



Quality Management Matrix for Apprenticeships

Version 3

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1. Background

In order to benefit from high quality learning at the workplace, learners/students/employees can be placed into situations where they can develop problem-solving abilities, adapt to changes, technologies, and environments. Work based learning (WBL) has the direct aim of helping learners to achieve knowledge, skills and competences directly relevant to the labour market (European Commission 2015, 1) .Therefore, learning periods in the workplace that are not structured nor planned only provide limited opportunities for the learners. Thus, quality in work-based-learning is very important for any real learning and skills development.

Generally, to ensure that WBL is of high quality, it needs a different approach and guidance to ensure quality in the classroom. In contrast to education providers, companies are not directly under government control and therefore cannot be forced to do certain things in the same way as they do. Nevertheless, organizations like employer´s chambers, small business associations, government apprenticeship directorates, and education providers can support companies, especially SMEs, to improve the quality of WBL.

Assessment is a possibility to assure the quality of WBL. The assessment process, people involved, duration, etc. have an impact on the cost of WBL programs. Therefore, quality issues are closely linked to financing issues.

The European Commission (2015)¹ identified 20 guiding principles for stakeholders involved in WBL. The principles focus on four main themes: involving national governance and social partners; supporting companies, in particular, SMEs; making apprenticeships attractive, improving career guidance; and quality assurance.

There is no universally accepted set of management principles for quality of work-based learning. Therefore, education providers as well as companies apply their own quality models to WBL activities. Several research documents, papers, position papers, etc. include proposed elements of quality and success factors for WBL. This is why ApprenticeshipQ proposes the

¹ High-performance apprenticeships & work-based learning: 20 guiding principles. European Commission. 2015. [http://European+Commission+\(2015\)+High-performance+apprenticeships+&+work-based+learning+\(20+guiding+principles\).pdf](http://European+Commission+(2015)+High-performance+apprenticeships+&+work-based+learning+(20+guiding+principles).pdf)

first comprehensive quality management system for WBL in Higher Vocational Education and Training through:

- Identification of Quality Management Success Factors from Research
- Collection of Case Studies on Work Placement & Quality Management
- Identification of Quality Management Methodologies & Success Factors from Cases

2. Identification of Quality Management Success Factors

2.1 Desk Research

In order to identify Quality Management Success Factors, the project team identified more than 30 papers that concerned quality management in work-based learning. Using these sources, the consortium conducted a qualitative systematic review to identify quality management success factors used by Higher Vocational Education and Training (HVET), Professional Higher Education (PHE) and Higher Education (HE) institutions as well as by enterprises (O2-A1).

All partners filled in the following template, here an example:

1 st national well-cited paper		
Management Success Factors (by education institutions or companies)	Title:	<i>Work-based learning: Illuminating the Higher Education landscape</i> , York: HEA
	Author/Year:	Nixon, I., Smith, K., Stafford, R. and Camm, S. (2006)
	Keywords:	Efficient use of resources
	indirect Quote in English	Evidence suggests that work-based learning can be more resource-intensive than other modes of learning. Providing cost-effective work-based learning solutions will continue to challenge HEIs wishing to expand their provision in this area and increase their respective market share.

2nd national well-cited paper

Management Success Factors (by education institutions or companies)	Title:	<i>A Review of Business-University Collaboration</i> , Department for Business, Innovation and Skills,
	Author/Year:	Wilson, T. (2012)
	Keywords:	Access networking tools and innovation ecosystems
	indirect Quote in English	Regional and National mechanisms (network tools) need to be constantly evaluated, reviewed and updated as media innovations change communications capability and expectation.

3rd national well-cited paper

Management Success Factors (by education institutions or companies)	Title:	Rees, J. (2010), <i>Engaging employers to enhance teaching and learning: ideas and approaches to work-related and placement learning</i> . Reading: University of Reading
	Author/Year:	Rees, J. (2010)
	Keywords:	Mutual Advantage strategies
	indirect Quote in English	Building durable employer-university relationships requires finding ways of working that bring clear benefits to both parties.

4th national well-cited paper

Management Success Factors (by education institutions or companies)	Title:	<i>Work Based Learning A new higher education? SRHE Ch. 6 Making it work institutionally SRHE and OU Buckingham</i>
	Author/Year:	Portwood D (2003)
	Keywords:	'Strategic' Centralisation
	indirect Quote in English	WBL however, involves radical change. It changes institutional regulations, redefines its curriculum, reconfigures learning relationships and introduces new practices.

