Interactive Teaching Strategies for Interprofessional Teaching and Learning

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Are you worried about the format of Interprofessional Education?

Any effective interprofessional education (IPE) session must enable students from different professions to learn together. In many cases this will involve debate and discussion or joint practice working relating to a given relevant topic and clinical/practice area. The intended learning outcomes should be an appreciation of each other's different knowledge, skills and value bases upon which professional working lives are based.

You cannot begin without understanding what the term 'interprofessional 'means.

Individual Task

Do you know what the term interprofessional education means?

What is special about the title which must be reflected in the design or relevant learning materials?

Understanding the difference between how people use the terms 'multi' and 'inter' is important in reflecting on the type of learning relevant for interprofessional education (IPE). Learning together, the bringing together of students completing different professional curriculum at University or other further education system may take place under the terms, i) multi-professional; ii) interprofessional or iii) shared or common learning. This section focuses on interprofessional, interactive learning. Interprofessional education (IPE) requires students to interact with one another to achieve their intended learning outcomes.

How will you ensure that your students interact? Possible teaching methods for interactive learning

Relevant Learning Theory

In this short account we share only those methods we have used extensively and found through research and evaluation enable interprofessional learning (IPL). We do not intend to share what can be found in the extensive literature relating to theories which support group learning. We can only state that a separate theory for IPL is yet to emerge. IPE continues to have alliances with theoretical endorsements based upon theories from the behavioural and social sciences.

All learning approaches now expect the teacher to promote students to be stimulated to make meaning. In this context group learning has come of age as it enables debate and discussion and is widely used in all types of learning situations. However we must remain highly cautious about group learning when today's students are more diverse than ever before. Understanding the cultures within which IPE will take place is paramount as students in any IPE session are some of the most diverse groups in any in higher education. Not only do they vary by personal characteristics but by their personal characteristics which direct them to one profession and by the professionalisation processes which takes place as students start their professional courses. It is well documented that students from a strong attachment to their chosen professional characteristics early during further education.

The learning we hope students will acquire through IPE is not about memorising facts but about making sense of how to work effectively with others to benefit our patient, service users or clients and our communities.

The Kolb Learning Cycle

The Leicester Model of interprofessional practice-based learning has adapted the Kolb cycle. Before demonstrating how this works we outline some of the components of interactive learning it contains and why it remains a logical approach for IPE. In its essence the Kolb cycle is based upon learning through experiencing or doing something. However, it also contains some key components of deep learning which are:

- **Experience or doing (Kolb refers to stage one as Concrete Experience CE)**

  In IPE it is possible to make this doing directly relevant to the students future practice. This brings motivation for the learner and confirms authority…. 'this must be good stuff as it is relevant to my future working life'. Often it is possible to make the doing a challenge, for example, introduce problem based tasks, or ***problem based learning (PBL***)

- **Reflection and analysis (Kolb refers to this second stage as reflective observation RO)**

  This comes after the experience and is based on the actions or experiences undertaken. This type of reflection can help to enhance meaning and hence new learning. Where the experience (stage one) has captured some ***critical incident***

then the further ***analysis*** through reflection will ensure meaningful long-term learning.

- **Application of Theory (Kolb refers to this third stage as abstract conceptualisation AC)**

  Integrating ideas generated through experience debate and analysis to underpinning theory. There are many different theories and approaches to health and social care and to team working and collaborative practice. In IPE students bring a myriad of these different approaches to any session and through debate and discussion these can be tabled and shared. It might be that the learning event is particularly designed with one theory in mind, for example, exploring the social and medical model of disability. Through student analysis a deeper understanding of theory can help bring together the theory practice-gap.

