

The development, outline and evaluation of the second level of an interprofessional learning programme – listening to the students

ANNA WRIGHT & SUSANNE LINDQVIST

Centre for Interprofessional Practice, Faculty of Health, University of East Anglia, UK

Abstract

The delivery and content of interprofessional education (IPE) varies greatly. Currently there is little evidence to suggest the most effective approach. This paper describes an interprofessional learning programme offered to second year healthcare students (IPL2), which was developed together with the students. At the outset of developing IPL2, an interprofessional student planning group (supported by a facilitator) was formed. The student planning group (SPG) reported back their ideas to an IPL steering group. Student feedback forms from 2005–2006 were used for the review and further development of IPL2. Analysis of student feedback was completed using median (for the quantitative elements of the form) and content analysis (for the qualitative elements). Post-programme student feedback included suggestions such as improvements to the case scenario, issues such as the logistical problems associated with students being on placement and how to overcome this by expanding the use of a virtual learning environment. Student views have informed both the original and ongoing development of IPL2 and ensure that the IPL programme remains relevant to the students. This model of involving students in the development of IPL has proven effective and can be applied to other settings.

Keywords: *Interprofessional*, education, communication, healthcare, evaluation

Background

In response to national requirements for healthcare training programmes to be truly interprofessional (Department of Health, 2001), most universities in the UK are now planning or implementing interprofessional education (IPE). The literature provides us with some advice, and suggests factors likely to be important in the planning, delivery, evaluation and sustainability of IPE (Hammick, 2000; Miller et al., 2001; Cooper et al., 2005; Freeth et al., 2005; Barr & Ross, 2006). Also, a number of discussion forums and conferences have enabled pioneers from across the UK and internationally to share their experiences. As a result, educators now have an insight into the complexity of planning and delivering IPE, the challenges involved, and research methods suitable for rigorous evaluation. However, there is still no definable evidence base to build interventions upon (Cooper et al., 2005; Barr & Ross, 2006; Craddock et al., 2006). Thus the key components underpinning an effective and sustainable approach to IPE have yet to be determined.

Correspondence: Anna Wright, Centre for Interprofessional Practice, Faculty of Health, University of East Anglia, Norwich, NR4 7TJ, UK. E-mail: anna.wright@uea.ac.uk

ISSN 1356-1820 print/ISSN 1469-9567 online © 2008 Informa UK Ltd.

DOI: 10.1080/13561820802210968

As stated by Pirrie et al. (1998), the rationale for developing IPE must be made clear to both students and staff. Careful evaluation of the benefits of and the constraints on a chosen approach needs to be employed after each developmental stage. It has been suggested that students and staff need to be actively involved in creating interprofessional learning (IPL) opportunities, and that these need to be tailored to fit with local circumstances (Freeth & Reeves, 2004). In order to avoid losing the momentum during the development of an IPE intervention, and to ensure sustainability, enthusiasts need to engage a critical mass of individuals, rather than depending on a selected few. Although the ultimate success will be mainly due to the people involved in the delivery (Pirrie et al., 1998), everyone associated with IPL, including the students, needs to take responsibility for their learning.

In an educational environment where adult learning is promoted, each individual needs to help ensure optimal learning (Knowles, 1975). Students can do this by keeping an open dialogue with educators about what works and what needs to be improved. For this to be effective, staff need to be receptive to students' comments and aware of how to deal with such feedback so that constructive ideas are brought forward. Regular discussions on how to improve IPE, together with post-course evaluations, help in maintaining this dialogue.

A centre for interprofessional practice, based in a higher education setting, has developed an IPL programme in close collaboration with students and staff. The programme is available to all healthcare students during their professional training, giving students the opportunity to build upon their learning experiences, with the aim of developing sustainable knowledge, skills, attitudes and behaviour that facilitate effective interprofessional teamworking. Four levels of the IPL programme have been developed for students in their first, second, third and final years of training. This paper describes the development, outline and evaluation of the second level which is offered to second year students (IPL2). This paper focuses in particular on how students were involved in the process of development as this model was later used by this institution when developing the third and fourth levels of IPL.

