Assessment and recognition in formal and non-formal learning in entrepreneurship education

EntreComp
360

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INTRODUCTION

Educational assessment is the systematic collection, review, and use, of information and evidence to represent, evaluate and report learning, in different ways, for different purposes. Assessment has been described as the bridge between teaching and learning. Assessment can help us to identify and evidence learning needs and the impact of our ideas, actions and efforts as learners, teachers and organisations. This guide is written for educators working in enterprise and entrepreneurship education and training and aims to introduce practitioners to contemporary thinking, tools and practice in assessment within enterprise and entrepreneurial education.

Assessment is essentially evaluation, i.e. the process of judging or calculating the quality, importance, amount, or value of something. What is specific about educational assessment is that it is framed in educational purposes, underpinned by educational principles, and impact is measured by the evaluation of learning evidence. There are three stages inherent to educational assessment:

PURPOSE – what are we setting out to achieve and find out?

IMPACT – what happened? Did we achieve our aims?

EVIDENCE – how do we know?

In more traditional academic assessment, educational purposes have tended to focus on testing knowledge and understanding in one hit, examination-style papers, which are dominated by written evidence. However, increasing awareness of the limitations, potential bias and 'wash back' of formal examinations has strengthened calls for more purposeful and meaningful assessment methods, drawing from richer and more diverse evidence, over time.

The measurement of deep learning must always be informed by a wealth of underlying assessment evidence that captures the complete picture of who students are, what they know and whether they are prepared to use that knowledge to advance their lives and others. (Joanne McEachen).

The guide contains coverage of main assessment topics written by Hazel Israel (Bantani Foundation). Additionally there are examples of practice, gathered by partners in the EntreComp360 project, from experimentation and practices using assessment and recognition for supporting work in entrepreneurship education and/or use of EntreComp for these purposes.

Why are we assessing?

Formal and informal assessment can have wide-ranging purposes and assessment design links closely to these purposes. Time spent clarifying the purposes and uses of assessments are essential to identify appropriate design considerations. Consider the different purposes below and what these purposes mean for the assessment form and method.

Assessment for measurement requiring a stable metric to identify starting points and distance travelled.

Assessment for selection requiring rank order or criterion-referenced

Assessment to diagnose next learning steps

Assessment to evidence impact or competence

Assessment to evaluate approaches taken, educator or organisational performance.

Another way of classifying assessment purposes is as follows:

Assessment of learning – what learning has taken place?

Assessment for learning – what further learning can we gain?

Assessment as learning – what do we learn about learning by assessing?

THE SOCIAL AIM: RECOGNITION

One crucial aspect of assessment in education and training is the recognition of learners' gained competences. Or in other words – assessment and evaluation should lead to learners, and others, valuing their knowledge, skills, attitudes, values and learning progress.

- The basis is self-recognition, including "personal awareness and assessment of learning outcomes, and the ability to use these learning outcomes in other fields." (Youth Pass)

- Social recognition and political recognition are describing how others acknowledge and describe the competence of a learner.

- Formal recognition is describing and comparing learning, often in the form of certificates, licenses, or similar, issued by a formal or non-formal educational institution.

IDENTIFICATION

Makes the individual's learning and outcomes in a general way visible

Rather in a less formal way

Making use of different and free forms of description, assessment and documentation

VALIDATION

The confirmation by a competent body
- that learning outcomes have been identified and documented,
- assessed against predefined criteria,
- compliant with the requirements of validation standards.

Validation typically leads to certification.

BACKGROUND

Follow the links below to read more about recognition, identification and validation of learning outcomes

ⓘ Recognition, Identification and Validation of Learning Outcomes
Competendo Digital Toolbox

ⓘ About recognition
YouthPass

ⓘ The shift to learning outcomes. Policies and practices in Europe
European Centre for the Development of Vocational Training (Cedefop), 2009

ⓘ Terminology of European education and training policy: a selection of 130 terms. 2nd ed. Luxembourg: Publications Office of the EU.
European Centre for the Development of Vocational Training (Cedefop), 2014

Many forms of assessment in formal educational contexts or certified courses aim for validation. In most non-formal learning settings the identification aspect is more relevant. Many of these learning offerings do not usually lead to validation and certification. They are also not aiming to deliver learning experiences that must be comparable across education policy boundaries and systems. Furthermore, training and seminars don't often follow a curriculum or are taking place over a long course. However, this does not mean, that assessment and identification are not important for them. In fact they integrate several individual and collective strategies for formative assessment and evaluation in learning processes, offering learners space and methodology to (self)-assessment and recognition and develop a variety of forms of describing learning.

Examples of the approach of Youth Pass and its assisting handbook Valued by You, Valued by Others illustrate this popular approach including these 'soft' and learner- and group-centered forms of assessment.