- **Generating students towards new thinking and developing solutions or approaches to improve patient/user care (Kolb refers to this final stage as active experimentation AE)**

  All this final stage all the new thinking gained through the group experiences, analysis and interpretation of findings using theory and policy are brought together. The student group can demonstrate they have understood this situation and can offer new meaning and possible alternatives to care approaches and practices. They have to make group decisions and consider how the patient/user situation might look different with the benefit of this new collective group wisdom. The final feedback session enables the student group to share these insights and new solutions with the academics and practitioners, who may agree, or they may challenge the students who have little experience or they may, as often happens, agree with the students and take forward their thinking.

All four stages of this learning cycle are deemed to be important and can work together as we will show in the Leicester Model. In addition, educational theorists have argued that learners have preferred learning styles. The Kolb Learning Cycle accommodates these different learning styles for example, the relationship to Honey and Mumford's (1982) learning styles and Kolb is as follows

Stage One: Activist

Stage Two: Reflector

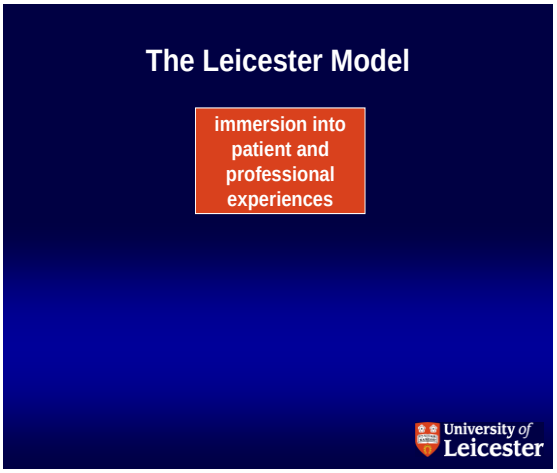
Stage Three: Theorist

Stage Four: Pragmatist

In addition to the preferred learning styles of individuals the Kolb cycle has associations with the range of different learning approaches of different disciplines e.g. sciences and reflectors and scientists' and theorists. This is helpful for IPE which often brings together students from different subject specialism's disciplines.

Our local Model of Practice-based interprofessional learning, The Leicester Model, was designed using the principles from Kolb. A core component of the Model is the involvement of patients/service users and actual clinical or social; care teams. Some situations may use actors but this is not as successful.

The Leicester Model : (INSERT LINK)



Step One: Experiences

The following experiences have been designed

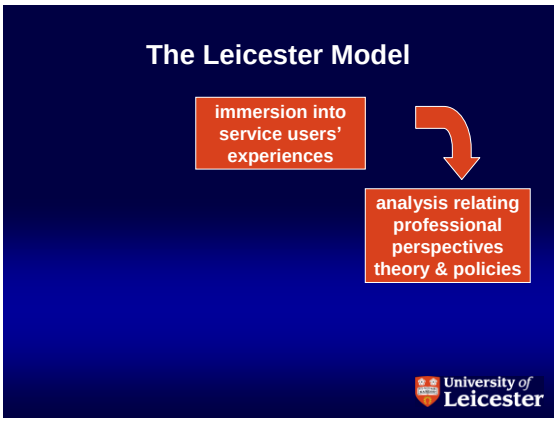
- Patient/service users home visits in the community e.g. in their own homes or in a care setting
- Visits to a range of professionals who currently work with patients/service users to explore what they do, work with them or to interview them on their roles and responsibilities
- Team working on a ward
- Visits to explore the locality and/or the environment of care delivery e.g. areas of poverty or deprivation, work with homeless people, exploration of community health and or social care settings
- Simulation activities in clinical skills units.

