

Derive Learning Objectives from a Key Competency Framework

Introduction	1
What is a Learning Objective?	1
<i>The Place of Knowledge in the Definition of Learning Objectives</i>	<i>1</i>
<i>Components of a Learning Objective</i>	<i>1</i>
<i>Relevant practice and evidence of learning</i>	<i>1</i>
<i>Summary</i>	<i>1</i>
<i>Activity 1 — Write a Learning Objective</i>	<i>1</i>
<i>Activity 2 — Poll</i>	<i>1</i>
<i>Activity 3 — Write a Comment/Reflection</i>	<i>1</i>
How to Identity Good (and Bad) Learning Objectives?	1
<i>Performance: active verbs and taxonomies</i>	<i>1</i>
<i>Why did not you name this section: How to Identity Bad (and Good) Learning Objectives?</i>	<i>1</i>
<i>Summary</i>	<i>1</i>
<i>Activity 4— Discriminate Learning Objectives</i>	<i>1</i>
<i>Activity 5 — Review your Learning Objective</i>	<i>1</i>
<i>Activity 6 — Write a Comment/Reflection</i>	<i>1</i>
How to Fix Unclear Learning Objectives?	1
<i>From Goals to Learning Outcomes</i>	<i>1</i>
<i>Application to Learning to Learn</i>	<i>1</i>
<i>Summary</i>	<i>1</i>
<i>Activity 7— Fix Unclear Learning Objectives</i>	<i>1</i>
How to Derive Learning Objectives from a Key Competency Framework?	1
<i>Identifying and selecting additional resources to write learning objectives for the acquisition of key competencies</i>	<i>1</i>
<i>Exploiting additional resources to write learning objectives for the acquisition of key competencies</i>	<i>1</i>
<i>Summary</i>	<i>1</i>
<i>Activity 8 — Review your Learning Objective</i>	<i>1</i>



Introduction

The objective of this module is to learn how to *Derive Learning Objectives from a Key Competency Framework*. It will cover:

- What is a learning objective?
- How to identify good (and bad) learning objectives?
- How to fix unclear learning objectives? And eventually
- How to derive learning objectives from a key competency framework?

At the end of each section you will be invited to perform a number of activities which outcomes should be immediately applicable to your work context, so at the end of the module you will have written 3 learning objectives in relation to the acquisition of key competencies that will be well formed and fully relevant to the broader learning goals.

What is a Learning Objective?

A *learning objective* is the response to the question:

what will the learners be able to do when they have completed a unit of learning¹?

For example, this module's objective states that you will be able to *derive learning objectives from a key competency framework*.

A *learning objective* should not make any reference to the learning process or the instructional method; it should only describe the *outcome* of the learning process in terms of performance: what will the learner be able to *do* rather than what will the learner *know*. Of course, knowledge is an important element of the quality of a performance, but it should come second when defining a learning objective.

It is by defining what is the *expected performance* that you will be able to derive the underpinning knowledge and understanding required for a competent performance:

- *what will the learners be able to do?* is the question at the heart of the definition of a learning objective.
- *what will the learners know?* should be *derived* from the answer to the previous question: *in order to do this, she needs to know that*.

This way, if a pupil or a student asks *why should I know that?* you will be able to respond *in order to be able to do this* instead of the classical *you will understand later!*

The Place of Knowledge in the Definition of Learning Objectives

Those who are new to outcome-based education can be surprised by the place of knowledge in the definition of learning objectives. The traditional approach of curriculum design starts by defining the required knowledge, then the instructional method to transfer this knowledge to the learners. In an outcome-based education, knowledge is subordinate to the performance. This applies to the definition of the objectives as well as to the assessment.

To:

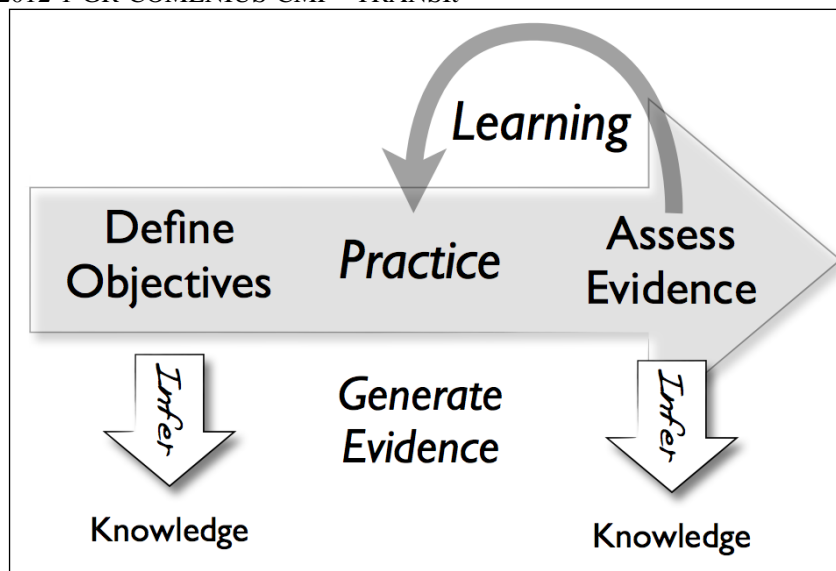
in order to do this, they need to know that (definition of learning objectives)

Echoes:

if she has been able to do this, then I must conclude that she must know that (assessment process).

