



CEDEFOP

European Centre for the Development
of Vocational Training

A handbook for defining and writing learning outcomes – Key messages

Jens Bjornavold,

2nd Policy Learning Forum, Thessaloniki 13 October 2016



The context of the Handbook

- The handbook is launched in a situation where there is broad political agreement on the need for and usefulness of learning outcomes
- Strong political agreement does not in itself guarantee that learning outcomes are written and applied in ways which benefit end-users
- The success of learning outcomes requires a clearer understanding of opportunities, challenges and dilemmas facing stakeholders in this area.



The purpose of the Handbook

The handbook will serve the following main purposes:

- It will act as an 'entry point' to existing guidance and research material on the definition and writing of learning outcomes
- It will serve as a tool for better understanding the opportunities, dilemmas and challenges facing us
- It will serve as a reference point for a more systematic exchange of experiences and cooperation at European level



Target group of the handbook

This handbook is written for

- individuals/ and institutions actively involved in the definition and writing of learning outcomes
 - in education and training in general, and
 - in vocational training in particular
- Policy makers and education and training stakeholders involved in the definition, review and reform of education and training
- Researchers working in this area



The structure of the Handbook

The Handbook will be structured into three main parts

- The first part outlines a limited number of basic principles and 'rules of thumb' supporting the definition, writing and use of learning outcomes
- The second part provides an in-depth discussion on topics of particular importance, building on practical experience and research
- The third part gives access to guidance material and research already available across Europe in different languages

All parts need to be discussed and developed during and after the PLF.
The Handbook should become a living document



The key principles

- Using learning outcomes represents a perspective and a mode of thinking – focus is on the learner rather than the teacher
- Learning outcomes cannot stand alone - their potential can only be released when interacting with teaching, learning and assessment
- Not all aspects and facets of learning can be capture through learning outcomes statements



Fit for purpose

Learning outcomes are written for different purposes.

- The learning outcomes descriptors used by a national qualifications framework differs significantly from those used in a qualification profile/standard, a programme description, a curriculum or in an assessment standard.
- Learning outcomes have to be ‘fit for purpose’ and the level of detail/granularity and generality/specificity will have to reflect this.



Intended and actually achieved learning outcomes

- We distinguish between intended and actually achieved learning outcomes
- Consistent and high quality definition and writing of learning outcomes requires continuous dialogue between intended and actual outcomes
- A feed-back loop is needed; statements of intended learning outcomes must be continuously reviewed and improved in light of the actually achieved outcomes



Different conceptual roots

The writing of learning outcomes operates in a tension between behaviouristic and constructivist schools of thought

- The behaviouristic tradition will emphasise learning outcomes as result oriented, full-ended, clearly observable and (objectively) measurable,
- The constructivist approach will emphasise the need for learning outcomes to be process-oriented and open-ended, somewhat limiting measurability.



The need for flexibility and local adaptation

- Learning outcomes need to be defined and written in a way which allows for local adaptation and interpretation by teachers and learners
- Too detailed and prescriptive statements can undermine and lead to a 'dumbing down' of the learning and assessment process.
- There is a need to balance (local) autonomy and (centralised) regulation.



Learning outcomes and vocational education and training

- When writing learning outcomes for vocational education and training it should be kept in mind that most VET profiles/standards need to balance and combine
 - general knowledge subjects (languages, math, history etc.) with
 - generic and transversal skills and
 - occupation specific knowledge, skills and competences.
- This balance and combination is of critical importance to the profile and relevance of a programme or qualification to individuals, the labour market and society in general.



Learning outcomes and vocational education and training

- In vocational education and training it is of particular importance to ensure systematic feed-back between stakeholders in education and training on the one hand and in the labour market on the other hand.
- Learning outcomes statements should not be written in isolation, but be articulated (calibrated) with a reference to the national qualifications frameworks and to 'related or neighbouring' qualifications and programmes.



Writing learning outcomes – rules of thumb

- Simplicity is important when writing learning outcomes; avoid too much detail and seek a balance between specificity and generality
- In general there should not be more than one action verb for each learning outcome
- When writing learning outcomes, focus on the learner and start with an action verb, continue with the object of the verb and complete with an indication of the context (which can be related to learning and/or work).



