staff and students in using the selected learning methods. Despite staff development opportunities prior to unit delivery, some staff were less prepared than anticipated for engagement with the VLE and Wessex Bay. Some students had failed to engage sufficiently with the information literacy unit presented prior to IPE which supported the development of IT skills. Some staff and students 'fell back on the familiar' and printed off materials for use in the classroom or at home, reducing opportunities for hyper-linking to additional content. This indicates a lack of knowledge about the learning medium and/or an anxiety about engaging with the learning technology. However familiarity is incremental and some problems only arise with use, such as the realisation of the need to remove and re-release information for subsequent groups.

The most common usage of the VLE and Wessex Bay was to provide consistent information across groups, regardless of location and in this respect it was very successful, reflecting previous use of a VLE by staff and students. Where discussion boards were used, some valuable interaction occurred but when students did not

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participate, staff felt unsure about intervening. It is inevitable that a degree of trial and error learning will occur when using new learning technologies for the first time. These experiences to some extent reflect stage 3 of Salmon's (1999) model of learning and teaching on line, 'information giving and receiving'. However some teachers perhaps had not appreciated the importance of the earlier stages of 'access and motivation' (stage 1) and 'online socialisation' (stage 2). The findings indicate that some staff underestimated the need to motivate students to see online learning as a legitimate and valuable part of their learning experience and then to role model this value; some staff are yet to be convinced of the value themselves.

It is pertinent to note however that interactivity, whilst attractive as a way of promoting deeper learning, is only beneficial if the resources are embedded with appropriate conceptual tasks and staff and students have the requisite skills for designing and undertaking these tasks as part of the learning outcomes of the study units (Beetham 2007). The project team found that some negative attitudes to IPE and to e-learning, impacted on 'buy-in' to the development and use of the resource. Enhancing the learning resource may help, but this highlights a cultural issue for the learning environment that will take time to work through for staff and students alike.

### ***Interfacing learning and teaching with learning resources***

Whilst the Wessex Bay learning resource was perceived as useful to staff as a one-stop case study environment for students to interact with regardless of location, it was also perceived as rather uni-dimensional and lacking in interactivity in terms of the associated learning activities. As the first iteration of this learning resource, this is perhaps to be expected and feedback from students and staff has helped to develop the level of interactivity subsequently. However an issue of more concern relates to the impression within the findings that some teaching staff appeared to view the Wessex Bay learning resource as something separate from them and their responsibility to facilitate learning as a whole using the resources available. There is a sense that some staff perceived that the learning resource should be all encompassing, that it should function almost independently when in fact it was designed to complement other learning activities in and out of the classroom. It is clear that where the resource was 'owned' by the staff, it was integrated into their facilitation of the units of study and this had a positive impact on the way the students perceived its utility as a learning tool. Staff attitudes such as these could reflect a degree of reticence in using learning technology. Staff recognised the need to 'make connections' between Wessex Bay, the VLE and IT skills development. It could

reflect a more optimistic and ambitious claim for learning technology applications to be able to release staff time and achieve interactivity through student-material interaction over student-student and student-tutor interaction though some staff appreciated the need for 'careful pedagogy and time' to realise the potential of the learning technologies. It could also reflect a sense of social distancing from the curriculum and case design by staff facilitating the IPE units.

### ***Profession based perceptions of IPE learning materials***

A central challenge to successful delivery of IPE in health and social care is that it is viewed as pertinent to all uniprofessional groups as well as seen as credible as an area of curricular content to be delivered interprofessionally. Reflecting some of the literature (Clark et al 2007; Craddock et al 2006) the findings indicate that professional 'buy-in' to the value of interprofessional education was mixed; this occurred with staff and students. The development of the initial case studies for Wessex Bay was a collaborative venture with a steering group comprising representatives from each profession or discipline. From this the unit teams (academic staff from across the interprofessional range) selected particular case studies for use in their learning units. Despite this, on implementation, there was a perception that some case studies did not work for some professional groups. There were perhaps two issues here; a desire for overt profession-specific relevance and a focus on standardisation and parity of student learning experience across units for all professions.

Taking the first area, some staff and students perceived that if 'their' profession was not specifically mentioned in a scenario, it was 'not relevant'. This may link to a degree of inexperience as an IPE tutor used only to working within their professional field. The challenge of IPE is to look beyond professional boundaries and value the benefits of working interprofessionally. This is summarised by Helme & Sills (2004):

*Awareness of the role of teachers/facilitators/mentors as more than facilitation but as 'acting out values' which requires critical reflection (especially awareness of own professional bias).* (Helme & Sills, 2004:slide 10).

Interestingly feedback from external reviewers applauded the inclusivity of the site, designed to enable users to find the relevance within different learning scenarios, but this requires a constructivist as opposed to behaviourist approach to learning.

Constructivism views learning as an active process where learners construct their concepts through active experimentation, observation and collaboration based on

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their previous knowledge and situation (Mayes & de Freitas 2007). This perspective suits a blended learning approach where technology enhanced learning is used as part of the mix. IPE tutors need to encourage students to work collaboratively with the learning resource to discover and apply information to help them achieve their learning objectives, as opposed to simply telling them what they need to know.

