

'Best Teaching Practice in Physiotherapy Education: What can we learn from research?'

Keynote Paper

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This paper reports on a portion of a major national study of learning outcomes and curriculum development in Physiotherapy. The full report provides details of the project goals, methodology, findings and recommendations. My focus here is on lessons to be learned from the data regarding best practice in Physiotherapy education. I have chosen to limit my presentation to a few key points to be learned from listening to the student voice on what helps them to learn best in the discipline.

The student comments included here are illustrative only. They are drawn from undergraduate students and recent graduates interviewed across five different Schools of Physiotherapy in Australian universities. While their comments are specifically related to the Physiotherapy discipline, the principles they raise have wide-ranging implications for supporting student learning through informed approaches to curriculum design, delivery and review across disciplines.

The paper is divided into three parts as follows:

1. Context of and rationale for the research
2. What is best practice in Physiotherapy education? *The student voice*
3. Strategies for curriculum design, delivery and evaluation: A model to guide Physiotherapy curriculum design, delivery and evaluation (Krause, 2006).

1. Context of and rationale for the research

It is a challenging time to be an academic in higher education. Government funding for public universities, it seems, is inversely proportional to rising student expectations and ever-increasing demands for academic accountability and quality assurance processes. The quality of teaching and curriculum design has come under particularly close scrutiny in the Australian higher education sector in recent years.

This project represents a disciplinary response to the need for practical support for academics charged with the responsibility of optimising the quality of undergraduate student learning experiences and outcomes in Physiotherapy.

2. What is best practice in Physiotherapy education? *The student voice*

The concept of 'best practice' in Physiotherapy education has many dimensions. This paper reports on just one perspective in this regard: student views on selected aspects of best practice in their experience. The student quotes noted here are not intended to be representative; thus details of student year level and other demographics are not included. Rather, the student voices are included here to support widely cited research principles underpinning best practice in pedagogy and curriculum design.

Six key elements of best practice in Physiotherapy education emerging from the student data are summarised in two parts as follows:

- A: Elements of the learning experience
 - i. Experiential learning and problem-solving
 - ii. Peer learning experiences
 - iii. Scaffolded learning experiences
- B: Elements of curriculum and communication
 - iv. Coherent course structure
 - v. Clear expectations

- vi. Learning outcomes consistent with short- and medium-term industry requirements and long-term lifelong learning principles

Each of these elements is briefly discussed in turn.

A: Elements of the learning experience

Students identified several dimensions of best practice characterising their undergraduate learning experiences.

i. Experiential learning and problem-solving

They valued the fact that Physiotherapy offered opportunities to 'learn by doing'. The clinical experience was identified as a particularly powerful example of such opportunities, but equally, problem-based learning and case-based approaches to teaching were cited as highlights of the undergraduate learning experience.

"The clinical experience was useful... You still have someone to consult. Physiotherapy couldn't be a purely academic course." (recent graduate)

"I found problem-based learning fantastic. You went through a PBL in your head when you met a new patient." (recent graduate)

"I find it makes so much more sense once the person who's actually using the knowledge comes in and tells us about how it works. In the tute she said, 'This is what happened to him so ...'. I find when I can apply it and it's not just words that I have to read and read and read, I feel a lot better about it."

ii. Peer learning experiences

A second key characteristic of best practice in Physiotherapy teaching is the recognition that learning is a social experience and students learn best when they are working together in an intellectually stimulating community of learners who value the challenge of working as a team to solve problems.

"This year we're in our own little groups. We identify what we need to know. We find out. Then we come back. We talk about it..."

"I'm much less likely to do work to find out for myself but if you know that the group needs it, that makes you do more work."

"The small class sizes that we have had have been really good."

iii. Scaffolded learning experiences

The Vygotskian principle of scaffolded learning is well illustrated in students' comments about how much they appreciate learning from and with their peers, and knowing that the 'expert' teacher is available if needed.

"This year we're in our own little groups. We identify what we need to know. We find out. Then we come back. We talk about it, then we talk with the lecturer if it's alright. We're teaching ourselves and they're just there for guidance. I like that."