ENTRECOMP COMMUNITY

The EntreComp Community is a platform for Entrepreneurship Education, around the European competence framework EntreComp. maybe also your "one-stop-shop" on this topic??
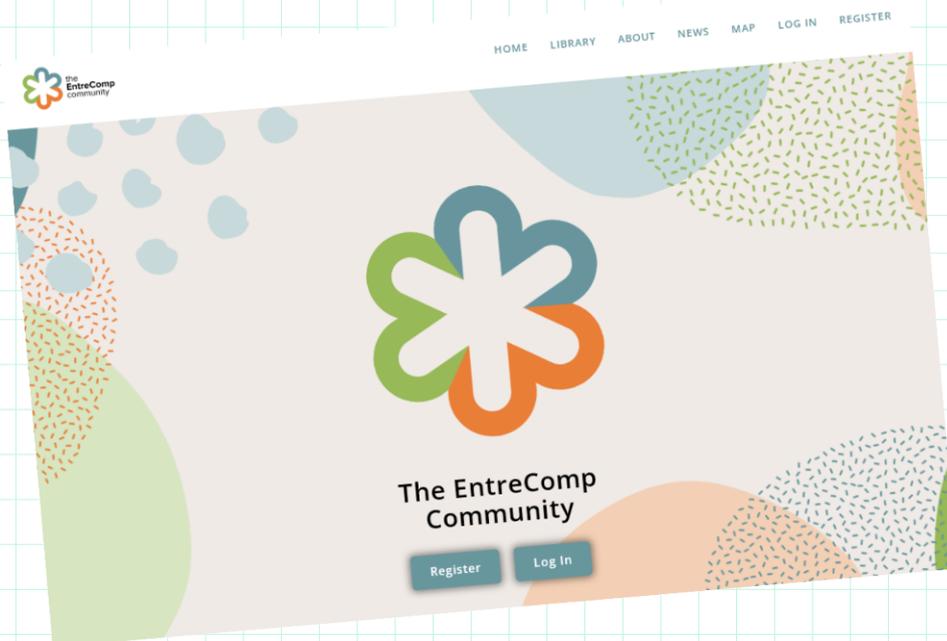
www.entrecomp.com

Contemporary challenges in assessment

Not everything that counts can be counted and not everything that can be counted counts.

Albert Einstein

Recent experiences of assessment in the Covid 19 pandemic have created an opportunity to revisit traditional and dominant assessment methodologies and to reevaluate them in light of new ways of learning and working, digital transformation and what we know about effective learning and cognitive development.

Bill Lucas' (2021) paper Rethinking assessment in education: The case for change identifies four categories within which to organise the perceived shortcomings of current assessment approaches:

• What is assessed?;

• How it is assessed method ;

• Impact of assessment consequences

• Uses made of the assessment validity .

The table on the following page sets out these broad areas to organise interesting trends, or new directions, in assessment, which can be seen as opportunities to improve assessment practice, through the creation of clear and shared principles for effective assessment.

High level summary of the case for change

Trend	Goal – assessment should be/include	Rationale
WHAT IS ASSESSED (FOCUS)		
Nature of learning	Deep wide collaborative	Assessment should aim to capture what are agreed to be desirable kinds of learning
A range of strengths	head, heart and hand	Assessment should capture competencies required for learning, life and employment
HOW IT IS ASSESSED (METHODS)		
Integration	Ongoing, authentic	Assessment should be pedagogically sensitive and educationally valuable, supporting and enriching learning goals
Approach	Carefully evidencing capability	Assessment should establish clear and shared definitions of learning dispositions and progression, to more reliably evidence high-order thinking skills, problem solving, real world application and extended investigations through multimodal evidence
Source of credential	Broad consortium	Assessment should support creation of new assessment partnerships to develop performance and scenario based assessments which incorporate data from a number of sources
THE IMPACT OF THE ASSESSMENT PROCESS (CONSEQUENCES)		
Focus of assessment	Predominantly formative	Assessment should serve learning progression, supporting development of mastery over time, reducing the tension between formative and summative approaches, increasing learner confidence and motivation
Personalisation	Individual progression	Assessment should provide engaging, equitable access to measures of progress which fairly evidence student progress and promote success
THE USES MADE OF ASSESSMENT (VALIDITY)		
Style of credential	Evidenced based narrative	Assessment should support learners to articulate their learning, referencing wide ranging evidence to report their learning
Ownership	For learners and others	Assessment should clearly reflect and represent the purpose it is intended to serve, with opportunities to involve students and teachers in all aspects of the assessment process and system, increasing transparency to reduce anxiety and enhance teacher and student capacity
Strategic intent	Mainly for improvement	Assessment should be a tool for improvement to enhance student performance over time

Table 1 (adapted from The case for change, Lucas 2021 by Hazel Israel 2021)

Assessment in enterprise and entrepreneurship education

The most common mistake you'll make is forgetting to keep your own scorecard. Very little at work reinforces your ability to do this, so you will have to be vigilant. When evaluators give you an assessment, they are just guessing at who you are; they certainly are not the ones who know your potential. They can rate you and influence you, but they don't get to define you. That's your most honorable assignment: to define, every day through the way you deliver your work, the scope and nature of your inherent abilities.

Charlotte Beers

High levels of interest in assessment in enterprise and entrepreneurship education indicates an appetite for assessment approaches, which are different to more traditional academic methods. However, a shared definition of what could be called 'entrepreneurial assessment', as appropriate to 'entrepreneurial learning', is still emerging and evolving as entrepreneurial learning approaches are adopted by increasingly diverse purposes in wider-ranging contexts.

When we talk about entrepreneurial learning, a useful starting point is the Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers from the UK Quality Assurance Agency for HE (QAA, 2018). It is setting out the diversity of practice, in terms of content and purposes, in use currently in entrepreneurship education, making the case that different forms of entrepreneurial learning require different forms of assessment.

"Educators often utilise new and different approaches to assessment when introducing Enterprise and Entrepreneurship into their teaching. Interdisciplinary approaches should be considered, as not all types of assessment are utilised within specialist disciplines" (QAA, 2018: 14).

Assessment experiences should align very closely with learning experiences, purposes and outcomes, to ensure 'constructive alignment'. Constructive alignment requires assessment to reflect and include what we consider to be valuable and effective entrepreneurial learning, no more no less.

The Entrecomp Playbook presents nine inspirational principles of effective entre-preneurial learning that will guide educators in the process of designing, implementing and monitoring an entrepreneurial learning experience. These prin-

ciples "help in setting the right mindset for creating practical entrepreneurial experiences that allow learners to stage and grow their entrepreneurial competences."