Just like knowledge should be inferred from the expected performance of learners, when comes the time to assess a learner's performance, one should be able to *infer* the acquired knowledge from the performance evidence collected during the learning process. This is what has been elicited in the figure below — the feedback loop in the picture is a reminder that assessment is a continuous process that runs along the learning process to inform on the quality of the performance.

¹ It is also referred to as learning outcome, performance objective, behavioural objective or instructional objective.



Ideally, the knowledge inferred from the assessment of evidence produced by learners should match the knowledge inferred from the learning objectives. When the evidence generated by performance alone might not be sufficient to infer that a person has the required knowledge, the learner might be asked to respond to questions to collect supplementary evidence. A teacher might also want to revise the type of activities proposed to the learners, so the evidence produced by this new activity would be more solid to infer the knowledge involved in the performance.

The ability to infer knowledge from performance evidence, depends on the nature and quality of the evidence collected, which itself depends on the nature and quality of the practice provided to the learners, which in turns depends on the quality of the objectives from which the underpinning knowledge is inferred.

Learning Objectives, Learning Outcomes and Competencies

Before the rise of *outcome-based education*, learning objectives tended to be written in terms of teaching intentions, describing the parts of the curriculum that would be covered by the instruction. Since, *learning objectives* and *learning outcomes* tend to be treated as synonymous by a growing number of teaching professionals. It is the case with this module.

Learning outcomes like *competencies* are defined as a combination of skills, knowledge, attitudes and values. The term *learning outcomes* tends to be used in initial education, while *competency* is the term used in vocational and professional education and training.

Components of a Learning Objective

Defining good objectives is essential to a good learning and assessment process, not just for the teacher, but for the learners: good objectives are a means for learners to guide their activities and monitor their own progress.

A learning objective needs to answer 3 main questions:

1. **Performance:** *what will the learners be able to do?*
2. **Conditions:** *what are the conditions under which they have to perform?*
3. **Criteria:** *how will we/they know whether they have performed successfully?*

If you refer to this module, you have:

1. **Performance:** *Derive Learning Objectives*
2. **Conditions:** *from a Key Competency Framework*
3. **Criteria:**
 - *Derive at least 3 different learning objectives from a key competency framework where*
 - *Performance, conditions and criteria are well stated; and*
 - *Reviewed by at least 2 peers.*

Relevant practice and evidence of learning

One important element in the definition of a learning objective is its contribution to the definition of the *relevant practice*, i.e. the activities during which the learner will have the opportunity to perform the essence of the learning objective. It is during practice that learners will generate the pieces of evidence that will be used to assess whether or not the learning objectives have been reached.

The questions one should always have in mind when designing learning objectives are:

- *what will the learner do?* — to inform the performance and the context
- *what evidence will the learner produce during the learning activities?* — to inform the criteria

For example, if you state that the learner will have to *read a text*, then the question regarding the kind of tangible evidence produced by *reading of a text* might challenge your initial statement and make you think of another activity more prone to generating evidence, like *write a comment on this text* or *list the three main ideas*. These activities and their associated pieces of evidence should then help you better learning objectives.

The Process of Designing Learning Objectives

This module, like the other modules of this course might give you the impression that the design of an outcome-based learning programme is sequential: start by defining the learning objectives, then define the learning activities, then define the learning contents, then... Such design process is referred to as the *waterfall* model: the first stage must be perfectly defined before moving to the next one. This model has proved to be ineffective in a number of domains, in particular in the design of information systems.

Modern approaches to design and development tend to address all steps simultaneously and incrementally, so the first tests of the first developments inform provide information to adjust and complete the initial design. It is the *agile* model.

In the context of the development of learning objectives it means that you do not have to wait to have reached the perfect definition of the learning objectives before defining the practice, the contents and the assessment process. It is perfectly valid to start your design from the assessment and reverse-engineer to the definition of objectives.

Do not forget, in outcome-based learning, what is important is the outcome!

Summary

In this section we have learned that a learning objective should describe a *learning outcome* rather than the *learning process* — the learning process will be addressed later, when building a *learning plan* or *lesson plan*. A learning objective is focused on the definition of *what will the learner will be able to do* when mastering the learning objective. It is while performing the essence of the learning objective that the learner will generate the evidence used for the assessment of the performance against defined criteria.

Activity 1 — Write a Learning Objective

Well, that was a lot of reading, so it's time to flex your brain with an activity. For this initial activity you are invited to write your first (in this course) learning objective.

