

Integrating Employability in Higher Education



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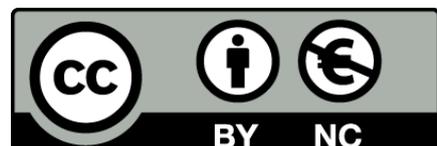


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1. Introduction

1.1. The focus of this handbook

Since the economic crisis in 2008, youth, and especially graduate unemployment has become an increasingly important issue facing society and particularly universities. Success in academic studies, for many young people does not lead automatically to success in finding employment, and the increasing presence of graduates in low-paid service sector jobs is an indicator of a widening gap between the skillsets and knowledge provided by universities and the new skillsets the job market is demanding. Higher education systems are proving slow to respond to these emerging demands.

In particular, there is a focus on employability skills. As the OECD (2016) points out, employers are increasingly looking not only for academic success but also for key employability skills that will enable graduates to adapt to the world of work, and then evolve within it. This poses a challenge to Higher Education institutions; there is a need to embed employability into the core of Higher Education as a key institutional objective.

This is now a central priority for governments, universities and colleges, and employers, as well as the students themselves. A greater emphasis on employability will bring significant public and private benefits and, at a time when the role of universities is being questioned in some quarters, strengthen the university's broader contribution to economic growth and the vital part it plays in social and cultural development. The focus of this handbook is to provide a comprehensive and practical framework for the integration of employability skills development in Higher Education institutions, using an innovative ePortfolio system as a central instrument to articulate this process. After an introduction to the key notions involved in employability, the handbook provides practical ideas for the development, assessment, showcasing and sustaining employability skills.

The different sections of the handbook focus on the following aspects:

- Developing employability skills at the institutional level, focusing on strategic aspects and especially how to embed employability into the curriculum.
- Developing employability skills at the teaching and learning level, including learning activities to develop a range of social, cognitive and methodological employability skills.
- Developing employability skills in other contexts, through extracurricular activities, and external contexts beyond the institution.
- Assessing employability skills, focusing on the different roles that institutions, teachers, employers and the learners themselves play.
- Showcasing employability skills, which focuses especially on the selection and presentation of evidence.
- And lastly, sustaining employability skills which looks at ways in which the individual can sustain and further develop their employability skills throughout their professional career, and the roles that institutions can play in this process.

At a time when employment can no longer be something graduates expect to find automatically, the notion of employability takes on increasing importance and the university necessarily needs to become more explicitly oriented towards the professional life for which they are preparing their students. The purpose of this handbook is to support that shift, and help universities and employers develop deeper connections for the benefit of their students and the wider society, between education and work.

But first we need to look at the terms we use.

1.2. The notion of skills

When we think about employability skills, it is important to explore some terms first, such as the notion of a skill. This handbook is predicated on a set of assumptions about learning and action in the world, in which knowledge is not the only ingredient involved: in particular learners also need to acquire a set of skills that enable them to act in different situations in social and professional life and apply their knowledge, and this necessarily implies the integration of skills into the curriculum. Addressing this frequently requires a shift towards a “competency-based curriculum” in which the development of skills is an integral part of the curriculum and this notion underlies our approach to employability.

It is important to mention that the terms skill and competence are not synonymous (Cinque, 2016) but the relation between them varies depending on the framework we look at. For example, the European Qualifications Framework (EQF) provides a grid of eight reference levels based on learning outcomes which are defined in terms of knowledge, skills and competence, as shown in Figure 1:



Figure 1 - Knowledge, skills and competence

In this definition, a competence can be seen as a capacity to combine and make use of skills and knowledge and other aspects. Similarly, the Tuning project (2001), which developed a model for designing, planning and implementing the Bologna Process in higher education (HE) institutions and subject areas, defines competence as “a dynamic combination of knowledge, understanding, skills, and abilities”, and classifies it into three different types:



Instrumental

Cognitive, methodological, technological, and linguistic abilities

Interpersonal Competences

Individual abilities like social skills (social interaction and cooperation)

Systematic Competences

Abilities and skills concerning whole systems (combination of understanding, sensibility and knowledge - prior acquisition of instrumental and interpersonal competences required)

Figure 2 - Competence definition (Tuning project, 2001)

Employability can be understood as a competence, which is made up of a combination of different kinds of skills and other elements such as attitudes and abilities. In this handbook we focus on to support the individual's acquisition of the skills that can make them employable.

[But what is employability?](#)

1.3. The notion of employability

1.3.1. Defining employability

There is often confusion about what the term “employability” means. For example, it has sometimes been seen as another subject to add into the curriculum, or something that takes curricular time away from an academic focus. In this section we will focus on the understanding of the term that we use in this handbook. Before doing that however it is important to understand that it is a contested term. There are many definitions of and approaches to employability. Though all are related they have different emphases. Some of them refer to an ability to gain employment, some others to the acquisition of skills for life, and others to a set of skills, abilities and attributes that make an individual more employable. The following table presents ten different definitions of the term employability by different authors and experts in the field.

European Commission, 2014:63

Employability is the ability [of graduates] to gain initial meaningful employment, or to become self-employed, to maintain employment, and to be able to move around within the labour market.

Waltz, 2011:4

Becoming and staying employed requires turning themselves [students] into 'products' that conform to ever-changing market desires, which is certainly not a concept that should be left unchallenged.

Hillage & Pollard, 1998:2

Employability should also be considered in terms of knowledge and attitudes. In simple terms, employability is about being capable of getting and keeping fulfilling work. More comprehensively, employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment.

Knight and Yorke, 2003:5

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.

Yorke, 2006:8

A combination of personal qualities and beliefs, knowledge, skillful practices and the ability to reflect critically and productively on experience, and the need to be frequently renewed during a person's working life.

Hillage and Pollard, 1998

Abilities and skills concerning whole systems (combination of understanding, sensibility and knowledge - prior acquisition of instrumental and interpersonal competences required)

Brown et al., 2002:98

Employability is the relative chances of finding and maintaining different kinds of employment

Dearing, 1997

The acquisition of skills for life

Brown et al., 2002:98

Employability as a set of graduate attributes; the qualities, skills and understandings a university community agrees its students would desirably develop during their time at the institution and, consequently, shape the contribution they are able to make to their profession and as citizens.

Bridgstock, 2009:1

Employability involves more than possession of the generic skills listed by graduate employers. In a rapidly changing and competitive economy, graduates must also be able to proactively navigate the world of work and self-manage the career-building process.

Figure 3 - Ten definitions of employability

Employability

What it is

It is a lifelong process.

It applies to all students whatever their situation, course or mode of study.

It is complex and involves a number of areas that interlink, across disciplines and domains.

It is about making the components of employability explicit to students to support their lifelong learning.

It is a university-wide responsibility.

It is about supporting students to develop a range of knowledge, skills, behaviours, attributes and attitudes which will enable them to be successful not just in employment, but in life.

What it's not

It is not just about preparing students for employment.

It is not the sole responsibility of the Careers Department.

It is not necessarily about adding additional modules into the curriculum.

It is not about replacing academic rigour and standards.

It is not something that can be quantified by any single measure.

It should not just be concerned with preparing graduates to be successful in the labour market but also about preparing them to contribute to society as a citizen.

Table 1 - What is employability, and what is it not? (Adapted from Cole and Tibby, 2013)

Obviously with such a range of definitions it is difficult to choose just one, but from our analysis a set of key ideas emerged. Employability, as its name suggests, is about finding employment, but over and beyond that it implies successful employment or self-employment. In addition to this it is complex, made up of a combination of different interacting elements, and it should be sustainable, developing throughout an individual's career. Bearing in mind these considerations we found that the definition of employability from the Skill-up project is closest to our view. We have therefore adopted this definition for the purposes of this handbook:

Employability is the ability to gain employment in order to be successful in a chosen occupation or to become self-employed, linked to the acquisition of lifelong skills, attributes, and qualities.

It seems likely that the value of this ability is self-explanatory and that the vast majority of university undergraduates would describe gaining employment as one of the central reasons why they are at university. But it is perhaps useful to examine what different groups of stakeholders say about the benefits of developing student employability. The QAA report (2018) outlines the views of the three key stakeholder groups in this context.

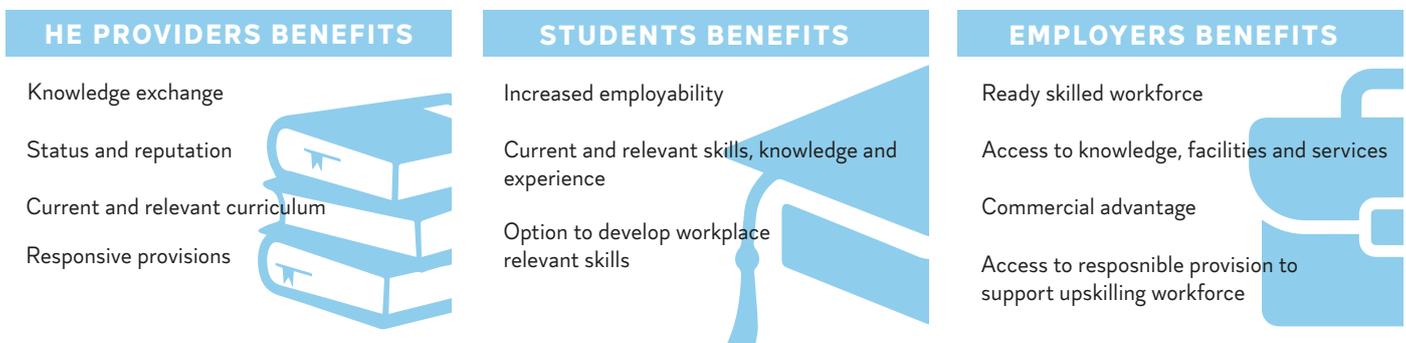
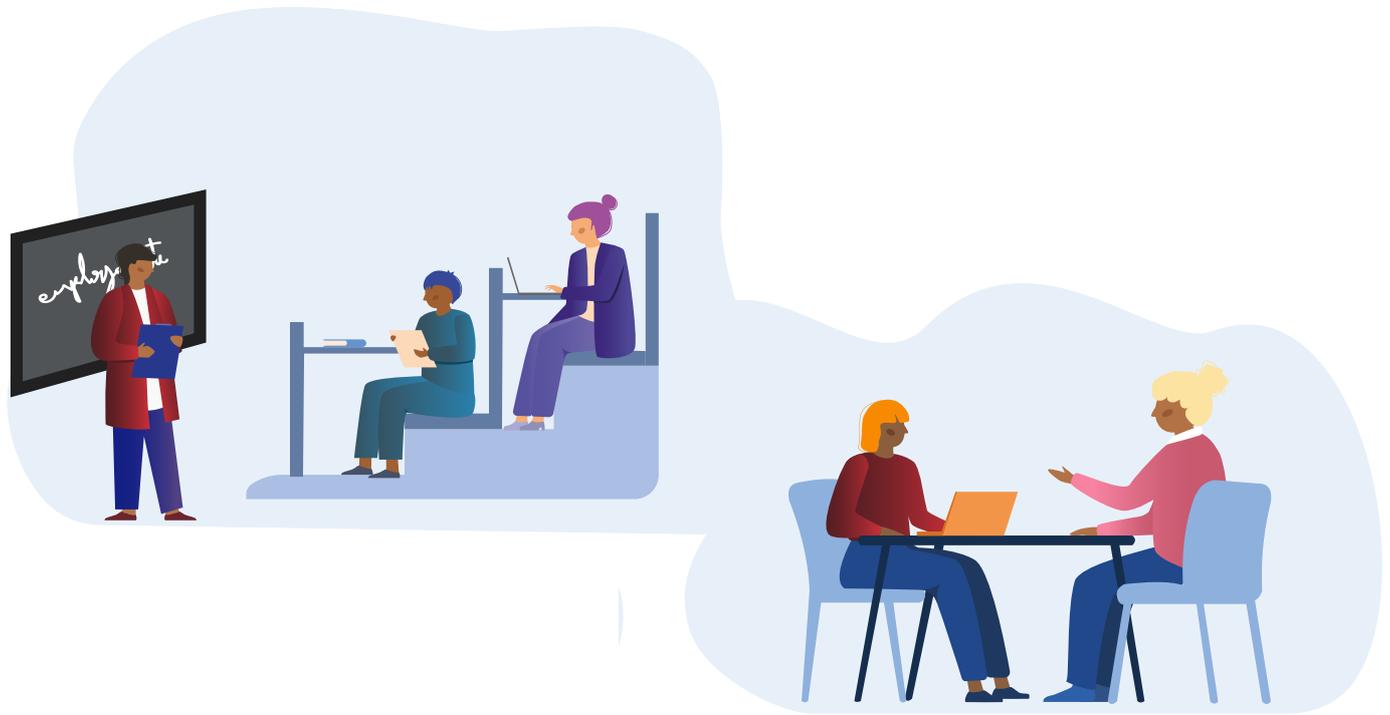


Figure 4 - Benefits of teaching employability (adapted from QAA, 2018)

But what are the different elements that make up employability?