5th national well-cited paper

Management Success Factors (by education)	Title:	Quality Assuring Higher Education in Apprenticeships Current Approaches Second Edition QAA Gloucester
	Author/Year:	QAA (July 2018)
	Keywords:	One size fits all approaches not sufficient

	indirect Quote in English	A risk-based approach to managing arrangements, an approach that ensures that the effort invested is commensurate with the complexity of the proposed collaboration, the status of the delivery organisation or support provider, the level of experience of the degree-awarding body, and the risks associated with each of these. It is accepted that a one size fits all approach is not sufficient here and that higher education providers will develop and approve a range of different practices and procedure
6th national well-cited paper		
Management Success Factors (by education institutions or companies)	Title:	Integrating Employers in effective support for student WBL: An evidence base to inform policy and practice HEA York
	Author/Year:	McEwen L. J. et al (2010)
	Keywords:	zones of engagement
	indirect Quote in English	(Move) from 'support of employers' to 'appropriate engagement'. This is summarised in the report as 'zones of engagement'. The report crucially found that relationships were of central importance and that there needs to be planning for appropriate engagement as the required support for employers comes through effective communication

2.2 Case Studies/ Interviews

In a second step, the project team conducted interviews with enterprises that offer WBL periods in cooperation with an education provider. The results (O2-A2) were summarized using a standardized template and are published as case studies on the ApprenticeshipQ website <https://apprenticeshipq.eu/>.

Thirty cases were summarized and posted on the website. In order to get a comprehensive overview, the cases are presented in detail on the website with the following sub-items: context, planning, realization, evaluation, impact, constraints, success factors and lessons learned.

The following table contains all cases and institutions, except three cases, where the partners could not get the permission from the company to publish the case. Therefore, these cases were published, however protected with a password.

	Institution	Case
1	Bam Nuttall	In-house apprenticeship programmes
2	Siemens Mobilty GmbH	Trainee program for dual students

3	Deusto Engineering Faculty	Dual programmes involve and integrate professors in the company
4	AVL List GmbH	Developing the curriculum for the master study program
5	DM Drogerie Markt D.O.O	EQF level 5 and 6 apprenticeships
6	Eroski S.Coop	VET Dual Program
7	ESE, School of Education	Internship in basic education
8	ESEP, School of Education	Bachelor in Nursing
9	GOIENA	Apprenticeships EQF 5 to 6; dual programs
10	GZS, CENTER ZA POSLOVNO USPOSABLJANJE LJUBLJANA	Apprenticeships EQF 5
11	Hochschule der Bayerischen Wirtschaft (HDBW)	short manual focussing on quality standard for apprenticeships
12	Hessian chamber of commerce (HIKH)	Organisation practical phases
13	IKERLAN	Apprenticeships EQF 6 to 7; internships; dual programs
14	Douro-ISCE Higher Institute of Educational Sciences	Master's degree in pre-school education
15	Magna Steyr	Internships; building-up a dual study program
16	Merlin Entertainments	in-house quality handbook for WBL/Apprenticeships indicating development at 5 levels
17	ORONA	Apprenticeships; dual programs
18	Paloma D.D.	Compulsory apprenticeships
19	Rugby Borough Council	Apprenticeships, different levels
20	Schenker D.D	Internal concept of continuous improvement
21	DHBW	Guidelines successful implementation of practical phases
22	TŠC Maribor	HQ apprenticeships on national and international level
23	Vita Med Gesundheitszentrum der Parktherme Bad Radkersburg	mentoring training for employees
24	Volksbank Heilbronn EG	Apprenticeships theoretical and practical phases
25	WSP	New degree apprenticeship programme
26	Zavod Traven, Pisari Pri Gračišču	Apprenticeships EQF5
27	Fliessend Steirisch – fluently styrian (Brau Union Österreich)	Internships for students (abroad), short practices during holidays
28/29/30	Three anonymously published cases	

2.3 Identification of Quality Management Methodologies & Success Factors from Cases

In a third step, the project team analysed the case studies, with the aim to:

- complement the quality management success factors collected through the desk research (in O2-A1)
- identify specific quality-management methodologies used to execute the success factors described
- compile the criteria, success factors and methodologies into an AQM matrix

2.3.1. Summary Quality Management Success Factors

In the following table, the quality management success factors are summarized:

PROVIDERS / HEI INSTITUTIONS	EMPLOYERS	STUDENTS
Clear monitoring and tracking processes Evaluation Employability	Framework, Vision & Strategy Why you want to have an apprenticeship? Treating the students equal like employees / Business principles of training	Select / Suggest companies Organise their own application process To empower students to support
Planning Learning agreement Contract Covering the 'Student life cycle' (pre admission to employment)	Communication Effective communication between provider and employer, but also between HR and the departments The objectives of the students are treated with the same importance as the objectives of the employers.	Communication Inform about the program / Learning objectives Peer groups for support / experience / crisis management Feedback on quality Course / faculty evaluation on the issue of integration of practical experiences in to teaching
Relationships	Contract Salary, Time, Workload Level of information clearance Recruitment	Informing / Mentoring Of younger students at the university / company Supporting the recruitment
	Flexibility of Learning Allowing students time out of work / Blended learning Offering Learning	Identifying R&D and innovation issues in the company and actively addresses and include suitable faculty members