Initial development

Theories and models underpinning the IPL programme

During the planning of IPL2, the "contact hypothesis" as presented by Hewstone and Brown (1986) was used to theoretically underpin the programme. This model of working had successfully been used for IPL1 and had shown to encourage the development of positive interprofessional attitudes (Lindqvist et al., 2005). Indeed, other reports also indicate benefits to students who meet and work with peers from other professions from the very outset of their course with the aim of developing positive interprofessional attitudes (Hind et al., 2003; Tunstall-Pedoe et al., 2003; Adams et al., 2006; Barr & Ross, 2006).

As with IPL1 (Lindqvist et al., 2005), IPL2 students work in small groups with a facilitator discussing problem-based case scenarios. Problem-based learning (Spencer & Jordan, 1999) and enquiry-based learning (Maudsley & Strivens, 2000) are commonly used andragogical educational models that underpin the foundation of each level of the IPL programme. The interaction between the students within their small groups, and between the students and their tutor/facilitator is viewed as a core component for creating an optimal learning environment for students to achieve the set learning objectives. The involvement of

appropriately trained and skilled facilitators is recognised as playing a pivotal role in supporting these groups during this learning experience (O'Halloran et al., 2006).

Knowles' (1975) adult learning theory played an important role in the development of IPL. This approach to learning seemed particularly suitable for IPE as it encourages students to experience "real" teamworking – both as individuals and as part of a team. As stated by Craddock et al. (2006), students are more likely to learn about each other's roles and how they all fit within the team by working together in this way. Also, as adult learners the students need to feel part of the process of shaping their training.

Process

As advocated in the 3P model (Freeth & Reeves, 2004), the learning objectives for the IPL programme are heavily influenced by major "presage" factors, such as the governmental requirements for training; a commitment to problem- or enquiry-based learning; together with students' prior learning experiences and diversity.

The opinions of students and staff are continuously sought, as part of the evaluation (Pollard et al., 2005; O'Neill & Wyness, 2005; Lumague et al., 2006; Salvatori et al., 2007) and taken into consideration whilst developing the programme (Parsell & Bligh, 1999; Carlisle et al., 2004; Robson & Kitchen, 2007). The involvement of both groups is a vital element of this cyclical process, promoting a dynamic and evolving educational innovation.

Involving the students. The development of IPL2 commenced during the academic year 2003–2004. Of the 96 students who participated in the IPL1 pilot during 2002–2003 (Lindqvist et al., 2005), six second-year students volunteered to participate in a student planning group (SPG) for IPL2 (2003–2004). These students were from three different professions (occupational therapy, physiotherapy and medicine) and they met six times throughout the year together with the Director of the centre in order to produce a framework for IPL2.

The SPG was given guidelines regarding the theories and models underpinning IPL (as outlined above), and asked to utilise case scenarios around the topic of communication. The choice of this topic was prompted by first-year students rating communication as the most important key principle that facilitates effective interprofessional working. Students discussed the content of IPL2, the focus of the assignment, the involvement of a facilitator and the optimum frequency of meetings during IPL2.

In their presentation outlining the suggested framework for IPL2 in June 2004 (Figure 1), the SPG gave key recommendations to the IPL steering group (see below), which included a focus on reflective thinking. The students also wanted to combine the more "predictable" exercise used during IPL1 (when groups work primarily around a patient case scenario) with more "unpredictable" discussions related to their clinical placement. A more "chaotic" and less defined approach to IPL2, as discussed by Cooper et al. (2004), was thought by the students to be appropriate at this stage of IPE and their professional development.

The steering group accepted the proposed framework to be used as a foundation for IPL2 and it was implemented for the academic year 2004–2005.

Presenting student comments to the IPL steering group. The IPL steering group was established during spring 2003. The group comprises academic and senior administrative staff from each of the training programmes involved in IPL, and meets every two months. The steering group has been instrumental in agreeing a joint way forward for IPE whilst raising potential

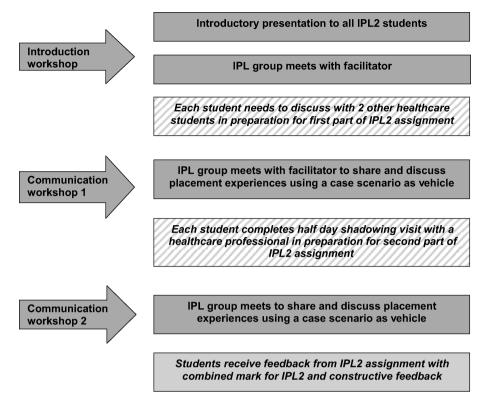


Figure 1. Schedule for IPL2. The figure shows a brief outline of the workshops and IPL2 assignment.

problems and issues for resolution (including the logistically difficult task of coordinating dates). Student feedback is regularly presented to the steering group, either directly or indirectly, thus providing a forum for both students and staff to voice suggestions and concerns.