Experience   Novelty   Triggers   Reflection
Ecosystem   Collaboration
Others   Mentoring   Progression

These principles can also be used as guiding quality or success criteria to support constructive alignment of the assessment design with what are agreed to be characteristics of effective entrepreneurial learning.

ASSESSING "ENTREPRENEURSHIP"

Definitions of enterprise, entrepreneurship, skills and competence are used loosely and interchangeably. It is important to clarify the purposes, nature and scope of activity, as these will implicate some assessment approaches over others. There are different definitions in use in this field, which are contested and still under discussion so definitions may depend upon the people, purpose and context of activity. For this reason it is important to clarify what is meant by different terms used by particular groups of people.

DEFINITIONS AND DISTINCTIONS

ENTERPRISE
The generation and application of ideas, which are set within practical situations during a project or undertaking. This is a generic concept that can be applied across all areas of education and professional life.

It combines creativity, originality, initiative, idea generation, design thinking, adaptability and reflexivity with problem identification, problem solving, innovation, expression, communication and practical action.

ENTREPRENEURSHIP (SOCIAL, GREEN, DIGITAL, INTRAPRENEURSHIP)
Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others. This can, but does not exclusively, lead to venture creation but also includes creating value which can be social, cultural and economic.

Entrepreneurship applies to both individuals and groups (teams or organisations), and it refers to value creation in the private, public and third sectors, and in any hybrid combination of the three.

EMPLOYABILITY AND EMPLOYMENT
'A set of achievements – skills, understandings and personal attributes – that make individuals more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy.' Knight and Yorke (2003, pg. 8).

ENTERPRISE EDUCATION
The process of developing students in a manner that provides them with an enhanced capacity to generate ideas, and the behaviours, attributes, and competencies to make them happen. It extends beyond knowledge acquisition to a wide range of emotional, intellectual, social, cultural and practical behaviours, attributes and competences, and is appropriate to all students. These are all underlying factors that can enhance employability prospects as well as be taken further through Entrepreneurship Education.

ENTREPRENEURSHIP EDUCATION
Aims to build upon the enterprising competencies of students who are capable of identifying opportunities and developing ventures, through becoming self-employed, setting up new businesses or developing and growing part of an existing venture. It focuses on the application of enter prising competencies and extends the learning environment into realistic risk environments that may include legal issues, funding issues, start-up and growth strategies.

This definition, in particular, is likely to be slightly different depending upon the group and it is worth establishing a shared understanding.

ENTREPRENEURIAL EDUCATION
Entrepreneurial Education is used here as a 'catch all' term that encompasses both Enterprise and Entrepreneurship and all forms of creating social value, and may be used when discussing the combination of both. For example, activism, active citizenship, and social entrepreneurship are forms of entrepreneurial education.

Table 2 (adapted from QAA, 2018 and Entrecomp, 2016)

Considerations when making assessment entrepreneurial

To capture and consider all the elements and characteristics of entrepreneurial education, which we value, creates certain considerations:

LEARNER LED ASSESSMENT APPROACHES: The initiative, pro-activity and creativity in entrepreneurial competence means that learners should be trained to articulate and claim competence, referencing multimodal evidence, for wide ranging purposes to warrant their claims. As demonstrated in the next section, EntreComp demands learner assessment literacy as a cornerstone of Self Awareness and Self-efficacy, Ethical and Sustainable Thinking, and Learning from Experience.

MULTIMODAL EVIDENCE: To fully capture the richness and texture of entrepreneurial competence, mindset and behaviours, requires creative presentation of multimodal evidence to fully articulate, 'prove' or warrant claims of competence.

ROOTED IN ECOSYSTEM: Use the real world and real people in the local, national and international ecosystems to provide examples and feedback.

The journey towards entrepreneurial effectiveness

ENTREPRENEURIAL AWARENESS

✗ Understanding what enterprise means to me

ENTREPRENEURIAL COMPETENCES

✗ Creativity and innovation
✗ Opportunity recognition, creation
✗ and evaluation
✗ Decision making
✗ Implementation through leadership
✗ and management
✗ Reflection/Reflexivity into action
✗ Communication and strategy
✗ Digital, data and media

ENTREPRENEURIAL MINDSET

✗ Personality and social identity
  Ambition, motivation and goals
✗ Personal confidence and resilience
✗ Self-discipline and personal
  organisation
✗ Extending beyond perceived
  limitations
✗ Tolerance of ambiguity and risk
✗ Reflection on failure - to go forward
✗ Ethical, social and sustainable values