1.3.2. Employability skills

It is clear that employability has value for all these groups, but the next question is what are the components of employability. In particular, it is useful to focus on the views of employers, as they are the decision-makers in this context. They identify the employable. The following table identifies the key skills that that employers value most in different parts of the world:

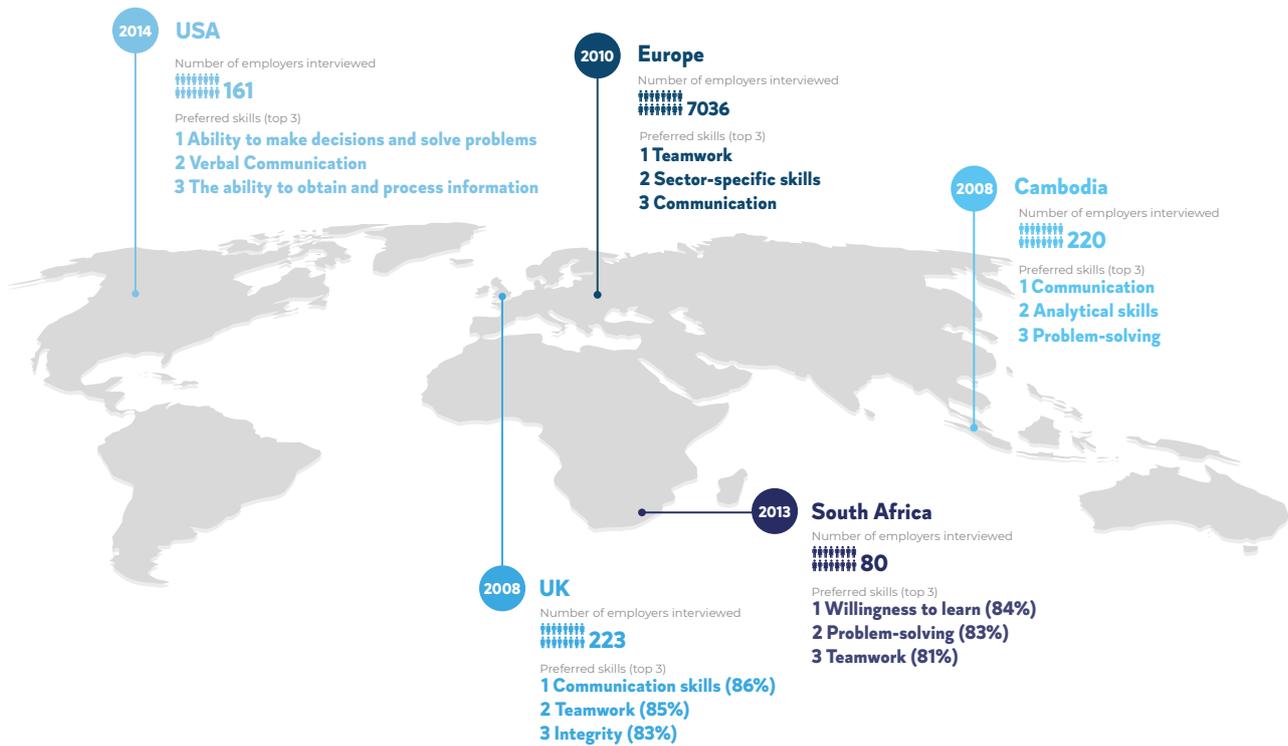
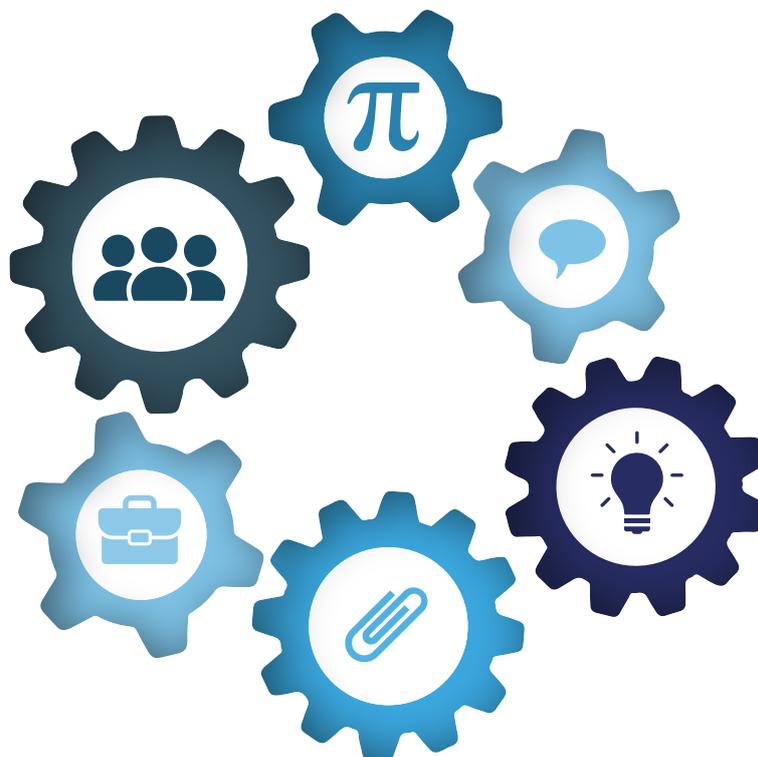


Figure 5 - Preferred employability skills (adapted from Blackmore, Bulaitis and Jackman, 2016)

Another study (Cinque, 2016) noted that the most valued skills by employers include those often known as soft skills



Basic/fundamental skills

such literacy, numeracy, and using technology

People related skills

such as communication, interpersonal skills, teamwork and customer-service skills

Conceptual/thinking skills

such as collecting and organising information, problem-solving, planning and organising, learning-to-learn skills, thinking innovatively and creatively, and systems thinking

Personal skills and attributes

such as being responsible, resourceful, flexible, able to manage one's own time, and having self-esteem

Business related skills

such as innovation and entrepreneurship

Skills related to the community

such as civic or citizenship knowledge and skills

Figure 6 – Skills most valued by employers

A key question however is how to organise these skills.
How should we approach this?

1.3.3. Employability frameworks

The literature presents a myriad of employability skills frameworks. These share a core set of skills, albeit sometimes differing in the way in which they have been formulated, organised, or prioritised. Other skills, however, belong to specific taxonomies, and are not shared across the board.

Table 2 illustrates this diversity.

Dearing (1997)	Hillage and Pollard (1998)	Knight and Yorke (2004) – USEM Model	Perkins (2018) – Collaborative Resource Network
Communication skills	Employability assets (Knowledge skills and attitudes)	Understanding (Of disciplinary subject matter and how organisations work)	Applied knowledge (Applied academic skills. Critical thinking skills)
Numeracy			
Information technology	Deployment (Career management skills including job search)	Skilful practices (In academia, employment and life)	Effective relationships (Interpersonal skills. Personal qualities)
Learning to learn			
Development planning	Presentation (Career-oriented skills such as CV writing and interview techniques)	Efficacy beliefs (Reflects the learner’s notion of self, their self-belief, and the possibility for self-improvement and development)	Workplace skills (Resource management, use of information, communication skills, systems thinking, technology use)
Problem solving			
Teamwork	Personal circumstances (family responsibilities and external factors affect optimal use of employability assets e.g. opportunities in the current labour market)	Metacognition (Complements efficacy, embraces self-awareness, how to learn, reflection, learning, thinking and problem-solving strategies, supports and promotes continued lifelong learning)	

Table 2 – Employability skills frameworks

A recent study on employability skills (Ornellas, Falkner, and Edman Stålbrandt, 2019) describes a conceptual framework based on authentic learning approaches as a catalyst for developing employability skills of new HE graduates. One such approach is the SKILL UP employability skills taxonomy adopted in this handbook, which consists of 15 skills organised according to three perspectives: a) cognitive, b) methodological, and c) social which is shown in Table 3.

COGNITIVE	METHODOLOGICAL	SOCIAL
Analytical thinking	Learning to learn	Communication and interpersonal skills
Creative thinking	Problem solving	Teamwork
Foreign Language	Decision-making	Cross-cultural and diversity competence
	Digital skills	Ability to cope with change
	Results-oriented performance	Conflict management
	Self management	Stress management

Table 3- Skill up taxonomy

The skills referred to later in the handbook are based on the taxonomy shown here. It is important to note that an effective approach to employability education has a significant impact on learning to learn and, therefore, on the capacity of the individual to proactively engage and creatively solve new challenges, both within education and beyond. It prepares students for a rewarding professional life and acts as a significant vehicle to deliver on the institutional aims of graduate employability, employment, and future success.

A focus on employability in Higher Education involves a vast array of interventions and activities, both in the curriculum and beyond, and includes external-facing activities such as placements, CV workshops, career fairs, and support with job applications. It is important to note however that an effective approach requires integration of these activities into the core work of the university. It calls for a broader and more coordinated range of activities that prepares the individual to deal with complex situations and create new opportunities for themselves.

However, employability is focused on employment in which the individual is contracted by an employer.

How does employability work in the context of self-employment, or entrepreneurship?

1.4. The notion of entrepreneurship

1.4.1. Defining entrepreneurship

In the previous section we defined employability as the ability to gain employment or to be successful in a chosen occupation. However, employability cannot be explained without its connection to self-employment and entrepreneurship. Table 4 presents three key definitions that provide clarity regarding the possible distinctions between them.

**Project EntreComp
(Bacigalupo, M., Kampylis, P., Punie, Y.,
and Van den Brande, G. (2016:6))**

Entrepreneurship is a transversal competence which can be applied across all aspects of life: from nurturing personal development, to actively participating in society, to (re)-entering the job market as an employee or self-employed, or to starting up ventures of any kind

**QAA Enterprise and
Entrepreneurship review, 2018**

Entrepreneurship is defined as the application of enterprise behaviours, attributes and competencies into the creation of cultural, social or economic value. This can, but does not exclusively, lead to venture creation

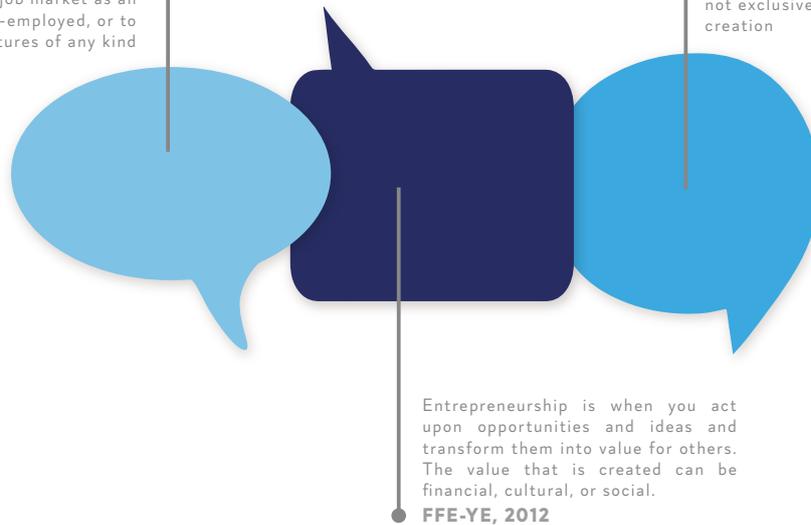


Figure 7 - Entrepreneurship: three definitions

These definitions vary in focus, The first, interestingly focuses on entrepreneurship as a competence, much in the same way as we have discussed employability, the third definition centres more on the notion as a combination of elements for a broad range of objectives (cultural , economic , social) The second has a similar but more abstract focus. Various elements are shared:

- The idea of value creation for others, in any sector (public, private, third, or combinations of these)
- The focus on personal development in order to achieve this value creation
- The notion that entrepreneurship, though usually understood as involving self-employment is a competence that may also be applied in employment contexts.

There appears to be some overlap with the notion of employability. To explore this further we need to ask:

What are the key elements of entrepreneurship?

1.4.2. Entrepreneurship frameworks

As in the case of employability, the literature presents a variety of entrepreneurship frameworks (a review was carried out in the EU Funded EPICA project). They all identify a set of skills or competences organised into areas or clusters. Although most skills are common among frameworks, some frameworks add specific

or unique skills to their set. The EntreComp conceptual model (Bacigalupo, Kampylis, Punie, and Van den Brande, 2016) and the QAA Enterprise and Entrepreneurship Review (QAA, 2018) are the most renowned. Table 4 captures these:

EntreComp Conceptual Model

Ideas and opportunities.

Spotting opportunities

Creativity

Vision

Ethical and sustainable
thinking

Resources.

Self-awareness and self-
efficacy

Motivation and perseverance

Mobilising resources

Financial and economic
literacy

Mobilising others

Into action

Taking initiative

Planning and management

Coping with uncertainty and
ambiguity

Working with others

Learning through experience

QAA Enterprise and Entrepreneurship Review

Creativity and innovation

Opportunity recognition,
creation and evaluation.

Decision-making supported
by critical analysis,
synthesis and judgement
Implementation of ideas
through leadership and
management.

Action and reflection.

Communication and
strategy skills.

Digital and data skills.

Table 4 - EntreComp and QAA Enterprise

Looking at these frameworks we can see some similarities with the employability frameworks shown earlier. The following figure (Figure 8) highlights the differences and parallels (searching for a job and focusing on getting a job, or generating employment and focusing on creating a job), and presents common or related skills.

- Employability skills focusing on **finding a job**
- Common
- Employability skills focusing on **creating a job**

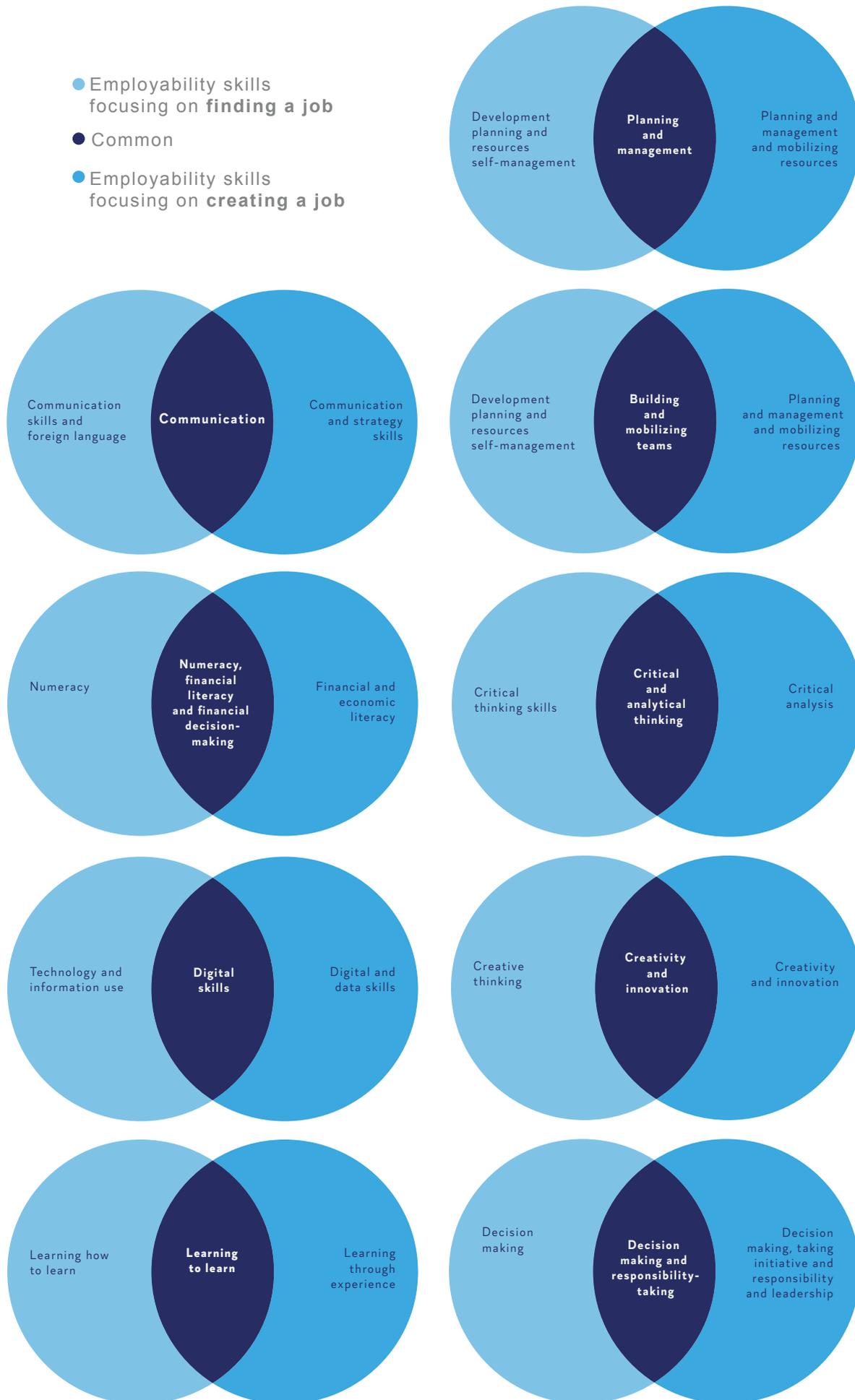


Figure 8 - Common Skills between employability and entrepreneurship frameworks

While employability and entrepreneurship frameworks share common soft skills, it can be seen that the major difference is one of focus, entrepreneurship gives a little more emphasis to personal attribute such as leadership and initiative, but there is much that is shared emphasises personal attributes ranging from self- and context awareness, creativity and vision, risk-taking, and self- operational and emotional management.