Some members of the steering group are actively involved in delivering the IPL programme, which helps to promote the ethos of interprofessional working across the faculty. It also aids keeping the dialogue flowing between the steering group and the students – using facilitators as the conduit.

Involving the facilitators as the student voice. Faculty members from each school are trained by the centre to be facilitators of IPL groups. Maintaining a diversity of facilitators is important in order to engage all schools and support the IPL delivery in an effective manner. Facilitators are encouraged not only to deliver the programme, but also to participate in the continuous development of IPL2 and act as the student voice. They do so by attending regular facilitator meetings and thus they serve as an important link to the centre, passing on any student feedback.

Interaction between the students and the centre. The planning, delivery and evaluation, of the IPL programme is co-ordinated by the centre and staff carry out the analysis of feedback collated from students and facilitators at the end of each IPL level. Suggested changes are presented to the steering group and an annual working group implements alterations to the programme, as required.

The next section will describe the main outline of IPL2, which is based on the proposed framework presented by the SPG to the IPL steering group in 2004.

Outline

Participants

IPL2 has been delivered each academic year since 2004, to an increasing number of students (see Figure 2). Due to logistical problems, one professional group had to participate in IPL2 on a voluntary basis during the first year. Following feedback from students, IPL2 was subsequently made compulsory for all students involved. In 2005–2006, 479 students completed IPL2 from: medicine (120); midwifery (15); nursing (151); operating department practice (17); occupational therapy (44); pharmacy (81) and physiotherapy (51).

Aim and learning objectives

The overall aim of IPL is to develop the sustainable knowledge, skills, attitudes and behaviour that facilitate effective interprofessional teamworking. All four levels of the IPL programme share the same set of learning objectives (see Table I). However, depending upon the level of IPL and the students' professional development, certain objectives are addressed in more depth. The Centre was guided by the SPG as to which objectives and approach to focus on for IPL2.

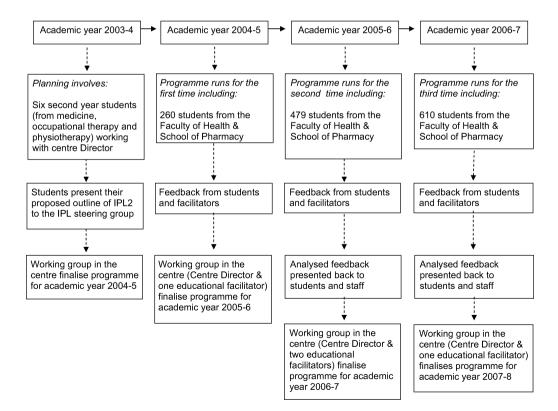


Figure 2. The development process of IPL2.

Table I. Learning objectives for the IPL programme.

Students will:

- identify key principles that facilitate effective interprofessional teamworking;
- understand why improvements in interprofessional practice are important to patient care;
- describe their own role as a healthcare professional as part of a multiprofessional team;
- learn about the role of other healthcare professions and how they would collaborate to provide the best patient care;
- begin to understand the benefits of and constraints on interprofessional teamworking.

The focus in IPL1 is for students to consider the key principles that facilitate effective interprofessional teamworking and to describe and learn about their respective roles as healthcare professionals. As a result of the work of the SPG, students in IPL2 are encouraged to focus more on the roles of others, how different professionals interact with each other, how their practice impacts on patient care, and the benefits of and constraints on interprofessional teamworking. Therefore, despite the underpinning theories and models being the same for each level of IPL, the approach used in each level differs slightly.

During IPL2 students use case scenarios to reflect on how members of the multiprofessional team communicate with each other to provide the best patient care. Each student reflects individually on a given task and is provided with a forum through the IPL2 workshops, where they can meet with peers from cross-professional groups to share, compare and discuss their placement experiences. The SPG emphasised the need for students to share experiences in practice and suggested that offering a forum for students in IPL2 would help them obtain a more balanced view of multiprofessional teamworking.