ENTREPRENEURIAL EFFECTIVENESS

✗ Independent self-direction
✗ Goal setter
✗ Goal evaluator and reviewer
✗ Opportunity leader
✗ Data evaluator
✗ Business generator
✗ Value enhancer
✗ Value evaluator
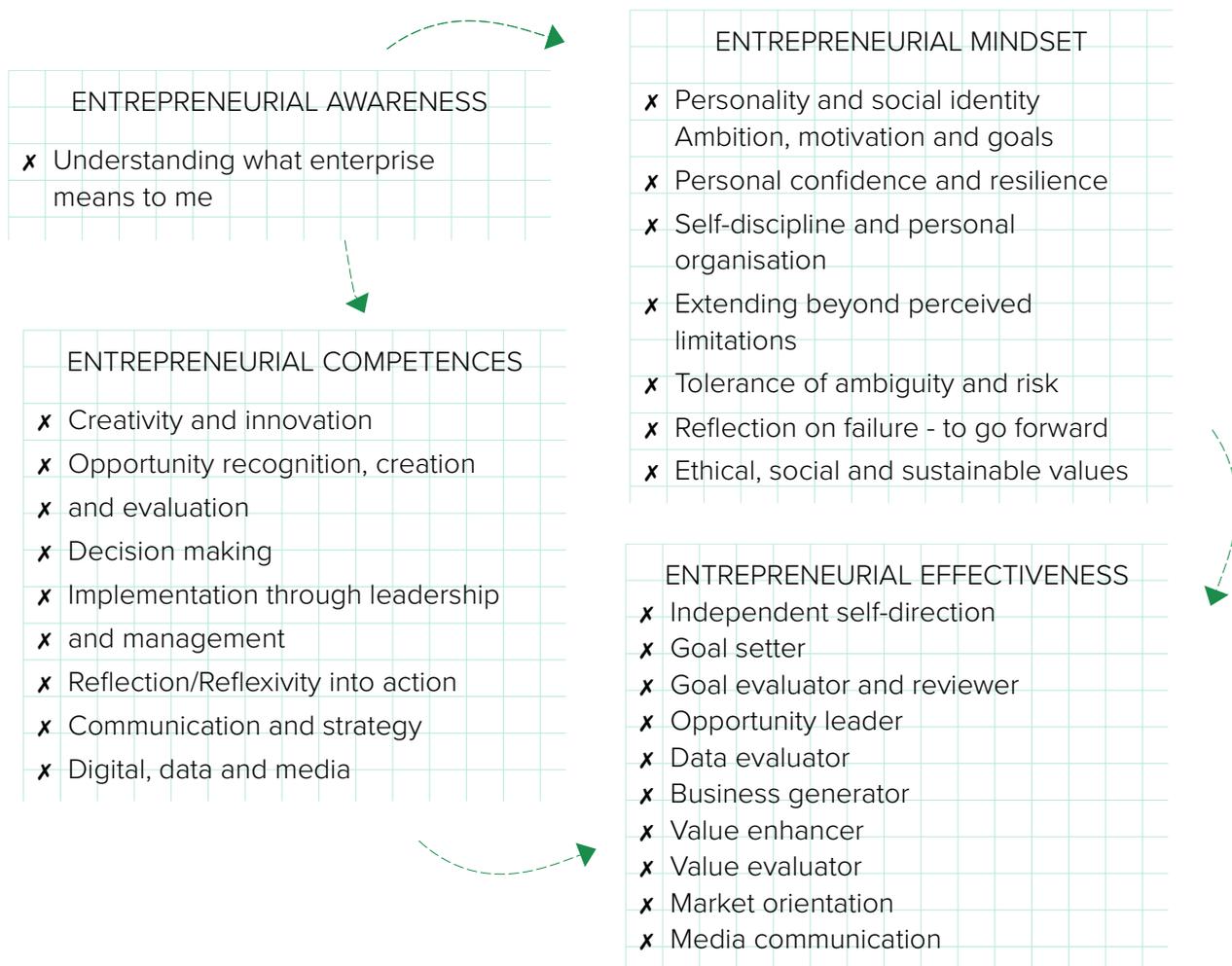✗ Market orientation
✗ Media communication

Figure 1 (adapted from QAA, 2018)

Students' learning may not be linear; their journeys are likely to have diverse starting points and transition into the future; they may pass through different stages in an iterative fashion, or engage simultaneously in different learning experiences.

Assessment with Entrecomp

Evaluation is creation: hear it, you creators! Evaluating is itself the most valuable treasure of all that we value. It is only through evaluation that value exists: and without evaluation the nut of existence would be hollow. Hear it, you creators!
Friedrich Nietzsche

The central focus of EntreComp is the creation of different forms of value, i.e. social, cultural, personal and financial. For assessment design to offer sufficient opportunity to demonstrate these competences, requires assessment of entrepreneurial learning where learners have significant agency and opportunities to be creative. Entrecomp competences require the learner to be pro-active assessors, reflecting on needs and impacts, identifying strengths and weaknesses, assessing and managing financial health and risk, and reflecting on experiences to learn from them.

Analysis of EntreComp identifies 119 learning outcomes which relate to assessment and evaluation. These competences together create a construct for learner assessment literacy.

NUMBER OF LEARNING OUTCOMES IN THIS THREAD WHICH RELATE TO ASSESSMENT

Competence	Sub-competence	Relating to assessment
Spotting opportunities	Identify, create and seize opps	1
	Uncover needs	3
	Analyse the context	3
Creativity	Be innovative	3
Ethical and sustainable thinking	Think sustainably	7
	Assess impact	8
	Be accountable	5
Self awareness and self-efficacy	Follow your aspirations	6
	Identify your strengths and weaknesses	6
	Believe in your ability	6

	Shape your future	6
Motivation and perseverance	Be determined	2
	Be resilient	1
Financial and economic know-how	Understand economic and financial concepts	3
	Budget	4
	Find funding	2
Mobilising others	Persuade	2
Planning and management	Define goals	1
	Define priorities	2
	Monitor your progress	8
	Be flexible and adapt to changes	2
Coping with uncertainty, ambiguity & risk	Calculate risk	8
	Manage risk	6
Learn through experience	Reflect	8
	Learn to learn	8
	Learn from experience	8

Table 3

Using learning outcomes in integrated and holistic ways

Whilst the Entrecomp framework is very useful as a library of learning outcomes, it is possible to become overwhelmed when attempting to identify all or many of the competences practised in a task. Also, the number of learning outcomes in focus must be manageable for learners and educators. For this reason, it is possible to integrate learning outcomes to more closely reflect task completion. Please see the rubric below for an excellent example of how competences can be integrated to be more usable to learners. The example can be used as a model for designing an evaluation rubric building on selected learning outcomes from the EntreComp framework.