In this handbook, our focus will be on employability skills, bearing in mind that a good majority of these skills are equally applicable in and adaptable to self-employment and entrepreneurial contexts. At certain points, particularly in the context of sustaining employability skills, we will return to the question of entrepreneurship.

2. Integrating employability

2.1. The central challenge

It is clear that if there is a need to embed employability into the core activity of Higher Education institutions, then employability should be considered by every actor involved in the development and implementation of curricula at different levels of the educational system, particularly in post-secondary education. There is a need to engage higher education at large, teaching staff, career counsellors, undergraduates, graduates, and employers to create real, practical, scalable ways to enhance new graduates' employability skills.

However, there are barriers to the integration of employability. Though there are no figures relating to employability, the Survey for Entrepreneurship in Higher Education in Europe (2008) concluded that the three main barriers to entrepreneurship education are:

- That entrepreneurship education often depends on a single person or a few people; 40 percent of the institutions which took part in the survey saw this as one of three main barriers;
- That the academic staff does not have enough time to engage in entrepreneurship education. 34 percent of the institutions pointed to this as one of three barriers; and
- That the current level of educator competence is inadequate to undertake entrepreneurship education. 30 percent of the institutions saw this as one of their three main barriers.

Given the close relation between employability and entrepreneurship it is possible to suggest that these issues also affect employability. In order to be fully embedded in the activity of an institution, employability needs to be treated as a transversal dimension, this implies that it should be explicitly recognised as a priority by the institution, that large numbers of staff and all academic staff need to be engaged with this objective and suitably trained and supported with resources and time. In a sense the challenge is to make the need to focus on employability visible to all, so that it can become in the end so well-embedded that it is a normalised part of activity in Higher Education institution (and hence almost invisible!).

We will focus more on these challenges in the next chapter, but another vital aspect to consider is the way in which the employability work in an institution is supported by appropriate tools and infrastructure, which is vital for any transversal element. **There needs to be a homogeneity of treatment and this implies the need for a common tool.**

2.2. The portfolio - The key solution

Transversal skills such as employability skills if they are to be effectively supported, require a tool for tracking their development, assessing them and presenting them, as well as later sustaining them. The learning portfolio, or eportfolio, is a powerful pedagogical tool that is rapidly becoming a central feature of contemporary education.

Learning portfolios are intended to support, measure and document critically self-reflective lifelong learning, and they are perceived to be a valuable pedagogical tool for higher education institutions seeking to broaden learning experiences, such that their graduates may ultimately embody a range of 21st century skills and competences.

The use of electronic portfolios or eportfolios has increased at a rapid rate since the 90s and has been capturing the attention of many in academia. Powell and Jankovich (1998) stated that portfolios should be targeted to meet employers' needs and designed with employers' views in mind.

'The need for an integrated student experience has been recognised for some time, along with the need to address the concerns of employers and professional associations regarding the adequate preparation of graduates for the workplace. ePortfolio provides a tool which supports the integration of the student experience across courses of study and the transition to employment' (Cochrane, 2009).

This makes the eportfolio an ideal tool for the integration of employability into education not just for tracking development, but for building a record of the skills acquired and more importantly addressing the challenge of assessment. Transversal skills have always proved especially difficult to assess and in the case of employability skills it is particularly important to be able to show employers evidence of the skills the individual claims to have.

The portfolio is an integrating element that has the particularity of responding to the characteristics of the assessment of competences. Most importantly a) it gives rigour to the assessment, and b) it serves as a longitudinal and transversal record of development over time.

2.2.1. Defining the Eportfolio

A portfolio is an organised compilation of evidence that demonstrates knowledge, skills, values and/or achievements, and that includes reflections or exegesis which articulate the relevance, credibility, and meaning of the artefacts presented. In the table below we present five different definitions of portfolios in education.

Ritzpaugh & Singh, 2006:152

A collection of authentic and diverse evidence from a larger archive representing what a person or organisation has learned over time, on which the person or organisation has reflected, and designed for presentation to one or more audiences for a particular rhetorical purpose.

Young, 2002:31

A digital portfolio is an extensive resume that links to an electronic repository of a student's papers, problem sets, pictures from study abroad stints, and anything else that demonstrates the student's accomplishments and activities.

Lorenzo & Ittelson, 2005:1

The ePortfolio; which is also known as Digital Portfolio, is a "digitised collection of artefacts, including demonstrations, resources, and accomplishments that represent an individual, group, community, organisation, or institution which can be comprised of text-based, graphic, or multimedia elements archived on a website or on other electronic media such as a CD-ROM or DVD.

Brown et al., 2002:98

ePortfolios allow students to create and store documents for long term projects, motivating students to gain technology, reflection, and content-specific skills which go further in saying that the electronic portfolio be used as an assessment tool in the classroom, and a tool for employers.

Sutherland and Powell, 2007:7

An ePortfolio is a purposeful aggregation of digital items – ideas, evidence, reflections, feedback etc., which 'presents' a selected audience with evidence of a person's learning and/or ability.

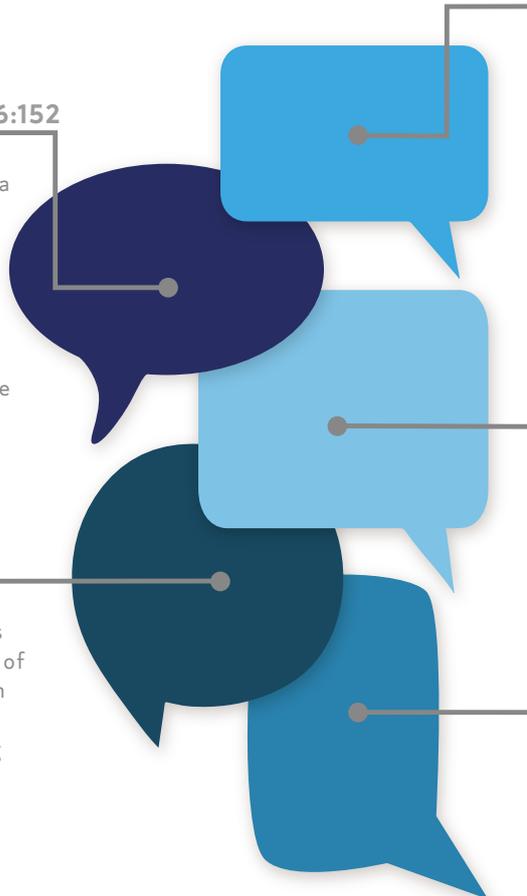


Figure 9 - Five definitions of portfolio

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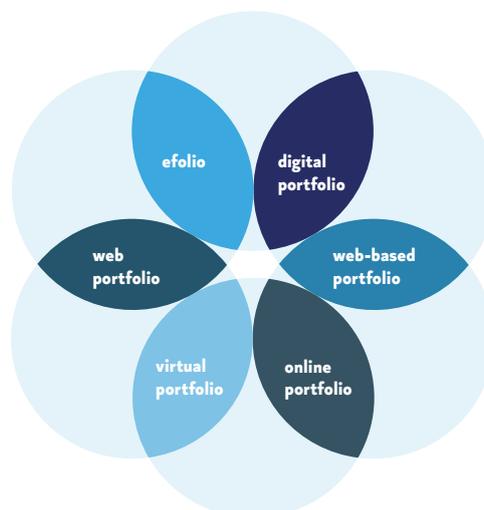


Figure 10 - Different terms that refer to an ePortfolio

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Figure 11 - ePortfolio stakeholders

Eportfolios can enhance employability:

ePortfolios can help students develop the set of skills and attributes that employers are looking for. There is a promising correlation between the attributes and skills valued by employers and the skills and strategies students think they have developed through the creation of ePortfolios. In other words, certain attributes and skills that employers look for may be developed and enhanced in the process of creating ePortfolios.

The eportfolio provides a way of supporting the systematic self-directed development and assessment of employability skills in Higher Education institutions with two important benefits:

- The use of an eportfolio for employability skills development encourages critically self-reflective learning, a habit that can be maintained throughout the student's professional life, a true example of lifelong learning
- The use of an eportfolio for employability skills development allows the learner to create, organically through the learning process, a collection of evidence of the skills developed that can be shown to potential employers throughout the life cycle and drive the cycle of critical self-reflection that makes

the individual into an autonomous lifelong learner.

Depending on their purpose and content, there are three main types of ePortfolios (Table 5). The first type showcases evidence of work and achievements. The second type, is used as an assessment strategy that helps teachers grade student work. Finally, the third type are learning portfolios that include a variety of agents and goals.

TYPE 1

The primary purpose of a portfolio may simply be to showcase examples of work and/or achievements. These 'showcase' portfolios most closely resemble the original portfolio prototype, and may be used to support employment applications.

TYPE 2

In academic settings, a portfolio may be prepared specifically for summative assessment or evaluation, with students receiving a grade based on the work submitted in their portfolio. Both showcase and assessment portfolios will usually only include finished, polished artefacts.

TYPE 3

A third type of portfolio is the learning portfolio. Unlike showcase and assessment portfolios, learning portfolios may include drafts and unpolished work, with the focus broadened to include the process of compiling the portfolio, as well as the finished product.

Table 5 - Types of ePortfolios

Strohmeier (2010) argues that several ePortfolios identified in the literature can be categorised by their objective:

 Documentation oriented e-Portfolios
e.g. showcase or presentation portfolio
 Assessment oriented e-Portfolios
e.g. accountability or assessment portfolio
 Development oriented e-Portfolios
e.g. learning and process portfolio

Table 6 - ePortfolio categorisations by objective

In this handbook, we advocate for a use of the portfolio that includes each of these perspectives. In the rest of this chapter we look briefly at the different functionalities of the eportfolio that come into play through the cycle of development, assessment and showcasing of the emerging employability skills that a learner acquires through their presence at an institution.

2.3. Use of the portfolio - Developing skills

In this handbook, we advocate for a use of the portfolio that includes each of these perspectives. In the rest of this chapter we look briefly at the different functionalities of the eportfolio that come into play through the cycle of development, assessment and showcasing of the emerging employability skills that a learner acquires through their presence at an institution.

Benefits

Learners

- _____
Learner is placed at the centre.
- _____
Learner can easily track progress (motivation).
- _____
Learner can share it with colleagues.
- _____
Learner can credit prior experiential learning.
- _____
Enables direct and personal feedback (learner-tutor and learner -peer).
- _____
Tutors are able to pick up on problems/ issues as these emerge.
- _____
Identifies student skills, and unique needs.
- _____
Helps develop decision-making skills.
- _____
Enhances classroom/real world learning transfer.
- _____
Develops and demonstrates technological skills.
- _____
Improves the quality of evidence provided.
Can engages employers and policy makers.
- _____
Encourages reflective learning (self-awareness, self-knowledge, self-esteem, self-confidence).
- _____
Develops learner autonomy and independence.
- _____
Helps with career progression, employability and further study.
- _____
Presents and showcases achievements and skills to third parties.

Institutions

- _____
It can support the admissions process.
- _____
Develops student skills as required by institutions and/or professional bodies.
- _____
Structures the development of employability skills.
- _____
Provides institutional support and visibility for skills development.
- _____
Supports alumni and provides opportunities for long-term relationships between learners and the institution.
- _____
Provides opportunities for long-term relationships between learners and employers.
- _____
Provides an opportunity to position the institution in relation to society and employment and strengthen its social role.
- _____
Supports the articulation of the learner journey through the institution.

Examples of the types of artefacts that may be presented in a learner's portfolio include samples of their writing, projects they have done, photographs or videos documenting their accomplishments, and teachers' or mentors' evaluations of their performance in a given area. The value of keeping a record, and highlighting achievements in terms of motivation of students is vital, and it also helps the tutor to structure the development of these skills.

2.4. Use of the portfolio - assessing skills

The development of the skills, in an institutional context will also usually involve assessment of the emerging skills and the results of these assessments can be incorporated into the portfolio as evidence of the skills. Each institution has its own systems and processes for assessment, but it is important to ensure that the kind of assessment makes the most of the possibilities of the portfolio, and the nature of the skills being assessed. Atlay (2005) suggests addressing the following issues when considering assessment in ePortfolios:

- What are we assessing – is it the product or the process?
- Are we giving it a grade – should we use pass/fail, other?
- What weighting do we give it?
- How does it fit in with our existing approach to assessment?

With ePortfolio assessment, it is important to ensure that the use of the portfolio reflects the institutional strategy with regard to employability skills and eportfolios. In particular, teachers should:

- Embed the assessment in the curriculum and align it with the learning outcomes and assessment criteria;
- Integrate the use of the ePortfolio within their assessment plan, not just use it as an add-on;
- Demonstrate standards and explicitly outline criteria to students;
- Clarify rubrics and expectations in marking guidelines available to students and assessors.

In order to integrate ePortfolios and assessment appropriately and in line with learning principles, it is necessary that both teachers and students are aware of the exact steps involved in compiling an ePortfolio for assessment, i.e. determining its purpose, collecting work, selecting key pieces as evidence, reflecting on their learning process, connecting and sharing with others, etc. Teachers are especially responsible for developing not only the employability skills themselves but also the meta-skills that will help students to manage the portfolio themselves later on when they move into employment. They can do this by integrating activities that embody these assessments for learning principles in their daily practice, i.e. modelling assessment, questioning students to help them understand what evidence to collect, providing formative feedback and self-assessment opportunities, and encouraging peer assessment.

Reflective pieces, ongoing formative assessment and feedback (from peers, tutors, and potentially employers) are the key elements of the learning process, and the overall goal is to facilitate and document learning and development over time.

Feedback is an integral component of formative assessment and is critical to student learning. When feedback is driven purely by the teacher, students are unlikely to engage fully with the process. When the feedback process is driven by the student's own critical reflection it has a far more powerful and lasting effect.

2.5. Use of the portfolio – showcasing skills

ePortfolios are a particularly important tool for graduates to show their skills, especially employability skills, when searching for work, and they are increasingly seen as a particularly suitable tool to recruit employees, since they provide a much richer and improved set of information compared to a simple CV and this enables employers to find applicants who possess the specific skills that they need more easily.