Schedule

The SPG recommended that students would meet on fewer occasions over the year (compared to IPL1 where they meet once per week over seven weeks), but that these meetings should be longer than an hour (as is the case in IPL1). Taking the suggestions from the SPG on board, students in IPL2 are provided with three workshops where they meet with their group and facilitator (Figure 1). Although students only meet on three occasions as a group, the programme is designed to stimulate interaction and discussion about their placement experiences with other healthcare professionals, using case scenarios as a vehicle.

Case scenarios – as a vehicle for the assignment

The learning process in IPL is facilitated by using different case scenarios to stimulate thought and discussion to purposefully widen student perspectives. During each of the three workshops in IPL2, students are given a case scenario suitable for the purpose and content of the workshop. The SPG agreed that the use of case scenarios was important to facilitate discussion as students in IPL2 have limited time to get to know each other and may therefore need discussion triggers.

Case scenarios for the two-part IPL2 assignment were devised and agreed by the SPG. The students expressed a need to develop their reflective thinking during IPL2 and thought that a formative assessment (rather than summative) would be more appropriate in encouraging students to engage in IPL. The assignment currently used in IPL2 was developed by The Centre taking the students' comments into account, and is briefly described below.

Assignment – part one. For the first part of the assignment, students use the case scenario addressing "communication within the multiprofessional team" mentioned above. It aims to tackle issues related to responsibilities of the team and the individual, in conjunction with barriers to communication – such as hierarchy and lack of self-esteem (Oandasan & Reeves, 2005). The case involves a member of a multiprofessional team caring for a patient who feels their suggestions about the patient's care are ignored by other team members. The situation serves as a springboard for discussions around communication within the multiprofessional team, and encourages integration of the students' own experiences from their clinical placements.

To complete this part of the assignment, students need to discuss the above with two students from different healthcare training programmes and write a 500 word reflective statement. To aid the students with the reflective process, the centre provides them with a reflective cycle adapted from existing models (Kolb, 1984; Driscoll, 2000). Key learning points from this reflective statement are then shared by students at communication workshop 1 (Figure 1).

Assignment – part two. For the second part of the assignment, students use an extended version of the case scenario, which addresses "communication between the multiprofessional team and the patient". The case involves the patient's health deteriorating, possibly because a team member's ideas have been overlooked. The multiprofessional team will need to inform the patient and significant others. Again, students are encouraged to incorporate their own experiences in clinical practice and to discuss the scenario with a qualified healthcare professional that they shadow (see below).

For this part of the assignment each student shadows a qualified healthcare professional for half a day and discusses with them ways in which they communicate with patients. Again, students will complete a 500 word reflective statement.

The IPL2 assignment is formatively assessed by the student's facilitator using guidelines provided by the centre. Each student receives a final mark for IPL2 along with constructive feedback on the second reflective statement, enabling them to develop as reflective practitioners (Clouder & Sellars, 2004; Mamede & Schmidt, 2004).

Facilitation

Throughout IPL2 the facilitator plays an important role in optimising the learning experience. Facilitation during IPL2 is different from IPL1, and is sometimes seen by facilitators as more challenging. There are different reasons for this. For example, the discussions in IPL2 are less predictable owing to students' clinical placement experiences (Steven et al., 2007); as students have less time to get to know each other, the group dynamics are sometimes more challenging. In addition, professional stereotyping becomes more apparent as students have had more time in practice (Howkins & Bray, 2007). Students' increasing confidence can create more heated debate at times. Consequently, facilitators need to be and feel prepared. As with IPL1, the centre requires that facilitators undertake appropriate training for IPL2. Experience from previous years suggests that facilitators involved in IPL2 also need to have facilitated in IPL1.

The general outline of IPL2 as suggested by the SPG was generally successful but as IPL2 was not rigorously piloted with a small cohort of students, the evaluation of IPL2 by students participating in the programme was crucial and this suggested that further development was required. This was not unexpected, as IPL2 includes a large number of students from a range of different healthcare programmes (Figure 2).

Evaluation and further development

As part of the annual evaluation of IPL2, students rate various elements of IPL2 and how these have contributed to their learning. In this paper, examples are shown below of their evaluation of the academic year 2005–2006, together with subsequent changes to IPL2 implemented for 2006–2007.

In addition to rating different elements of the course, students were asked to answer open-ended questions relating to IPL2. The principles of content analysis (Silverman, 2006) were applied to these data. Student responses grouped naturally into categories and the frequency of responses within each category was calculated. For the purpose of this paper, examples of areas where students had suggested greater changes to the programme are presented below, with a representative quote highlighting the overall content of their feedback. Where possible, a percentage figure is given to illustrate the distribution of students' views.