The European Commission has defined a European Framework with 8 key competencies:

1. Communication in the mother tongue
2. Communication in foreign languages
3. Mathematical competence and basic competences in science and technology
4. Digital competence
5. Learning to learn
6. Social and civic competences
7. Sense of initiative and entrepreneurship
8. Cultural awareness and expression

Select one of those 8 competencies and write a learning objective in relation to this competency. Do not worry whether it is perfect or even completed. Just do to the best of your (current) ability and take it as a starting point that you will use, and possibly improve, along the module.

Allow a maximum of 15 minutes, after that, move to the next activity.

Performance	<i>what will the learners be able to do?</i>	
Conditions	<i>what are the conditions under which they have to perform?</i>	
Criteria	<i>how will we/they know whether they have performed successfully?</i>	

Activity 2 — Poll

Please rate the following statement (1 fully disagree, 5 fully agree)

1. The ideas contained in this module are new to me
2. The ideas are well presented
3. The ideas presented are useful
4. Writing a learning objective is easy
5. I'm looking forward to the next part of this module

Activity 3 — Write a Comment/Reflection

Please read the comments on this section in the course forum and add your own comments/reflection in relation to the contents of this chapter and the previous activities.

How to Identity Good (and Bad) Learning Objectives?

At the end of the previous section you were asked to write a learning objective. The content of this section should help you decide whether the learning objective was well formulate or not. If you were not able to write a learning objective, you will have another opportunity at the end of this section.

As seen in the previous section, a learning objective needs to answer 3 main questions:

1. **Performance:** *what will the learners be able to do?*
2. **Conditions:** *what are the conditions under which they have to perform?*
3. **Criteria:** *how will we/they know whether they have performed successfully?*

We also saw that the learning objective will inform the **practice** during which the learner will have an opportunity to produce **evidence** of his/her own learning.

Let us review some learning objectives to decide whether they are well formed or not. For that we will use examples related to the acquisition of key competencies:

- (1) By the end of this course, participants will have a sense of initiative and entrepreneurship
- (2) By the end of this course, participants will be able to take more initiatives
- (3) Write an essay with a word processor on the meaning of entrepreneurship
- (4) Write an essay with a word processor on the meaning of entrepreneurship with less than 5 typos

To review those learning objectives we will use the following checklist:

Objective	<i>Is the objective related to intended outcome(s), rather than the process for achieving the outcome(s)?</i>
Performance	<i>Is the performance of the learner relevant to the learning outcome?</i>
Conditions	<i>Are the conditions, the context, of the performance relevant to the learning outcome?</i>
Criteria	<i>Are the criteria relevant to the learning outcome? Are they tangible? Are they measurable? Are they sufficient?</i>

Learning objective **(1)** is simply the copy of competence nº7 of the European Key Competence Framework. There is no information on what the learner's performance, what she/he will be able to do (how the "sense of initiative" should be translated into actions), no information on the conditions of the performance (which is consistent with the lack of explicit performance), nor on the success criteria. (1) is not an objective, but a *goal*.

Objectives vs Goals

Both goals and objectives are targets, but they are of different nature: goals are more generic and intentional than objectives: *I want to become an entrepreneur* (goal) is different from *I want to create my Internet business within 2 years*.

Defining objectives often starts from the definition of a goal. The 8 competences from the European Key Competence Framework are goals.

At the end of this module, you should be able to derive learning objectives out of these goals.

Learning objective **(2)** contains the magic formula "by the end of this course" and "will be able to" that many think suffices to state a learning objective. It also contains the criterion "more" which might be difficult to assess — should someone who already takes an average of 10 initiatives a day fail because she does not take even more?

Learning objective **(3)** might seem well formed but there are no specified success criteria.

Learning objective **(4)** might seem an improvement on (3). Unfortunately, it is not: the number of typos in an essay has nothing to do with the "sense of initiative and entrepreneurship." All criteria should be related to the *essence* of the objective:

- **Performance:** write an essay on the meaning of entrepreneurship
- **Conditions:** with a word processor
- **Criteria:** with less than 5 typos

Defining Relevant Criteria

It is essential that the success criteria chosen for a learning objective are in direct relation to the essence of the objective/goal. If the goal is to grow a sense of initiative, then using the number of typos in an essay is irrelevant.

On the other hand, if the same essay is produced as evidence of good writing skills, then the number of typos will become a relevant criteria, in that context.

This does not mean that a teacher reviewing an essay on entrepreneurship should not provide a feedback on the writing skills, but that the number of typos should probably not be taken into account when assessing the capacity to take initiatives.

The choice of an irrelevant criterion in (4) is probably the consequence of a faulty definition of the performance: is writing an essay the most relevant activity one could engage learners to, to grow and demonstrate the acquisition of the sense of initiative and entrepreneurship? Probably not.

Defining Relevant Performance and Evidence

The performance expected from a learner should be consistent with the essence of the objective/goal. If the goal is to *develop a sense of initiative and entrepreneurship*, then the performance should reflect the consequences of this *sense of initiative and entrepreneurship*.

While writing an essay might be useful to support the acquisition of concepts and encourage reflection, it cannot be used as the unique piece of evidence of the acquisition of a *sense of initiative and entrepreneurship*.