The potential for competence-based ePortfolios for employers is in the possibility to gather information about employees' skills and/or to assemble project teams based on this information.

In addition to this there are other advantages. Hartell-Young and Morris (2007) described electronic portfolios as a 'powerful tool' to promote professional growth and reflection and this can also help students prepare for possible questions and answers during interviews (Batson, 2002). Curyer et al. (2007) see the ePortfolio as a tool to transit into self-employment. Their emphasis is on the validation of skills using artefacts as evidence.

In recent years, electronic portfolios have been increasingly promoted as essential tools for employment and career advancement as technology has become more and more digital. They are also deemed to be more efficient, flexible, and convenient than paper-based portfolios (Werschay, 2012).

Students can develop their own ePortfolio to find a job, stand out among the competition, feel confident during job interviews, gain a competitive edge, and track their career development. ePortfolios can also help them develop an effective profile on platforms such as LinkedIn. Here are some specific benefits of ePortfolios:

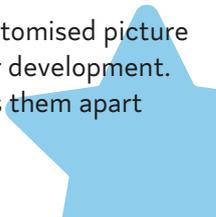
FOCUSED

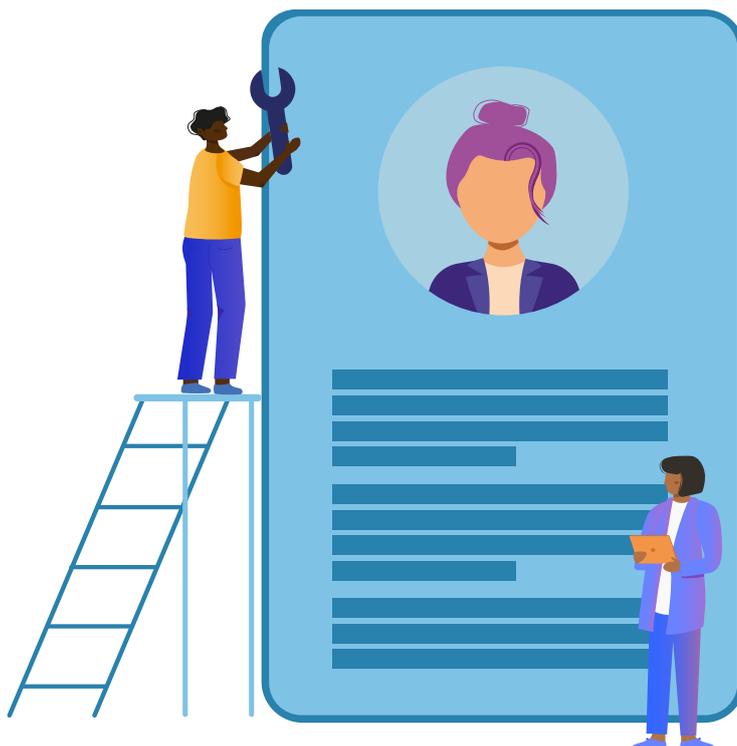
The exercise of bringing together all their accomplishments into one place gives students an opportunity to identify their most important accomplishments



DISTINCT

Students' ePortfolio is a customised picture of them at this point in their development. It's their track record. It sets them apart from the competition.





CONFIDENCE

ePortfolio also lets students walk into an interview with more confidence because, while putting it together, they have examined their goals, described their beliefs about work and their career, documented their strengths, and identified their weaknesses.

LEAD

The ePortfolio can do more than boost students' confidence in an interview. It can also help them get ahead in the job market. A well-crafted ePortfolio shows employers that they have the skills and abilities they seek.

TRACKER

Once students have a job, their ePortfolio changes as they begin to collect and document their work on the job. It can also help position them for advancement.

PROFILE

Students' ePortfolio essentially becomes a generator for their next job marketing initiative, e.g. LinkedIn.

Figure 12: Benefits of eportfolios for showcasing skills

2.6. Use of portfolio – the employer's perspective

2.6.1. Employers' needs

A growing number of professional associations and enterprises are utilising the ePortfolio process to provide evidence of the attainment of professional standards, as in the medical sciences, nursing and teaching. An ePortfolio allows a candidate to collect and reflect on their learning activities and work experience to substantiate their application for professional accreditation.

Statements and certificates should regularly constitute the main items when recruiting orientated ePortfolios. Artefacts should offer deep information as well as clear confirmation of the knowledge, skills, and competences of the applying individual.

In this sense, there is a need to solve the tension between employers' access to students' information, and their need to locate with ease what they are looking for in the profile of their (potential) future employee(s), especially taking into account the commonly large volumes of applications which have to be reviewed.

For this reason, navigability of information will positively influence perceived ease of use of ePortfolios in recruiting (Strohmeier, 2010).

2.6.2. The employer's perspective

In Watty and Kay's research (2016) many companies and human resource managers that did not use ePortfolios in their practice stated as the main reason not to engage with them not being familiar with them as a recruitment tool/strategy. Those who did use them, did it mostly for an initial screening stage, and only a small percentage acknowledged using them after the first interview.

However, while the majority of employers interviewed were not familiar with ePortfolios, once explained to them, all employers saw their potential in the recruitment process. This potential was seen to lie in offering a better 'feel for the person', 'bringing the graduate to life', and providing greater insight into graduate attitudes and experience, and overall insight into graduate capabilities and employability.

Employers viewed ePortfolios as a way to extend and enhance traditional recruitment processes. They also indicated that ePortfolios have the potential to reveal the following about applicants that traditional interview processes cannot:



Figure 13: The aspects eportfolios reveal (Watty and Kay, 2016)

In Watty and Kay's study employers were further asked what type of content and inclusions they would like to see in a graduate ePortfolio. They indicated that they would like to see graduate ePortfolios contain items such as evidence and background relevant to the job application; applicants critiquing something; evidence of learning, progress, thinking, and judgement; and information being presented more visually. Specifically, the type of information employers believed would be valuable in an ePortfolio included the following:



Figure 14 - Valuable information for employers

2.7. The strategic value of portfolios

For the student the use of a portfolio can be a key way of supporting the journey from initial steps in a domain through the development of competences and skills to mastery and further development. An overview of Chatterton and Rebbeck (2015) identifies the following as key stages in this learning journey:

- **Learning and Assessment** - the portfolio supports the process of learning through reflection, discussion, and formative assessment, and providing evidence for summative assessment.
- **Application** - the portfolio can showcase different aspects of the learners skills and be used to present evidence in support of admission to further study or for job applications.
- **Transition** - the portfolio can provide a richer and more immediate picture of the learner's environment and support them through the process of transition.
- **Planning and development** - the portfolio can support and evidence the pursuit and achievement of personal and professional competences

As the next figure shows this can be viewed as a cycle, since the planning and development stage is very similar to the learning and assessment stage.

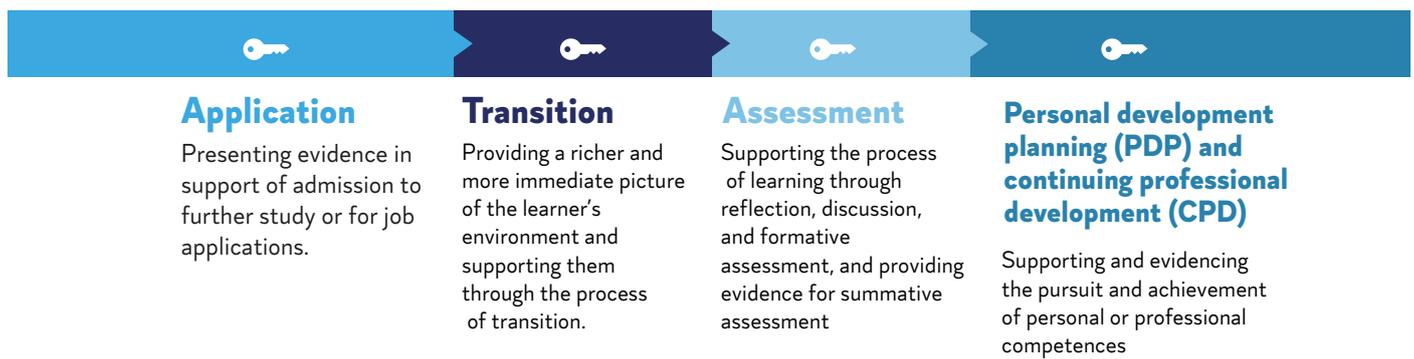


Table 8 - Chatterton Rebek

The journey is lifelong, and the role of the university increasingly is to launch the student onto this journey, helping to manage the first two stages during undergraduate life with a particular focus on employability and then supporting the journey to varying degrees during the professional careers of their alumni.

The next sections focus on how the use of portfolios to support learners in this way can be implemented in a Higher Education institution.

3. Developing employability skills (institutional level)

3.1. Strategy

3.1.1. The role of the institution

A key social role of any Higher Education institution is to support the development in their students of the skills, capabilities and knowledge that employers require, and which job markets value. In the past this role has focused on domain specific knowledge and the transversal elements common to many professional positions have not been given as much focus. This is however changing, and increasingly Higher Education institutions are recognising that it is their duty to improve their students' employability, and it is increasingly a question of institutional strategy that involves a repositioning of the university with strengthened relationships with employers, enterprises and alumni.

This strategic reorientation involves three key dimensions:

- **The institution itself** - and its organisation, in particular a focus on mapping and articulating needs, responding to policy drivers, economic development and social well-being criteria on regional, national and global levels.
- **The engagement of employers** - and other stakeholders, matching what is learned (and evaluated) in their institutions to the identified needs of employers and entrepreneurs in and especially employers, and with a focus on effective two-way communication
- **The enhancement of students' employability**, including their awareness of the need to focus on this, and of entrepreneurial options, such as intrapreneurship, self-employment and the creation of new businesses, including greater student engagement with these aspects in the learning process.

As we have discussed in the previous section, we see the use of portfolios as an especially versatile tool, that can support the whole learning journey through to employment and this is a view that is increasingly shared across universities and other Higher Education institutions

However, as the literature shows, the successful and sustainable implementation of learning portfolios for employability in a higher education institution requires considerable planning and preparation, and a substantial commitment from staff and students, as well as engagement with employers. In this section we focus on aspects relating to institutional strategy. The key ideas to take into account are as follows:

- **Culture** - There is a need to build up a whole-institution employability culture in which students are practising employability from the moment they walk through the door, and in which employability is understood to be everyone's job – employability needs to be part of the a part of core business (UKCES, 2010). This is central to implementing the shift that is the focus on this handbook, and is likely to involve revisiting and articulating the institution's vision and values.
- **Staff** - Staff are key t this process of change, there is a need for management to build strong and

genuine relationships with staff, if the change is to be effective, and this requires prioritisation of attention to staff voices and seeking, hearing and acting on feedback.

- **Training** – Teachers and other staff need to be trained, engaged and supported and there is a need to ensure leadership from curriculum managers. The shift will involve changes in assessment, particularly of the development of skills, towards more qualitative and subjective ways than may be usual.
- **Communication** – It is vital to communicate the employability vision and values internally and consistently over the long term, building them into foundational documents (mission statement, strategy, guidance notes, etc.) of the institution, and into target and incentive structures.
- **Investment** – It may be necessary to reallocate time and money into employability skills and invest according to the complexity of employability skills in with staff, CPD, and infrastructure. It is important to be aware that this may be at the expense of doing something else.

3.1.2. Considerations when choosing a portfolio system

A key issue of course is the choice of technological support for the portfolio. For any HE institution the process of implementation of a new technology involves a complicated process to ensure the choice is appropriate across diverse internal departments and compatible with existing systems. A further key issue is portability, since it should be a tool that alumni can use after their journey within the institution has ended.

A range of different approaches exist. Some simply use existing social media, such as Linked In, or Instagram, to display the information. This has the advantage of longevity and compatibility across systems, but other aspects relating to teaching and evaluation are not covered. Other strategies opt for blogging (for example Wordpress) or videoblogging or even podcasting software to keep a continuous record of development that can periodically be summarised or showcased for different audiences. Again the public accessibility of these tools is important though there is no guarantee of the tools continuing to exist over a lifetime. Institutions more commonly opt for more customizable hosted sites that they can make their own, such as foliospaces.org, or use specific portfolio software on their own servers such as Epsilon or Mahara. These are however just examples, each institution will have particular needs and strategies to it is not possible to recommend just one.

However, it is possible to outline a series of considerations that institutions can use to guide the choices they make in relation to the choice of technology. The most important of these is to ensure that the technology should be the facilitator of the activity, and not the focus of it. Other aspects to bear in mind include:

- **Purpose** – is the aim a full implementation throughout the learning journey, including teaching, evidencing, and showcasing of employability (and other) skills, or a more focused use? It is important to begin with clear objectives before choosing the technology. What are the strategic issues the organisation wishes to focus on in this area? (for example is the focus more on teaching employability skills, or on the learner being able to showcase them later, there may be trade-offs for example in terms of access)

- **Context** – do all areas of the institution have similar needs in relation to this area, for example some education areas such as medicine have a more developed itinerary form learning to professional practice than others. Does the system need to serve them all? Are some prioritised over others? What are the requirements? What are the risks?
- **Staff** – what are the views of the staff, are they fully engaged with the idea or will they need a process of awareness-raising and/or training? Will the curriculum need to be adapted to accommodate the change? How much willingness is there among management to move the institution, and the professionals within it, out of their comfort zone?
- **Timing** – what kind of implementation is foreseen and what is the likely timing? A key idea is that change takes time so that embedding the use of the portfolio tool into the curriculum as early as possible is recommended.
- **Evidence** – what kind of evidence is needed, inside and outside the institution? How will it be collected and showcased, how important is it to maintain existing forms of evidence within the new portfolio context? Would badges for example be admissible as part of the set-up (see Chapter 6 for more detail on this issue).

3.2. Considerations when choosing a portfolio system

Apart from the role of higher education institutions, it is true that engaging employers is a key factor to support students' acquisition and development of employability skills. In this regard, there are many types or strategies of engagement that HE institutions could use.

- **Communication** – Perhaps one of the key issues is that universities, historically, have not been especially focused on employers' needs. A key issue, then is to make them aware of the new positioning. This should involve not only ensuring consistency of message throughout the institution and incorporation of employability into all the foundational documents and communication measures, but also pro-active efforts to ensure the messages reach their targets.
- **Voice** – Communication should be two-way, and allow for the voices and input of employers to be heard in the design of curricula. The aim should be for strong and genuine relationships to be built and for HE institutions to focus on seeking feedback and acting on it. This includes not just content related questions, but also methodological aspects such as for example the way assessment is carried out, which might need to be more aligned with business-related evaluation approaches.
- **Investment** – Engaging employers will require investment in resources, such as training existing staff or employing new staff to carry out the work, but also in time, since space will need to be made in the curriculum for employer-facing and employer-managed activities. This should include development and support of alumni networks.

