# New Directions in Medical Education

## *Integrating action methods into a new curriculum*

**by Victoria Wade**

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For the past two years, I have been employed by the Department of General Practice in the Medical School at Flinders University. It has been an exciting time to work in medical education because at the beginning of 1996 we changed over from a six year undergraduate course to a four year graduate-entry course, and from an integrated but fairly conventional curriculum, to a problem-based learning curriculum. My aim in this article is to tell you about the new course and about my plans to incorporate action methods into the curriculum.

## The New Medical Course

Firstly, the students accepted into the course are all graduates and are selected by a combination of a written test, their undergraduate grades, and an interview. While many are science graduates, we also have arts, commerce, nursing, theology and social science graduates. They have a very wide diversity of backgrounds and experience. This alone would make the medical school very different, but I want mainly to talk about the changes in the methods of education.

Since the medical school was established in the 1970s, the curriculum has always been integrated; by that I mean that instead of separate subjects in anatomy, physiology, microbiology, etc, the course has been structured as a series of body systems, ie cardiovascular system, respiratory system and so on, leading to a greater cohesiveness of knowledge. This was the course I went through myself as a medical student in the 1980s. However the methods of delivery were the conventional

lecture, tutorial and practical class, with a large number of contact hours per week to fit in all the knowledge deemed to be essential.

A number of factors have lead to the need for change – the sheer amount of knowledge has increased to the point that it could not be presented even in a course that was longer than six years, and the rate at which the knowledge changes means that much that was covered during medical school is out of date by the time the students graduate. As well, there is a clear need for doctors not only with good one-to-one communication skills but also teamwork skills.

## Problem Based Learning

The solution to these issues has been to introduce Problem Based Learning (PBL). In this method, all the class are divided into groups of eight, and have three 1 1/2 hour tutorials a week in these groups in which they work through a series of problems, the majority of which are clinical cases. For example, they may work on a case of chest pain, or shortness of breath, which is presented either as a written scenario or as a video clip. There is also the potential for the scenario to be presented by a simulated patient, ie a person who has been coached in the role. This has been done elsewhere but not tried in our course to date.

The tasks of the group are then to formulate hypotheses, discuss the underlying mechanisms, discover the limits of their knowledge and set their own learning objectives. At the next meeting of the tutorial, the students present what they have learned to their group, discuss the issues, and then receive more information about the case. At the end of every case (ie every third tutorial) there is a feedback session at which the way in which the case proceeded is processed.

This whole process involves the students in a much wider range of roles than the traditional ones of *passive sponge* and *word-perfect regurgitator*. In going through Problem Based Learning the students are called on to be *creative thinkers, critical evaluators, active listeners and summarisers, supportive validators* and *clear presenters*. In short, they are beginning to develop the identity of the medical clinician, which I now realise is a complex role cluster worthy of further analysis and description.

There are still some lectures (about 3 or 4 a week) and we found that the students value these more highly because there are so few, and there are practical classes and clinical skills sessions, but half the week is non-contact time.

Problem Based Learning was first introduced at McMaster University, Hamilton, Ontario, in the early 1970s, following the ideas and methods of Howard Burrows. Subsequently, it was adopted by medical schools at Newcastle University NSW, Maastricht University in the Netherlands and the University of New Mexico. Now, in the 1990s, there is a second wave of interest in Problem Based Learning, with many more medical schools changing over, including those at Harvard, Toronto, Tufts (Boston) and Liverpool (UK). In Australia, Sydney University and the University of Queensland medical schools will be adopting Problem Based Learning in 1997. The method of Problem Based Learning has proven to be very robust and this year at Flinders we saw it flourish in a situation where all the students and nearly all the tutors were inexperienced, the cases were being tried out for the first

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time, and the curriculum development was running (at times) only a month ahead of the class.

What interests me is the potential of the Problem Based Learning method to be integrated with psychodrama methods. I am beginning to do this, starting in small ways and gradually building up as I work together on the curriculum with other members of staff. Below is a list of these specific ways.

## 1. Within the Problem Based Learning Cases

Several of the faculty have written cases in which role-playing has been a suggested option during the PBL tutorials. For example, particular doctor-patient interactions have been described and the students are asked to formulate a response to these, either on paper or as a role-play. Many of the PBL tutors are wary of running role-plays and this is entirely reasonable given that they have not received any training in the area. Some tutors have tried anyway and it has worked well at times but at other times has fallen flat, as one would predict for a group who are not experienced with action methods. This year I attended the tutor briefing session for one of these cases and gave a demonstration with the tutors of how the role-play could work if run spontaneously, as opposed to setting it up in advance, but there was not enough time to train the tutors in specific techniques.

## 2. Tutor Training

### *a) Foundation Training*

Before taking any Problem Based Learning groups, the tutors must attend a two day workshop in which 20 tutors are trained at once. The tutors range from scientists to hospital consultants to allied health workers to general practitioners, and most are not experts in the areas in which they are tutoring. We have discussed, but not implemented, a rule preventing people from tutoring in their area of expertise; the danger being that the tutor would take up the role of *pompous expert* and thereby interfere with the students' own learning.

The training begins with a rapid exposure to the theory and practice of Problem Based Learning in which the trainees are split into three groups of 6 or 7 and experience Problem Based Learning in the role of students. Then they have a short session on basic group dynamics theory, followed by an experiential session on giving effective feedback, where they observe the trainers

modelling this and then practice in pairs. Immediately afterwards they are thrown into taking a group themselves, which consists of students who are not medical students and who are naive to Problem Based Learning (they have been induced to come by a small fee). The trainers coach and supervise in a fishbowl setting, where the group is in the centre of the room with each of the trainees rotating into the group as tutor, which the other 6 trainees are sitting on the edge. During this time the trainees aim to facilitate the group by encouraging the students to participate and to work through the problem using their own resources. In order to prevent the tutor from being seen as the "fountain of all knowledge", the trainees practice behaviours such as moving away from the group, avoiding eye contact, and deflecting questions to the other students. Two days may seem like a ludicrously short period of time for tutor training but we are working within the time limits which both the trainers and the tutors have available.

