

FORMULATING AND WRITING LEARNING OUTCOMES

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Background

Traditionally, the medical curriculum was mainly underpinned by an *input-based* learning system design in which course content is first determined by the content (discipline) experts and then delivered mainly through lectures. However, an *outcome-based* model is used for the design and delivery of the medical curriculum in the 21st century in which the *desired attributes* of the *end-product* (i.e. the *end-product capability*) is first determined *jointly* by a curriculum committee together with the content experts. The *end-product capability* is commonly identified in statements referred to as the **learning outcomes** which students are expected to acquire on completing the course of study.

Learning outcomes are classified within the three *domains of learning*: *knowledge (cognitive)*, *(psychomotor) skills and attitudes (affective)*. *Learning outcomes* can serve as an excellent *avenue of communication* with students in conveying the intended outcomes of learning to be acquired in a given course of study. Thus, learning outcomes are likely to motivate and enhance *self-directed learning* by students. Moreover, learning outcomes can also serve as a *guide* in the *selection and sequencing of course content* and the *design of instructional and assessment strategies* which closely match the desired learning outcomes, as well as provide substantial *documentation for programme or course evaluation* in the quality assurance process.

General Goal

To **understand** the pedagogical *principles* and general *procedure* involved in *formulating* and writing *learning outcomes*, and its *application in facilitating student learning and strategic course design*.

Specific Learning (Educational) Outcomes

After attending this workshop participants should be able:

- To **explain** the educational implications of the terms **general course goals** and **specific learning outcomes** for a given course of study (or a lesson)
- To **write statements** which clearly convey to students the *intended learning (educational) outcomes* and the *level of performance* to be acquired on completing a course of study
- To **classify learning outcomes** into the *cognitive (knowing)*, *psychomotor skills (doing)* and *affective (feeling)* domains of learning
- To **formulate specific learning outcomes** in their *own course disciplines* in accordance with the guidelines reviewed
- To **design** and **plan instructional strategies** (including the *selection of course content, teaching methodology and assessment strategy*) that will closely match the *specific learning outcomes* expected.
- To **reflect** on and to **identify** what are the likely *benefits* and *limitations* in the application of *specific learning outcomes (educational)* in their *own disciplines*

Structure

- **Overview**: designing an outcome-based curriculum for medical education in the 21st century
- **Hands-on practice in small groups**: to systematically plan a study course through formulating and writing learning outcomes intended for the course
- **Presentation** of work done by various groups
- **Question-Answer Session / Discussion**
- **Reflection** on the *benefits* and *limitations* of applying such an educational approach in designing a course of study for participants' respective disciplines.
- Closing Remarks / Summing Up

Who Should Attend

All medical teachers will benefit by attending this workshop. The educational principles learned can be applied to, not only the design of a whole course curriculum, but also to a course module and even a lecture.

Level of Workshop

This workshop is aimed at providing participants with basic understanding and developing basic skills in formulating and writing learning outcomes using a systematic educational approach.

Key Words: formulating learning outcomes, overview, hands-on practice, reflection