EUt+

EUROPEAN UNIVERSITY OF TECHNOLOGY

Deliverable 34

D3.3.2a.b.c Evolution of Apprenticeship

Del. Rel. No D3.7

WP3

Description: Evolution of apprenticeship and lifelong learning within the past year, evolution of the europeanization common plan

Comments:

Dissemination level: **PU**-Public

https://www.univ-tech.eu/phase-1-results

Foreword to deliverable D3.3.2 a.b.c

Deliverable 34 describes the approach taken by task 3.3 to 'develop and implement an EUt+ Lifelong Learning (LLL) and apprenticeship programmes strategy' and the evolution of a Europeanisation common plan over the last 3 years. It aims to consider current educational and European ambitions, consider the opportunities and challenges presented by a multi-campus European university and propose a solution for implementation as well as offering perspectives for the future development.

As explained in the previous deliverable D33/3.3.1, the situation of LLL and apprenticeship in the 8 partner institutions empirically revealed to be much more complex than anticipated by the bid. For most partners, apprenticeship is not part of a university education and there is a lack of institutional knowledge internally about the LLL programme.

As a result, task 3.3 has focused on a constructive strategy for developing a pool of competencies led Lifelong Learning modules which offer a mixed delivery mode and on the Europeanisation of existing programmes.

Content

Introduction

Apprenticeship as well as Lifelong Learning (LLL) do not usually take place as isolated and purely university-based courses, but are often linked closely with partners from industry, commerce and administration.

Due to the diverse anchoring of apprenticeship and LLL programmes among the EUt+ partners, identification of the key decision makers, creators and teachers proved complex. Typically, it was found that each university develops its strategy either at the highest level, by the university boards or on an operational level in the department or specialisation.

In considering the objective to develop a Lifelong Learning and Apprenticeship strategy with a Europeanisation common plan, participants of task 3.3 explored the approach to apprenticeship and lifelong learning by EUt+ partners. This process identified both the different commonalities and the significant differences between the partner universities activities in this area. These differences along with those in national legislation affecting the labour market and higher education, remain clear obstacles to the evolution of a common, Europeanised LLL and apprenticeship model.

As described previously in Deliverable 28/ 3.3.1, apprenticeship is regulated quite differently in each of the eight participating countries, in accordance with the national legislation. Depending on the country, apprenticeship can be dealt with in different areas of law and, sometimes, even spread over several areas.

The field of lifelong learning is in general subject to much less regulation than degree programmes. These are often oriented, according to university, to the respective local needs including public, community and industry demands.

Consequently, with a view to developing a EUt+ strategy, task 3.3 chose to concentrate on the development of a strategy for LLL. Several schemes were explored including the creation of new modules and flexible delivery methods particularly in the provision of continuing education. These took into consideration the directives found in the 'Key competence for lifelong learning' (EU Commission, 2019)[1], the 'OECD Learning Compass 2030'[2] and the 'LifeComp: The European Framework for Personal, Social and Learning to Learn Key Competence' (2020)[3].

Therefore, informed by this benchmark of best practices, the present strategy is developed, consisting in:

➢ Focusing on developing new additional learning offers in the area of "learning to learn" instead of harmonising existing programmes.

➢ Using the concept of a study path and delivery format adapted to the learner's rhythm, providing opportunities to gain competences in different learning settings.

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[1] https://eur-lex.europa.eu/legal content/EN/TXT/?uri=uriserv:OJ.C_.2018.189.01.0001.01.ENG&toc=OJ:C:2018:189:TOC
[2] https://www.oecd.org/education/2030-project/teaching-and-learning/learning/learning-compass-2030/OECD_Learning_Compass_2030_concept_note.pdf
[3] https://publications.jrc.ec.europa.eu/repository/handle/JRC120911

Part 1 – Methodology

o Collection of the existing apprenticeship and LLL models of partners who have them:

A template was sent out to all partners to gather information about the different LLL and apprenticeship offers.