The basic structure of learning outcomes

It should address the learner

It should use an action verb to signal the level of learning expected

It should indicate the object and scope of learning, notably by identifying relevant learning domains

It should clarify the occupational and/or social context in which the qualification is relevant



The vertical dimension

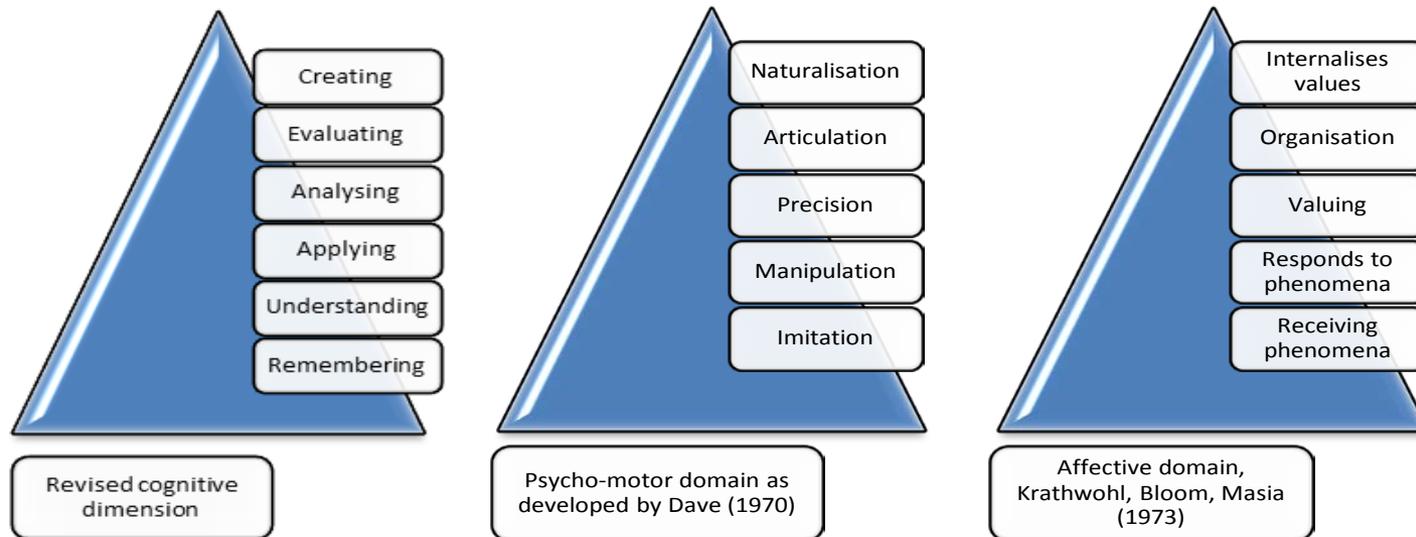
- Learning outcomes statement - combining action verb/object/context - need to be articulated along a vertical and a horizontal dimension
- Introducing the vertical dimension of learning outcomes statements is about indicating the level and complexity of learning
- This will normally require referring to a (implicit or explicit) hierarchy of intended learning outcomes and achievements.



The dominance of Bloom's taxonomy



Figure 1. **Bloom's taxonomy: cognitive, psycho-motor and affective domains**



Sources: Bloom et al. (1956); Dave (1970); Anderson and Krathwohl (2001).



Alternatives to Bloom's taxonomy

- The SOLO taxonomy (Structure of Observed Learning Outcomes) (Biggs and Collis, 1982; Biggs, 1999; 2014) describes progressively complex levels of understanding.
- Learning and understanding is described as an increase in the number and complexity of connections learners make as they progress from low to high levels of competence.
- Learning is shaped by prior knowledge, misconceptions, learning intentions and strategies. The focus is on the depth and quality of understanding, rather than the quantity of information



The verbs....

Ambiguous	Unambiguous
Know Understand Determine Appreciate Grasp Becomefamiliar with Enjoy Believe	Distinguish between Assemble Adjust Identify Solve Write Recite Construct Compare

Declarative verbs	Procedural/relational verbs
Repeat Describe Identify Memorise Recall	Hypothesize Solve unseen problems Generate new alternatives



The horizontal dimension

- Introducing the horizontal dimension of learning outcomes statements is about clarifying the object and the scope of the intended learning; are we (for example) focussing mainly on theoretical knowledge or are we addressing practical or analytical skills?
- Are we using pre-defined domains (for example knowledge, skills and competence) when writing learning outcomes?



Alignment

The application of learning outcomes is a question of aligning learning outcomes statements with teaching and learning



Teaching and Learning

- The implementation of learning outcomes depends on a clear link being established between the learning outcomes statements and the learning and teaching process.
- Learning outcomes statements should assist teachers in identifying and combining teaching methods.



Assessment

- The link between learning outcomes statements and assessment points to a tension between reliability and validity.
- It should be made clear that learning outcomes, written as threshold statements, do not prevent learners to go beyond these thresholds.
- Learning outcomes orient a learning process; they should not contain or restrict it. Learning outcomes statements should not be understood as preventing learners to go beyond minimum expectations.

