

SUMMARY

Writing and using learning outcomes: a Practical Guide

The overall aim of the Bologna Declaration, which is formulated in June 1999, is to improve the efficiency and effectiveness of higher education in Europe. We have to notice that defining courses in terms of learning outcomes is not unique to Europe. The outcomes-based approach to teaching is becoming increasingly popular at an international level.

What are learning outcomes?

At the traditional way teacher decided on the content that they intended to teach, planned how to teach this content and then assessed this content. This approach has been referred to as a teacher-centred approach. International trends in education show a shift from this traditional approach to a “student centred” approach. An important point is to ask what do we expect that students should be able to do at the end of a learning period.

If we define learning outcomes we can see that the various definitions do not differ significantly from each other. It is clear, that learning outcomes focus on what the learner has achieved rather than the intentions of the teacher and what the learner can demonstrate at the end of a learning activity.

What is the difference between aims, objectives and learning outcomes?

- The aim of a module gives the broad purpose or general teaching intention of the module.
- The objective gives more specific information about what the teaching hopes to achieve.

A great advantage of learning outcomes is that they are statements of what the learner is expected to achieve and how the learner is expected to demonstrate this achievement.

Learning outcomes and competences

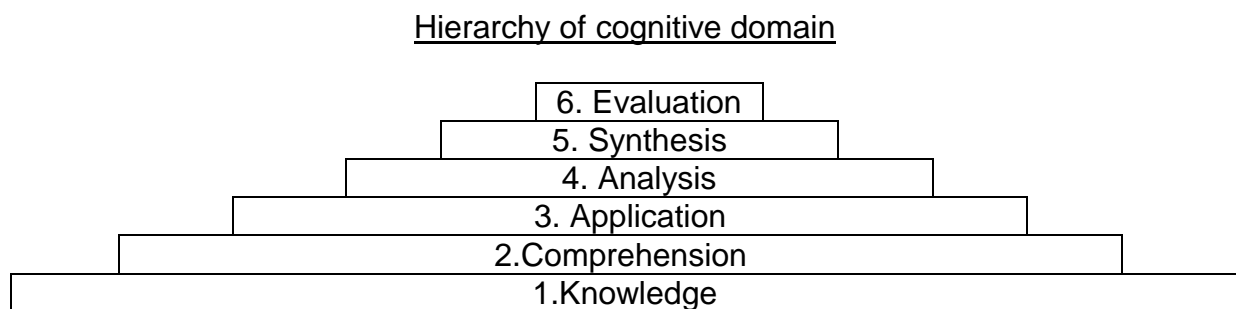
In the literature there are many definitions of the term “competences”. Sometimes it is used in association with learning outcomes but learning outcomes have become more commonly used than competences when describing what students are expected to know, understand and be able to demonstrate at the end of a programme.

How can one write learning outcomes?

The work of Benjamin Bloom (1913-1999) provides a useful starting point when writing learning outcomes. Bloom was a gifted teacher who researched on the development of a classification or levels of thinking during the learning process. Bloom identified three domains of learning:

- Cognitive
- Affective
- Psycho-motor

His publication *Taxonomy of Educational Objectives: Handbook I, the Cognitive Domain* has become worldwide used to assist in the preparation of curriculum and evaluation materials. Bloom said that the cognitive or knowing domain is composed of six successive levels arranged in a hierarchy.



Knowledge:

It can be defined as the ability to recall or remember facts without necessarily understanding them.

Comprehension:

It can be defined as the ability to understand and interpret learned information.

Application:

It can be defined as the ability to use learning materials in new situations.

Analysis

It can be defined as the ability to break down information into its components.

Synthesis:

It can be defined as the ability to put parts together.

Evaluation

It can be defined as the ability to judge the value of material for a given purpose.

Writing learning outcomes in the affective domain

Additionally to the cognitive domain, the most widely used Taxonomy of Bloom, Bloom and his co-workers carried out research on the affective domain (e. g. attitudes, feelings, values). The affective domain is concerned with the emotional components of learning.

Bloom and his colleagues developed five major categories to describe the way we deal with things emotionally:

Receiving:

This refers to a willingness to receive information

Responding:

This refers to the individual actively participating in the students own learning

Valuing:

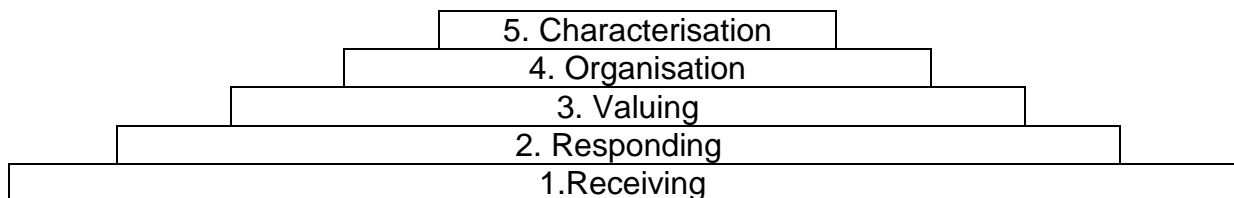
This ranges from simple acceptance of a value to one of commitment

Organisation:

This refers to the process that individuals go through as they bring together different values

Characterisation:

At this level the individual has a value system in terms of their beliefs, ideas and attitudes that control their behavior in a consistent and predictable manner.