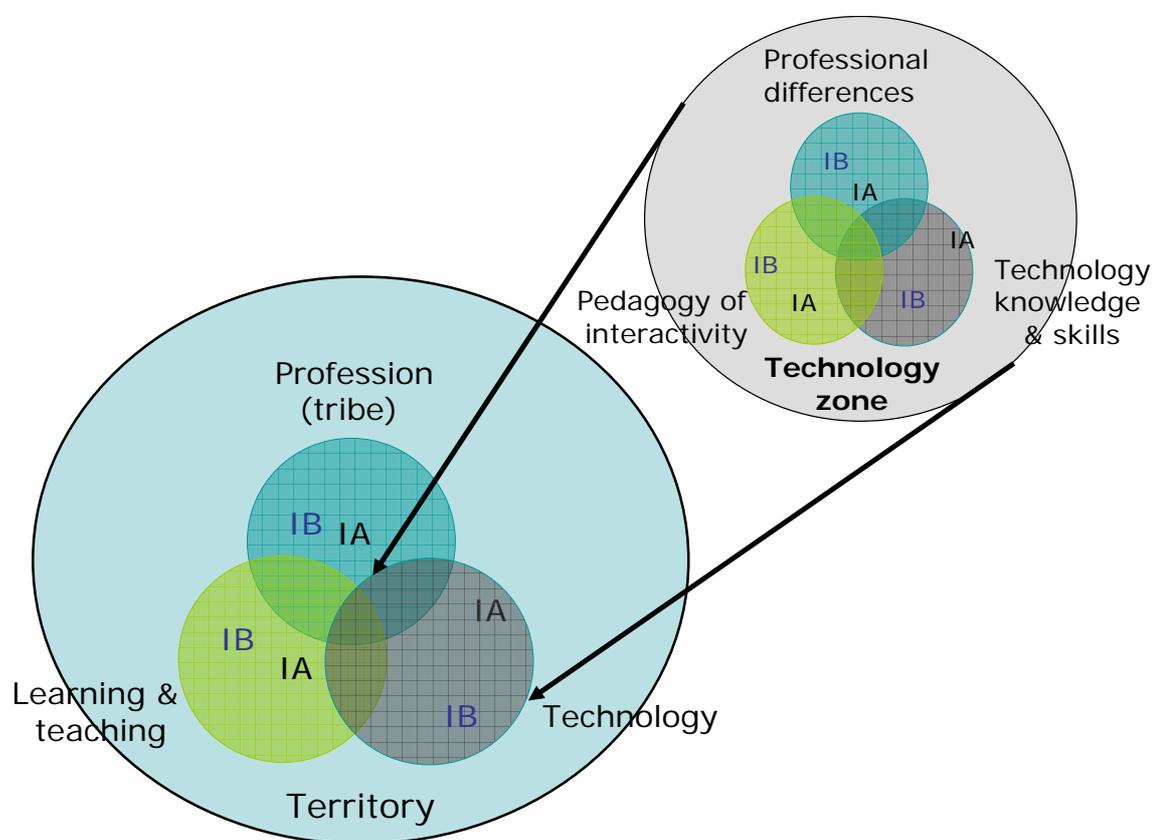
A second area for consideration centres on the benefits, or otherwise, of standardising unit materials. It is understandable when developing units for hundreds of students across several programmes that there may be a desire to standardise input as a means to ensure consistency. On reflection one outcome of this was that the number of cases actually used was perhaps overly limited. Sometimes given the particular student mix, a selected case study worked well, for example the needs of a client with Multiple Sclerosis in a care home resonated well with social workers, occupational therapists, adult and mental health nurses but less well with other groups, such as midwives. Whilst there was actually sufficient range to meet the needs of all, this required insight and facilitation skills on behalf of the teacher. These staff, being new to IPE teaching, may have had difficulty seeing beyond professional boundaries to value exploring general concepts and therefore had difficulty promoting the wider relevance to the students. On the other hand certain group configurations would have benefited from more choice to access more suitable case studies, rather than those pre-selected by the unit teams. External reviewers highlighted the fact that the resource could be used in this more flexible way. The level of creativity was limited as might be expected in the early stages of use and is likely to increase with familiarity.

### **Framework for consideration of the overall findings: a tentative model**

The scope of this report is focused on student and staff experiences of technology enhanced learning in IPE and, while it is not possible to discuss all the findings, this research has led to the identification of three major territories of praxis in which individuals, both students and tutors, are operating in IPE, namely professional differences and identity, curriculum design and learning and teaching strategies, and technology enhanced learning as illustrated in Figure 2. The technology enhanced learning themes discussed above can be mapped to the three territories of IPE praxis identified here. These themes recognise the significance of professional identity highlighted in the differences in the perceived value and relevance of specific IPE cases for particular professions; differences in participants' perceptions and

expectations of the affordances offered by the IPE learning materials to provide the pedagogical interactivity required for effective learning; and related differences in the IT knowledge and skills capabilities of students and staff alike.

These three zones of praxis provide a framework for understanding the complexity of boundaries and interactions and critiquing the tensions between “curriculum content” and “process”. A typical individual may be situated on the periphery of one or more of these territories, engaged in legitimate peripheral participation (Lave & Wenger 1991), and working towards a more centred position within these three different but related territories of praxis. The relationship between the technology zone and the broader IPE praxis model is illustrated in Figure 2.



**Figure 2: Three territories of IPE praxis**

### Reflections on the project journey

The project team recognise that the project was an ambitious undertaking. The context for interprofessional education at Bournemouth University, encompassing large numbers of students and staff, representing a wide diversity of professions, and

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multi-site operation, is one of considerable complexity. The introduction of technology enhanced learning as part of the curriculum design and learning and teaching strategy added a further layer of complexity for evaluation. Hence the scope of this Virtual Practice Community project was ambitious in wishing to develop and examine both the implications and the practicalities of introducing blended learning approaches within an imaginative and transformative IPE curriculum through capturing and evaluating students' and tutors' experiences.

On reflection we attempted to capture too much data to handle with the time and resources available to the project. Whilst we enjoyed the challenge, the reality was difficult to accommodate with demanding workloads. As may occur in any HEI, considerable organisational change coincided with the project timeframe and this resulted in considerable demands being placed on individuals at different points. On the other hand, the project team was drawn from a range of academic and professional disciplines and this proved to be a considerable strength as it modelled the interprofessional nature of the learning, and the team benefited personally and professionally from sharing different perspectives on the same issues, enhancing our own skills as interprofessional educators.

