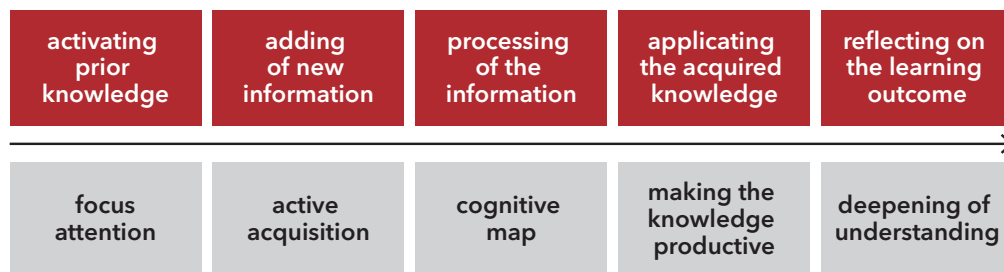


Decision aid for designing (online) learning

This is a tool that you can use when designing and delivering (online) active learning. The tool will help you find answers to questions such as:

- Which learning activities can I offer students in order to achieve a specific learning objective?
- Is there an optimum order for learning activities?
- How do I ensure that students become actively involved in their own learning process?

The starting point for the decision aid is the five phases of a meaningful learning process:



*The five phases of a meaningful learning process
(Fransen, 2013; Adaptation of Mellander, 1993).*

If students' expertise is to be developed, all five phases must be included; the order may vary according to the objective and context. When designing (online) learning, you start by defining the *objectives*. Then, you design learning activities that you believe will enable you to achieve these objectives.

There are three different types of learning activities that may feature in each of the five phases of a meaningful learning process:

- **individual self-study** (learning of information);
- **learning through experts** (learning from instruction and feedback);
- **collaborative learning** (learning from different perspectives).

If learning is to be effective and actively involve students, a carefully considered combination of these three types is required.

Online learning can be delivered through **synchronous** or **asynchronous** learning activities. In the case of synchronous learning activities, lecturer and students are directly in contact with each other in person or online through a video and/or audio connection. In the case of asynchronous learning activities, lecturer and students exchange documents, information and media clips in the online learning environment. In the case of individual self-study, students themselves can decide how, where and when they study. Consequently, independent self-study primarily consists of asynchronous learning activities. Learning through experts can be both asynchronous and synchronous. The same applies to collaborative learning, because students communicate with each other synchronously, work independently on sub-tasks and give each other feedback in the form of an asynchronous peer review.

When making a choice between synchronous and asynchronous activities, it is useful to define the synchronous activities first, followed by the asynchronous activities. This is because synchronous activities have a special function in the learning process: they give students the opportunity to ask questions and you, as lecturer, the opportunity to respond directly to them and, where appropriate, to provide additional explanation, examples and/or practice assignments. In addition, synchronous activities are invaluable for the group dynamics and for the personal motivation of the student (and lecturer). The decision aid for (online) learning brings together the above-mentioned variables in a user-friendly way, thereby acting as a guide for defining the format, order, timing and context of all learning activities.

The decision aid only includes the synchronous and asynchronous activities initiated by the lecturer. In addition, students will undertake online activities themselves, like consulting online sources and external experts or organising discussions with their peers. These activities are not explicitly included in the decision aid, but are equally relevant to the learning process.

In order to determine whether the choices made are actually achieving the intended objectives, it is important to use assessment not only at the end of the learning process but more particularly during the learning process in practice. Assessment at the end of the learning process (*summative* assessment) aims to determine whether the practical learning objectives have actually been achieved. Assessment during the learning process (*formative* assessment) aims to give you, the lecturer, as well as the student, the opportunity to adjust the learning process if it looks likely that the intended objectives will not be achieved.