An important part of the evaluation for this cohort included a presentation where the main findings were presented back to students and staff. This enabled participants to view their feedback in relation to others, and with the overall picture in mind gave them an opportunity to suggest constructive improvements to IPL2.

Introduction workshop - "Clearer required outcomes"

Student comments. Whilst 41% of students did not respond to the open-ended question asking for suggestions for improvements to this workshop, some students expressed that the requirements and content of IPL2 did not come across clearly enough during the workshop. Others wanted to engage in a practical task involving a situation related to healthcare.

Subsequent changes. The centre made changes to the workshop structure so that students now receive an introductory presentation giving a clear outline of the requirements and content of IPL2. Following this presentation students work together in their IPL groups ($n \approx 8$) around a new case scenario, an audio-clip of a patient describing his healthcare experiences (www.dipex.co.uk). During the workshop, students are asked to examine and discuss the case, both from the patient's perspective and that of an interprofessional healthcare team, with the additional purpose of understanding the process of reflection.

Communication Workshop 1 – "More discussion in groups and less repetition"

Student comments. Although 47% of students did not suggest any specific improvements, 10% of students indicated that the discussions were too formal and structured. They also felt that presentations given by the IPL groups at the end of the workshop were repetitious. Many students highlighted the benefits of meeting other peers during their professional training.

Subsequent changes. Whilst the main focus of the workshop remained the same after the programme review, students' own experiences were emphasised and the management of tasks altered to avoid repetition. A student handout was devised, including the aims and outline for the workshop, giving students more responsibility for the organisation and timing

of tasks. These were redesigned so that each group covered different material, and gave varied presentations. As the students took ownership of their work, the facilitators' role changed from being directional and organisational to a more supportive one, encouraging meaningful discussions and summarising discussion points.

Communication Workshop 2 - "Really enjoyed it, gained lots of insight"

Student comments. Twenty percent of the comments mentioned that the workshop was fine and did not need improving, but could be shortened. As with Communication Workshop 1, this was mainly due to students finding the final presentations repetitious. Overall, the students enjoyed working with the given case scenario, though some wished it was real rather than fictitious.

Subsequent changes. A real-life patient case scenario where interprofessional teamworking had proved successful was utilised, enabling students to identify how and why successes had occurred. The case scenario chosen was a newspaper article from The Observer (Revill, 2006) reporting on a patient (Danny Biddle) injured during the London Bombings on 7 July 2005. The case enabled students to examine Danny's healthcare experiences and look at the way healthcare professionals interact, both in the short and long term.

A student handout was devised, with each of the four student groups at the workshop working around a section of the article, and thus at different stages of Danny's care. Students discussed communication between different professionals and how they interacted with the patient, endeavouring to understand what made this a successful example despite very difficult conditions. In order to make the learning experience directly relevant to the students, they were encouraged to relate to examples from their placements. The groups presented their work at the end of the workshop, demonstrating Danny's journey through the healthcare system.

Logistical problems with IPL2 - "Don't run IPL2 during placement"

Students' comments. With eight different professions involved in IPL2, a major organisational challenge each year involves the coordination of student availability for each of the three workshops. Clinical placement experience (whilst essential in becoming a health professional) has created the greatest obstacle. Subsequently, it is inevitable that students from some professions are only able to attend two of the workshops. This causes discord with some students, who feel that differing attendance by some students reflects a lack of commitment.

Subsequent changes. Availability of students for IPL workshops continues to be an issue that is addressed on an annual basis, with the goal of future resolution. However, despite this being a slow process, the communication and support from and across schools improves every year and the centre plays an important part in this process.

Blackboard - "Wish it was used more for discussion purposes"

Students' comments. The student virtual learning environment ("Blackboard") for IPL2 was introduced for the first time during 2005–2006. This resource was positively received, with 77% of students finding it useful, but some expressing the need for more opportunities for online discussions.

Subsequent changes. Blackboard will be improved each year to stimulate online communication and student group-work outside IPL workshops, which will be especially beneficial for students who are on placement. Although the foundation of this IPL programme relies on face-to-face interactions, components of e-learning will be developed to maximise opportunities for discussion and positive learning outcomes.