Throughout the project, despite institutional support, promoting ownership of the learning and teaching strategy in relation to technology enhanced learning was challenging. The development was managed by the Learning and Teaching Team who support staff development and learning technology initiatives. This had benefits as a degree of objectivity from programme perspectives was possible. The downside was that being outside the curricular teams could mean that academic staff could choose to ignore the use of learning technology within the curriculum, viewing it as 'some project being done by Learning and Teaching'. However one key benefit of a two year project was that it provided the opportunity to inform enhancements to curriculum content and process as it unfolded. Further the two year timeframe enabled cultural change to be mapped. It is regrettable that insufficient funds were available to carry on the evaluation into year 3.

### **Looking forward**

The IPE curriculum at Bournemouth continues to evolve with the addition of a third year unit of learning. As the first and second year units are delivered again, the unit teams and the project team have become more skilled at integrating technology with

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learning. The resource itself has undergone some redesign in the light of user feedback. The case studies themselves are not as interactive as they could be, although the students can connect case details with location and health and social care support services, and access hyperlinks to related web resources. Clearly this is an area for future development. The growth of web-learning communities would appear to be relevant here; this encourages the integration of formal learning (with prescribed material and an element of interactivity via discussion forums) and informal learning, with chat rooms using social software (Epic 2007) and is being considered for future iterations of Wessex Bay.

## CONCLUSIONS AND RECOMMENDATIONS

### Review of project aims and objectives

The overall aim of this project was to develop and evaluate the experience of students and staff using a virtual practice community in IPE and to share this learning with different communities of practitioners within the university and the wider academic community. The project team believe that the project objectives (Appendix 1) have been met; an overview is presented below:

<i>Project objective</i>	<i>End of project outcome</i>
1. Support the implementation of a 'virtual community' learning environment; making use of learning resources including text and video where possible.	Developed and implemented with all year 1 (2006) and year 2 (2007) undergraduate health and social work students in support of their IPE learning units.
2. Evaluate the student experience of the virtual practice community with the full undergraduate health and social work cohort in 2005/6 and 2006/7	IPE baseline electronic survey year 1 & 2; unit evaluation survey year 1; focus groups or open-ended questionnaires post-units, year 1 & 2. Findings informed on-going curricular development.
3. Evaluate experiences of staff involved in the delivery of the IPE curriculum and the virtual practice community.	Focus group or open-ended questionnaire post-units, year 1; electronic survey post-units, year 2. Findings informed on-going curricular development.
4. Commission further case studies from a range of health and social work practitioners and service users and adapt for use within the virtual community.	Case studies developed by teaching staff from a range of professions; further case studies developed from scenarios provided by social care service user group.
5. Develop tutor guidelines for using case scenarios and integrating learning activities within the IPE curriculum based on examples of shared practice.	IPE unit teams developed case scenario guidelines during unit delivery including timed-release techniques. Piloted uni-professional learning activities for use in future interprofessionally.
6. Provide open-access to the virtual community on a read-only basis to other universities delivering health	Guest access provided to 7 HEIs across England; feedback collected via open-ended electronic questionnaire. Access

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and social work education in the UK and seek feedback on its utility.	also provided locally to practice partners to facilitate development of scenarios. Feedback informed on-going development.
7. Disseminate the results of the evaluation widely, including submission of articles to peer reviewed journals reflecting the interprofessional nature of the project, and encompassing pedagogic and technical aspects of the project.	1 published paper (Quinney et al 2008); 1 paper accepted for publication (Pulman, Scammell & Martin); 1 journal paper out for review; 3 other papers planned for 2008/9; 3 international and 1 national conference presentations; 3 poster presentations; 2 internal university presentations.

### Conclusions

It is pleasing that all project objectives have been met so extensively. The evaluation reveals a lot about the impact of technology enhanced learning in this curricular area and this qualitative data can be used to enhance the developing literature in this area. Whilst considerable learning was evident at several levels, there is a need for additional and more specific staff and student development around the use of learning technology. A culture of working interprofessionally both as a student and as a member of academic staff has begun to develop, leading to the sharing of ideas around content and learning processes in IPE but also more widely. Having successfully introduced the curriculum and the use of technology, curriculum planners may feel able to be more flexible about guiding the use of Wessex Bay and including more informal learning in future iterations. In addition drawing upon the wider data obtained as a result of this evaluation, three major territories of praxis have been identified in which individuals, both students and tutors, are operating in IPE, namely professional differences and identity, curriculum design, learning and teaching and technology enhanced learning. The team plan to explore these further and disseminate their findings.

### Recommendations

Much has been learned about the learning processes involved in delivering IPE across a wide-geographical area, using blended learning approaches with a range of undergraduate students and staff new to IPE. In the light of their experience and the

generous insights provided by the participants about blended learning and learning interprofessionally, the team suggest a number of recommendations:

- Further research into the facilitation of interprofessional groups.
- Closer integration of curricular content with learning processes.
- Early development of student learning technology skills through review of core information literacy unit and the associated assessment.
- Ensuring effective and standardised IT support across sites.
- Providing ongoing staff development in the design and implementation of blended learning.
- Additional student preparation for IPE in term 1.
- Development of interactivity associated with the case scenarios
- Streamlining of the bank of scenarios to provide fewer, more developed cases.

## REFERENCES

Barr, H., 2002. *Interprofessional Education: Today, Yesterday and Tomorrow*. Occasional Paper No1. London. Health Sciences and Practice LTSN/CAIPE.

Barr, H. and Ross, F., 2006. Mainstreaming interprofessional education in the United Kingdom: A position paper. *Journal of interprofessional care*. Volume 20:(2) 96-104.

Barrett G., Greenwood R., and Ross K., 2003. Integrating interprofessional education into ten health and social care programmes. *Journal of Interprofessional Care*. 17, 293-301.