Over and above these more general ideas, there is a set of more specific stages to consider in relation to the engagement of employers, these are set out in the table on the next page:



Stage 1

IDENTIFYING EMPLOYERS NEEDS AND SCOPING SOLUTIONS

Scope and identify demand.

Account for complexity that spans different industries and regions.

Provide clarity around offer and any expected outcome.



Stage 2

DESIGN AND SET UP

Align strategic focus.

Choose appropriate models of engagement, and models and methods of delivery.

Establish a clear shared agenda.

Consider how collaboration will be funded.

Acknowledge the strength and limitations of collaborating partners.



Stage 3

DELIVERING OUTPUTS

Ensure products are fit for purpose or universities and relevant for employers.

Articulate the benefit of the collaboration of participants.

Develop the virtuous circle of learning, application, feedback and refinement.

3.3. Enhancing graduate employability

In addition to this, a range of different activities can be implemented to facilitate the greater involvement and participation of employers in the life of the institution. Knight and Yorke (2004) collected these and they are summarised in the following figure:



Work-based learning

- A range of activities that take place within a work setting, including: placements, work experience, and some forms of volunteering.
- Make the learning experience about knowledge, skills, and attributes.



Mentoring relationship

- Develop long term relationships between experienced people (in employment) and students, to help the latter develop their understanding of the world of work.
- Invite graduates to engage with students, as mentors, or simply speakers.
- Develop relationships between students and career development centre staff, as well as teachers.



Employability modules

- Include modules specifically addressing employability issues that could include student identity, the nature of the graduate labour market, career choices, etc
- Explicitly teach students how to be employable. Start early, ideally in the first term of their studies.
- Organise extra-curricular and co-curricular activities.



Sponsorship and Scholarship

- Provide financial support for students towards study costs, often including opportunities for paid work placements as part of the degree or during holidays.



Employers in the lecture room

- Employers as external speakers working with academics to deliver lectures or assess activities.
- Employers grade/rank/evaluate/provide feedback on submitted assessment.



Employer advice in the curriculum

- Establish Industrial Advisory Boards with middle and senior management representatives from several relevant organisations.
- Employers review the curriculum and methods of assessment and provide feedback on whether, when, and how the knowledge and skills being assessed are used in their career/field.
- Explicitly articulate the relevant graduate employability skills in the learning outcomes for every subject with input from employers.



Work-related learning

- Learning at university based as closely as possible on real work situations, and encompassing teaching methods such as case studies, projects, etc
- Help develop case studies (based on real employer experiences) and use these as learning materials with students.
- Develop awareness among teachers of the disciplines' career options and outcomes, and give explicit guidance about career pathways.
- Design authentic assessment activities, aligned with industry practices, standards, and approaches.



Accreditation programmes

- Develop degree programmes or parts of programmes that are accredited by professional, regulatory or statutory bodies in the relevant employment domains.

Figure 15 - Strategies for integrating employability in institutions (Knight and Yorke, 2004, Kinash et al., 2015)

Obviously all of the actions the institution undertakes in this area will contribute directly or indirectly to the employability of its graduates. The comments made previously regarding the need to incorporate a focus on employability into the culture of the organisation are clearly relevant here and direct training in employability skills is of course important. A key notion to bear in mind is the motivational aspect, and the relation of employability to student long-term goals, which should be ever-present. There needs to be emphasis on the purpose of employability and of the portfolio and its role as a personal life tool that reflects their unique talents and interests. Related to this is the need to let the students voice be heard in the process so that all the strategies are fully aligned with their needs (as potential future employees and employers).

Reflection

- The development of employability is a lifelong task, which increasingly as the professional career develops is an individual task that requires reflection and self-awareness.
- The institution can help to develop this capacity, by provoking reflection through questions asked to employers and alumni such as the following:



Figure 16 - Questions for reflection (Kinash et al., 2015)

3.4. Curriculum

All of the general strategies mentioned above require explicit embedding into the curriculum. This implies the use of a range of methodologies to incorporate the viewpoints of all the relevant employability stakeholders. Specific activities are dealt with in the next section. Here we provide a summary of the key overarching strategies that an institution needs to bear in mind when incorporating employability.

Good practices

Designing the curricula

Employability is embedded into programme design through a 'connected curricula' approach.

Programme design incorporates student personal, professional and academic development.

Students are supported personally, academically and professionally.

Provision in programme design and delivery is made for access and inclusion.

Assesment for learning

Programme design places greater emphasis on formative assessment and feedback.

Programmes require students to act on feedback.

Multiple stakeholders engage with assessment and feedback.

Employer Engagement

Employers are engaged with programme design.

Employers are engaged with programme delivery.

Students are provided with authentic or simulated learning experiences.

Table 9 - Good practices for embedding employability skills into the curriculum

4. Developing employability skills (teaching level)

4.1. Introduction

This section focuses on the development of employability skills. It presupposes that the institutional strategies mentioned in the previous section are already in place to support and enrich the outcomes of this development process.

The section outlines a series of skills presents a series of skills related to employability which are grouped into cognitive, methodological, social and subject specific skills, as follows:

- **Cognitive skills**
 - Analytical thinking
 - Creative thinking
 - Foreign language

- **Methodological skills**
 - Learning to learn
 - Problem-solving
 - Decision-making
 - Digital skills
 - Results-oriented performance
 - Self-management

- **Social skills**
 - Communication and interpersonal skills
 - Teamwork
 - Conflict management
 - Stress management

- **Subject-specific skills**

Each of these skills is addressed in turn in this section, through a diagram that lists three aspects.

- In the **left hand columns** are examples of activities that can be implemented to help develop the skill in question. We don't aim to provide an exhaustive collection of these activities, as this goes beyond the scope of this handbook. In many cases teachers may already be using activities of this kind for other purposes and incidentally developing different employability skills. In these cases these activities will be familiar, but the key is for the teacher to flag the importance of the activity as a way of developing the particular employability skill, independently of any other curricular objectives and functions it may have.

In cases where the activity is new, it will be more necessary to explain the rationale for its use, and how it relates to employability. Many of the example activities that we propose assume the use of active pedagogies. Indeed the employability skills that this handbook focuses on have a strong overlap with the kinds of outcomes usually expected from active learning contexts, and share a central understanding of the agency of the learner which is a key notion in the context of employability.

- In the **centre column** are the outcomes that will be achieved. These can be seen as evidence that derives directly from the classroom activities and development, and they can be identified by the evaluation that is already in place, though the evaluative processes may need to be adapted to focus on the employability skill in question. Clearly employability skills developed in this way need to be measurable but they are not always susceptible to conventional assessment processes: self-reflection by the learner, observation by the teacher (and later the employer) and performance in real tasks are often the most effective mechanisms, particularly because most usually an individual may be using a combination of employability skills simultaneously. These considerations are especially important in relation to attitude, which is an important transversal element in employability but which is not a skill of itself and it can be argued, not really teachable. It is useful for the teacher to highlight the emergent skills that the learners are developing through the classroom activity, both from the perspective of aim (we are doing this to develop X) and the perspective of outcome (asking the students what kind of skills did this activity develop?). The teacher can do much to foreground employability, both in terms of talking about the need to focus on employability, and the need to explain what the focus of evaluation will be in any specific activity. This is useful for learners, both in terms of supporting their reflection of their developing employability skills, but also in helping them to identify salient aspects later, for showcasing purposes.

- In the **right hand column**, we present contexts where learners (or in some cases employers) may identify examples of use of a specific employability skill “in the wild”, outside the classroom (and beyond the reach of the usual evaluation processes) that they can then point to as real-life evidence of the performance of that skill is listed. This is especially useful for the learner as it is the kind of evidence that often slips “under the radar” and is not made explicit, especially when talking to employers. It is useful if the teacher makes reference to these contexts when discussing employability skills in the classroom context.

For each skill these three aspects are outlined in the tables, we also present a range of example scenarios for illustrative purposes.



4.2. Cognitive skills

4.2.1. Analytical thinking

Analytical thinking

Managing information, decision-making and problem-solving

Learning activities	Learning outcomes	External evidence contexts
Debate and argue a case.	Effectively interpret information.	Discussing the plot of a play or film or book.
Interpret complex material.	Analyse the elements and facts of a specific situation or problem.	Conversations about politics.
Pick out inconsistencies in reasoning.	Construct well-reasoned solutions or conclusions.	Discussing mistakes in personal life.
Analyse data from an experiment.	Gather relevant situational information.	Making consumer choices.
	Establish relevant criteria and standards for acceptable solutions.	

Table 10- Learning activities, outcomes and evidence (Analytical thinking)

Environmental role play scenario

A useful activity to develop a range of analytical skills is a case study, which might be taken from any domain but which should ideally present a range of issues with a certain degree of complication.

Students are asked to analyse different options examples can include town planning or factory location scenarios.

4.2.2. Creative thinking

Creative thinking

Working outside the box to find new methods and solutions

Learning activities	Learning outcomes	External evidence contexts
Innovation projects in class.	Developing strategic/creative long term vision.	Redecorating or reorganizing a physical space.
Brainstorming activities.	Mapping out ideas to an action plan.	Raising money for a charity.
Note-taking (comparing and contrasting, finding new approaches).	Identifying innovative options.	Starting own business.
Solution-based case studies.	Identifying opportunities not obvious to others.	Any creative activity, eg writing art sculpture etc.

Table 11 - Learning activities, outcomes and evidence (Creative thinking)

New solutions to old problems scenario

It is important to understand creative thinking broadly, any new solution to a problem will have elements of creativity. Brainstorming activities, such as thinking of as many uses as possible for an object, or looking for different ways to organize a space, can be effective in helping to develop this kind of skill.

4.2.3. Foreign language

Foreign language

Intercultural understanding and performance in a foreign tongue

Learning activities	Learning outcomes	External evidence contexts
Listening.	Coherent and appropriate participation in target language contexts.	Watching foreign films /series.
Reading.	Comprehension of foreign texts, artefacts (reading, listening).	Bar/restaurant work.
Writing.	Functional communicative success in target language (spoken).	Tourism.
Discussions.	Functional communicative success in target language (written).	Online friendships in other countries.
Functional dialogues.	Appropriate interaction with people from other cultures.	
Role plays.		

Table 12 - Learning activities, outcomes and evidence (Foreign language)

Appropriate cultural awareness

While the teaching of the language itself is the preserve of specialists, success in language learning is closely related to the development of cultural awareness, and this can be addressed in other areas. In particular the use of diversity awareness development activities, can be helpful in opening up this area.

4.3. Methodological skills

4.3.1. Learning to learn

Learning to learn

Effectively manage one's learning process and needs

Learning activities	Learning outcomes	External evidence contexts
Comprehend and act on teacher comments on work.	Capacity to learn continuously and adapt.	Doing an online or self-study course.
Network and contact building.	Management of learning goals.	Researching new courses/skills.
Self-assess personal strengths and areas for development.	Capacity to identify and access learning sources and opportunities.	Starting new hobby/ craft /sport.
Set own learning goals.	Capacity to use peer support and networks.	Joining volunteer/sport/other group.
Learning sources and opportunities research.		Teaching self new skills.
		Contributing to learning at the work place.

Table 13 - Learning activities, outcomes and evidence (Learning to learn)

Self reflection on employability skills

A central skill involved in learning to learn is self-reflection. The ability to think about what has been learnt and what remains to be worked on, is vital in developing the capacity to learn autonomously once in work.

Reflection activities such as After Action Reviews can be combined with others to foreground employability skills.

4.3.2. Problem solving

Problem solving

Finding solutions to problems, and to solve conceptual dilemmas

Learning activities	Learning outcomes	External evidence contexts
Cases studies situations and scenarios to make recommendations.	Capacity to assess situations and identify root causes/issues.	Dealing with complaints.
Research assignments - testing and exploring scenarios and solutions.	Capacity for creative exploration of possible solutions.	Use of science, technology, mathematics to solve problems in everyday personal and/or professional life.
Identifying/applying different strategies to cases/problems.	Capacity to test assumptions taking data and circumstances into account.	Solving practical and procedural domestic issues.
Use of statistics/mathematics including budgeting and financial management to solve problems.	Capacity to recognise the human, interpersonal, technical, scientific, and mathematical dimensions of a problem.	

Table 14 - Learning activities, outcomes and evidence (Problem solving)

Problem solving case study

Role play scenarios, for example focused on an environmental or other issue related to the domain of study, can provide real and relevant practice in problem-solving. Open-ended activities are especially valuable, and frequently involve potential for the development a range of other skills as well.

4.3.3. Decision-making

Decision-making

Learning activities	Learning outcomes	External evidence contexts
Decisions about studies, modules etc.	Capacity to map ideas to make an action plan.	Purchasing/renting expensive items.
Project work - analysing recommendations.	Generate and then select from a range of options.	Targeting appropriate customers in a sales job.
Case studies – analysing decisions taken.	Evaluate and monitor own performance and act on results.	Obtaining a work placement, summer job or internship.
Role plays focusing on difficult decisions, and ethics.		Running own business.
		Management of student group, club or team.
		Life choices.

Table 15 - Learning activities, outcomes and evidence (Decision-making)

Ethical decisions role play

Problem-solving and decision-making are closely related, and the activities that are used can be similar, such as role plays, simulations or case studies. Decision-making skills can be developed especially well using complex scenarios in developing stages where successive ethical choices and their consequences are involved.

4.3.4. Digital skills

Digital skills

'Information and data literacy; communication and collaboration; digital content creation, and safety'
Carretero, Vuorikari & Punie, 2017

Learning activities	Learning outcomes	External evidence contexts
Use of specialist software packages.	Range of basic IT skills.	Use of IT as productivity/data tool.
Managing project timelines with software.	Understanding of computational thinking.	Use of IT as management tool.
Searching for information in electronic databases.	Proficiency with telecommunications and smart devices.	Use of IT as communication/participation tool.
Participation in digital forums.	Understanding of current online trends and developments.	Use of IT as research/exploration tool.
Managing online presence.	Comfort with online society and social media.	

Table 16 - Learning activities, outcomes and evidence (Digital Skills)

Data literacy activity

Many of these skills can be developed simply through quite straightforward practice activities, but data and information literacy skills can be developed especially through fact-checking activities. These can be framed as game-like or competitive activities, in which facts are checked in real time.

4.3.5. Results-oriented performance

Results-oriented performance

Learning activities	Learning outcomes	External evidence contexts
Project planning and definition of targets.	Managing time and priority setting.	Managing an event.
Project monitoring and adaptation activities.	Developing a vision and a monitoring plan.	Arranging study and work.
Role-plays dealing with emerging contingencies.	Establishing clear project goals and deliverables.	Organising networking, fundraising, or other activities.
	Participating in continuous improvement and planning processes.	Monitoring exercise regime/diet.

Table 17- Learning activities, outcomes and evidence (Results-oriented performance)

Employability skills as results

As with learning to learn, this is a skill area where the employability skills themselves can be focused on as an objective. Here they are framed as expected results and the activity can focus on the tracking of the developing skills towards a pre-defined aim. This helps to develop learner autonomy in future employment contexts.

