Handout 1

# What is active learning?

Active learning is an approach to teaching that places students at the centre of the learning process. Active learning places importance on students using higher order thinking skills as part of the learning process. They do this by participating in activities that enable them to explore and apply what they are learning via opportunities that encourage them to think, discuss, investigate and create. By giving students the opportunity to engage with what they are learning in this way, the students are supported to develop a deeper level of understanding of their subject. Active learning is about the skills the student develops as well as the subject content they learn.

# What are the benefits of active learning?

In active learning is not just about the content that the students learn, but also the process that they go through to learn. Active learning develops the student’s ability to learn and helps them to take more control through involvement in their learning.

Active learning has been shown not only to support students in developing content knowledge, but to also improve engagement and enjoyment of learning, help with retention of information, students develop skills such as critical thinking and problem solving, as well as supporting the development of collaboration skills. All vital skills identified as being important for success in future study and the world of work. i.e. it is a great approach for developing graduate attributes.

# What are Higher Order Thinking Skills?

We can think of Higher Order Thinking Skills in terms of Bloom’s Taxonomy. Across a programme, we want students to have the opportunity to encounter all levels on the pyramid. Active learning seeks to provide students with the opportunity as part of their learning to be:

* **applying** (e.g. implementing),
* **analysing** (e.g. deconstructing processes, integrating knowledge across disciplines),
* **evaluating** (e.g. critiquing what they are learning or the work of others) and
* **creating** (e.g. hypothesising, planning and designing approaches and constructing new knowledge).

*Cognitive Process Dimensions from Bloom’s Taxonomy. Higher order thinking skills are those higher up the pyramid.*

# What does active learning look like in HE?

Active learning will look different in every situation as it should be designed to meet the needs for the students in the room. It is not about the individual activity they are doing, but is about how they are engaging with their learning. Active learning is taking place if the students are being encouraged to use higher order thinking skills and are not just passively listening to the teacher.

We are not suggesting that a whole teaching session should be delivered through active learning approaches. A mix of approaches should be used. The aim is to move away from students just being passive learners, where they only listen and take notes to them being encouraged to think, discuss, investigate and create as part of their learning.

# Interleaving

Ideally, alongside higher order thinking skills, we also want to consider the concept of interleaving.

Interleaving simply means utilising a variety of approaches to engage Higher Order Thinking Skills.

Why? It helps students with long-term learning as the brain has to ‘re-load’ to tackle a new problem each time the approach switches. As the brain has to figure out what kind of problem it is and how to solve it, it improves retention of learning.

# Bloom’s taxonomy synonyms

**Remember**

Recognise

Recall

Retrieve

State

List

Define

**Understand**

Interpret

Exemplify

Classify

Summarise

Infer

Compare

Explain

Describe

Outline

Illustrate

**Apply**

Execute

Follow a procedure

Implement

Calculate

Compute

Use

Show

Solve

**Analyse**

Make connections

Differentiate between

Organise

Attribute

Examine

Appraise

Debate

Contrast

**Evaluate**

Check

Critique

Making a judgement

**Create**

Design

Devise

Invent

Generate

Plan

Produce