Beetham, H., 2007. An approach to learning activity design. In: Beetham, H. & Sharpe, R. eds. *Rethinking pedagogy for a digital age*. London: Routledge.

Brown, J., S., Collins, A. and Duguid, P., 1989. Situated cognition and the culture of learning. *Educational Researcher*. 18 (1), 32-41.

Centre for the Advancement of Interprofessional Education (CAIPE). Available at: <http://www.caipe.org.uk/> [Accessed 31/8/08]

DH 2002. *Working Together, Learning Together*. London: Department of Health

Clarke, B.,A., Miers, M., Pollard, K. and Thomas, J., 2007. Complexities of Learning Together; students' experience of face to face interprofessional groups. *Learning in Health and Social Care*. 6 (4), 201-212.

Craddock, D.; O'Halloran, C.; Borthwick, A. and McPherson, K., 2006. Interprofessional education in health and social care: fashion or informed practice? *Learning in Health and Social Care* 5 (4), 220-242.

Driscoll, M., 2002. Blended learning: let's get beyond the hype. *E-learning*.

Available at: [http://www-8.ibm.com/services/pdf/blended\\_learning.pdf](http://www-8.ibm.com/services/pdf/blended_learning.pdf)

[Accessed 31/8/08].

Epic 2007. *Web-based learning communities*. Available at:

[http://www.epic.co.uk/content/news/may\\_07/Lite\\_Paper\\_Learning\\_communities.pdf](http://www.epic.co.uk/content/news/may_07/Lite_Paper_Learning_communities.pdf)

[Accessed 31/8/08].

This Mini Project has been funded by the Health Sciences and Practice Subject Centre of the Higher Education Academy (1/1/06- 31/12/07)

Helme, M. and Sills, M., 2004. *Proposals for developing and sustaining interprofessional education initiatives in health and social care. Triple project workshop.* Available at: <http://www.health.ltsn.ac.uk/news-events/dl/abh2proposals> [Accessed 31/8/08]

Holloway, I. and Wheeler, S., 2002. *Qualitative research in Nursing.* 2<sup>nd</sup> ed. Oxford: Blackwell Science.

Hutchings, M., 2002. Enhancing learning with computer mediated communication: teacher intentions and student conceptions of online learning. In Rust, C. (ed.). *Improving Student Learning Using Learning Technologies.* Oxford: Oxford Centre for Staff Development. 99-111.

Hutchings, M., Hadfield, M., Howarth, G. and Lewarne, S., 2007. Meeting the challenges of active learning in web-based case studies for sustainable development. *Innovations in Education and Teaching International.* 44 (3), 331-343.

Jonassen, D., H. and Land, S., M. (eds.), 2000. *Theoretical foundations of learning environments.* New Jersey: Lawrence Erlbaum.

Lave, J. and Wenger, E. 1991. *Situated learning: legitimate peripheral participation.* Cambridge: Cambridge University Press.

Laurillard, D., 2002. *Rethinking university teaching: a framework for the effective use of educational technology.* London; Routledge.

Making Practice Based Learning Work. Available at: <http://www.practicebasedlearning.org>. [Accessed 31/8/08]

Mayes, T. and de Freitas, S., 2007. Learning and e-learning: the role of theory. In: Beetham, H & Sharpe, R. eds. *Rethinking pedagogy for a digital age.* London: Routledge.

Miers, M., Clarke, B., Pollard, C., Rickaby, C., Thomas, J. and Turtle, A., 2007. Online interprofessional learning: the student experience. *Journal of Interprofessional Care.* 21: (5), 529-542.

This Mini Project has been funded by the Health Sciences and Practice Subject Centre of the Higher Education Academy (1/1/06- 31/12/07)

Mulholland, J, Mallik, M, Moran, P, Scammell, J, Turnock, C. 2005. *Making practice-based learning work. An overview of the nature of the preparation of practice educators in five health care disciplines*. London: Higher Education Academy, Health Science and Practice Network.

O'Halloran, C., Hean, S, Humphris, D, Macleod-Clark, J. 2006. Developing Common Learning: the New Generation project undergraduate curriculum model. *Journal of Interprofessional Care*. 20: (1), 12-28.

Payler J, Meyer E and Humphris D. 2007. Theorizing interprofessional pedagogic evaluation: framework for evaluating the impact of interprofessional continuing professional development on practice change. *Learning in Health and Social Care*. 6 (3), 156-169.

Quinney, A. 2005. Placements on –line; student experiences of a website to support practice. *Social Work Education*. 24 (3), 439-451.

Quinney, A. 2006. Collaborative Social Work Practice: *Learning Matters*. Exeter

Quinney, A., Hutchings, M., Scammell, J. 2008. Student and staff experiences of using a virtual community, Wessex Bay, to support interprofessional learning: messages for collaborative practice. *Social Work Education*. 27(6), 658-664.

Reynolds J. 2007. Discourses of interprofessionalism. *British Journal of Social Work*. 37 (3), 441-457.

Salmon, G. 2000. *E-moderating: the key to teaching and learning online*. London: Kogan Page.

Savin-Baden, M. 2000. *Problem-based learning in higher education: untold stories*. Buckingham: SRHE and Open University Press.

Shephard, K., Haslam, P., Hutchings, M., Furneaux, C. 2004. Synchronous on-line tutorials for staff development? In: Banks, S et al (eds). *Proceedings of the 4<sup>th</sup>*

This Mini Project has been funded by the Health Sciences and Practice Subject Centre of the Higher Education Academy (1/1/06- 31/12/07)

*International Conference on Networked Learning: a research based conference on e-learning in higher education and lifelong learning.* Lancaster: Lancaster University and Sheffield University. 667-674.

TARLING, M., CROFTS, L., 2002. (eds). *The Essential Researcher's Handbook.* (2<sup>nd</sup> ed.). Edinburgh: Baillière Tindall.