To define the relevant performance, you can start by asking: what kind of evidence would I accept to recognise that someone has a *sense of initiative and entrepreneurship*? An essay? Examples of initiatives taken by the learner? Testimonies from peers, parents and other people? Plans for future projects?

Starting from the types of evidence, you can reverse-engineer and define what kind of activities learners should perform to produce them.

Performance: active verbs and taxonomies

When writing a learning objective, try to imagine whether the observation of a learner's performance will give you enough information to decide whether or not it is a successful performance. If you can, then you are probably on the right track. If you cannot, then you have most likely written a bad learning objective.

Example:

- **learn/know the difference between *goal* and *objective*** — *unless you can read into the head of a learner, how could you know whether the person has learned the difference? Even watching her reading the definition or repeating it orally does not mean that she is able to translate this piece of information into knowledge when applied in practice.*

To fix this objective, you need to define a performance that will provide sufficient evidence of having learned the difference:

- **Given a list of 10 statements, sort the learning objectives from the goals without making any mistake.**
- **Given a goal, derive one well written learning objective** (well written = with performance, conditions and criteria aligned with the goal) — *one could safely infer that if someone has been able to write a good learning objective from a goal, she must know the difference.*

To help you find the right verbs, you could use taxonomies, such as Bloom's. Bloom's taxonomy is a classification of [learning objectives](#) within education proposed in 1956 by a committee of educators chaired by [Benjamin Bloom](#), who also edited the first volume of the standard text, *Taxonomy of educational objectives: the classification of educational goals*.

Definitions	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Bloom's Definition	Remember previously learned information.	Demonstrate an understanding of the facts.	Apply knowledge to actual situations.	Break down objects or ideas into simpler parts and find evidence to support generalisations.	Compile component ideas into a new whole or propose alternative solutions.	Make and defend judgments based on internal evidence or external criteria.
Verbs	Arrange Define Describe Duplicate Identify Label List Match Memorise Name Order Outline Recognise Relate Recall Repeat Reproduce Select State	Classify Convert Defend Describe Discuss Distinguish Estimate Explain Express Extend Generalise Give example(s) Identify Indicate Infer Locate Paraphrase Predict Recognise Rewrite Review Select Summarise Translate	Apply Change Choose Compute Demonstrate Discover Dramatise Employ Illustrate Interpret Manipulate Modify Operate Practice Predict Prepare Produce Relate Schedule Show Sketch Solve Use Write	Analyse Appraise Breakdown Calculate Categorise Compare Contrast Criticise Diagram Differentiate Discriminate Distinguish Examine Experiment Identify Illustrate Infer Model Outline Point out Question Relate Select Separate Subdivide Test	Arrange Assemble Categorise Collect Combine Comply Compose Construct Create Design Develop Devise Explain Formulate Generate Plan Prepare Rearrange Reconstruct Relate Reorganise Revise Rewrite Set up Summarise Synthesise Tell Write	Appraise Argue Assess Attach Choose Compare Conclude Contrast Defend Describe Discriminate Estimate Evaluate Explain Judge Justify Interpret Relate Predict Rate Select Summarise Support Value

Action Verbs from Bloom's Taxonomy

While very useful, this table contains traps. For example, if your learning objective is to *memorise*, unless you are able to read the mind of your learners, you will not be able to assess the memorisation. To fix it you should use verbs with which you can imagine either the *performance* of the learner or the *product* of his/her performance e.g. recall, list, identify, etc. (performance), a list, a graphic, a definition, etc.

Why did not you name this section: How to Identity Bad (and Good) Learning Objectives?

While the title of this section is *How to Identity Good (and Bad) Learning Objectives?* all the examples provided so far were all ill-formed. You might therefore be entitled to ask to rename it as *How to Identity Bad (and Good) Learning Objectives?*

The reason to start with 'bad' examples is that it is very unlikely, including for the author of this module, to write a good learning objective at the first go. One should not be afraid to write something imperfect, then look at it with a critical eye, may be put it aside for a while, then come back to it, revise then possibly get the feedback of a peer. You should understand the 'bad' examples as the first attempts at writing a "good" learning objective.

To help you with this, the next section of this module is dedicated to how to fix unclear learning objectives.

Summary

In this section you have learned that good learning objectives not only need to be well structured (performance / conditions / criteria) but that all their elements need to be fully related to the learning goal. A *performance* should be described using active verbs leading to an observable performance (*recite*, rather than *memorise*) and/or to the production of tangible evidence or artefacts (*select* can produce a *selection* as artefact) that can be measured against criteria.

Activity 4— Discriminate Learning Objectives

Emma, a teacher of Italian as a second language wants to recognise *digital competencies* of her students as the use of digital technology is an important element of learning Italian (search engines, chats, fora, etc.). For that purpose, Emma has written 3 learning objectives.