4.3.6. Self-management skills

Self-management

Setting goals and priorities, and decisions about tasks and resources

Learning activities	Learning outcomes	External evidence contexts
Managing multiple work or course loads simultaneously.	Successful achievement of multiple simultaneous objectives.	Balance academic work with extra-curricular activity or employment.
Design and implement surveys.	Successful observance of a study timetable.	Solo overseas travel.
Schedule and carry out study.	Manage time and priorities.	Organising family get together.
Establish and monitor project goals and outputs.	Co-ordinate tasks (self/others).	Organising sporting, cultural or charity events.
Manage a course project.	Continuous improvement.	Planning a trip with friends

Table 18- Learning activities, outcomes and evidence (Self-management)

Organisation of projects

These skills can be developed through any activity involving organization and management of projects, but a useful activity is to conceive of the learner's employability skills development as a process that can be planned and managed as a project, which gives ample opportunity for development of self-management skills.

4.4. Social skills

4.4.1. Communication and interpersonal skills

Communication and personal skills

Articulating, transmitting, and effectively defending arguments, ideas, feelings or information
Listening, understanding, and being receptive to others

Learning activities	Learning outcomes	External evidence contexts
Assignment and report writing.	Clear, direct and confident self-expression.	Membership of debating club or society.
Participating in discussion and debate in seminars.	Precise use of language.	Successful use of social media/blogs.
Public speaking - presentations of a project.	Construct logical argument.	Persuading someone to do something.
Share information across a range of technologies.	Reports and other texts.	Journalistic writing (student publications).
Longer form writing, eg dissertation.	Capacity for quick thinking.	Customer service roles
Social media tasks	Presentation of information presented in a variety of forms.	Letter writing
Creating publicity materials	Adapting communication to audience.	Working as secretary of club or society

Table 19 - Learning activities, outcomes and evidence (Communication and interpersonal skills)

Public speaking

Public speaking, though it may not be a skill learners perceive as necessarily part of the future, is a key building block of effective interpersonal communication skills, and for this reason it is useful to build it in to project work of different kinds, to present results, or plans, or in-action reviews of their work so far.

4.4.2. Teamwork

Teamwork

Working collaboratively with others (cross-cultural)

Learning activities	Learning outcomes	External evidence contexts
Participation in activities that involve people of different age, gender, nationality, race, ability etc.	Collaboration with differently skilled people.	Collaborate with an NGO.
Cultural awareness activities.	Working successfully with other perspectives/backgrounds.	Foreign travel/study.
Collaborative activities.	Understanding different viewpoints/opinions.	Volunteering.
	Use of respectful language.	

Table 20 - Learning activities, outcomes and evidence (Cross-cultural and diversity)

Collaborative activity and after action review

Any collaborative activity or project will involve opportunities to develop teamwork skills, however it can be useful to focus directly on these, both in reflection activities (in some contexts journaling can work very well) and teambuilding activities before starting the project.

4.4.3. Conflict management

Conflict management

Assertive mediation between two or more parties

Learning activities	Learning outcomes	External evidence contexts
Dialogue activities.	Identifying and marshalling relevant information.	Work placements and internships.
Scenarios.	Analysis of root causes .	Customer service, especially complaints.
Case studies.	Assessing options/ proposing solutions .	Domestic and community disputes.
Role-plays.	Critical thinking and synthesis.	
Interpretation of non-verbal communication.	Stress management and emotional self-regulation.	
	Fluid non-verbal communication and awareness	

Table 21 - Learning activities, outcomes and evidence (Conflict management)

Conflict management role play

To rehearse these skills, role plays and simulations are most appropriate, it is valuable to prepare the activities carefully since despite the fact that it is an exercise the conflict situation can cause strong emotions.

Post-activity reflection can be very helpful in consolidating the skills development.

4.4.4. Stress management

Stress management

Effective performance in complicated or stressful situations

Learning activities	Learning outcomes	External evidence contexts
Planning exam revision/ study schedule.	Lack of missed deadlines.	Work experience or internship.
Identifying stress triggers.	Sense of control.	New responsibilities.
Stress management techniques activities.		Joining a new group, club, organisation.
		Ordered lifestyle.
		Working with short notice or hard deadlines.
		Independent travel/study abroad.

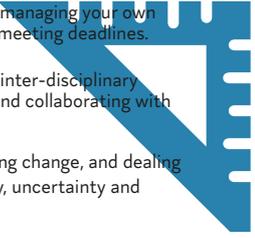
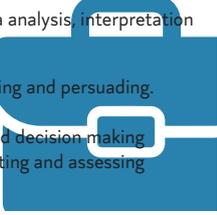
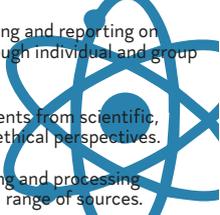
Table 22 - Learning activities, outcomes and evidence
(Stress management)

Reflecting on stress

Stress management is something that can be integrated into every class, chair exercises and breathing techniques can be very valuable both to improve learning and teach stress management. Group reflection on what causes stress and how to address it can also be very useful.

4.5. Subject specific skills

These are the knowledge and abilities required to successfully perform a specific occupation. There are of course very specific competences that refer to the professional profiles related to any specific job or family of jobs, and conform a job profile. These job profiles are the foundation on which all competence-based activities are built, because they identify the specific skills and proficiency levels that define success in a specific job. They can be described as the key elements that make a skill concrete and tangible in the workplace:

<p>ART DESIGN AND ARCHITECTURE</p> <p>Setting goals, managing your own workload and meeting deadlines.</p> <p>Working in an inter-disciplinary environment and collaborating with others.</p> <p>Accommodating change, and dealing with ambiguity, uncertainty and unfamiliarity.</p> 	<p>ARTS</p> <p>Making a structured argument based on an assessment of historical evidence.</p> <p>Expressing ideas in writing with coherence and clarity.</p> <p>Critically applying methodologies for quantifying, analysing and interpreting data.</p> 
<p>BUSINESS AND ECONOMICS</p> <p>Modelling and data analysis, interpretation and extrapolation.</p> <p>Listening, negotiating and persuading.</p> <p>Problem solving and decision making by creating, evaluating and assessing options.</p> 	<p>EDUCATION</p> <p>Questioning ideas and theories encountered in learning.</p> <p>Communicating oral and written arguments.</p> <p>Comprehending a range of education systems and the values behind these.</p> 
<p>ENGINEERING</p> <p>Investigating and defining issues, taking into account limitations and risk assessment.</p> <p>Adopting creative and innovative solutions to problems.</p> <p>Managing projects including planning, execution and evaluation.</p> 	<p>INFORMATION TECHNOLOGY</p> <p>Planning solutions to specific problems within appropriate specifications.</p> <p>Identifying, analysing and evaluating the information needs of different groups.</p> <p>Providing access to information via different delivery strategies.</p> 
<p>LAW</p> <p>Identifying and prioritising issues in terms of importance.</p> <p>Researching relevant information from a range of sources.</p> <p>Making and presenting a rationalised choice between a range of solutions.</p> 	<p>MEDICINE, NURSING AND HEALTH</p> <p>Analysing, interpreting and critically evaluating data.</p> <p>Communicating effectively with clients.</p> <p>Liaising and negotiating within a multi-discipline team.</p> 
<p>PHARMACEUTICAL SCIENCE</p> <p>Understanding and upholding the ethical responsibility of the role.</p> <p>Apply scientific and technical rigour to the use of medicines.</p> <p>Using evidence-based decision-making skills.</p> 	<p>SCIENCE</p> <p>Planning, conducting and reporting on investigations through individual and group projects.</p> <p>Developing arguments from scientific, philosophical and ethical perspectives.</p> <p>Assessing, analysing and processing information from a range of sources.</p> 

5. Developing employability skills (external contexts)

During their studies, students can develop their employability skills by engaging in a wide range of activities. Some of these form part of the course, others relate to study that is outside their official course, others are activities that take place at the institution but are not related to study such as clubs hobbies and sport, others are work-related. Figure 17 shows some of these:



Figure 17 - Employability skills development

5.1. Extra-curricular activities within the institution

In many higher education, extra-curricular activities are not considered strategic elements, and are often seen as aspects that are organised by students for students, the institution limiting itself to provision of spaces and sometimes financial support. However, in a pivot towards employability skills it is important that the institution recognises the contributions these activities can make towards the development and evidencing of employability. This is valuable both from the perspective of being seen to support broader employability than that developed within the aegis of the curriculum, but also as part of the work of supporting students in learning to recognise the evidence of employability that these non-formal contexts can generate.

Extra-curricular activities such as sports, hobbies and clubs often involve a range of skills that if appropriately identified and documented can form an important part of the students range of skills. It is however important to develop students' capacity to reflect and identify these elements, and this is something that the institution can help with.

5.2. Summer jobs and part-time work

While it is possible to get summer work experience with relevant employers (e.g. accountants, computer companies), financial pressures and the current labour market in many countries mean that most students have to take any job they can find. Indeed, relevant work to their degree studies is often intern work that is unpaid, and therefore not accessible to all students. This makes it all the more imperative for students to be able to identify the employability skills developed in other part-time work. Frequently, when they make applications for permanent jobs and employers enquire about their work experience, they find it hard to believe that these jobs can be of relevance to their future career. It is important that the institution and teachers emphasise the fact that this work can be valuable, however irrelevant it may seem and that usually employers do value this type of work experience and wish that students would make more of it on their application forms.

To give an example, some of the skills that students might gain from retail or hospitality work, and which are relevant to most jobs are (Figure 18):



Figure 18 - Employability skills development through retail and hospitality work

5.3. Beyond the institution

To a certain extent, the use of the portfolio to track and showcase the development of employability skills once a student has finished the course of study is up to the student, by this time the student has to have become autonomous in their management of the portfolio. However the institution can do a series of things

to support this and indeed if its strategy is to be an employability focused organisation then it should do this. There are a range of actions that can take place:

- **Before graduation:** The development of employability skills should include the development of “meta-skills” that enable the learner to manage their own employability skills record, teaching them to document and showcase their skills using the portfolio in ways that will persuade potential employers of their value.
- **On graduation:** The institution can provide support both in helping the graduate to come into contact with collaborating employers, and in helping the graduate to prepare selection and interview processes appropriately using their portfolio. This benefits all three major groups of stakeholders; employers get better candidates, the institution is able to demonstrate commitment to employment, and the student finds it.
- **Beyond graduation:** the institution can help its alumni in three main ways: first by continuing to host and support the eportfolio software, second by maintaining a rich and active alumni network and third, by providing refresher courses and continuous professional development for alumni. In this way, though the ultimate responsibility is the student’s, the institution continues to show its commitment to employability.

6. Assessing employability skills

6.1. Terms

Evidence-based learning describes a class of approaches, processes, and strategies that have been empirically demonstrated to produce learning outcomes. This definition includes another possible definition, that of evidence that learning has occurred, which assumes that learning can be measured. For the purposes of this handbook, learning involves those situations whereby students feel they have acquired and/or demonstrated the employability skills they are aiming to showcase. In this context, students are learners; teachers are those professionals who facilitate students' learning; and learning outcomes are the products of learning.

6.1.1. Suitability of evidence

For evidence to be suitable, it must fulfil the following criteria: it must be sufficient, authentic, credible, objective, relevant, current, and verifiable (OU, 2019).

- Sufficient evidence means evidence submitted must cover all aspects of the assessment criteria for each unit students are required to achieve, i.e. for each skill they are seeking to demonstrate
- Some qualifications require specific evidence and students should check the criteria to see what is needed. Sufficient does not mean a mass of evidence. It simply means collecting enough evidence to demonstrate competence,
- Authentic evidence only relates to one's own performance,
- Credible evidence is reliable, and believable. It comes from a reliable source. There is no obvious reason to doubt its authenticity,
- Objective evidence can be observed by anyone, and so excludes purely subjective personal experience.
- Relevant evidence relates clearly to the qualification students are seeking to achieve. Assessors are only interested in evidence directly related to the requirements set out in the assessment (e.g. rubrics). That is, evidence which clearly links a learner's performance with specific areas of their chosen qualification,
- Current evidence is evidence relating to skills, attitudes, and knowledge students can currently demonstrate. Assessors will be evaluating students' current level of competence so these must ensure that their evidence clearly relates to activities and areas of work they could still perform if required to do so, verifiable evidence can also be found by anyone else using the same conditions, i.e. anyone in the same circumstances must be able to get the same result using exactly the same method

6.2. Rubrics for the assessment of employability skills

In pursuit of assessing students' employability skills, rubrics are a highly effective method to measure students' attainment against a consistent set of criteria. Typically, rubrics include the educational purpose of an assignment, and the rationale behind it; the specific criteria or learning objectives that students must

show proficiency into successfully complete meet expected standard, and the specific quality standards the teacher will use when evaluating, scoring, or grading an assignment. Rubrics should be designed to be simple, explicit, and easily understood.

Among the various types of rubric there are, analytic rubrics are commonplace in higher education as they provide useful feedback on areas of strength and weakness, and criterion can be weighted to reflect the relative importance of each dimension. Criteria for a student product is listed in the leftmost column of a grid with levels of performance listed across the top row often using numbers and/or descriptive tags. The cells within the centre of the rubric may be left blank or may contain descriptions of what the specified criteria look like for each level of performance. When scoring with an analytic rubric each of the criteria is scored individually.

Using a rubric provides several advantages to both instructors and students. Grading according to an explicit and descriptive set of criteria that is designed to reflect the weighted importance of the objectives of the assignment helps ensure that the instructor's grading standards do not change over time. Grading consistency is difficult to maintain over time because of fatigue, shifting standards based on prior experience, or intrusion of other criteria. Furthermore, rubrics can reduce the time spent grading by reducing uncertainty and by allowing instructors to refer to the rubric description associated with a score rather than having to write long comments. Finally, grading rubrics are invaluable in large courses that have multiple graders as they can help ensure consistency across graders and reduce the systematic bias that can be introduced among them.

Used more formatively, rubrics can help instructors get a clearer picture of the strengths and weaknesses of their class. By recording the component scores and tallying up the number of students scoring below an acceptable level on each component, instructors can identify the skills or concepts that need more instructional time and student effort.

Rubrics are also valuable to students as they can help instructors communicate to students the specific requirements and acceptable performance standards of an assignment. When rubrics are given to students with the assignment description, they can help students monitor and assess their progress as they work towards clearly indicated goals. When assignments are scored and returned with the rubric, students can more easily recognise the strengths and weaknesses of their work and direct their efforts accordingly.