TechDis. 2002. *The accessible curricula : good practice for all.* TechDis, LTSN Generic and UWIC.

Wenger, E. 1998. *Communities of practice: learning, meaning, and identity.* Cambridge University Press, Cambridge.

Whittington, C. 2003. *Learning for collaborative practice with other professions and agencies.* London: Department of Health.

## **APPENDIX 1 – Project aims and objectives**

### Project aims:

- To evaluate the experience of students and staff using the virtual practice community in interprofessional education (IPE);
- To enhance existing cases based on real-life practice with current cases and to develop new cases with health and social work practitioners and service users;
- To adapt existing learning and teaching practices to embrace more flexible and blended learning approaches through the virtual practice community
- To share innovative learning and teaching practices between different communities of practitioners to meet the collaborative learning and quality enhancement aims of interprofessional learning and working
- To allow access to the virtual community by the wider academic community and seek feedback to inform on-going project development and evaluation.

### Project objectives:

1. Support the implementation of a 'virtual community' learning environment; making use of learning resources including text and video where possible.
2. Evaluate the student experience of the virtual practice community with the full undergraduate health and social work cohort in 2005/6 and 2006/7
3. Evaluate experiences of staff involved in the delivery of the IPE curriculum and the virtual practice community.
4. Commission further case studies from a range of health and social work practitioners and service users and adapt for use within the virtual community.
5. Develop tutor guidelines for using case scenarios and integrating learning activities within the IPE curriculum based on examples of shared practice.
6. Provide open-access to the virtual community on a read-only basis to other universities delivering health and social work education in the UK and seek feedback on its utility.
7. Disseminate the results of the evaluation widely, including submission of articles to peer reviewed journals reflecting the interprofessional nature of the project, and encompassing pedagogic and technical aspects of the project.

## APPENDIX 2 – Baseline survey –year 2

### Institute of Health and Community Studies Interprofessional Education (IPE2) Baseline Evaluation

As you are commencing the interprofessional education (IPE) programme this term, we would like you to complete a brief online questionnaire at the start of the Communication in Groups unit.

Your contribution will be valuable in the monitoring and further development of IPE within the Institute of Health and Community Studies. It is hoped that the questionnaire will bring learning benefits by helping you to refocus on issues associated with interprofessional learning and working.

The questionnaire will take you about 15 minutes to complete.

All responses will be anonymous but it would be helpful if you can identify the following information

Please indicate your professional group:-

Nursing  Midwifery  Social Work  Occupational therapy  Physiotherapy   
ODP   
Other  \_\_\_\_\_ (*Please specify*)

Please indicate your gender

Female  
Male

Please indicate your age range

18-21  
22-25  
26-35  
36-45  
46-55  
Over 55

#### Questions

*Please complete the sentence*

My current knowledge of interprofessional working is ...

Very extensive  
Extensive  
Neutral  
Limited  
Very limited

*Please complete the sentence*

My current skills in interpersonal communication are ...

Very strongly developed  
Strong developed  
Neutral  
Poorly developed  
Very poorly developed

*Please complete the sentence*

My current awareness of differences in professional groups in health and social care is ...

Excellent  
Strong  
Neutral  
Limited  
Minimal

*Please complete the sentence*

My current understanding of commonalities in professional groups in health and social care is ...

Excellent  
Strong  
Neutral  
Limited  
Minimal

*Please complete the sentence*

My understanding of the code of conduct of my professional body is ...

Excellent  
Strong  
Neutral  
Limited  
Minimal

*Please complete the sentence*

My current awareness of barriers to communication is ...

Very strongly developed  
Strong developed  
Neutral  
Poorly developed  
Very poorly developed

*Please indicate your response to the statement*

I have a well developed sense of my personal values.

Strongly agree  
Agree  
Neither agree nor disagree  
Disagree  
Strongly disagree

*Please indicate your response to the statement*

I have a well developed sense of my professional values.

Strongly agree  
Agree  
Neither agree nor disagree  
Disagree  
Strongly disagree

*Please indicate your response to the statement*

IPE 2 will develop my awareness of other health and social care professions.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

*Please indicate your response to the statement*

IPE 2 will help me to communicate more effectively with other professions.

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

*Please indicate your response to the statement*

IPE 2 will enable me to work collaboratively with other professions

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

What are your current impressions of how different professional groups collaborate with other professional groups?

*Please type your comments in the text box*

What benefits do you see in different professional groups working with each other?

*Please type your comments in the text box*

What disadvantages do you see in different professional groups working with each other?

*Please type your comments in the text box*

Many thanks for your time in completing this questionnaire and wishing you successful learning outcomes through your participation in the IPE Communication in Groups and Risk Assessment and Risk Management units.

**APPENDIX 3 – End of unit evaluation (year 1)**

- Question 1) The learning outcomes of this unit are clear to me.
- Question 2) Relationship between this unit and my programme is clear.
- Question 3) The unit is well structured.
- Question 4) The teaching methods used were effective
- Question 5) The level of this unit is appropriate to my stage of learning.
- Question 6) I feel encouraged to participate within this unit.
- Question 7) I have been encouraged to read around the topics independently.
- Question 8) Learning support facilities (e.g. tutors, libraries, IT, Internet) for this unit are appropriate.
- Question 9) The unit is relevant to my professional practice.
- Question 10) Any other comments?

#### **APPENDIX 4 – Focus group triggers**

1. How did you use the Wessex Bay case studies?
2. How did you use the Blackboard VLE?
3. What worked for you?
4. What did not work for you?
5. What did you find most useful?
6. What did you find least useful?
7. What have you learned from the experience?
8. What did your tutor do that was helpful in working with the Wessex Bay Simulated Community?
9. What did your tutor do that was helpful in working with Blackboard?
10. What was your experience of working with students from different professional groups?
11. How has what you have learned from the IPE units influenced your placement practice?
12. Have your impressions of how different professional groups collaborate changed as a result of your experience with IPE?