B Elements of curriculum and communication

In addition to identifying dimensions of best practice in their learning experiences, undergraduate students also placed a spotlight on several key elements of curriculum design. As part of the curriculum design, delivery and evaluation process, communication among all stakeholders is vital. This includes clear communication of expectations and learning outcomes to students, as well as communication with

other crucial players in the curriculum. In Physiotherapy education, this applies particularly to the communication channels among and between university academics, students and the clinical educators who supervise students' clinical experiences. Clinical education forms an important part of the project report and is worthy of close attention when considering the elements of best practice in the discipline. The three elements of best practice relating to curriculum design and communication with stakeholders are highlighted below.

iv. Coherent course structure

Physiotherapy students, like all others, value coherence in the curriculum. While it is true that the value of much learning is only fully recognised in retrospect, there is nonetheless a need to ensure that the connections among course elements are communicated clearly to students while they are studying. The following quote from a recent graduate is gratifying, but it draws attention to the importance of communicating more proactively with students about how different aspects of their study are conceptually connected. This is a key characteristic of good curriculum design and every effort should be made to communicate course coherence before, during and after key learning experiences.

"In first year the focus was on developing basic skills, communication and patient handling. Second year focussed on specific skills ... Third year developed further. Fourth year gave us good theoretical knowledge and reasonable treatment and application... These are trends I can only notice in retrospect because you don't know what they're expecting as you're doing it"
(recent graduate)

Given the critical function of clinical education in the Physiotherapy curriculum, special attention is needed to ensure that all aspects of the clinical experience are effectively integrated into the curriculum. This includes effective reciprocal communication between the university and clinical sites to ensure that students' experiences are as seamless as possible. One student commented that:

"It would be good if the clinical supervisors would communicate their objectives".

For such communication to take place, support must be provided for clinicians and they should be an integral part of the curriculum design, delivery and evaluation process. A good example of such collaboration is evident in the following student comment:

"I had ten placements in the last two years. Some were better than others. Supervisors know the feedback process. There are definitely good links between the university and the clinical schools. The majority of supervisors are good, and they know the university system very well."

v. Clear expectations

There is much concern in the higher education sector regarding the ways in which student expectations and the 'student as client' mentality is driving the higher education agenda. This is not a trivial matter and it is beyond the scope of this paper to present a broad treatment of the issue. Suffice to say that the focus of institutions, as well as those responsible for teaching students and developing curricula, should be squarely on managing student expectations rather than being managed by them. There is an art to achieving a balance between meeting realistic student expectations and being responsive to changing needs, and managing unrealistic student expectations. A simple example of the latter is when students come to university with unrealistic expectations about how much out-of-class reading might be reasonably expected of them, or how much support might be available for assisting them with assignments.

A sound and rigorous Physiotherapy curriculum will include planning for ways to initiate students into the disciplinary culture, including how to study, standards required for success in assignments, and how to behave as a professional in clinical settings. These represent learning outcomes that all Physiotherapy courses are required to document, but which are not always clearly communicated and operationalised in the experience of students.

The project report draws special attention to the often under-rated value of learning outcomes and strategies for drawing attention to them more proactively in students' learning and assessment activities. The following comments illustrate the laissez-faire attitude of some undergraduate Physiotherapy students to learning outcomes:

"I was aware that there were ... certain base levels we had to meet - certain standards of practice or knowledge... what those specific things were I don't know."

"For every course we were given a list of things you had to know, but somehow you didn't take that much notice."

Other students, by contrast, saw learning outcomes as a practical and helpful part of the learning experience, stating that learning outcomes were a "helpful framework", a "checklist", and a "handy guide".

While the following comment suggests that the student might be a little weary of hearing about learning outcomes, it nevertheless highlights some of the practical settings in which academics might bring learning outcomes to prominence to ensure that students are aware of their practical relevance and utility:

"We get learning outcomes left, right and centre. We get them in the subject outline... at the beginning of every lecture...when we finish a case...in 'what you need to know' sheets...I've never had any difficulty in following them."

vi. Learning outcomes consistent with short- and medium-term industry requirements and long-term lifelong learning principles

There is an art to designing and assessing learning outcomes that not only address disciplinary content and develop graduates who are workplace-ready, but also promote an attitude of lifelong learning and the necessary skills to prepare students for career flexibility. The former set of skills is illustrated in the following quote, illustrating a very common concern among undergraduates about future career prospects and ability to perform in the workplace:

"My ultimate learning outcome is, Can I do my job as a physiotherapist when I graduate at the end of the year?...Can I actually perform?"

However, a more long-term learning outcome is illustrated by this recent graduate's comment that illustrates a widespread pattern among our graduate student respondents: they demonstrated a keen interest in ongoing professional development and self-education – a particularly admirable and sought-after learning outcome across disciplines.