Discussion

This paper describes the planning, outline and subsequent development of the second level of an interprofessional learning programme (IPL2), paying particular attention to student involvement in this process. The IPL2 framework is developed with students, taking into account their needs during the second year of their training, whilst also realising some of the limitations of what can be offered to a large, diverse cohort of students in a sustainable manner. The implementation of IPL2 on a larger scale led to further development of the programme, and constructive feedback from students was vital in this process.

The recruitment of the SPG, supported by a facilitator, was shown to be an effective way of creating a framework for IPL2 with student involvement. As the IPL programme at this institution is offered to students at different levels of their training, it needs to be viewed as a whole, rather than viewing each level in isolation. This is particularly important for those involved in the development process. For this reason, all students in the SPG had also completed the pilot for the first level of IPL (IPL1) (Lindqvist et al., 2005). Participants of the SPG engaged with the task and looked forward to presenting their work to the IPL steering group.

In their presentation of the framework, the SPG suggested that students in IPL2 would meet on three occasions over the academic year. They acknowledged that meeting more frequently would be difficult due to students spending more time on placement. The SPG suggested that the assignment should include individual reflections of students' practice experiences to capitalise on this rather than make it a disadvantage.

A reflective approach was seen as an effective way to ensure students observed and thought about how different professionals communicate with each other and with their patients. Also, the SPG believed it would facilitate students' professional development in becoming reflective practitioners. Although findings presented by Clouder and Sellars (2004) indicate that it is not possible to teach reflective practice, educational programmes can be designed to enhance students' understanding of the reflective process. During IPL2 students discuss one reflective statement with peers and are given constructive feedback on the second. This, along with a final mark for IPL2, encourages students to develop their reflective thinking for future assignments and keeps the learning experience positive. In addition to the individual reflective statements, the SPG emphasised the importance of interacting with other healthcare professionals during IPL2. In preparation for their assignment, students are therefore asked to discuss communication issues with their peers and to observe qualified staff from healthcare professions different to their own. When rolling out IPL2 to a large cohort, some students found it difficult to find peers from other healthcare professions at their placement. Virtual discussion forums available on Blackboard helped to overcome this problem.

Despite meeting on only a few occasions, the SPG felt that IPL2 would contribute to the development of students' own professional identity and their understanding of how professions relate to each other in the multiprofessional team. This notion was confirmed later by student evaluation, which showed that students rated meetings with their peers and facilitators highly. The importance of developing a professional identity is highlighted in the

literature (Bucher & Stelling, 1977; Hind et al., 2003; Summers & Thurgate, 2006). Some believe that students need to develop a secure professional identity before introducing IPL, whereas others believe students need to develop these attitudes whilst exposed to a variety of healthcare professionals (Hind et al., 2003; Hean et al., 2006). The SPG highlighted the importance of being aware of the differences in their training and learning from each other. For example, some training programmes provide students with opportunities to shadow different healthcare professionals; whereas for others, the only chance to shadow a healthcare professional different to their own is within IPL2.

The half-day shadowing experience in IPL2 was rated very positively by students. In many cases this element of IPL was relatively easy to implement as it could be incorporated within students' existing placements, which of course solved many logistical issues. Similar findings associated with incorporating IPL in students' placements have been reported by other groups (Hilton & Morris, 2001; Robson & Kitchen, 2007). However, other elements and procedural aspects of IPL2, such as the overall structure of workshops were not rated so highly and were significantly altered in response to student feedback. Through analysis of student evaluation and presenting back the main findings, students were given ownership of the learning process and given opportunities to discuss how IPL2 could be developed further. Although it is good to listen to students after an intervention, as presented by O'Neill and Wyness (2005) it may be much more effective to involve them in the actual development process.

When inviting students to participate in the development process, it is important to appreciate that, in addition to the benefits of this approach, one of the challenges is that not all suggestions can be acted upon and this must be emphasised to participants during the development process. For example, students are becoming much more aware of the differences between Schools and their curricula. Despite learning with, from and about each other being the ultimate purpose of IPE (Freeth et al., 2002) it can also create feelings of injustice. However, these differences will often be historical within a particular school and not easy to overcome. Conversely, when IPL2 was not compulsory for all (2004–2005) a number of students who had initially volunteered to participate, subsequently dropped out of IPL2. Although this problem was not associated with IPL2 as such, negative feedback precipitated amongst participants and as a result IPL2 became compulsory for all students involved in future years.