Step Two: Reflection to analyse these experiences

Students in their interprofessional teams will reflect and draw upon theories and policies where necessary:

- Consider what they have seen and heard and ask themselves questions about this

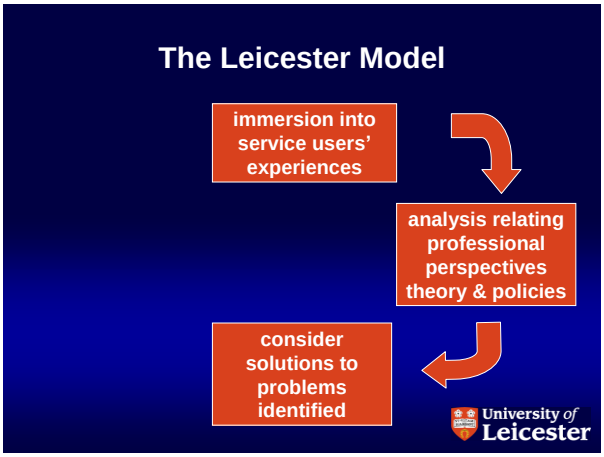
- Try to make meaning of what they have seen and heard
- Exchange their different professional perspectives
- Analyse these experiences using their different professional values
- What is really happening here and why?
- Is the patient/service user receiving optimal care
- What problems did we see?
- Can we reconcile the patient/service user and professional perspectives?
- What theories do I have that may make sense of these things, profession specific or wider and
- Is there policy relating to this?



Step Three: Application of theory to consider solutions or new thinking to problems identified

Students will ask themselves questions and draw upon background understandings from their uni professional discipline specifics training and from other theories. Some of these materials can be offered by teachers in workbooks, or on blackboard sites. Here they use all this materials and begin to think about what services or care should be like.

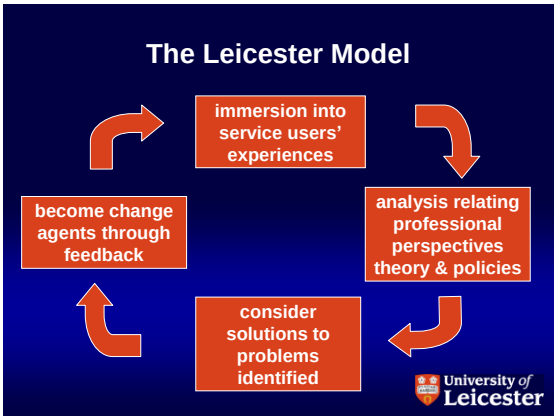
- How does what we have seen relate to my theory base
- Is there a government policy this relates to
- What does the value base of my profession state about this?
- Is there research evidence for this?
- How might we do this differently?
- What did the patient/service user really expect?
- Did the professionals feel they were addressing the key issue and how might they work differently?



Step 4: They propose solutions to the problems they have identified from their learning at a feedback session or through a formal feedback process

Student present these findings to the professional team alongside who they have worked and engage in debate and discussion about future possibilities. This step also develops presentation skills as a group. Where members of professional teams are not present then students prepare feedback forms to be sent to the teams.

- if this was our patient/service user we would do……
- Why have the local area not designed this [student idea] service for the local population
- This drug was wrong because…



In summary The Leicester Model uses the following learning approaches in combinations

Using adult learning theories relating to

- experiential learning

- modified PBL in experiences
- reflection on experience
- analysis
- debate and discussion
- opportunities to generate new ideas, theories and approaches to care
- professional presentation for suggested care packages
- team working
- appreciation of collaborative practice

Why this is a good method for IPE teaching?

Working in combination with clinical or social care teams this model can ensure:

- patients become partners in education
- the learning is a partnership with health and social care organisation so that
    - front line service providers are up-skilled to become tutors
    - academics become immersed into practice

- students can influence and bring about changes in practice, enhancing the quality of care delivery
- student experience the realities of everyday team working.

Key aspects of interactive learning found in the Kolb Learning cycle

a) Problem Based Learning (PBL)

Used widely in health and social care Higher Education Institution's (HEI's), PBL is a student centred approach to learning focussed on the learning outcomes. It enables students to achieve deeper learning through adopting reasoning skills, critical thinking and decision-making. It requires an integration of knowledge from other disciplines and prepares students for lifelong learning. It has the following format:

Why choose PBL?