"I suppose I've learned how to learn and do self-learning and expand my knowledge and make myself a better practitioner." (recent graduate)

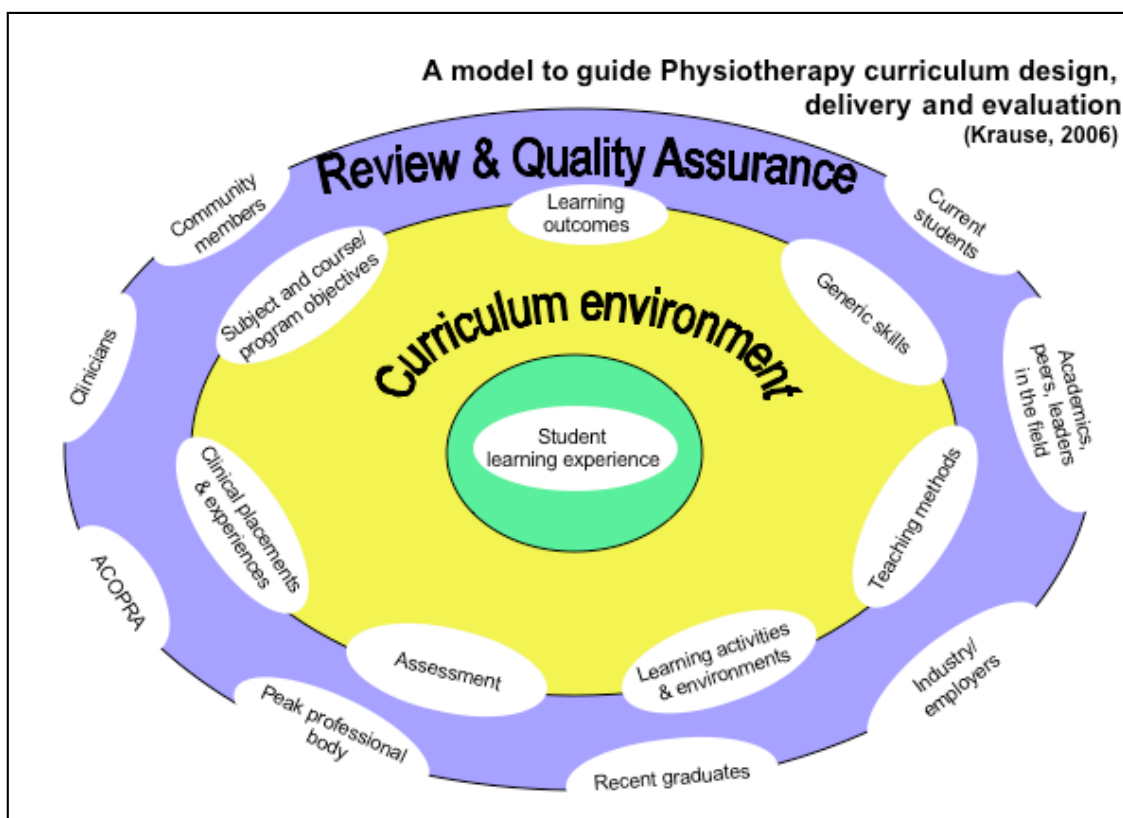
3. Strategies for curriculum design, delivery and evaluation

The following model represents one approach to designing, delivering and reviewing Physiotherapy curricula. It depicts a student-centred approach to curriculum design. Beyond the student focus is the curriculum environment which includes not only the teaching and learning activities, but also the planning of subject objectives, the design of learning outcomes and consideration of the generic skills and attributes desired. Curriculum also includes the design of assessment activities and careful integration of clinical experiences and assessments.

The curriculum design and delivery processes is incomplete if one leaves out of account the processes for evaluating curricula and assuring quality. A number of stakeholders should be involved in the curriculum review process. The most typical approach is to seek student feedback via subject evaluations each semester. However, this project extended the review process to include the views of clinicians, employers, academics – including those at institutional, national and international levels, recent graduates, the peak professional body – APA, and the accrediting body – ACOPRA. Another key

stakeholder group shown in this model below is that of community members. Not all these stakeholders would necessarily take part in curriculum review processes at the institutional level on a regular basis. Nevertheless, this provides a framework for consideration of whom might be consulted as one designs and reviews the Physiotherapy curriculum at institutional level, and for what purposes they might be approached.

Curriculum processes are dynamic and should be responsive to the changing needs of all stakeholders, though at all times such responsiveness should take account of rigorous academic and professional standards and requirements. The following model is presented as a work in progress for ongoing discussion among Physiotherapy educators.



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Further reading and references

Physiotherapy Project Website: <http://www.carrickinstitute.edu.au/physiotherapy/jsp/index.jsp>

Project report: <http://www.carrickinstitute.edu.au/physiotherapy/go/home/pid/125>