The main reason for the overall success of the IPL programme is due to the number of people who have been committed to making it work. Importantly, by offering students different opportunities to air their views, they have been continuously encouraged to give their valuable and constructive feedback on how to develop the programme further. As the programme evolves, it stimulates more ideas as participants can see that their suggestions and comments are actively considered and used when revamping different aspects of the programme.

Conclusion

By asking students to produce the IPL2 framework, albeit with guidance, they could share their views of what was important to them in relation to learning about interprofessional working at this particular stage of their training. As these students had also taken part in the IPL1 pilot, they built upon what they had learnt previously from working together with students from different professions.

As with IPL1, students in IPL2 work in small groups supported by a trained facilitator. It is important to remember that the students are a year further on in their professional development, and that they have previous experience of this kind of learning. During the

early stages of IPL2 delivery, this meant that facilitators needed to develop and learn alongside the students.

IPL2 has been more challenging than IPL1, both for the centre and its facilitators. This has mainly been due to students being less available on campus, thus making it more difficult to find protected time slots that fit with everyone's timetable. Interactive tasks between workshops and possibilities for virtual means of communication have helped students maintain the momentum. Also, by emphasising to participants that the IPL programme is regularly reviewed and that both students and staff are actively involved in the development, these challenges have been overcome. Being transparent with feedback, and what was addressed in response to this, has been a driving factor to engage people. It also allows participants to see why some changes could not be implemented and also how their own views compare to other respondents. All IPL providers will appreciate the difficulty in offering a programme suitable to all. By actively listening to students participating in interprofessional learning, their thoughts and feelings can be taken into account giving the ownership to all.

Acknowledgements

We would like to thank the students in the planning group (Ben Clayton, Nicola Davey, Julia Heywood, Deidre Luff, Alice Murray and Karen Payne) for their hard work, and staff members at UEA within the Faculty of Health and School of Chemistry and Pharmacy for their continued support for the IPL2 programme.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

References

Adams, K., Heah, S., Sturgis, P., & Clark, J. M. (2006). Investigating the factors influencing professional identity of first-year health and social care students. *Learning in Health and Social Care*, 5(2), 55–68.

Barr, H. & Ross, F. (2006). Mainstreaming interprofessional education in the United Kingdom: A position paper. *Journal of Interprofessional Care*, 20(2), 96–104.

Bucher, R. & Stelling, J.G. (1977). Becoming a professional. Beverly Hills, CA: Sage.

Carlisle, C., Cooper, H., & Watkins, C. (2004). "Do none of you talk to each other?": The challenges facing the implementation of interprofessional education. *Medical Teacher*, 26(6), 545–552.

Clouder, L. & Sellars, J. (2004). Reflective practice and clinical supervision: An interprofessional perspective. *Journal of Advanced Nursing*, 46(3), 262–269.

Cooper, H., Braye, S., & Geyer, R. (2004). Complexity and interprofessional education. *Learning in Health and Social Care*, 3(4), 179–189.

Cooper, H., Spencer-Dawe, E., & McLean, E. (2005). Beginning the process of teamwork: design, implementation and evaluation of an inter-professional education intervention for first year undergraduate students. *Journal of Interprofessional Care*, 19(5), 492–508.

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

Department of Health (2001). Working together - Learning together. London: Stationery Office.

Driscoll, J. (2000). Practising clinical supervision: A reflective approach. London: Balliere Tindall.

Freeth, D., Hammick, M., Koppel, I., Reeves, S., & Barr, H. (2002). A critical review of evaluations of interprofessional education. A review commissioned by the Learning and Teaching Support Network for Health Sciences and Practice, London.

Freeth, D., Hammick, M., Reeves, S., Koppel, I., & Barr, H. (2005). Effective interprofessional education: Development, delivery & evaluation. London: Blackwell.

Freeth, D. & Reeves, S. (2004). Learning to work together: Using the presage, process, product (3P) model to highlight decisions and possibilities. *Journal of Interprofessional Care*, 18(1), 43–56.