- Student centred approach to learning
- Enables students to achieve deep learning
- Uses students prior learning
- Develops reasoning, critical thinking and decision-making skills
- Requires skills for the integration of knowledge from other disciplines
- Prepares students for lifelong learning.
- Promotes small group learning and the need for effective teamwork.

How to set up…

- Small groups (maximum 10)
- PBL tutors to create the learning environment
- Tutors/facilitators who can enable group discussion and feedback
- Ground rules are set at the outset
- Students work as a team allocating roles to arrive at their learning goals.

Setting the problem

The essential element is the **quality of the problems** presented. In medical and similarly aligned professions, education can use diagnostic problems associated with health care presentations which easily lend themselves for problem solving. In fact the daily responsibility of the medical and allied professions and social care is to solve the problems relating to patients symptoms and care concerns that patients present with.

Example: Family B a health and social care case which could be used for Problem Based Learning (PBL).

What problems do you see in this family situation?

How might you address them?

More problem based questions could be designed…. What might they be?.....

Family B

Mother 34 years, Caucasian, obese, rheumatoid arthritis, limited mobility does not work and is almost housebound.

Father, unknown age and race but works as a Lorry driver and is away from home most of the time.

Son (1) 16 years diagnosed with epilepsy, mixed race. Recently attended an expert doctor's clinic and continues with heavy doses of anti-epileptic drugs. Although the medication has been reduced he is under investigation for sleep disturbance and irritability. He attends local school where he has help with special educational needs. He is trying to get a job for when he finishes school but so far he is unsuccessful. He has been assigned to attend day care workshops for the young unemployed.

Son (2) and

Daughters (2) all under 11 years attending the local primary school

Grandparents local and helpful.

Housing Council rented house, very small unit one lounge and kitchen 3 bedrooms. Pocket size garden.

Finances: Son 1 did receive disability living allowance but this is being reviewed.

b) Experiential Learning

Learning by doing in health and social care relates to practising an element of our future professional work. It is generally agreed that learning by experiencing something within your own context helps to consolidate and strengthen learning. It is one thing, for example, to learn how to take a blood pressure theoretically from a text book and yet another to experience doing it on a human being.

Perhaps one of the best known models of experiential learning was designed by Kolb in 1984 which we have already explored. It is worth suggesting here that experience alone is not enough and there must be analysis and reflection after the experience. Nowhere is this more important than in simulation and in role play.

- **Simulations**

Practice-based learning although offering some of the best learning for IPE, can be challenging to organise and sustain. For these reasons many educators now use simulation units where using actors as patients/service users, it is possible to set up learning situations which reflect everyday reality. Wherever possible it is ideal to have the range of students to take on the roles of being the doctor, nurse, social worker etc..

Examples of simulations used for IPE

Stewart, M. & Kennedy, N. (2010). Undergraduate interprofessional education using high-fidelity paediatric simulation. *Clinical Teacher,* 7, 90-96.
Kenaszchuk, C., MacMillan, K., van Soeren M, & Reeves, S. (2011). Interprofessional simulated learning: short-term associations between simulation and interprofessional collaboration. *BMC Medicine,* 9, 29.

- **Role Play**

Students can play the roles of different members of the health and social care team. Educators need to design clear briefs for the students to help them take on the required role. This can work well where there is not the required mix of professional student backgrounds for a simulated event or for re-enacting a professional team meeting for example a multi-disciplinary (MDT) meeting.

- **Practice Learning**

This normally takes place within the practice areas where students will work in the future. This means it has relevance to the learner and therefore motivates learning. Practice-based learning helps students progress their understandings from early theoretical concepts of interprofessional working to appreciation of the realities through experiential learning (Barr, 2003).

