Improving Outcomes through Quality Resources

What Works? Successful Education Policies, Resources and Technologies

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1. Introduce new topics by making reference to what the learner already knows.

Start with activities that require students to recall and activate prior knowledge, thus strengthening the connections between existing knowledge and the new concepts about to be learnt.
2. Pair graphics with text

Eschew superfluous illustrations and focus on pairing text with graphics that will support learning by presenting examples and depicting overarching ideas or concepts and explaining how these ideas and concepts connect.

Well designed graphic illustrations depict models clearly, represent abstract concepts and reveal underlying knowledge structures that will help learners make the required connections to take learning further.
3. Interleaving different but related topics and skills

Although intuitively we feel that we learn better by focusing on one topic or skill at a time, research shows that better learning is achieved when students interleave different but related topics or skills, rather than focusing on one topic or skill, then another topic or skill, and so on.
3. Distribute practice

Closely related to the principle of interleaving of topics and skills, distributed or spaced practice is based on the fact that learners remember information better when they are exposed to it multiple times throughout a course.
5. Modelling solved problems

Alternating problems with written-out solutions, worked examples and problems that the student needs to solve independently. This ensures that students become familiar, not just with the mechanics of problem solving, but also with the underlying principles required to master the topic in question.
6. Teach independent study skills to boost metacognition

Teach learners how to plan, monitor and evaluate their own learning by providing subject specific strategies and guidance has great impact on learning.

Interleave activities in which students are asked to identify where a task might go wrong; to lay out the steps required to achieve mastery of a topic; to produce their own worked examples, or to formulate appropriate questions and provide possible answers.
7. Frequent assessments for better retention

Frequent retrieval practice boosts retention. So, facilitate frequent low stakes or no stakes testing and quizzing, whereby testing and quizzing become part of the learning process, not just the assessing.
Thank you