Using the progression levels described in EntreComp, from Level 1 to level 8, educators can try to differentiate objectives or assessment criteria or reflect incremental challenges using a series of progression level descriptors. This differentiation might be helpful, because it allow learners and educators to describe a progression toward more proficient competence within a learning process, and also might explain a certain competence level to a given moment better than just by following the overall and maybe too abstract competence definition.

Formulate your learning or educational goals (if possible together with learners). Check the Level descriptions in the EntreComp framework (page 23-35) and apply them to the specific goals/challenges.

Competence or thread ↓	Foundation 1-2	Intermediate 3-4	Advanced 5-6	Expert 7-8
Identify, create and seize opportunities.	**1** I can find opportunities to help others. **2** I can recognise opportunities to create value in my community and surroundings.	**3** I can explain what makes an opportunity to create value. **4** I can proactively look for opportunities to create value, including out of necessity.	**5** I can describe different analytical approaches to identify entrepreneurial opportunities. **6** I can use my knowledge and understanding of the context to make opportunities to create value.	**7** I can judge opportunities for creating value and decide whether to follow these up at different levels of the system I am working in (for example, micro, meso or macro). **8** I can spot and quickly take advantage of an opportunity.

Table 4: An area of the EntreComp competence "Spotting opportunities" differentiated by competency levels (or progression levels). The descriptions facilitate the assessment and description of one's own concrete competence levels.

CHECKLIST: ASSESSMENT CRITERIA

The Playbook suggests the following questions to evaluate entrepreneurial learning design: Does your teaching (assessment) method...

☐ ...allow learners to interact with people outside class?
☐ ...encourage learners to dare and fail?
☐ ...allow learners to develop ownership over their process?
☐ ...encourage learners to work in teams over time?
☐ ...require learners to create value for people outside group?
☐ ...assess learners by giving activity and reflection-based feedback?
☐ ...require learners to work iteratively?
☐ ...connect to subject matter knowledge/skills?

To support constructive alignment of assessment with desirable entrepreneurial learning, the above questions could be used to replace "does your teaching method...?" with "does your assessment method...?". This is a useful and simple frame to quickly review assessment activities.

Follow links below to collections of relevant and effective practice in entrepreneurial assessment.: Methods related to assessment by EntreAssess and in the ETC Toolkit

Assessment Literacy – Entreassess

The purpose of the Entreassess project was to provide a progression model for educator/ practitioner assessment in entrepreneurship education, built on existing knowledge and experience and suggesting potential applications. This project presents an overview of innovative and adaptable assessment tools, including digital tools, for different school levels aimed at enhancing innovation and resourcefulness of all students from the lowest to the highest end of the academic spectrum. It builds on the collaboration of leading specialists in entrepreneurship education, their experiences and research, learning from each other and harvesting the latest relevant European reports in the area.

	INITIATING	DEVELOPING	PERFORMING
What	EE skills Identified but none explicitly/consistently assessed	Identified but only a small subset (1 or 2) are explicitly/ consistently assessed (e.g. Teamwork)	Identified, broader subset is explicitly/consistently assessed
When	Essentially summative, no opportunities for relearn or reassessment	Formative (few control points and opportunities to review and relearn)	Baseline, formative and summative assessment fully integrated (several control points)
Where	Tied to specific assignments, projects.	Embedded only in some curricular areas (patchy)	Embedded across the curriculum and in all major assignments/ projects
How	Largely and solely based on teacher observation (no tools)	A limited suite of methods is used (eg. rubrics, checklists)	A combination of methods is used according to task, context and student needs. (eg. Teacher observation, learning logs, portfolios, rubrics)
Who	Teacher-assessment	Combines teacher- and self-assessment	Incorporates views of multiple actors (Teacher, self, peer, external stakeholder-assessment)
Why	Aim of assessment activity is to 'tick the box' and comply with externally imposed demands.	Aim of assessment activity is to improve student learning	Aim is to capture and analyse data and evidence to fine-tune Teaching and Assessment practices

Table 5: The Entreassess Progression Model of Entrepreneurial Assessment (Entreassess, 2016)

This progression model can help entrepreneurial educators to develop and improve their assessment literacy by identifying where they are and what they can do next to become more effective assessors.

How are we assessing?

WHEN ARE WE ASSESSING?

Assessment occurs at all stages of a learning process. Indeed, some assessment may take place before the learning has started, for example, to establish a baseline or identify different student starting points and learning needs.