A good example of a rubric is Valid Assessment of Learning in Undergraduate Education, VALUE. This is a campus-based assessment approach developed and led by the Association of American Colleges and Universities (AACU). VALUE rubrics provide tools to assess students' work, produced across students' diverse learning pathways, fields of study, and institutions, to determine whether and how well students are meeting graduation level achievement in learning outcomes that both employers and faculty consider essential. The approach has rubrics for sixteen essential learning outcomes that all students need for success in work, citizenship, and life. The VALUE rubrics include Inquiry and Analysis, Critical Thinking, Creative Thinking, Written Communication, Oral Communication, Quantitative Literacy, Information Literacy, Reading, Teamwork, Problem Solving, Civic Knowledge and Engagement—Local and Global, Intercultural Knowledge and Competence, Ethical Reasoning and Action, Global Learning, Foundations and Skills for Lifelong Learning, and Integrative Learning. They are being used to help institutions demonstrate, share, and assess student accomplishment of progressively more advanced and integrative learning.

Oral Communication Rubric

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs or behaviours.

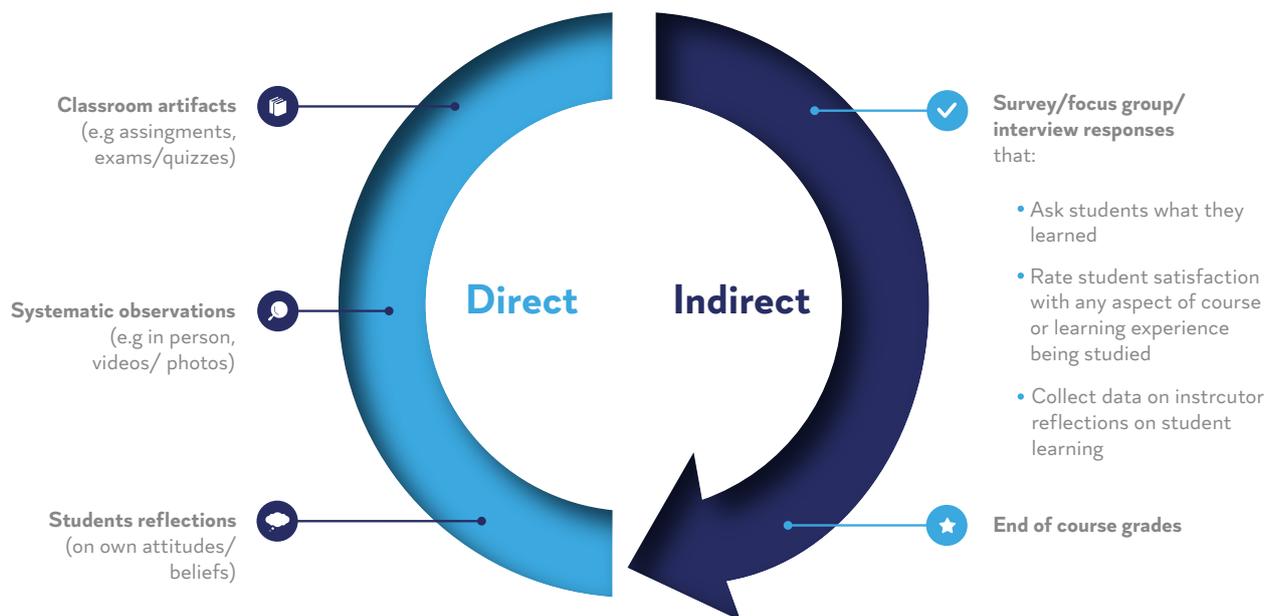
	Capstone	Milestones	Benchmark
Organization Specific introduction and conclusion, sequenced material within the body, and transitions	4 ← Organizational pattern is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	3 ← Organizational pattern is clearly and consistently observable within the presentation.	2 ← Organizational pattern is intermittently observable within the presentation.
Language	1 ← Language choices are imaginative, memorable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	2 ← Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	3 ← Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.
Delivery Posture, gesture eye contact, and vocal expressiveness	4 ← Delivery techniques make the presentation compelling, and speaker appears polished and confident.	3 ← Delivery techniques make the presentation interesting, and speaker appears comfortable.	2 ← Delivery techniques make the presentation understandable, and speaker appears tentative.
Supporting material Explanations, examples illustrations, statistics, analogies, quotations from relevant authorities	1 ← A variety of types of supporting materials make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/ authority on the topic.	2 ← Supporting materials make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/ authority on the topic.	3 ← Supporting materials make reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/ authority on the topic.
Central message	4 ← Central message is compelling (precisely stated, appropriately repeated, memorable and strongly supported).	3 ← Central message is clear and consistent with the supporting material.	2 ← Central message is basically understandable but is not often repeated and is not memorable.

Table 24 - Value Rubric on oral communication (AAC&U, 2009)

It is important that measures taken validly measure the specific criteria described in the rubrics in question, and provide faculty with usable and useful information. Even valid and reliable direct measures may only capture a student's performance or learning at one particular moment and may be better at capturing learning for some students than others. It is helpful to provide students with multiple opportunities and different methods of demonstrating their learning on the same outcomes over the course of their study.

Evidence can be of several kinds. Figure 19 shows some examples:

What type of evidence supports the purpose of your study?



These are **direct** forms of evidence for your study and are considered more objective than indirect forms of evidence

These are **indirect** forms of evidence for your study and are considered more subjective than direct forms of evidence. If the evidence for your project is indirect, it is recommended that you consider using some form of direct evidence (in place of or in addition to your indirect evidence) to counteract any subjectivity in your data if you are seeking to measure changes in student learning

Figure 19 - Types of evidence

Often, educationalists ascribe one of two labels to their evidence. There is direct evidence and indirect evidence.

Direct evidence is usually capturable at the teacher level.

6.3. The teacher's role in assessment

Direct evidence of student learning comes from objective sources; it is tangible, observable, and self-explanatory. In other words, direct evidence of learning indicates what students can demonstrate, as well as the degree to which students have moved toward mastery of faculty-identified expectations. Direct evidence answers the question, "what did the students learn?"

Examples of direct evidence include:

- Samples of student work such as essays, exams, in-class writings, lab reports, quizzes, portfolios, (online) projects/assignments, etc.,
- Pre-post assessments (measuring student change over the course or programme)

- Scores on locally-designed multiple choice and/or essay tests such as final examinations in key courses, qualifying examinations, and comprehensive examinations, accompanied by test “blueprints” describing what the tests assess,
- Systematic observations of students (in person, videotape, audiotape, online discussions),
- Students’ reflections on their own values, attitudes, and beliefs,
- Employer ratings of employee skills,
- Summaries/analyses of electronic discussion threads.
- Capstone projects (scored with a rubric)
- Student portfolios (scored with a rubric)
- Performance evaluations
- Employer ratings of employee skills
- Think-alouds
- Classroom response systems (clickers)
- Knowledge maps
- Feedback from computer-simulated tasks (e.g. information on patterns of actions, decisions, branches)

Indirect evidence can usually be captured and managed at the institutional level.

6.4. The institutional role

Indirect evidence of student learning is sourced from more subjective sources, and it answers the question, “what do students report they’ve learned?”. It provides useful insight and contextual information to support inferences about student learning, but is in itself insufficient to support conclusions about or recommendations for programme effectiveness or student learning. Ideally, indirect evidence should always be complemented by direct evidence, either from the classroom space, or from direct observation (or self-observation) on the job.

Examples of indirect evidence include:

- Self-reports of students' perceptions of their own learning,
- Responses to survey or interview questions asking students what helped them learn (e.g. knowledge surveys),
- Responses to survey or interview questions asking students to rate their satisfaction with a learning experience (e.g. exit interviews),
- Questions on end-of-course student evaluation forms that ask about the course rather than the instructor,
- Student/alumni satisfaction with their learning, collected through surveys, exit interviews, or focus groups,
- Teacher reflections on student learning and teaching methodologies,
- Assignment grades, if not accompanied by a rubric or scoring criteria,
- Course grades, if not accompanied by a rubric or scoring criteria,
- Admission rates into graduate programmes and graduation rates from those programmes
- Quality/reputation of graduate and four-year programmes into which alumni are accepted
- Placement rates of graduates into appropriate career positions and starting salaries
- Alumni perceptions of their career responsibilities and satisfaction
- Student participation rates in faculty research, publications and conference presentations
- Honours, awards, and scholarships earned by students and alumni
- Class time spent in active learning,
- Number of student hours spent on service learning, homework, or at intellectual or cultural activities related to the course.

In the institutional dimension there are some other forms of evidence.

6.4.1. Curricular, co-curricular and extracurricular evidence

Curricular activities are those activities that are a part of the curriculum. Co-curricular refers to activities, programmes, and learning experiences that complement, in some way, what students are learning at school—i.e. experiences that are connected to or mirror the academic curriculum. Co-curricular activities are typically, but not always, defined by their separation from academic courses. For example, they are

ungraded, they do not allow students to earn academic credit, they may take place outside of school or after regular school hours, and they may be operated by outside organisations. A few examples of common educational opportunities that may be considered co-curricular include student newspapers, musical performances, art shows, mock trials, debate competitions, and mathematics, robotics, and engineering teams and contests.

Extracurricular activities are defined as those activities that are not tied to the curriculum. They can be almost anything that is not required for school credit or paid employment, including activities you may do with your family, or within your community. They become important when applying for jobs as they contribute to your development of skills and help show employers your talents, interests, and passions, and a different set of skills you may not necessarily have displayed and been able to showcase fully at school or in the workplace. Some extracurricular activities which may be relevant when showcasing your skills are clubs, competitive teams, sports, service to the community, social activism, volunteering, and leadership endeavours, among others.

6.5. The employer's role

6.5.1. Professional and work-related evidence

Whatever the occupation, the most efficient way to develop expertise is learning through practice in the workplace. A growing body of evidence shows how opportunities arise for learning within the workplace as part of everyday daily practices. These opportunities stretch across the 'formal-informal' continuum. These include:

- Periods of structured supervised training
- Organised and accidental problem-solving and knowledge sharing encounters with colleagues
- Co-development and adaptation with clients and customers of products and services.

Workplace learning can be enhanced through pedagogical strategies such as coaching, mentoring, and the use of constructive feedback.

Equally, work-related evidence is also that which you develop in your everyday work engagements and responsibilities, i.e. in your day-to-day endeavours in the workplace. These may have been overlooked at times, but are often acknowledged and rewarded. Evidence of this sort may include:

- Promotions,
- Being chosen employee of the month,
- Being awarded a project award,

- Receiving a commendation,
- Reference on social media.

6.6. The individual role

As mentioned previously, once in employment the student has to transition to largely autonomous management of the portfolio, their learning and skills development, and evidencing and showcasing their skills. At this point there is a need to shift away from test-based understanding of skills and certification. As many employers state, the best proof of a skill is the exercise of that skill in real contexts. Given this the learner needs two particularly important skills. The first of these is the capture of evidence. This can be done in various ways:

- Collecting data about a specific process where the skill was evident
- Writing or storing reports on the process that contain evidence
- Recording audio or video accounts of the process
- Case studies
- Interviewing other actors in the process
- Records from after action reviews and /or performance reviews, etc

This documentation is valuable but does not in itself constitute evaluation. Outside the institutional context the most important tool for the learner is assessing skills is reflection, by the individual and by others, on performance of the skill in real contexts. Frequently this may take place simultaneously with documentation, since accounts of the process may often contain evaluative comments and reflection on the process. The individual's capacity to identify these and to construct reflective convincing accounts of the use of their skills is perhaps one of the most important employability-related skills they can develop. The institution's role in developing this capacity for reflection cannot be understated.

7. Showcasing employability skills

7.1. Enhancing employability skills visibility

7.1.1. New accreditations

As previously mentioned, ePortfolios are flexible and support several different purposes. We have distinguished three main functions: learning, assessment and showcasing. We also mentioned the key role of ePortfolios in the transition and linkage between academic life and the workplace. Perhaps central for the learner however is their role in supporting the search for employment. In any job selection process the principal qualifications derive from the Higher Education Institutions which are recognised for their role and their credibility regarding accreditation. Accreditation is related to students' successful accomplishments and involves rigorous and sustained assessment by academic representatives. Traditional certificates or diplomas are issued by universities to accredit these achievements.

In addition to the diploma itself is the accompanying transcript, which provides a record of all the courses taken within the degree, and provides more details for employers. However, few accreditations exist for sets of employability skills since they do not fit easily within any particular domain. For these important qualities there is a lack of official recognition, though these are the skill many employers are most interested in for the purpose of distinguishing between similarly qualified candidates for a post. Other forms for evidence are necessary. Qualitative evidence, derived from observation and self-observation particularly in real contexts is an important element that we have already mentioned and the capacity to identify and document relevant episodes is important.

However there are new emerging approaches to certification and accreditation of graduate skills to better respond to employers and market demands, in particular as regards employability skills. The communication and visibility of these skills has especially focused on the provision of comprehensive reports such as the learner record.

What is a learner record?

7.1.2. The use of learner records

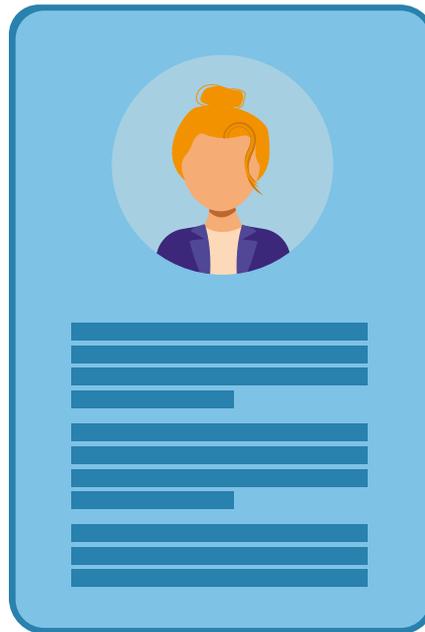
European Diploma Supplement

The Diploma Supplement is a learner record that is produced by European higher education institutions according to standards agreed by the Commission, the Council of Europe and the United Nations Educational, Scientific and Cultural Organization (UNESCO). It is also part of the Europass framework transparency tools. It is designed as an aid to support the recognition of academic qualifications and it is intended for graduates to be able to ensure that their degrees are recognised by higher education institutions, public authorities and employers in their home countries and abroad. It is particularly important in the European Union to ensure qualifications and programmes of study more easily comparable for students between countries across Europe. It offers a detailed description of the studies completed and provides an indication of the competences acquired to complete the course, and some of these can provide

indications of employability skills. These are not however focused on explicitly in the supplement, and the supplement can contribute to employability it is usually necessary to complement it with further information. The European Skills Passport addresses this.

European Skills Passport

The European Skills Passport is an electronic portfolio which gives a comprehensive picture of students' skills and qualifications. It helps them document and validate their skills and qualifications to find a job or training course.