### *b) Advanced Tutor Training*

We are planning to follow up the foundation training with a series of advanced tutor training sessions but have not been able to do so yet due to lack of time and resources. Fortunately, some of my time in 1997 will be set aside for this purpose. This will have more of a focus on action methods than the basic workshop and will consist mostly of role training. I will give the tutors the opportunity to set out, explore and develop options for dealing with situations that have occurred in their groups. I imagine that tutors will want to tackle situations such as conflict between group members, how to encourage quiet group members to participate, what to do if the group is failing to progress on the case, and so on. All these situations plus a variety of others have arisen in the Problem Based Learning groups so far this year.

In addition, I am planning to give the tutors some theory and practice at running the role-plays that may come up in the course of working through the cases, so that they know the basics of warm-up, concretisation, spontaneity and role identification, and are more likely to give the students a useful experience when these occur.

## 3. Student Training

When the students commenced first year, we ran two 2 hour sessions to introduce them to the mechanics of Problem Based Learning. For many it was a complete change from their previous studies; some had come from the type of highly competitive environment where other students hid useful books in distant parts of the library. Reactions to our approach, where working together was essential, included relief, intense interest and concern as to whether the others in the group could be trusted to put in enough effort. After the course had been running for a month and the students had some experience of the process, we ran a session with randomly allocated groups in which we asked the students to compare the rules and the roles that had developed in the different groups. At this stage we gave them a standard list of roles, such as *alert initiator, organised summariser, naive questioner,* etc, however next time I run this I am considering asking them to develop their own list. Just as I am planning

some training for the staff on conducing role-plays, I would also like to offer the students some sessions on getting the most out of participating in role-plays.

As the year progressed, it became apparent that a number of the students were frustrated with the way their group was operating but were unsure of how to change this, so we ran an optional session called "Honing up your groupwork skills". About 20 students came along, some of whom were from a couple of the less well-functioning groups. One group had a member with an over-developed sarcastic role who derided the others, and we spent the time considering strategies and roles to mount an effective response. This session proved to be a helpful approach in dealing with the frustration, stimulating a fresh warm-up in many students who attended.

## 4. Groupwork Service in 1997

One of my initiatives for next year is to offer a groupwork "consultancy service" and the plan is to have members of staff available to sit in and/or mediate for groups who have difficulties.

## 5. Student Elective in Groupwork

All students can take electives, ie a part of their course in which they can go into one area in more depth. We aim to offer an elective in which those students who are interested in groupwork can observe and study their Problem Based Learning groups, either to conduct research, or as a means of developing groupwork skills. Two of the tutorial rooms have been set up for video recording, and one with a one-way mirror, so we are hoping to make tapes that can be used either for research, training, or in assisting groups who want to improve their functioning. Students taking this elective may also do the tutor training course and, in their final year, be employed as tutors for first and second year groups (if the part-time teaching budget permits).

As well as the initiatives involving the Problem Based Learning process, I am also the convener of the Psychobehavioural Perspective. This is not a separate subject but is a body of theory and practice that runs throughout the curriculum. The other areas that are dealt with in this way are Population and Public Health, Law and Ethics, and Research and Information Technology.

The Psychobehavioural Perspective presents a bio-psycho-social model of human functioning and the aim is for the students to consider these levels of functioning in every person they see. The perspective is integrated into the curriculum in these ways:

## 1. With the Problem Based Learning Cases

A proportion of the Problem Based Learning cases have psychosocial issues written into them. For example, a case may be created of trauma through a motor vehicle accident with the purpose of studying tissue healing and repair, but the students also have the psychological reaction to the injury presented to them and will study this at the same time. Another example might be of a child with a chronic illness and where the functioning of the family is an important part of the case. Through the cases the students then come to appreciate the effects of psychosocial factors on health and disease.

## 2. Psychobehavioural Clinical Skills

This is a series of eight three hour practical sessions covering counselling skills and an introduction to behavioural analysis and intervention. In addition to the above content, I took my group through some role training and found that the students wanted to work on the issue of how their Problem Based Learning group was functioning. Many students have a high level of awareness: I recall one saying, in a very confident and direct manner: "The tutors are not providing adequate modelling of self-assessment skills."

## 3. Personal and Professional Development

Finally, part of the perspective is a series of tutorials I initiated called personal and professional development. I scheduled these for weeks in which the Problem Based Learning cases raised tough issues, such as treatment failure, death and difficult doctor-patient relationships. They have the aim of providing a forum for students to discuss their reaction to the issues and to consider a range of options for dealing with them. These tutorials will also, I hope, fulfil a mentor function. It is my impression that it has become more difficult for students to find mentors because the pace of medicine has increased, expectations have risen, and everyone is working harder to try and keep up.

In the group I took, we spent most of the time on discussion however I used the role training format on a couple of occasions. For example, when we were considering how to break bad news, I asked each student to practice this in action and then through role reversal experience the impact of their approach. I would like to do more of this in the subsequent years of the course when, with increasing clinical experience, the students will face these and other difficult situations more directly.

To conclude, although medicine is regarded as one of the more conservative professions, quite dramatic changes are taking place in medical education which involve a high level of integration and teamwork and much greater attention to the process of achieving this. I have described several ways in which I have used action methods in the new curriculum and there are many opportunities to expand this in the future.