ASSESSMENT CYCLE

1.   Create (or modify) programme mission (tied to institutional mission)

2.   Identify or re-evaluate Student Learning Outcomes (SLOs) to measure knowledge, skills and dispositions

3.   Select teaching methods to help students achieve desired outcomes

4.   Design assessments and rubrics with Key Performance indicators

5.   Measure and collect data

6.   Evaluate, analyse, interpret data and evidence

7.   Make modifications for action for improvement

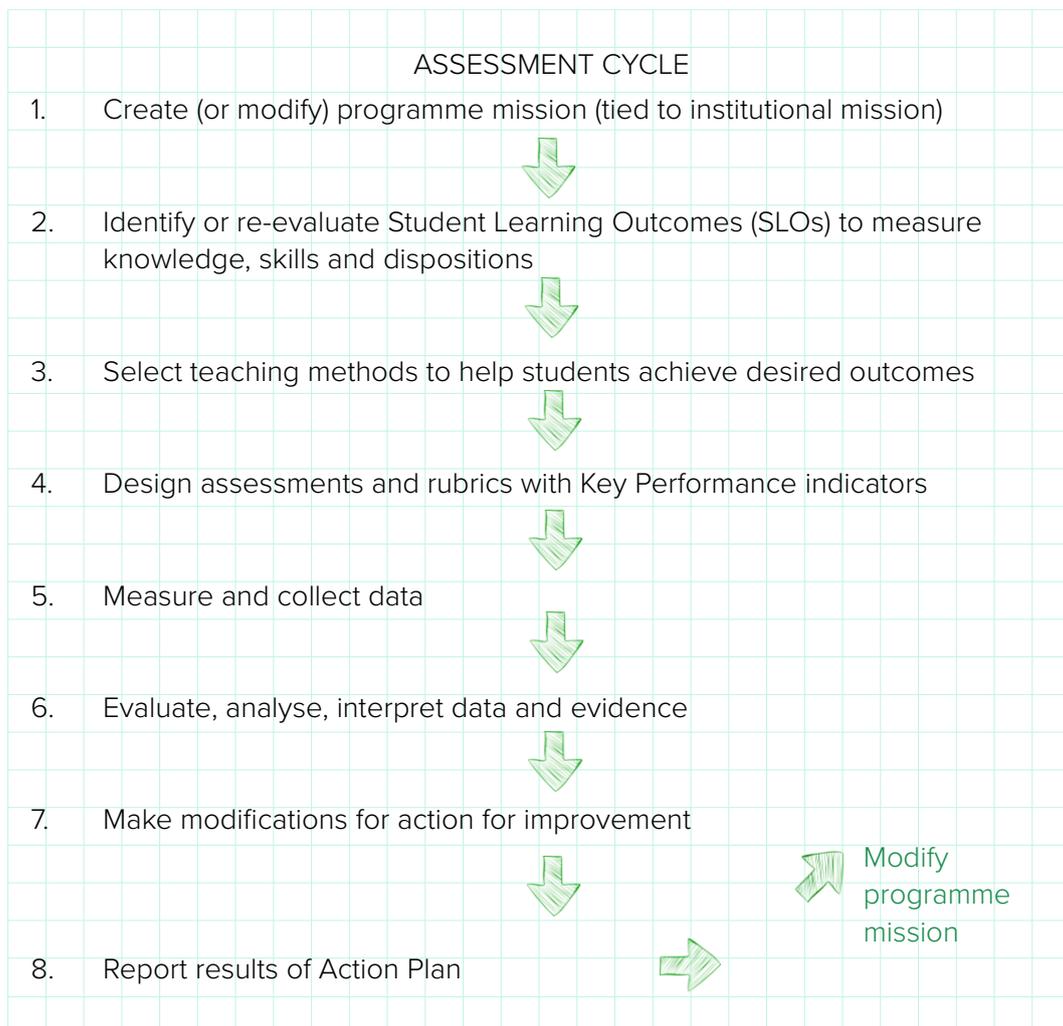Modify programme mission

8.   Report results of Action Plan

Figure 2: Assessment Cycle (Adler Graduate School n.d.)

This assessment cycle diagram presents different stages and purposes of assessment within one learning organisation. Usually an assessment cycle will include some, or all, of the following stages in the assessment process:

Screening/skills checks tend to focus on a smaller number of high level criteria to assess suitability for a programme/opportunity or job, or to identify specific support needs.

Initial assessments identify reasonably accurate starting points for learning, usually mapped to shared standards and used as a baseline from which to measure progress and development.

Diagnostic assessments provide a detailed snapshot or learner profile to identify appropriate next steps in learning.

Formative assessments identify how a learner is progressing against objectives and what further learning is required. Formative assessments are also used to evaluate the impact of chosen learning approaches.

Summative assessment is a snapshot of performance usually undertaken at the end of a programme for reporting or accreditation purposes.

Educator assessment practice tends to fall into one of the types described above at different points in the assessment cycle.

WHO IS ASSESSING?

There is a significant body of research that shows that one hour students spend devising questions about what they have been learning with correct solutions is more effective than one hour spent completing practice tests. (Dylan Wiliam, Embedding Formative Assessment: Practical Techniques for K-12 Classrooms).

The assessor does not always have to be the teacher. There are many reasons why it is a good idea to invite different perspectives in the assessment process. Students themselves need to understand their progress and what achievement looks like through continuous self and peer assessment. Developing confidence in self and peer assessment is an essential element of being able to use learning fluently and confidently in real-life situations beyond formal learning.

RECOGNITION AND CERTIFICATION

Learners – self and peer

Entrepreneurial learners draw from wide ranging evidence, data and reflection to evaluate their own and others' learning performance.

Teachers

Teacher assessment can be of learning to report outcomes and impact.

Teacher assessment can be for learning to identify further learning gains, effective learning approaches and further learning needs and goals.

Teacher assessment can be designed and led by students as learning, inviting learners to become the experts in the subject matter.

External actors

Employers and other external stakeholders are often quoted as expressing dissatisfaction with academic assessment methods and outputs. Inviting active contribution from employers and others highlights the relevance and purpose of assessment to learners and builds clear links to the world of work. For example, if students create value for a specific group, it is this group who will be best placed to evaluate the success of the value created.

Being able to improve learners' work-readiness, having the chance to impart ' sector requirements into content and assessment, and recruitment of better trained staff can all be real motivators for employers. Whilst employers are rarely trained educational assessors, they will frequently undertake complex evaluations of staff, customers and products as regular practice.

Examples of employer involvement include assessment of:
 - Comment on written and practical coursework,
 - Assessment of the work placement,
 - Expert witness and testimony
 - Feedback on performance tasks and evidence

Table 6

Examples of how EntreComp can support assessment & recognition

People learn through a circular process of action, reflection and conceptualisation (experiential learning). The reflective elements of the EntreComp framework focus on the connection of real societal practice (including the necessary management and cooperation aspects) with an experiential pedagogic concept. Also the aspects of "self" competency are tackled in this section of the framework, a positive attitude toward new experience, toward learning and initiative.