Curriculum Vitae

- Create your CV & cover letter online
- Update your CV (Europass PDF) online
- Examples

European Skills Passport

- Create your European Skills Passport online
- Update your European Skills Passport (Europass PDF) online
- Language Passport
- Europass Mobility
- Diploma Supplement
- Certificate Supplement

Figure 20 - European Skills Passport (2019)

Comprehensive Learner Record (CLR)

The Comprehensive Learner Record (CLR) specification (Green and Parnell, 2017) is a standardised format for a new more detailed academic transcript designed to meet the needs of both institutions and learners developed by the American Association of Collegiate Registrars and Admissions Officers (AACRAO). Learners are the primary beneficiaries of the Comprehensive Learner Record. Their transcript

captures rich information about their learning achievements that go well beyond the traditional list of completed courses. The CLR aims to capture, record, and communicate learning when and where it happens in a student's higher education experience. This includes learning outcomes from courses, program and degrees, as well as experience they have outside the classroom that help develop their career ready skills and abilities. With a CLR, learners can share an official verifiable digital transcript with admissions offices, graduate schools, prospective employers, or others. The CLR covers a range of elements such as experience, competences, training, learning, ability, advanced training, knowledge and growth.



Figure 21 - Elements of the Comprehensive Learner Record

This range of elements goes well beyond the conventional transcript, and within this record, elements relating to employability skills can also be found. This richer picture is useful and CLR's have been developed and implemented by a good number of US colleges and universities. These have mostly been developed largely as institutional innovations that are unique to each organisation. However, they are frequently only available as PDFs which limits their flexibility and their potential for adaptation to each new employment context. The eportfolio offers the possibility to store and present the learner record in digital form adapting it to the needs of the moment. It is important to remember that showcasing the record using the portfolio does not imply showing the whole portfolio. In the same way as a CV is adapted to highlight the most relevant aspects for a selection process, a portfolio can be used to showcase specific aspects. In a sense there are two portfolios, one is the private working portfolio that only the learner and selected institutional users (such as teachers) may see, and the other is the public or presentation portfolio, which can exist in as many versions as are needed.

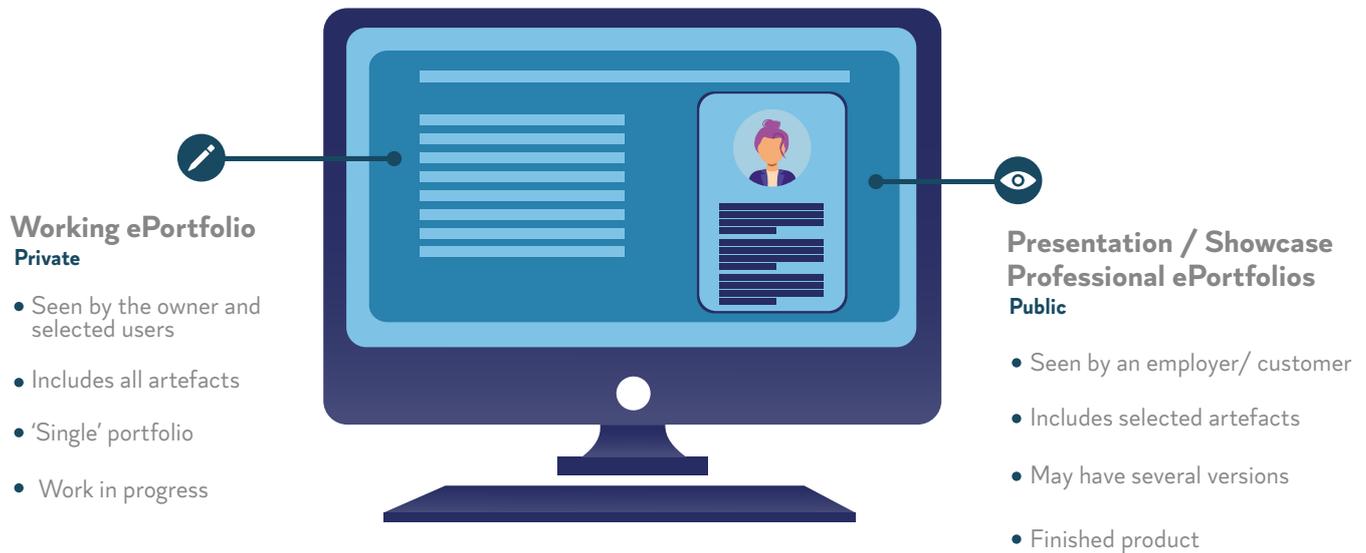


Figure 22 – ePortfolio versions

There are currently many examples of CLR with different focuses and perspectives. The Elon University (Greensboro, North Carolina), for example has an Experiences Transcript that provides a summary of experiences and a timeline, and the second page features graphics for each of the five co-curricular experiences that Elon tracks. It documents a student's participation in the five programme areas that make up Elon Experiences: global engagement (or study abroad), service, leadership, internship, and undergraduate research. Here we see some elements of the employability skills that we have mentioned above.

Elon Experiences Transcript (EET) <https://www.elon.edu/u/elon-experiences-transcript/>

Another example is this one from the University of Maryland University College, which goes into a greater level of detail. The figure shows a page from the CLR focusing on specific employability skills and allowing the user to track their development and the evidence available.

UMUC Comprehensive Learner Record (Green and Parnell, 2017) <https://umd.edu>

The differences between these two examples show the degree of variation, and the issue the European Union aims to solve with the European Diploma Supplement and Skills Passport is pertinent here. There is no standardization, which reduces the usefulness as employers have to navigate their way around each CLR. While there are initiatives towards standardization, such as the IMS Global CLR Standard, that may help to address these issues while maintaining a rich level of detail, a further issue remains which is that the learning and development of employability skills does not take place exclusively in the institution. It carries on in parallel outside the institution in the learner's personal life during any course of study, and continues when the learner has moved on into professional life.

7.1.3. The use of new credentials or badges

A range of initiatives have arisen to address the issue of capturing learning and skills development that takes place more informally outside the aegis of a course, or transversally across courses. These are often referred to as micro-credentialling as they often focus on skills at a more granular level than the university course. Another term increasingly used is “badges”, a term derived from the badges used in scouting to show achievements. A typical example of badges offered by professional organisations can be found on the IBM Digital Badge program at <https://skillsbuild.org/badges/>. The badge allows for the recognition of skills that people acquire through professional or other activity that is not usually course-based. HE institutions are also starting to use micro-credentialling and badges as ways of supporting recognition of emergent employability skills.

Deakin University Credentials

Deakin’s Professional Practice credentials (Deakin University, 2019) offer a new way to recognise the skills and knowledge students have developed through learning, work, and experience. From employability skills, such as communication and problem-solving, to leadership and technical knowledge like digital marketing and design thinking, Deakin University credentials provide independent proof of students’ professional capabilities. Moreover, this credentialing process is entirely online.

Deakin University Credentials (2019) <https://www.deakin.edu.au/credentials>

La Guardia Career Readiness Digital Badging Programme

This project is designed to have six career readiness badges and one Meta badge in alignment with the NACE competences to be issued along with LaGuardia’s core values. Project leaders developed a curriculum focused on career and professional development topics to facilitate in-service and badge evidence based on badge criteria. The following are the badges:

La Guardia Career Readiness Digital Badging Programme (Green and Parnell, 2017, p.73-74)
<https://www.laguardia.edu/home/>

There is a variety of digital badge initiatives, and though it is valuable for an institution to explore ways to develop their own initiatives, as this can contribute to the positioning of the institution as employability-focused, it is important to recognise that the portfolio provides much greater flexibility to the individual than any single micro-credentialling initiative can do. The positioning may be better achieved by supporting a rich and flexible portfolio environment that can admit all kinds of credentials. This is more likely to guarantee the longevity and sustainability of the individuals employability skills, allowing them to track and record them as they are acquired throughout their professional careers, and receive support and perhaps further education from the institution at different points.

7.2. Selecting evidence

The challenge of the individual, once the portfolio is populated with a rich collection of evidence of knowledge skills and competences, is how to present it, and particularly what to choose to present. Not all the different elements in a portfolio will be relevant in any particular employment process, and it is important to avoid overloading the prospective employer with too much information that is not pertinent.

Obviously it is hard to make generalisations, each post and employer and situation are different, and it is in the end the responsibility of the individual. However in the same way as we can help the learner develop the capacity to write a good cover letter, we can give them practice in selecting the evidence that they wish to showcase. In a sense the portfolio is a kaleidoscope that can be turned to provide many subtly different images. This is a skill that can be developed by teachers.

The key capacity involved is the capacity for reflection. A key employability skill is the “meta” capacity to reflect on one’s employability skills, both at the recognition stage where they are identified and captured, particularly in non-institutional contexts, and at this stage where they are selected to be showcased. In this sense the institution has an important part to play, and a valuable element in an institution that is fully employability focused would be to ensure that there are specialist careers staff trained in helping learners to carry out this reflection and selection process.

And how does the individual present the portfolio?

7.3. Presenting evidence

7.3.1. How to build an attractive ePortfolio for an employer?

The institution can of course help with aspects related to presentation as much as with selection. To ensure the portfolio presented has an optimal impact there are several considerations that the learner can bear in mind to improve the quality and attractiveness of the public-facing portfolio and attract the recruiter’s attention. These are described in the following figure:

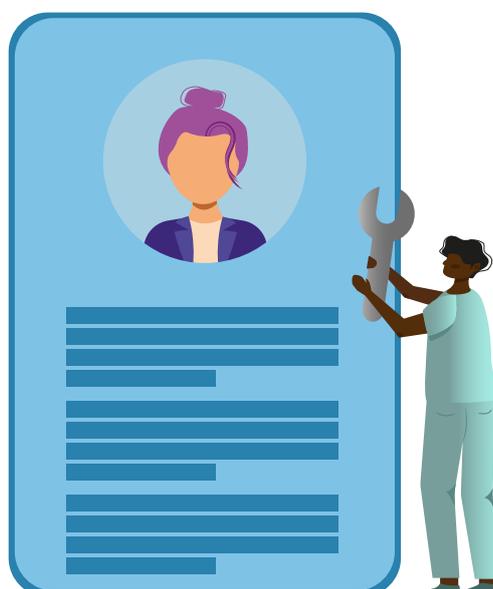


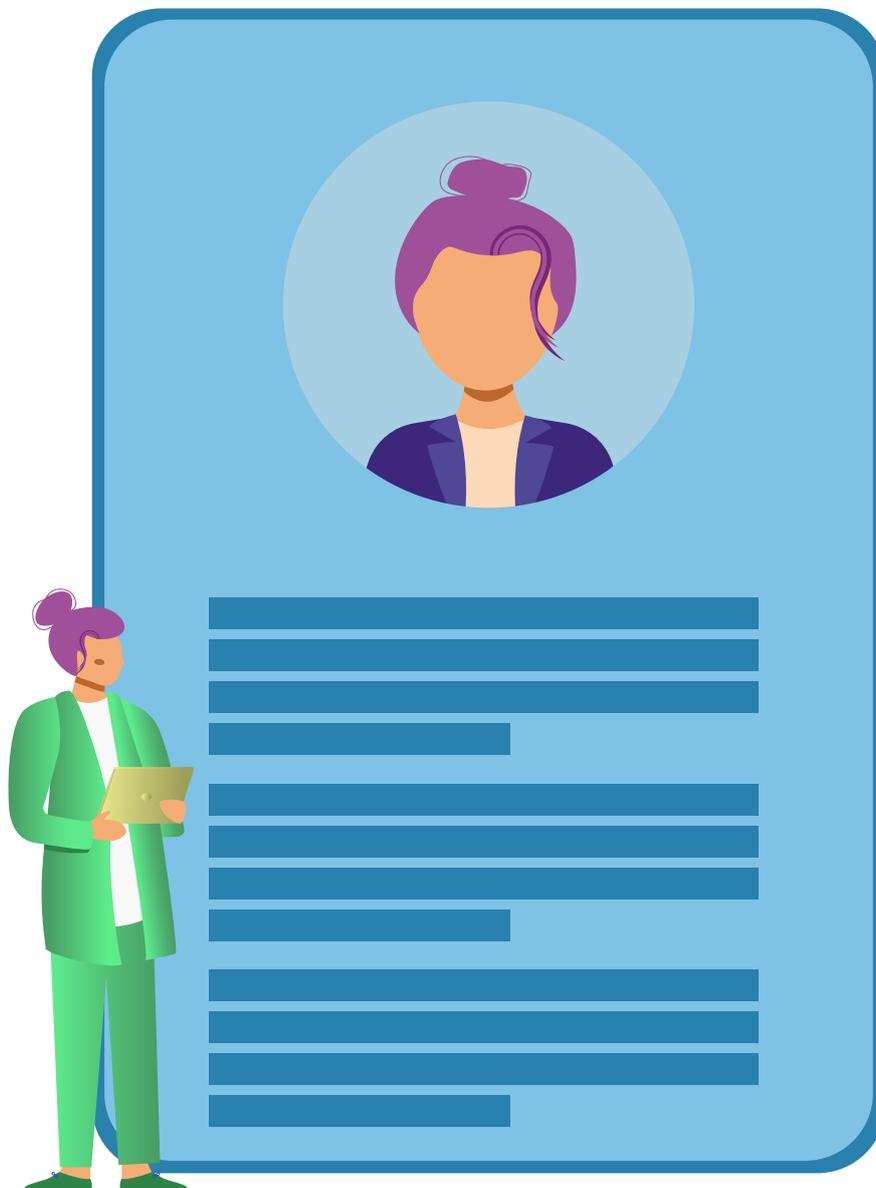


Figure 23 – Employer tips

There are many ways to present oneself in an eportfolio. Here are just a few examples to give an idea of the possibilities:

- Example of ePortfolio front page
<https://patiencemarsh.wixsite.com/portfolio>
- Example of ePortfolio front page
https://slcc.digication.com/hannah_gabrielles_eportfolio/Welcome1/
- Example of ePortfolio dynamic page illustrating carrer-long learning
<https://michellemagbanua.wixsite.com/michellecasten/copy-3-of-teaching-quality-standard>

These examples give a brief flavour of the possibilities. There are many more examples online.



8. Conclusions

The aim of this handbook has been to give an overview of the use of portfolios in institutions to develop, accredit and showcase learner's employability skills. This can be seen as an important step in ensuring the positioning of the institution as focused on ensuring its graduates are fully prepared for the labour market, and its positioning as a relevant part of its social environment. Furthermore, the use of portfolios can extend and deepen the relationship between learner and institution beyond the life of a specific graduate degree, which has a range of advantages such as

- Strengthening the alumni network through provision of technological hosting and support for the portfolio
- Providing opportunities for further learning as the need for new skills emerges during the individual's career
- Developing employer relationships, as the portfolio continues to develop during employment, the institution may support skills recognition
- Increasing the relevance of the learning at the institution as students return to give talks or participate in curriculum development
- Increasing the institution's reputation as the portfolio makes them part of the professional life, rather than previous to it.

There is much potential still to be realised in the use of portfolios, and many aspects will develop further in the coming years. We hope that this handbook can serve as a starting point for this development in your institution.



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Integrating Employability in Higher Education