Would you like to summarise your thoughts or make any final comments?

**APPENDIX 5 – Interprofessional Education (IPE), Wessex Bay & Blackboard:  
Student Experiences Questionnaire (year 2)**

**1. How did you use the Wessex Bay (simulated community) case studies?**

Please also identify which case(s) you used and why?

**2. How did you use MyBU Blackboard Virtual Learning Environment (VLE)?**

**3. What worked for you?**

3.1. Wessex Bay

3.2. MyBU

**4. What did not work for you?**

4.1 Wessex Bay

4.2 MyBU

**5. What did you find most useful?**

5.1 Wessex Bay

5.2 MyBU

**6. What did you find least useful?**

6.1 Wessex Bay

6.2 MyBU

**7. What have you learned from the experience?**

**8. Has your experience of using Wessex Bay for IPE changed from last year?**

**9. Has your experience of using Blackboard for IPE changed from last year?**

**10. What did your tutor do that was helpful in working with the Wessex Bay  
Simulated Community?**

**11. What did your tutor do that was helpful in working with Blackboard?**

**12. What was your experience of working with students from different  
professional groups in Year 2?**

**13. How has what you have learned from the Year 2 IPE units influenced your placement practice?**

**14. Have your impressions of how different professional groups collaborate changed as a result of your experience with IPE in Year 2?**

**15. Has your experience of IPE changed from last year?**

**16. Do you have access to the Internet from your term-time address?**

Please tick Yes \_\_\_\_\_ No \_\_\_\_\_

Please identify your course: \_\_\_\_\_ Date: \_\_\_\_\_

Thank you for completing this questionnaire.

**APPENDIX 6 – Interprofessional Education (IPE), Wessex Bay & Blackboard:  
Staff Experiences Questionnaire (year 2)**

- 1. How did you use the Wessex Bay (Simulated Community) case studies?**
- 2. Which cases did you use and why?**
- 3. How did you use the Blackboard VLE?**
- 4. What worked for you?**
  - a. Wessex Bay
  - b. MyBU
- 5. What did not work for you?**
  - a. Wessex Bay
  - b. MyBU
- 6. What did you find most useful?**
  - a. Wessex Bay
  - b. MyBU
- 7. What did you find least useful?**
  - a. Wessex Bay
  - b. MyBU
- 8. What have you learned from the experience?**
  - a. Wessex Bay
  - b. MyBU
- 9. What did your students find most useful?**
  - a. Wessex Bay
  - b. MyBU
- 10. What will you do differently next time?**
  - a. Wessex Bay
  - b. MyBU
- 11. What do you see the position being in another year's time?**
  - a. Wessex Bay
  - b. MyBU
- 12. What was your experience of working with different professional groups?**
- 13. Would you like to summarise your thoughts or make any final comments?**

## **APPENDIX 7 – Questions for External reviewers' feedback**

1. What were your first impressions of Wessex Bay as a learning resource for interprofessional education?
2. What are your impressions of the learning activities associated with Wessex Bay? (please use this example: <http://ihcs4u.bournemouth.ac.uk/ipe/staff/casesw.asp>)
3. What features of Wessex Bay were the most useful?
4. What feature of Wessex Bay were the least useful?
5. What features of Wessex Bay would you like to see developed further or additional features that you would like to see developed?
6. In what ways could Wessex Bay be used as a learning resource for your students?

## Appendix 8 -Comparative Findings for Student Experience of IPE Year 1 and Year 2

Year 1		Year 2	
Theme	Student comments	Student comments	Developing themes
<b>Technology enhanced learning</b>			
<b>1.1 Variations in IT skills levels</b>	We could have done group work by using Blackboard but it wasn't an option by the people who I was working with because they weren't interested in it or didn't know how to use it and there were only two of us in my whole group who could use Powerpoint. (FG3/3)	Communication with other members of my group has been a new challenge for me on Blackboard, however email is preferable. (SQ1) I have become more computer literate and can use the on line resources more effectively. (SQ9)	Developing IT skills
<b>1.2 IT familiarisation and support</b>	Once you learn it yes, it's easy, but initially it is quite daunting. (FG4/16) I think it is part of the responsibility you have got to take on board, with Blackboard we can't be shown everything, it's best to go home in your own time and it is a matter of just exploring it, clicking on different links, thinking, oh that's where that is, because there's so much on there. (FG5/12)	I did prefer IHCS4u but I think that was only because I was used to it. MyBU was daunting at first but I have got the hang of it now. (SQ9)	Increasing familiarisation
<b>1.3 Tutor's role</b>	The tutors have been excellent. (ES2/60) I would have probably got a lot more out of it if they took us through ...and they showed us what to do and they took a case study and said this is what we would look at on this and you know and then look at this map and look, you know, what is around for them and to have like, explained it a bit better. (FG5/11)	Regular advice and encouragement to make the most of it (VLE). (SQ1) Gave us a quick run down on some of the case studies (SQ5) Some of the tutors didn't even know what an ODP did. I would have thought they should find out if they are taking classes of mixed professions. (SQODP)	Knowledge of other professions
<b>1.4 Wessex Bay and case focus</b>	We would have triggers that could be in the form of referrals, it could be a telephone call, a letter, so in a way that was quite nice because that's a bit like real life in a way. (FG4/7) We had to choose the case study and we were kind of outnumbered by everyone else in adult general and children's nursing mainly .....and Wessex Bay community didn't have much that would be relevant to our branch really. (FG6/6)	Characters to relate to, real life situations. (SQ4) Used Anita Read and her family situation as she had a variety of personal issues which gave her more depth (SQ1) It is easier to relate theory to practice when characters are created as they help bring problems and health issues to life. (SQ1) For an interprofessional aspect on the assignment, there was usually only involvement from 1 or 2 professions (SQ1)	Developing depth of characters for mirroring real life Uni-professional contending with interprofessional focus