EntreComp Competences

Taking the initiative	Take responsibility. Work independently. Take action.
Learning through experience	Reflect Learn to learn Learn from experience
Coping with uncertainty, ambiguity and risk	Cope with uncertainty and ambiguity. Calculate risk. Manage risk
Planning and management	Define goals. Plan and organise Develop sustainable business plans Define priorities Monitor your progress Be flexible and adapt to changes
Working with others	Accept diversity (people's differences) Develop emotional intelligence Listen actively Team up Work together Expand your network

Table 7

Being active means learning by doing and exploring your strengths and challenges under real conditions. We must enable learners to have new and rich experiences. At the same time, it is the task of trainers to help them engage with new and unfamiliar situations and to increase their ambiguity tolerance, openness to new things. Sometimes we are intrinsically motivated and learn incidentally and with

pleasure, sometimes we learn through unpleasant things. Entrepreneurship education can help, in both cases, not to get off course.

Very important here becomes the ability to reflect, independently or together with other peers. It is the condition for drawing conclusions, facing new challenges and flexibly align the original plans to changes.

USING ENTRECOMP

Below are examples of how the EntreComp framework is being used for assessment in different contexts.

EntreAssess

ℹ https://entreassess.com/

Tools – Examples – Methods. EntreAssess is an outcome of the PEAT-EU Erasmus plus project. The examples are presented as one-pagers and present different Tools, Methods and Practices used in entrepreneurial education. The assessment methods and tools are meant both for use in teaching and learning, and assessment.

It presents a number of assessment methods and tools that are useful in entrepreneurship education. A reflective process is presented. Tools for: assessment of learning, assessment for learning and assessment as learning.

EntreAssess Teacher Reflection Tool

ℹ https://s.surveyanyplace.com/entreassess

A self assessment tool to evaluate assessment literacy in relation to the assessment of entrecomp. Derived from participant responses, a personalised report is generated creating a current profile with recommended next steps to develop and improve assessment practice.

It is a useful prompt for educators in any settings to review their assessment practice and identify ways in which they can improve their assessment literacy by using suggested examples and methods. The practices presented aim to further develop entrepreneurial competences through active learner participation in and contribution to the assessment process.

EntreComp Certificate

ℹ https://entrecompcertificate.eu/

A set of guidance resources for each of the EntreComp competencies - suitable for young people aged 14-20. Resources on an online platform that also provide the assessment tools necessary to complete the Award. It requires young people to upload all their evidence of completion of each competency and reflections on each competency. Case studies of successful students, and suggested routes

through the award, as well as country specific ideas as to how students can achieve each competency are included on the platform.

By completing reflections on each of the 15 competencies, young people will be equipped with the knowledge and examples of the entrepreneurial skills they have, in order to help them bridge the gap between school and the workplace.

Entrepreneurial Impact Test

ⓘ https://impact-test.eu/

A tool to measure impact of entrepreneurship programs in youth skills acquisition. Youth self assessment feedback to evaluate the impact of entrepreneurship programs in young entrepreneurs' skills acquisition based on EntreComp. It is a free resource made for youth and educators.

E-Minds – Development of an Entrepreneurial Mindset in Higher Education

ⓘ https://e-minds.eu/

E-minds aims to develop the entrepreneurial mindset of HE and VET students using Entrecomp. The specific objectives of E- minds are:

1. Validate EntreComp and use it as the framework.

2. Develop two assessment tools in two different EQF levels to assess the Entrepreneurship Competence of Higher Education and VET students.

3. Identify and use innovative student centered learning approaches to be used for the education of HE Students and VET. Such approaches are the Action Learning Sets and the EntreChallenges which are challenges to be resolved in an experiential way.

4. Develop materials to be used in non traditional learning environments, using student centered approaches (Action Learning and EntreChallenges, both in 2 EQF Levels).

5. Develop an installation and replication manual to describe the systematic approach for the development of the entrepreneurship competence in order to assist other Higher Education Institutions and VET providers to replicate the system.

SKILLOON Assessment

ⓘ https://skilloon.com

A research-based self-learning platform following the EntreComp model from Not a bad idea (Finland) and the Finnish education ministry. SKILLOON consist of four different concrete modules, practice learning, self-assessment, individual and group tasks and a digital portfolio

The content in these modules is grounded in research of entrepreneurial learning, divided into six competence parts: Trust, get to know yourself, cooperation, learn to set goals, practice success, and path to future studies and working life.

By completing courses students receive open badge certificates, which may be used in work applications and profiling themselves on social media. Furthermore, advanced SKILLOON teachers and schools may be recognized by open badge certificates. Recognition is based on entrepreneurial competencies stressing self-esteem and self-efficacy.

9 Conversations

ℹ️ https://9conversations.no/

A set of self-study learning materials on entrepreneurship for migrants. An appropriate way to document progress using the EU Skills profile for third country nationals. The assessment can be used as a tool leading to the award of badges to recognise the self-assessment process. It provides a self assessment EU skills profile for third country nationals nrencing the entrecomp framework, using a system of badges as microcredentials for documenting learning progress. The badges build on the work done with the EntreComp framework and are linked to the EU Skills profile. Useful for migrants, in the context of Adult Education.

TOOLS FOR PROFESSIONAL DEVELOPMENT

AppRaiser

ℹ️ https://appraiser.badgecraft.eu/

Self-assessment tool based on the European Training Strategy's competence model for trainers.

GRETA

ℹ️ https://www.greta-die.de/

A competence model, a complete process for recognition and also a digital portfolio tool for professionals in adult education. GRETA is created by the German Institute for Adult Education – Leibniz Centre for Lifelong Learning.