Hierarchy of cognitive domain**How are learning outcomes linked to teaching and assessment?**

When writing learning outcomes, it's important to write them in such a way that they are capable of being assessed. It is necessary to have some form of assessment tool or technique in order to determine the extent of which learning outcomes have to be achieved.

Examples of direct assessment techniques are the use of written examinations, portfolios, a grading system with rubrics etc. Examples of indirect assessment methods are surveys of employers, surveys of past graduates etc.

The challenge for teachers is to ensure that there's alignment between teaching methods, assessment techniques, assessment criteria and learning outcomes. Student course evaluations show that clear explanations are an important part of effective learning. Lack of clarity in this area is almost always associated with negative evaluations, learning difficulties and poor student performance.

It is important that the assessment tasks mirror the learning outcomes since, as far as the students are concerned, the assessment is the curriculum. In stressing this point, Biggs (2003) emphasises the strong link between the curriculum and assessment.

Linking learning outcomes, teaching and assessment

Assessment is often described in terms of formative assessment or summative assessment. Formative assessment has been described as being assessment FOR learning. Formative assessment is usually carried out at the beginning of a programme or during a programme. The students' performance on the assessment tasks can help the teacher to make decisions about the direction of the teaching to help the learning process. It has been clearly shown (Black and Williams, 1998) that by giving feedbacks to learners, formative assessment can help to improve the learning and performance of students.

In short, formative assessment is the part of teaching process rather than the grading process.

Summative assessment is assessment that tries to summarise student learning at some point time – usually at the end of a module or programme. The use of summative assessment enables a grade to be generated that reflects the student's performance.

In theory, continuous assessment is a combination of formative and summative assessment. In practice, continuous assessment often amounts to repeated summative assessments with marks being recorded but little or no specific feedback being given to students.

It's important to keep in mind that there may not be just one method of assessment to satisfy all learning outcomes, it may be necessary to choose a number of assessment methods.

The curriculum should be designed so that the teaching activities, learning activities and assessment tasks are co-ordinated with the learning outcomes.

Assessment criteria and learning outcomes

Learning outcomes specify the minimum acceptable standard to enable a student to pass a module. Student performances above this basic threshold level are differentiated by applying grading criteria. Grading criteria are statements that indicate what a student must demonstrate to achieve a higher grade. These statements help to differentiate the levels of performance of a student. By making these criteria clear to students, it is hoped that students will aim for the highest level of performance.

Giving a bare grade to a student does not provide adequate feedback on their performance since the grade simply indicates an overall level of the competence. This overall grade does not identify strengths and weaknesses on specific learning outcomes. However, if the grading system is tied to some form of scoring guide, it can be a very useful way of identifying areas for improvement that need to be addressed.

A scoring guide that is used in assessment is often referred to as a rubric. A rubric is a grading tool used to describe the criteria used in grading the performance of students. In general, each rubric consists of a set of criteria and marks or grades associated with these criteria. So, rubrics help to define the criteria of the system of assessment by describing performance at different points on a rating scale.

Towards the future with learning outcomes

As already indicated the international trends in education show a shift from the traditional teacher-centred-approach to a more student-centred-approach. While traditionally the focus was on what the teacher did, in recent years the focus has been on what the students have learned and can demonstrate at the end of a module or programme.

Advantages of learning outcomes

Even though there has been some criticism of outcome-based education in the literature, a learning outcomes approach to teaching and learning has received strong support at an international level.

Potential problems with learning outcomes

One of the main concerns about the adoption of learning outcomes is the philosophical one that academic study should be open ended and that learning outcomes do not fit in with this liberal view of learning (Adam, 2004). This need not be the case if learning outcomes are written with a focus on higher-order thinking and application skills. However, if learning outcomes are written within a very narrow framework, this could limit learning and result in a lack of intellectual challenge to learners.

Some concluding points

The international movement away from teacher-centred approach to more outcome-based approach to education has gained increased momentum from the Bologna process, with its emphasis on student-centred learning and the need to have more precision and clarity in the design and content of curricula. It is clear that learning outcomes play a key role in ensuring transparency of qualifications and of qualification frameworks. They are also central to contributing to the implementing of the various action lines of the Bologna process throughout the European Higher Education Area.

The requirements to make the teaching and learning process more transparent and more explicit presents a challenge to all involved in education. In the short term, this involves preparing for the immediate challenge of expressing modules and programmes in terms of learning outcomes. In the longer term, the adoption of the learning outcomes approach has the potential to help embrace a more systematic approach to the design of programmes and modules.

Reflection

In our opinion it's necessary to think over the following points:

It might be one possibility to get better quality of learning outcomes to go reverse the way of education. The education of the students should not begin with a fixed syllabus. The first step should be to consider the content of the learning outcomes and second to find the best way to achieve them. After formulating the first two steps there exists a good basis for creating a suitable syllabus.

At present it's a fact that in Austria the education system works in the old manner. We think many teachers would prefer to change our education system but this is only possible in contents with the law and our government. It's the job of them to create new rules for a new and efficient system which gives chances to our students on an international level.