

University of Adelaide, School of Dentistry

Integrated Learning Activities in the Dental Curriculum

Background

The need to improve horizontal and vertical integration has been a major focus for curriculum change in recent years in both dental and medical schools. This is demonstrated in the international literature (such as the recent report of the Global Congress on Dental Education) and in current accreditation guidance documents in Europe and North America.

Horizontal integration is usually reflected in a breakdown in disciplinary boundaries within a year or phase of the curriculum. For example, in early years separate courses in basic sciences such as anatomy, physiology and biochemistry might be replaced by a body system based course or by courses structured around health-related problems or professional roles.

Vertical integration is generally intended to introduce more clinical input early in the program. This might be achieved by a variety of educational strategies including: problem-based learning; clinicians taking part in joint teaching sessions with basic scientists; introducing a range of early real and simulated clinical experiences within the teaching hospital or community environment; and teaching basic clinical skills very early in the course. Another aspect of vertical integration, which is often advocated, is incorporating the concept of a spiral curriculum with basic sciences being revisited in the later years of the course.

The Dental School's revised curriculum reflects this focus by incorporating a Vision Statement that it '*will demonstrate a high degree of integration*' and that this will be achieved through a '*variety of integrated learning activities complemented by a range of other teaching and learning activities*'.

Integrated Learning Activities (ILAs) – Rationale

It has been agreed that the Adelaide curriculum will be *outcome-focussed*. With such an approach it is fundamental that students are required to integrate the learning of dental sciences with their developing clinical competencies in a way which will ensure that they can be applied to the patient problems they will encounter as general dentists when they graduate. The most common instructional strategy to achieving such integration has been problem-based learning (PBL). However, many schools including some of those who have most strongly advocated PBL, have been re-evaluating the 'one size fits all' method and are now adopting more hybrid approaches. Nevertheless, the fundamental aims and principles behind PBL remain essential to the achievement of high levels of integration even though the range of teaching formats are becoming more varied. The intention to adopt this more flexible approach in the revised curriculum is indicated by the use of the term Integrated Learning Activities which will provide a framework within which a broad range of teaching and learning activities will be incorporated.

Criteria for ILAs

The ILAs will form a vertical spine of teaching and learning activities complemented by more traditional didactic formats. Fundamentally they will help students integrate the two major academic themes of the curriculum – Dental Sciences and Clinical Competences. While the format will vary, both within and across phases, the criteria for classifying an activity as an ILA will be the same:

- be based on authentic problems (patient related or community health related)
- relate to the Outcome Objectives and the Core Curriculum data base developed from the Dental Presentations and the Medical and Other Health Related Problems
- relate to the two academic vertical themes – Clinical Competencies and Dental Sciences (bio-dental, clinical, behavioural and population health)
- require students to engage actively, both individually and collaboratively, in a process involving:
 - clinical situation/problem analysis

- identification of learning needs
- guided and self-directed learning activities including a critical and evidence-based approach to the literature
- application of new information to the situation/problem addressing both patient and community needs
- collation/ review/ presentation of outcomes
- identification of areas requiring immediate or later learning
- application of new knowledge and understanding to other related clinical situations/problems.

ILA Formats

A number of formats will be developed for use in different parts of the course. These may include large group approaches, small group approaches (of which DLPs are an example) and individual approaches. The first two of these would mostly take place on the central campus but the latter will be Web-based and particularly used in the later parts of the program when students are working in community locations.

An important outcome of these activities will be an expectation that ultimately the students will not see them simply as academic exercises but will incorporate these principles into the diagnostic and clinical management approach they apply to their professional practice after graduation. Because of this, it will be expected that ILAs will also be based around the real patients they see during clinical placements.

Another variable in the format will be the degree of direction and support given to students by staff. In the early phases of the program the approach will be one of 'guided discovery'. The role of the facilitator or tutor will be to ensure students are clear about the learning outcomes expected from each ILA, that they maintain focus on the task, and avoid being sidetracked into identifying learning needs that do not need to be achieved during this part of the program. Staff will also help the students to develop a systematic, scientific and evidence-based approach to their study. In the later phases of the program a more 'open discovery' approach will be encouraged with students being expected to take increasing responsibility for identifying and achieving their learning needs.

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