Facilitation Step-by-step

ℹ️ https://competendo.net/en/Facilitation_step-by-step

Learning companion for facilitators . A self-learning portfolio tool for professional development in non-formal education.

SELFIEforTEACHERS tool

ℹ️ https://educators-go-digital.jrc.ec.europa.eu/

An online tool to help primary and secondary teachers reflect on how they are using digital technologies in their professional practice. It is following the concept of the well-known DigComp framework for digital competences and the more specific application of DigComp for teachers and educators DigCompEdu. Teachers can use the tool to learn more about the digital skills they have and identify areas where they can develop further.

RFCDC Teacher Reflection Tool

ℹ️ Council of Europe

A self-reflection tool for teachers by the Council of Europe. Self-reflection – A journey towards a democratic teacher ethos and a democratic culture in schools. The handbook is complementing the Reference Framework of Competences for Democratic Culture and invites to individual reflection.

OTHER TOOLS & APPROACHES

Youthpass

ℹ️ https://youthpass.eu/

Youthpass is a tool to document and recognise learning outcomes from youth work and solidarity activities. It is available for projects funded by Erasmus+: Youth in Action and European Solidarity Corps Programmes. It is a part of the European Commission's strategy to foster the recognition of non-formal learning, putting policy into practice and practice into policy.

Youthpass self reflection process and accompanying methods for personal and group work have been tested with millions of European youth. Youthpass is an ongoing strategy for recognition of competences gained through non-formal and youth work. Youthpass is designed to work with the 8 key competences, one of which is EntreComp. All tools, methods and publications provided on their website can be adapted to work solely on entrepreneurship.

Peerwise

ℹ️ https://peerwise.cs.auckland.ac.nz/

Students use PeerWise to create and to explain their understanding of course related assessment questions, and to answer and discuss questions created by their peers. A method or tool to increase assessment literacy of students and teachers and raise quality of assessment task setting. Suitable for higher education (but no reason why it could not be used in other levels or phases)

TBC

ⓘ Under construction – ready in April 2022

A self-assessment tool for VET students to self-assess their entrepreneurial competences (targets those engaged in start-up courses). The tool created by the Walloon Regional Government in Belgium helps VET students to recognise the EntreComp competences they have that can support them in a start-up

No More Marking

ⓘ https://www.nomoremarking.com/

A process where assessors compare two responses and decide which is better. Following repeated comparisons, the resulting data is statistically modelled and responses placed on a scale of relative quality. For English, for example, this might mean ranking all the pieces of writing in order of quality. This method often leads to detailed and thoughtful professional conversations and gets away from the tick box, checklist method of grading. A tool that supports effective evaluation and development of quality criteria. An innovative assessment method that adds value to assessment of EntreComp. Suitable for all phases.

KIPP Character Scorecard

ⓘ https://www.kipp.org/approach/character/

Tool or method to increases agency and assessment literacy of students and teachers addressing curiosity, gratitude, self control, social intelligence, optimism, grit, zest.

KIPP is a network of 240+ public charter schools in the USA. From the outset they focused on academics and tough behaviour codes but realised that when students went to college they were dropping out because they did not have the independence or resilience to persevere. So KIPP has developed a bigger focus on character development through a character framework.

Assessing Competences for Democratic Culture

ⓘ Council of Europe

Principles, methods, examples. A handbook of the Council of Europes's Youth Council of Europe's Assessment Working Group in the Education Policy Advisors Network (EPAN). The handbook is created in reference to the Reference Framework of Competences for Democratic Culture and provides an overview over very different methods and settings for assessment.

Everybody has skills – measuring personalities

ⓘ Council of Europe

Self assessment for youth, reflection during a training course. An exercise to be used twice as part of a longer training course, once at the beginning, once at the end. The aim of the exercise is to make people aware of their own skills, and also of what they are not able to do (yet). The method belongs to the EC-CoE Youth Partnership toolkit on social inclusion. The method isn't directly targeted at EntreComp, but can be adapted easily to focus on the desired competences. Published in the T-Kit 8: Social Inclusion

Skills Builder Partnership

ⓘ https://www.skillsbuilder.org/

This organisation has worked with more than 700 organisations to develop this assessment using a concept of 8 essential skills which reflect entrepreneurial competence and can be transferred to the EE context. The skills are listening, speaking, problem solving, creativity, staying positive, aiming high, leadership and teamwork. For educators, the Framework can be used to support children and young people to:

• Understand their existing skills: Reflecting on where their essential skills currently are, and being able to identify any gaps they might have

• See what progress looks like: Being able to see what the next steps are to improve their essential skills further.

• Join the dots: Using a consistent language and understanding of essential skills to understand how they are used and practiced in different settings

• Capturing success: Seeing progress, being able to better articulate their skills

Valorise Toi (Empower yourself)

ⓘ https://valorise-toi.sgdf.fr/

'Valorise-toi!' is a practical and easy-to-use self-assessment tool enabling young scout leaders to translate the competences gained in the scout movement to the 'employer's language'. The tool aims at building the self-confidence of its users, as well as contributing to their better employability. Valorise Toi is an approach to helping scouts and guides self-recognise the value of the skills/competences they have developed through scout movement or other volunteer work. Helps scouts and guides to connect their practical experience with competences/skills that employers are looking for.

Victoria Critical and Creative Thinking (CCT) assessments

🛈 https://www.vcaa.vic.edu.au/

Validated on-line tests developed initially by the Australian Council for Educational Research and now by the National Foundation for Educational Research. Victoria, Australia, was the first state to test 15 year olds annually for their progress in critical and creative thinking.

There are detailed scope and sequence documents for showing what the development of capabilities looks like in four key areas. Suitable for secondary and VET educators.

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