Your mission is to:

1. Review Emma's learning objectives
2. Rate whether they are well formulated or not
3. Identify the problems in the formulation, if there is one

For the rating of Emma's learning objectives, use a scale from 1 (very poorly written) to 5 (very well written)

	Learning Objective	Your Rating	What is the problem with the formulation?
1	Students need to know how to use forums		
2	<i>Use online editing tools to spell-check to submit typo-free assignments</i>		
3	<i>Use online translation services to provide a short description of 4 web site written in 5 different foreign languages, including Chinese and Hindi</i>		



Activity 5 — Review your Learning Objective

It is now time to review the learning objective you wrote during Activity 1 and, if needed, revise it. If you were not able to write the initial objective, have a go now using what you have just learned.

If you still have problem with this task, it might help to list the kind of evidence you would expect in order to assess the quality of the performance of your students. From this list you should be able to infer the kind of performance required to produce them.

Evidence	<i>What kind of evidence should the learner provide to demonstrate his/her competency?</i>	
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Performance	<i>what will the learners be able to do?</i>	
Conditions	<i>what are the conditions under which they have to perform?</i>	
Criteria	<i>how will we/they know whether they have performed successfully?</i>	

Checklist:

Objective	<i>Is the objective related to intended outcome(s), rather than the process for achieving the outcome(s)?</i>
Performance	<i>Is the performance of the learner relevant to the learning outcome?</i>
Conditions	<i>Are the conditions, the context, of the performance relevant to the learning outcome?</i>
Criteria	<i>Are the criteria relevant to the learning outcome? Are they tangible? Are they measurable? Are they sufficient?</i>

Activity 6 — Write a Comment/Reflection

Please read the comments on this section in the course forum and add your own comments/reflection in relation to the contents of this chapter and the previous activities.

How to Fix Unclear Learning Objectives?

In the previous section you learned how to discriminate well written learning objectives and you had a chance to review your initial learning objective. In this section we will explore how to fix unclear learning objectives — and to transform a generic goal into specific learning outcomes.

As mentioned in a previous section, it is very unlikely that you will be able to produce a clear learning objective on the first go. If you start from scratch, it makes sense to first state a *goal*, i.e. a general intention with no specific criteria: *I want my students to be good at learning to learn*. How to transform this generic goal into a learning objective that is a learning outcome?

From Goals to Learning Outcomes

To define learning outcomes out of a goal such as *I want my students to be good at learning to learn* [it is competence n° 5 in the European Key Competence Framework], you can ask the following questions:

- How will I (they) know that they are good at *learning to learn*?
 - Are there different levels for being good at *learning to learn*, for example in terms of *levels of autonomy, responsibility, complexity*?
- What kind of evidence would I (they) need to prove that they are good at *learning to learn*?
- What kind of observable performance(s) would demonstrate the ability of *learning to learn*?
- Under what conditions, what context, should the performance(s) take place?

If the questions above are not numbered it is because there is not a particular order in which they should be addressed. If you already have clear idea of the products that a good performer should be able to deliver, then you have the beginning of a response to the question related to *evidence*. If you have a clear idea of the processes that a good performer should follow, then you have the beginning of a response to the question related to the *performance*. The responses to the first question should inform the response to the others, and so on; it is an iterative process that can stop when you are satisfied with the response to all the questions above.

Application to *Learning to Learn*

We will be addressing into more details how to transform *learning to learn* from a *goal* to a *learning objective*. For that we will use additional resources, in particular the information contained in the European Key Competence Framework as well as other documents, in particular key competency standards.

For the time being, let us consider that you are on our own, without the support of any external documentation, to write a learning objective based on *learning to learn*.

At first, we should anticipate that a goal as broad as *learning to learn* might require more than one learning outcome. Then, if there were different levels of mastery, this would multiply the number of learning outcomes by the number of levels (e.g. Learning to Learn Level 1, Learning to Learn Level 2, etc.).

As it is very unlikely that you have the time, the resources, the will or even the need to develop all the learning outcomes that would cover all the dimensions of *learning to learn*,

we will address just one element of *learning to learn* — in the next section you will see how to make use of existing key competency standards to develop learning objectives.

To transform the learning goal into (at least!) one learning objective, I (the author of this module) have used the following table:

Questions	My responses
How will I (they) know that they are good at <i>learning to learn</i> ?	Students should be self-directed learners, connecting new knowledge with old
What kind of evidence would I (they) need to prove that they are good at <i>learning to learn</i> ?	It should include a number of different pieces of evidence collected over a period of time: A reflective journal; a learning plan and its revisions; initiatives to engage into new activities conducive to learning; lessons learned after a successful/failing projects;
What kind of observable performance(s) would demonstrate the ability of <i>learning to learn</i> ?	Providing/seeking support or advice to/from a peer or a teacher; participation in discussions, forums and debates;
Under what conditions, what context, should the performance(s) take place?	It should include school, home and society in general.
Are there different levels for being good at <i>learning to learn</i> , for example in terms of levels of autonomy, responsibility, complexity?	Depending on the age and maturity, there might need more or less scaffolding or guidance

From the table above, here is a possible learning objective for *learning to learn*:

Learning objective
Keep a reflective journal

Checklist:

Objective	<i>Is the objective related to intended outcome(s), rather than the process for achieving the outcome(s)?</i>	
Performance	<i>Is the performance of the learner relevant to the learning outcome?</i>	
Conditions	<i>Are the conditions, the context, of the performance relevant to the learning outcome?</i>	
Criteria	<i>Are the criteria relevant to the learning outcome? Are they tangible? Are they measurable? Are they sufficient?</i>	

Summary



Activity 7— Fix Unclear Learning Objectives

Karl, a science and math teacher has written 3 learning objectives in relation to ICT competencies

Your mission is to:

1. Review Karl's learning objectives
2. Rate whether they are well formulated or not
3. Identify the problems in the formulation, if there is one
4. Rewrite the objectives that are not well formulated

For the rating of Karl's learning objectives, use a scale from 1 (very poorly written) to 5 (very well written)

	Learning Objective	Your Rating	What is the problem with the formulation?	Better Learning Objective
1	Use Google Spreadsheet to collect and present data collected during chemistry laboratory practice			
2	Using your favourite search engine, provide a list of general purpose modelling software and present their applications in education			
3	As a group, plan execute and review the recording of a laboratory experiment and publish it on the Web			

How to Derive Learning Objectives from a Key Competency Framework?

In this section you will learn how identify and use the resources available to write learning objectives related to the acquisition of key competencies.

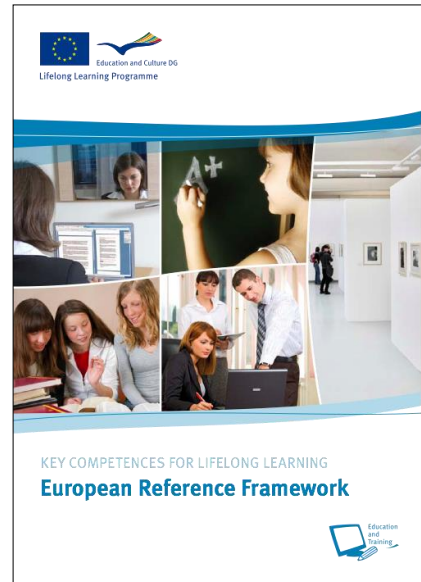
One key resource at your disposal is the European Reference Framework². This framework is composed of 8 key competencies:

1. Communication in the mother tongue
2. Communication in foreign languages
3. Mathematical competence and basic competences in science and technology
4. Digital competence
5. Learning to learn
6. Social and civic competences
7. Sense of initiative and entrepreneurship
8. Cultural awareness and expression

The goal of this framework is to:

- 1) identify and define the key competences necessary for personal fulfilment, active citizenship, social cohesion and employability in a knowledge society;
- 2) support Member States' work in ensuring that by the end of initial education and training young people have developed the key competences to a level that equips them for adult life and which forms a basis for further learning and working life, and that adults are able to develop and update their key competences throughout their lives;
- 3) provide a European-level reference tool for policy-makers, education providers, employers, and learners themselves to facilitate national- and European-level efforts towards commonly agreed objectives;
- 4) provide a framework for further action at Community level both within the Education and Training 2010 work programme and within the Community Education and Training Programmes.

In this framework key competences are defined in terms of *knowledge skills* and *attitudes* (there is no explicit reference to *values*). The description of knowledge skills and attitudes consists in a series of intentions or *goals* ("Individuals should have the skills to [...]"). There is no description of levels for the mastery of key competences.



² The Key Competences for Lifelong Learning – A European Framework is an annex of a Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning that was published in the Official Journal of the European Union on 30 December 2006/L394. (http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_394/l_39420061230en00100018.pdf)

5. Learning to learn

B | Definition:

Learning to learn is the ability to pursue and persist in learning, to organise one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.

Essential knowledge, skills and attitudes related to this competence:



Where learning is directed towards particular work or career goals, an individual should have **knowledge** of the competences, knowledge, skills and qualifications required. In all cases, learning to learn requires an individual to know and understand his/her preferred learning strategies, the strengths and weaknesses of his/her skills and qualifications, and to be able to search for the education and training opportunities and guidance and/or support available.



Learning to learn skills require firstly the acquisition of the fundamental basic **skills** such as literacy, numeracy and ICT skills that are necessary for further learning. Building on these skills, an individual should be able to access, gain, process and assimilate new knowledge and skills. This requires effective management of one's learning, career and work patterns, and, in particular, the ability to persevere with learning, to concentrate for extended periods and to reflect critically on the purposes and aims of learning. Individuals should be able to dedicate time to learning autonomously and with self-discipline, but also to work collaboratively as part of the learning process, draw the benefits from a heterogeneous group, and to share what they have learnt. Individuals should be able to organise their own learning, evaluate their own work, and to seek advice, information and support when appropriate.






A positive **attitude** includes the motivation and confidence to pursue and succeed at learning throughout one's life. A problem-solving attitude supports both the learning process itself and an individual's ability to handle obstacles and change. The desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and apply learning in a variety of life contexts are essential elements of a positive attitude.

