General Pharmaceutical Council

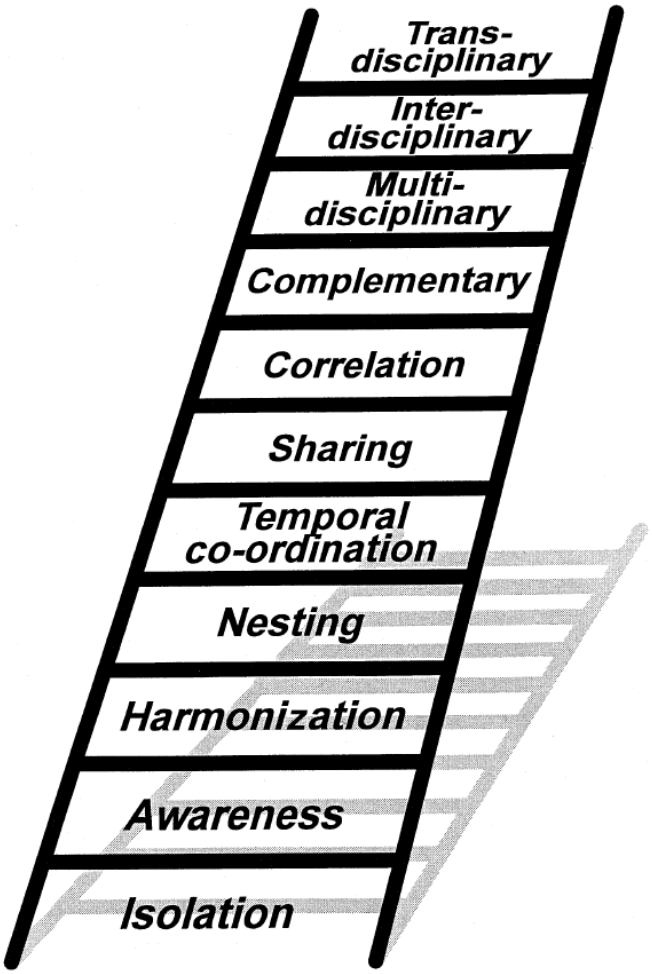
Supplementary guidance for schools of pharmacy on integration

Introduction

In 2011 the General Pharmaceutical Council introduced new standards for the initial education and training of pharmacists, *Future Pharmacists.* As part of the consultation process for *Future Pharmacists*, stakeholders, including all schools of pharmacy, were asked if the standards should require curriculum integration. Stakeholders agreed that this should be required and it was added to the standards.

After using the new standards for several years, it has become clear that schools are interpreting the term 'integrated' differently. For this reason, the GPhC has decided to issue supplementary guidance on integration, to clarify what models are commonly used and which ones meet the requirements of *Future Pharmacists*.

Models of integration



The 'integration ladder' above was developed by the medical curriculum and assessment expert Professor Ronald Harden (Harden, RM. The integration ladder: a tool for curriculum planning and evaluation. Medical Education 2000;34:551-557).

The three models of integration which meet clearly the expectations of *Future Pharmacists* are 'trans-disciplinary', 'inter-disciplinary' and 'multi-disciplinary'.

It is less clear how 'correlation' and 'complementary' meet the expectations in *Future Pharmacists*, if the integrative components of the course are strong enough.

The other models do not meet the requirements of the standards.

Commentaries on each model

Isolation: completely separate delivery and assessment of sub-disciplines without any consideration of the whole. Staff plan delivery in complete isolation and are unaware of what goes on elsewhere in the degree.

Awareness: similar to isolation in that material is delivered as a subject discipline, in this case there is communication between sub-disciplines to ensure that the outcomes and content of each area is coordinated with the others.

Harmonization: described as 'connected' staff from different disciplines continue to teach separately but make an deliberate attempt to ensure that different sub-disciplines coordinate and make use of points of commonality. This is the first stage where curriculum design attempts to address the links between material to students rather than leaving it up to them to work it out.

Nesting: material is still subject-based and is directed by members of the individual discipline. However the material is taught using context from another area.

Temporal coordination: also known as parallel teaching.

Sharing: two or more disciplines joining together to teach, most likely as a result of overlap

---

Correlation: there is separate discipline based teaching but this is brought together by a further session, which seeks to integrate the aspects of the individual strands of teaching.

Complementary: an extension of correlation but where the integration sessions play a much larger role and are as important, if not more important than the subject-specific teaching.

Multi-disciplinary: sometimes referred to as webbed. Teaching becomes focussed around outputs; typically (clinical) cases where students needs to apply their knowledge and skills to the solution of a problem

Inter-disciplinary: a move on from multi-disciplinary, autonomy and perspective of the individual discipline is lost. There is likely no reference to individual disciplines with all subjects being reduced to a course construction, which relates to the commonalities between disciplines.

Trans-disciplinary: students learn through application to the real world. Typically students are immersed in a practising situation and must bring together the material from individual subjects in their own mind in order to demonstrate the competencies connected to the tasks.

Using the models

While the simplest application of a model is one in which it is used throughout, we do recognise that more than one model may be used. For example, it may be the case that earlier years use a less integrated model than in later years. Nevertheless, the school should be able to describe what models are used where and why. Also, it may be the case that some parts of the course sit outside the integrated model, but it will be up to the school to explain the rationale for this.

Integrative themes

Some courses integrate themselves around themes. A selection is:

- Organ-based
- Chronological themes
- Age
- Pathology
- Health problems

Describing integration

It would be helpful to accreditation teams if schools described their model of integration in their accreditation submission. A possible format could be:

1. A description of the type of integration used and the rationale for using that model;
2. The process through which the integrated course was designed;
3. Integrated aspects of course delivery;
4. Integrated aspects of assessment;
5. Signposting integration to students.