Practice learning can become part of placement learning. We have used the Leicester Model for this successfully in both hospital and community settings (Anderson & Lennox, 2009: Anderson & Thorpe, 2010; Anderson & Smith 2010). When designing practice–based learning it is essential to begin by training the clinical team about IPE. The practitioners need to understand how to bring the students together to understand more about how each profession is connected and dependent upon each other while delivering care packages and managing clinical conditions (Armitage *et al* 2008). One of the advantages of this type of learning is that patients become central to all the learning and are partners in the learning process (Cooper & Spencer-Dawe, 2006; Furness *et al* 2011)

The pinnacle of practice learning is training wards originally designed in Sweden (Wahlström *et al* 1996; Wahlström & Sandén1998). These involve students towards the end of their training and prior to qualification. Students supervised by qualified practitioners or mentors devise plan and carry out all the required care on a small ward unit with patients who consent to be cared for on the training wards. Students cover all the shifts and experience the reality of sharing responsibility for patient care. Other examples of such student led work are the training clinics of North America and Canada.

Other examples include:

Reeves, S. (2000). Community-based interprofessional education for medical, nursing and dental students. *Health and social care in the Community* **8**(4) 269-276.
Reeves, S., Freeth, D., Glen, S., Leiba, T., Berridge, E.J. & Herzberg, J. (2006). Delivering practice based interprofessional education to community mental health teams: Understanding some key lessons*. Nurse Education in Practice*, **6** (5), 246-253.
Robson, M & Kitchen, S.S. (2007). Exploring physiotherapy students' experiences of interprofessional collaboration in a clinical setting: a critical incident study. *Journal of Interprofessional Care,* **21** (1), 95-109.

Stew, G. (2005). Learning Together in practice: A survey of interprofessional education in clinical settings in South-East England. *Journal of Interprofessional Care* **9** (3): 223-235.

Whittington, C & Bell, L. (2001). Learning from professional and inter-agency practice in the new social work curriculum: evidence from an earlier research study. *Journal of Interprofessional Care*, **15** (2), 153-69.

c) Other Forms of Interactive Learning

On-line discussions using e-tivities, WIKKI's and Blogs

Student on-line interprofessional learning will require the preparation of the learning materials and clear user instructions. The activities that the students engage with are called e-tivities. These activities should be clear and simple triggers for learning which are required to energise the learner. Many on-line interprofessional environments have established short films or visual displays of real patient stories to engage the learners and encourage interactions where students communicate with one another using a discussion board. The task or e-tivity or task must demand a response.

Bluteau, P & Jackson, A. An e learning Model of Interprofessional Education, chapter 6: In: Bluteau, P & Jackson, A (2009). Interprofessional Education: Making it happen. Palgrave Macmillan, Hampshire.

In some e learning programmes the interactions may take the form of a **wiki**. This is a website that allows the users to work collaboratively and add new thinking and ideas e.g. you might ask students to search for related papers on a topic and share their reading for articles. The students then all submit into the wiki the article they contribute and what they have learnt from reading the work.

In other instances the interactions between students may use a type of website known as a **blog**. Again this allows for multiple entries by the student group, which build into a whole and allow students to comment on activities. They may be used as on-line diaries. Again students can post comments to trigger questions and see an argument develop into exploring different perceptions of a problem, e.g. how often do you see carers involved in patient decision making by hospital ward teams?

D) Structured group discussions

Bringing students together for interprofessional learning may simply involve finding a place be it a university class-room or a room in a clinical environment where students can come together to discuss aspects of interprofessional working. The range of learning possibilities is endless. Attention must be paid to the configuration of the environment for the discussion when face-to-face, and the triggers for the discussion. For further reading we advice: Jaques, D & Salmon, G. (2008). 4th edition. Learning in Groups. A handbook for face-to-face and online environments. Routledge, Oxen.

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Anderson, ES. & Smith, R. (2010). Learning from Lives together: lessons from a joint learning experience for medical and social work students. *Health and Social Care in the Community,***18**(3),229-240.

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Wahlström, O., Sandén, I (1998) Multi-professional training ward at Linköping University: early experiences. Education for Health, 11(2): 225-31.