Extract from the European Key Competences Framework

In the picture below the different components of the text that might be useful to write learning objectives have been highlighted. As you can see, there are no explicit references to value, performance criteria or evidence. A number of the components under the *skills* section are not just *skills* but *competencies* (*critical reflection* is a combination of skills, knowledge, attitudes and values) and *attitudes* (the primary source for *self-discipline* is the

attitude of the learner).

8	<p>Definition:</p> <p><i>Learning to learn is the ability to pursue and persist in learning, to organise one's own learning, including through effective management of time and information, both individually and in groups. This competence includes awareness of one's learning process and needs, identifying available opportunities, and the ability to overcome obstacles in order to learn successfully. This competence means gaining, processing and assimilating new knowledge and skills as well as seeking and making use of guidance. Learning to learn engages learners to build on prior learning and life experiences in order to use and apply knowledge and skills in a variety of contexts: at home, at work, in education and training. Motivation and confidence are crucial to an individual's competence.</i></p> <p>Essential knowledge, skills and attitudes related to this competence:</p> <p> Where learning is directed towards particular work or career goals, an individual should have knowledge of the competences, knowledge, skills and qualifications required. In all cases, learning to learn requires an individual to know and understand his/her preferred learning strategies, the strengths and weaknesses of his/her skills and qualifications, and to be able to search for the education and training opportunities and guidance and/or support available.</p>	<p> Learning to learn skills require firstly the acquisition of the fundamental basic skills such as literacy, numeracy and ICT skills that are necessary for further learning. Building on these skills, an individual should be able to access, gain, process and assimilate new knowledge and skills. This requires effective management of one's learning, career and work patterns, and, in particular, the ability to persevere with learning, to concentrate for extended periods and to reflect critically on the purposes and aims of learning. Individuals should be able to dedicate time to learning autonomously and with self-discipline, but also to work collaboratively as part of the learning process, draw the benefits from a heterogeneous group, and to share what they have learnt. Individuals should be able to organise their own learning, evaluate their own work, and to seek advice, information and support when appropriate.</p> <p> A positive attitude includes the motivation and confidence to pursue and succeed at learning throughout one's life. A problem-solving attitude supports both the learning process itself and an individual's ability to handle obstacles and change. The desire to apply prior learning and life experiences and the curiosity to look for opportunities to learn and apply learning in a variety of life contexts are essential elements of a positive attitude.</p>
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It is true that many people use *skills* for *competency* and *competency* for *skills*, but it is important when designing learning outcomes to make the distinction between something which is just a skill (e.g. using a computer keyboard or a mouse) and a competency (e.g. searching information on the Internet, using a keyboard and a mouse, but also exploiting *knowledge* about sources of information, search strategies etc.)

So, writing learning outcomes out of the sole information provided by the European Key Competences Framework will not be a straightforward exercise. It would take weeks of your time to establish a list of all the possible learning outcomes (or competencies) related to *learning to learn* alone. And if your objective was to write the learning outcomes covering all eight competencies, then the unit to measure the amount of work is more likely to be expressed in years than months!

Identifying and selecting additional resources to write learning objectives for the acquisition of key competencies

Fortunately, there are a number of resources you can access and review when you want to develop learning objectives in relation to key competencies. Your first port of call should be your national ministry of education to check whether there is a national key competency framework or something equivalent — the vocabulary can change from one country to another, so it might be called *basic / essential / life / core / 21st century / employability skills, competencies, learnings*, etc. May be there is a well-developed framework for one of the competencies — it is most likely that you will find at least one framework in relation to ICT competencies! You can then have a look at other national and international frameworks to complete the missing parts, if needed.

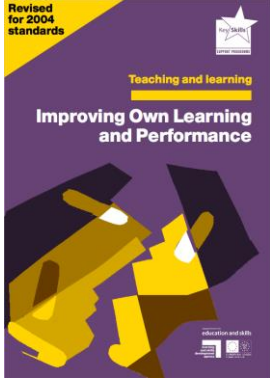
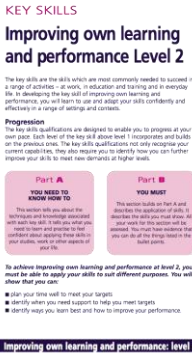
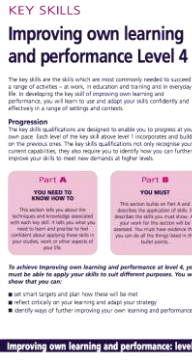
It is only after collecting national information and possibly complete it with the information collected from other sources that you should start writing your learning objectives.

Here is a link to a list of national and international sources for key competency frameworks (TBD)

Exploiting additional resources to write learning objectives for the acquisition of key competencies

Once you have identified and selected the best possible resources, you should be in a position to write your learning objectives. The most useful resources are those providing a list of performance criteria and/or evidence. You will then be able to use these criteria to create your own learning objectives.