Evaluation / Benefit / Assessment What is the added value / impact of this apprenticeship Evaluation	Identifying guest lectures and suggesting them to their program director
Clear training plan Defining the learning outcomes	Improvements suggestions (self-directed groups or specific seminars, meetings)
Developing personal competencies Team building experiences	Be a member of strategic bodies at university.
Introduction into the company = Getting to know each other The student to the company and vice versa.	Many more possible tasks for alumni (guest lectures, mentoring in company, hiring)
Mentoring / Tutor / QM What is their role? What skills are needed to be a mentor? Training and re-training program for mentors. Provide appropriate tools.	
Pastoral support	

2.3.2. ApprenticeshipQ Matrix

At this point, the consortium agreed to cooperate with the project "Supporting Apprenticeships between Professional Higher Education & Small and Medium Enterprises (SAPS)"². The SAPS project, which focussed on improved cooperation between PHE institutions and SMEs with regard to the quality of the practical phases in the company and therefore had an impact (The project can easily be found under the public name "learntowork"). The results of the SAPS project were included in the ApprenticeshipQ matrix:

PROCESSES EDUCATION PROVIDERS	APPQ
1. Setting the learning objectives of the overall programme	Planning Setting the learning objectives Mission, Vision & Strategy – Education & Development Flexible/Blended-Learning Effective Communication Channels established
2. Identifying and recruiting placements	Planning

² <https://learntowork.eu/home/>

	Key Responsibilities identified Mentoring/ Tutoring/ Assessing Effective Communication Channels established
3. Negotiating the agreement	Key Responsibilities identified Mentoring/ Tutoring/ Assessing Flexible/Blended-Learning Effective Communication Channels established Learning Workload Appropriate Learning Environment
4. Monitoring of Apprenticeships	Clear Monitoring and Tracking Processes Evaluation – Programme Effective Communication Channels established Covering the ‘Student life cycle’ (pre admission to employment)
5. Assessment of Apprenticeships	Assessment of Student Learning Effective Communication Channels established

PROCESSES SME’S	APPQ
A. Creating positions for apprenticeships	Planning Setting the learning objectives Identify Funding / Incentives Mission, Vision & Strategy – Education & Development Effective Communication Channels established
B. Negotiating the agreement	Learning agreement Contract Payment/Credits Key Responsibilities identified Mentoring/ Tutoring/ Assessing Effective Communication Channels established Flexible/Blended-Learning Learning Workload
C. Managing the apprenticeship	Covering the ‘Student life cycle’ (pre admission to employment) Realistic & relevant experience of students Flexible/Blended-Learning Introduction into the company = getting to know each other Appropriate Learning Environment

3. Outlook

In summary, Output 2 focussed on the identification of quality management success factors, by analyzing more than 30 papers, conducting interviews with different PHEIs and SMEs about their specific apprenticeship program and considering the SAPS project for further result validation.

The research results described from Output 2 will be included in Output 3 for the development of quality criteria for HEI and SMEs. The quality criteria will consist of a set of process-standards for HVET institutions to manage apprenticeships, each consisting of a criterion, a descriptor and a measurement indicator, in each of the four areas, namely apprenticeships design, apprenticeships provision, assessment of apprenticeships, evaluation of apprenticeships. The list of quality criteria will be validated in an online survey, which will allow participants to rank in order of importance, make improvements, reject criteria and/or propose new criteria.

The results of Output 3 can be read in the according report.

References

European Commission (2015): High-performance apprenticeships & work-based learning: 20 guiding principles. Available at: [http://European+Commission+\(2015\)+High-performance+apprenticeships+&+work-based+learning+\(20+guiding+principles\).pdf](http://European+Commission+(2015)+High-performance+apprenticeships+&+work-based+learning+(20+guiding+principles).pdf)

EU-Project "Supporting Apprenticeships between Professional Higher Education & Small and Medium Enterprises (SAPS)": <https://learntowork.eu/home/>

About the ApprenticeshipQ Project and this publication

The lack of work experience and the skills mismatch between labour demand and supply are two of the greatest challenges for young people to transition from the world of education to the world of work and a promising way to face those challenges are apprenticeships. To support them, the ApprenticeshipQ Project aims to develop management tools that will help higher education institutions and employers to offer and direct high-quality apprenticeships and that can serve as a basis for the development of formal international standards and guidelines.

This publication describes Output 2 of the ApprenticeshipQ Project. The consortium developed success factors with the help of an extensive desk research on Quality Management Factors and evaluated them with the help of surveyed SMEs.



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