Year 1		Year 2	
Theme	Student comments	Student comments	Developing themes
	<p>We tried to go through what the various problems were that that person would have, say for instance, if that person lived on their own, was heavily disabled, and what have you. So we each tried to pick up on something for particular professions. I had an occupational therapist, a physiotherapist, a couple of nurses, so they all tried to put their own input into what that patient would need from their own perspective, so we did it that way (FG2/4)</p>	<p>Not having a case study that was relevant to (us) because (we) rarely get involved in domestic violence, therefore this was a bad choice for a case study to use for 6 weeks. (SQ7)</p>	
<b>1.5 Case study information</b>	<p>I think the least useful thing on Wessex Bay is how many people there are on it. ...Maybe you should just focus on 4 or 5 families, different families around the area... (FG5/12)</p> <p>You couldn't build a whole picture could you? It's like with the lad that I did, it didn't stress what the learning disability was, it just said that he was a teenager with a learning disability, well that's not an enormous help, I mean we gave him autism in the end. (FG5/8)</p>	<p>It's too big, over complicated, too many characters. (SQ1)</p> <p>Sometimes there was not enough information about the person in the case study (SQ1)</p> <p>There is not enough info in property profile. This is very important ...(SQ7)</p> <p>Case study did not discuss finances of family or other professionals already involved with their case. (SQ9)</p> <p>Case studies could be expanded or links provided to key web sites for more info on related subjects (SQ1)</p>	<p>Increasing expectations for more in-depth information</p>
<b>1.6 Case study interaction and navigation</b>	<p>I thought it would be more interactive perhaps than it was, what we were doing was not actually affecting what was happening in Wessex Bay. (FG4/3)</p> <p>If you had a list of the facilities that were available in Wessex Bay rather than having to search all through the map to find what the signs are. (FG3/7)</p>	<p>Very one dimensional, nothing develops over time. (SQ5)</p> <p>It would be much better if questions asked us to identify a service user we have worked with in practice and answer the question protecting their confidentiality of course. (SQ3)</p> <p>It is easy to access however the information was not always easy to find. (SQ5)</p> <p>Confusing to work out the map aspect of the Bay. (SQ5)</p>	<p>Raising possibility of using real life examples from student practice experiences</p>
<b>1.7 Blackboard VLE</b>	<p>I think Blackboard's brilliant, it keeps everything together in one place, you have got your sessions information, presentations, announcements, you have got timetables; it's a fantastic programme. (FG4/3)</p> <p>I can then go back and revisit in my own time and it helps me address my learning needs. (FG4/4)</p>	<p>Accessed via home computer, picked up updates. (SQ7)</p> <p>I think it would be useful if we could find out assignment/exam results through Blackboard. (SQ1)</p> <p>I used it to receive that notes on the lesson before it took place. As I have dyslexia I find it difficult to listen and write notes at the same time. (SQ3)</p>	<p>Receiving assessment results online</p> <p>Supporting additional learning needs</p>

Year 1		Year 2	
Theme	Student comments	Student comments	Developing themes
<b>1.8 Navigation</b>	A couple of times I didn't go into what I thought was the right thing, it was resources I should have been in and I was going to the wrong places and it was really frustrating. (FG5/6)	Easier to use - more user friendly (SQ5) Too many windows to open to get to the right information. (SQ1) It is a bit of a maze. (SQ1)	
<b>1.9 Use of virtual classroom</b>	That was the problem with the virtual classroom that you got given a time and we thought our tutor didn't even know where she was meant to be and then she emailed us halfway through the actual discussion and said, oh you're meant to go on..... (FG3/7)		
<b>1.10 Use of discussion boards</b>	It was a shame because when it came to do the poster and the questions I went onto the forum and because no one else out of my group had done it there wasn't any extra information there. (FG5/5)	Discussion groups were not used. Emailed individuals only. (SQ5)	

### Appendix 9 - Comparative Findings for Staff Experience of IPE Year 1 & 2

Year 1		Year 2	
Theme	Staff comments (Focus Group TFG)	Staff comments (Survey TS)	Developing theme
<b>Technology Enhanced Learning</b>			
<b>1.1 Variation in IT skill level</b>	<p>I think you've got to be computer-minded to like these things. I'll use it because I have to use it...I don't like using it and it's a necessity of my work and it helps students but I can't say that I enjoy going onto it.</p> <p>I'm a real advocate of online learning</p> <p><i>What will you do differently next time?</i> I'll identify much more clearly who's got access, how comfortable they are using it...who might be disadvantaged...</p> <p>I felt frustrated because I wouldn't have had the skills to help anyway</p>	<p>I looked at the scenarios and printed them off only</p> <p>The time it takes to upload material could be better spent with students</p>	
<b>1.2 IT Familiarisation and Support</b>	<p>There were definitely some groups of students that were more familiar with how Blackboard works...so obviously some groups of students were bypassing [the IT skills unit] somehow.</p> <p>[next time]We would have more staff development, getting staff to come on board sooner, and making connections between [Wessex Bay], Blackboard and [IT skills teaching].</p> <p><i>A member of staff reorganised the classroom time so that Competent [students] were showing the not so competent people who couldn't even access it and that was really good, better than the tutor telling you and they were working together.</i></p>	<p>it accustoms students to developing and using IT skills, accessing their own materials etc</p>	