To continue with the example used in the previous section, *learning to learn*, here is the resource you could find using your favourite search engine:

			
Search string	"improving own learning and performance"	"KEY SKILLS Improving own learning and performance Level 2"	"KEY SKILLS Improving own learning and performance Level 4"
Link	Link	Link	Link

As you might have guessed from these resources, in the UK context, *learning to learn*, has been rephrased "*improving own learning and performance.*" Four levels of competency are defined, from level 1 where learners are required to "*Confirm your targets and plan how to meet these with the person setting them,*" to level 4 where learners need to "*develop a strategy for improving your own learning and performance.*"

Using information from the resources above you will find description of expected performance (e.g. "*review your current capabilities and clearly identify what you hope to achieve in the future.*"), the knowledge required for a competent performance (e.g. "*what makes learning effective, including time-management techniques*"), example of evidence (e.g. "*At Level 1 'Evidence is likely to include two plans, each including action points for achieving the targets, deadlines and a date for reviewing progress'*"), and more.

Part B

YOU MUST:

Provide at least **one** example of meeting the standard for LP4.1, LP4.2 and LP4.3 (the example should include at least three targets). Overall, show you can use at least **two** different ways of learning to improve your performance.

LP4.1

Develop a strategy for improving your own learning and performance.

Evidence must show you can:

- 4.1.1 review your current capabilities and clearly identify what you hope to achieve in the future
- 4.1.2 research information on relevant learning opportunities and ways to improve your performance, to inform planning
- 4.1.3 set SMART targets and plan how these will be met, prioritising tasks and making a reasoned choice of methods and resources.

LP4.2

Monitor progress and adapt your strategy to improve your performance.

- 4.2.1 manage your time effectively and take responsibility for using different ways of learning to meet new demands
- 4.2.2 seek and actively use feedback and support from a variety of sources, to help meet your targets
- 4.2.3 reflect critically on your learning and adapt your strategy as necessary to improve your performance.

LP4.3

Evaluate your strategy and present the outcomes of your learning.

- 4.3.1 review the different ways you have learned and the extent to which you have met your targets
- 4.3.2 bring together and clearly illustrate what you have learned, organising evidence to support your purpose
- 4.3.3 assess the effectiveness of your strategy, including factors that affected the outcomes, and identify ways of further improving your own learning and performance.

Improving own learning and performance: level 4

Using these resources, it is now possible to review the responses to the questions from the previous section.

Questions	Previous responses	New responses
How will I (they) know that they are good at <i>learning to learn</i> ?	Students should be self-directed learners, connecting new knowledge with old	Students should have a learning plan and review it regularly
What kind of evidence would I (they) need to prove that they are good at <i>learning to learn</i> ?	It should include a number of different pieces of evidence collected over a period of time: A reflective journal; a learning plan and its revisions; initiatives to engage into new activities conducive to learning; lessons learned after a successful/failing projects;	Learning plans including action points for achieving the targets, deadlines and a date for reviewing progress' SWOT analysis Progress chart Reflective journal
What kind of observable performance(s) would demonstrate the ability of <i>learning to learn</i> ?	Providing/seeking support or advice to/from a peer or a teacher; participation in discussions, forums and debates;	Getting feedback after writing/updating a learning plan
Under what conditions, what context, should the performance(s) take place?	It should include school, home and society in general.	Ibid
Are there different levels for being good at <i>learning to learn</i> , for example in terms of levels of autonomy, responsibility, complexity?	Depending on the age and maturity, there might need more or less scaffolding or guidance	According to the UK Key Skills, there are 4 levels. I should probably try to align them with the European Qualifications Framework.
Personal reflection	I like the idea that learning to learn can be expressed at different levels of competence, so every learner has a chance to be competent at his/her own level, while having a pathway to progress from level 1 to 5.	

Summary

In this section we have seen that there are many available resources on the Internet that should help you to write well-formed *learning objectives* that are *outcome-based*. If there is no national framework available, or if this framework does not provide enough information to feed-in easily learning objectives (performance, context, criteria) you should be able to find supplementary resources on the Internet.

Activity 8 — Review your Learning Objective

We have now reached the end of the module and you should have all the information you need to write well-formed learning objectives. It is now time to review and give a final touch to the learning objective written during Activity 1 and write 2 more learning objectives.

Do not forget to ask the following questions when reviewing your objectives:

Objective	<i>Is the objective related to intended outcome(s), rather than the process for achieving the outcome(s)?</i>
Performance	<i>Is the performance of the learner relevant to the learning outcome?</i>
Conditions	<i>Are the conditions, the context, of the performance relevant to the learning outcome?</i>
Criteria	<i>Are the criteria relevant to the learning outcome? Are they tangible? Are they measurable? Are they sufficient?</i>

Performance	<i>what will the learners be able to do?</i>	
Conditions	<i>what are the conditions under which they have to perform?</i>	
Criteria	<i>how will we/they know whether they have performed successfully?</i>	

Performance	<i>what will the learners be able to do?</i>	
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Performance	<i>what will the learners be able to do?</i>	
Conditions	<i>what are the conditions under which they have to perform?</i>	
Criteria	<i>how will we/they know whether they have performed successfully?</i>	

Activity 9 — Write a Comment/Reflection

Please read the comments on this section in the course forum and add your own comments/reflection in relation to the contents of this chapter and the previous activities.