Where should we focus, teaching or learning?

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If we were to list what we believe to be the generic characteristics of a good scientist and to compare that with what can be achieved by students in most undergraduate courses, we would find a great difference. The list for the scientist would contain attributes that would be described by the more complex categories in Bloom's (1956) taxonomy for all three domains of learning, cognitive, affective and psychomotor. The achievements of undergraduate students, particularly as reflected in assessment tasks, are best described by the simplest categories in the taxonomy, and are largely confined to the cognitive domain. Given that the more complex categories of learning cannot be achieved by passive processes, there is a need to develop strategies which allow active learning and which can be applied efficiently to classes with large numbers of students within the financial and human resources available. Ideally, one would achieve this with a planned development of the student's skills over the three years of the degree.

A number of approaches to the theory, tutorial and practical activities that are more active than the traditional physiology courses will be outlined. These have been planned to provide a sequential and graded development of skills. Evaluation of the impact of these learning activities has allowed an informed, progressive refinement in the quest of that elusive perfect course.

Bloom, B.S. (1956) *Taxonomy of educational objectives: the classification of educational goals.* London: Longman Group.