Year 1		Year 2	
Theme	Staff comments (Focus Group TFG)	Staff comments (Survey TS)	Developing theme
<b>1.3 Tutors role in technology enhanced learning</b>	<p>I didn't really interact with it because I don't have the skills myself</p> <p>The tutors either loved it or hated it.</p>	<p>The resource is there and flexible but I need to learn more about it</p> <p>There is a wealth of potential in Wessex Bay/MyBU but it requires careful pedagogy and time for academic staff</p> <p>There is a wealth of potential in Wessex Bay/MyBU but it requires careful pedagogy and time for academic staff lack of experience of the resource</p>	<p>Resource implications (time and staff development) – personal commitment and institutional support</p>
<b>1.4 Wessex Bay</b>	<p><i>Comments on the first iteration (this was addressed by adding people without problems):-</i> You've got somebody on one house who has got such and such a condition and something awful has happened and you think well they might get help from friends and family but their neighbours have got some awful condition. You don't really want to live in that street.</p>	<p>The desire to create more depth is associated with the need to invest time</p> <p>Needs funding to develop</p> <p>I didn't use it much</p> <p>I have to admit to not really seeing what the advantage of [it] is.</p>	
<b>1.5 Case study information</b>	<p>We could use our collective expertise and feed in and make a really good scenario. So maybe we need to build them collaboratively...maybe we need to build these cases interprofessionally as well</p> <p>Some of the case studies were a bit sketchy</p>	<p><i>What worked best for you?</i> Being able to add new information <i>and</i> the facility to use episodes</p>	
<b>1.6 Case study interaction</b>	<p>There wasn't one you could actually apply to ODPs very easily and some of them gave you lots to discuss whereas others I would say were quite difficult.</p>	<p><i>Having used the time release facility a member of staff commented how they did not realise that students being taught in a different term could access all the material at once.</i></p> <p>Very static community. Could be brought alive by more interaction.</p> <p>Did not engage students as much as it needed to.</p>	

Year 1		Year 2	
Theme	Staff comments (Focus Group TFG)	Staff comments (Survey TS)	Developing theme
<b>1.7 Blackboard VLE</b>	<p>If we don't model it they don't use it and if it's not part of assessment they won't use it.</p> <p>Some groups of students were more familiar with how Blackboard works.</p> <p>What worked for me was the accessibility of the materials and the students commented on that as well because you could go back and check and look at it again, resources are there...they couldn't lose it and we couldn't move it. we could also use it wherever we were.</p> <p>Its speed and its accessibility, information accessibility</p>	<p><i>What worked for you in myBU/Blackboard? Being able to contact the diverse cross programme student group reasonably easily.</i></p> <p>Central one-stop resource to support the unit.</p>	
<b>1.8 Navigation</b>	Not mentioned	Not mentioned	
<b>1.9 Use of virtual classroom</b>	Not mentioned	Not mentioned	
<b>1.10 Use of discussion boards</b>	<p>[Students] were posting up their presentations and making changes and then posting it up again and it was a way for me to see it developing.</p> <p>[Students] who might not want to speak up in a group might be willing to type something in about an opinion</p> <p><i>An alternative view was offered:-</i> Whereas you might think that in a way people would not want to put their opinions down in writing because once its there you can't take it back, you can't say I never said that.</p> <p>What didn't work for me was ...my complete hash up with the discussion group thing...I didn't click a button...so now I know how to do that.</p>	<p>I had a couple of discussion fora with just my teaching group. Both myself and students posted materials for others to see.</p>	

## Appendix 10 - Dissemination

### Papers in peer reviewed journals

- 2008 Quinney, A., Hutchings, M., and Scammell, J. Social work student and staff experiences of using a virtual community, Wessex Bay, to support interprofessional learning: messages for collaborative practice. *Social Work Education* Special Issue on Technology Enhanced Learning and Teaching. 27(6) p658-664
- 2008 Pulman, A., Scammell, J. & Martin, M., Accepted for publication: Enabling interprofessional education: the role of technology to enhance learning. *Nurse Education Today*.

### Conference papers

- 2008 Quinney, A., Hutchings, M., and Scammell, J. Technology enhanced learning; staff and social work student experiences of a virtual community to support interprofessional education. *34<sup>th</sup> Biannual Congress of the International Association of Schools of Social Work. Transcending Global-Local Divides*. Durban, S. Africa 20-24 July 2008.
- 2007 Quinney, A., Scammell, J., and Hutchings, M. Exploring professional boundaries and developing partnership working in undergraduate interprofessional education, using Wessex Bay, an electronic resource representing a typical town. *First European Interprofessional Education Network Conference. Learning together to work together*. Krakow, Poland. 12-14 September 2007
- 2006 Quinney, A. Exploring professional boundaries and developing professional practice. *8<sup>th</sup> Joint Social Work Education Conference. Crossing boundaries: personal, professional, political*. Homerton College, Cambridge. 12-14 July 2006.
- 2006 Hutchings, M. & Scammell, J. The virtual practice community as a catalyst for student learning and staff development in interprofessional education. *Nurse Education International Conference*. Vancouver, Canada, 14-16 May 2006.

### Conference posters

- 2008 Hutchings, M., Scammell, J., Quinney, A. & Hean, S. Developing interprofessional collaboration through a virtual practice community: the benefits and challenges of embedding e-learning in designing for learning together. *All Together Better Health IV Conference*, Stockholm, Sweden, 2-5 June 2008.
- 2007 Scammell, J., Hutchings, M. & Quinney, A. Changing practice through collaboration and simulation: Using a virtual practice community to support student learning and act as a catalyst for organisational and cultural change. *CAL' 07: development, disruption and debate – D<sup>3</sup>*, Trinity College, Dublin, 26-28 March 2007.
- 2007 Scammell, J., Hutchings, M. & Quinney, A. The virtual practice community for interprofessional education: interim study findings. Higher Education Academy Health Sciences and Practice Festival of Learning. London. March 2007.
- 2005 Hutchings, M. Scammell, J. Martin, M. Developing a simulated community to support interprofessional education in health and social care. *Transforming Healthcare through Research, Education and Technology*, 6th Annual Research Conference of the School of Nursing and Midwifery Studies, Trinity College, Dublin, 2-4 November 2005.

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