- Hammick, M. (2000). Interprofessional education: Evidence from the past to guide the future. Medical Teacher, 22(5), 461–467.
- Hean, S., Clark, J.M., Adams, K., & Humphris, D. (2006). Will opposites attract? Similarities and differences in students' perceptions of the stereotype profiles of other health and social care professional groups. *Journal of Interprofessional Care*, 20(2), 162–181.
- Hewstone, M. & Brown, R. (1986). Contact is not enough: An intergroup perspective on the contact hypothesis. In: M. Hewstone & R. J. Brown (Eds), Contact and conflict in intergroup encounters (pp. 1–44). Oxford: Blackwell.
- Hilton, R. & Morris, J. (2001). Student placements is there evidence supporting team skill development in clinical practice settings? *Journal of Interprofessional Care*, 15(2), 171–183.
- Hind, M., Norman, I., Cooper, S., Gill, E., Hilton, R., Judd, P., & Jones, S. C. (2003). Interprofessional perceptions of health care students. *Journal of Interprofessional Care*, 17(1), 21–34.
- Howkins, E. & Bray, J. (Eds) (2007). Preparing for interprofessional learning and teaching: Theory and practice. Oxford: Radcliffe.
- Knowles, M. (1975). Self-directed learning: A guide for learners and teachers. New York: Association Press.
- Kolb, D.A. (1984). Experiential learning: Experience as the source of learning and development. Upper Saddle River, NJ: Prentice Hall.
- Lindqvist, S., Duncan, A., Shepstone, L., Watts, F., & Pearce, S. (2005). Case-based learning in cross-professional groups the development of a pre-registration interprofessional learning programme. *Journal of Interprofessional Care*, 19(5), 509–520.
- Lumague, M., Morgan, A., Mak, D., Hanna, M., Kwong, J., Cameron, C., Zener, D., & Sinclair, L. (2006). Interprofessional education: The student perspective. *Journal of Interprofessional Care*, 20(3), 246–253.
- Mamede, S. & Schmidt, H.G. (2004). The structure of reflective practice in medicine. *Medical Education*, 38(12), 1302–1308.
- Maudsley, G. & Strivens, J. (2000). Promoting professional knowledge, experiential learning and critical thinking for medical students. *Medical Education*, 34(7), 535–544.
- Miller, C., Ross, N., & Freeman, M. (2001). *Inter professional education in health social care.* London: Arnold Publications.
- 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.
- O'Neill, B. J. & Wyness, M.A. (2005). Student voices on an interprofessional course. Medical Teacher, 27(5), 433–438.
- Oandasan, I. & Reeves, S. (2005). Key elements for interprofessional education. Part 1: the learner, the educator and the learning context. *Journal of Interprofessional Care*, 19(Suppl. 1), 21–38.
- Parsell, G. & Bligh, J. (1999). The development of a questionnaire to assess the readiness of health care students for interprofessional learning (RIPLS). Medical Education, 33(2), 95–100.
- Pirrie, A., Wilson, V., Harden, R.M., & Elsegood, J. (1998). AMEE Guide No. 12: Multiprofessional education: Part 2 promoting cohesive practice in health care. *Medical Teacher*, 20(5), 409–416.
- Pollard, K., Miers, M.E., & Gilchrist, M. (2005). Second year scepticism: Pre-qualifying health and social care students' midpoint self-assessment, attitudes and perceptions concerning interprofessional learning and working. *Journal of Interprofessional Care*, 19(3), 251–268.
- Revill, J. (2006). Miracle workers who rebuilt Danny's life. The Observer (Published on January 29, 2006).
- Robson, M. & Kitchen, S.S. (2007). Exploring physiotherapy students' experiences of interprofessional collaboration in the clinical setting: A critical incident study. *Journal of Interprofessional Care*, 21(1), 95–109.
- Salvatori, P., Berry, S., & Eva, K. (2007). Implementation and evaluation of an interprofessional education initiative for students in the health professions. *Learning in Health and Social Care*, 6(2), 72–82.
- Silverman, D. (2006). Interpreting qualitative data: Methods for analyzing talk, text and interaction. London: Sage.
- Spencer, J.A. & Jordan, R.K. (1999). Learner centred approaches in medical education. *British Medical Journal*, 318(7193), 1280–1283.
- Steven, A., Dickinson, C., & Pearson, P. (2007). Practice-based interprofessional education: Looking into the black box. *Journal of Interprofessional Care*, 21(3), 251–264.
- Summers, K. & Thurgate, C. (2006). An inter-professional approach to children's nursing education. *Paediatric Nursing*, 18(9), 34–37.
- Tunstall-Pedoe, S., Rink, E., & Hilton, S. (2003). Student attitudes to undergraduate interprofessional education. *Journal of Interprofessional Care*, 17(2), 161–172.