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SA8**Problem-based learning for the 21st Century**

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Problem-based learning (PBL) is established as a useful strategy in medical education. It has been widely, but not universally, adopted particularly in the early years of the training of doctors. Its use, however, has not been without problems:

There has been difficulty transferring experience gained with PBL in the early years of training to the later years where there is a greater emphasis on clinical experience;

an over-rigid approach to implementation has been advocated, with often an inadequate understanding of the basic educational principles;

a failure to adapt PBL to current educational thinking such as outcome-based education and the concept of a core curriculum with options, to the need for a framework for learning and to the application of the new learning technologies including the internet;

availability of staff as PBL tutors and their appropriate training.

Task-based learning, which has been described as the extreme end of the continuum of PBL (Davis & Harden 1999), builds on the basic principles of PBL and, combined with curriculum mapping, learning outcomes and electronic or paper-based study guides, effectively tackles the difficulties described above. In task-based learning, a range of tasks undertaken by a doctor (for example the management of a patient with abdominal pain) are used as a focus for the learning of the basic or clinical sciences. This may be complemented, as proposed in the International Virtual Medical School (IVIMEDS), with a bank of virtual patients.

PBL will continue to be useful and will play a role in medical education if it is adapted, for example, by the use of a task-based learning approach.

Davis MH & Harden RM (1999). *Medical Teacher* **21**, 130–140.