o Evaluation and results

PARTNER NAME	Technical University of Sofia
Concept at TUS	• Qualification courses • Vocational qualification courses/ part of profession • Courses for professional federations
PARTNER NAME	Universidad Politécnica de Cartagena
Concept at UPCT	Lifelong Learning program: • Type 1: Offered for Postgraduate students. Depending on their duration are classified as Master's Degrees or University Specialist Diplomas, or Specific Training Courses. • Type 2: Offered for Professionals, under and postgraduate students. Depending on their duration are classified as Professional Expert Diplomas, Professional Specialist Diplomas and Specific Training Certificates.
PARTNER NAME	Cyprus University of Technology
Concept at CUT	The Practical Training (CEN-399; 5 ECTS) is addressed to undergraduate Chemical Engineering students. The main objective is to familiarize students with the activities performed by Chemical Engineers in the workplace and with the various aspects of the work in Cyprus.
PARTNER NAME	Riga Technical University
Concept at RTU	• LLL Type 1: Short term courses, which are available for all the people who want to learn (*Note the limitations with some courses). • Type 2: MOOCs and LLL courses, mainly for Latvian students, language and different kind of topics tackling mathematics and engineering topics.

PARTNER NAME	Hochschule Darmstadt University of Applied Sciences
Concept at h_da	LLL Dual or extra-occupational BA/MA programme. Accredited. Academic teaching: Several departments (mainly Business), Organisation: department of advanced education Lectures in the evenings /weekends BA programme: start is possible without University entrance qualification Dual version fulfills the standards of « Duales Studium Hessen »

The analysis of existing practices above was expected to provide the basis for a starting point for the development of a common apprenticeship program. In doing this analysis, it emerged that not all EUt+ partners had an apprenticeship offer and that activities were managed by various departments at each partner e.g., science, technical studies, vocational training and an example which partners do, and which do not have programmes.

EUt+ partners offer in Lifelong Learning was found to have a high degree of differentiation, both in terms of subject matter and in the management and organisation of the programmes.

LLL offers are anchored differently within each partner university: centrally, at faculty level or in independent organisational units.

The diversity of clients and their needs was not conducive to harmonisation as some of the courses/programmes are developed freely by the universities and offered on the market, others are commissioned and developed specifically for a customer, typically an enterprise, with staff training objectives.

Part 2 – Virtual Mobility and Europeanisation

Virtual mobility as part of apprenticeships

One of the objectives of task 3.3 described in the bid is to offer apprentices opportunities for virtual mobility on technological platforms, working with concrete projects, particularly from industrial applications.

This was to be realized in collaboration with task 3.5 using the cloud-based platform TELANTO, a university–business collaboration platform in which students solve real challenges provided by companies, to create international teams of students and lecturers working on a project basis. However, during the COVID-19 pandemic, interaction with the platform was low and the implementation of the main objective of this deliverable was postponed and has not yet been tested.

Mixed schemes / Europeanisation approach to LLL programmes

Offering Lifelong learning through mixed schemes with a form of "study and immersion trip" to a EUt+ partner is seen as contributing to the Europeanisation of LLL. To examine the potential for this, each university named an LLL programme best adapted to a mixed scheme of excursions, visiting lectures, blended learning.

 Results:

No partner had success in activating colleagues to take part in pilot programmes in the 2021/2022 questionnaire cycle.

This was evaluated as being due to:

- Diversity of disciplines and departments managing LLL programs making it difficult to identify the right local contacts.
- Questions about the financing of additional teaching hours, travel and accommodation.

- Fitting additional teaching requirements into the academic calendar.
- Unclear benefits for individual teachers and departments unless dedicated to LLL/apprenticeships.

A second cycle is intended in 2023/2024 with better communication and targeting which is expected to be more successful with the relationships built 3 years into the EUt+ initiative.

In conclusion, the approach of Europeanising existing programmes should be pursued, but successful development and implementation would rely on the establishment of a motivated group of teachers and LLL programme managers across the EUt+ partners and in the individual subject disciplines.

Part 3 Strategy Competencies for Lifelong Learning

During the EUt+ Week in Limassol, September 2022, participants of task 3.3 analysed different literature on competences in LLL including:

➕ Key competence for lifelong learning' (EU Commission, 2019)

➕ OECD Learning Compass 2030

➕ 'LifeComp: The European Framework for Personal, Social and Learning to Learn Key Competence'

LifeComp regards "Personal, Social, and Learning to Learn" competences as ones which apply to all spheres of life, and which can be acquired through formal, informal, and non-formal education. It also presents ways to promote competence development through innovative learning approaches. Fig 1 gives an overview of these.
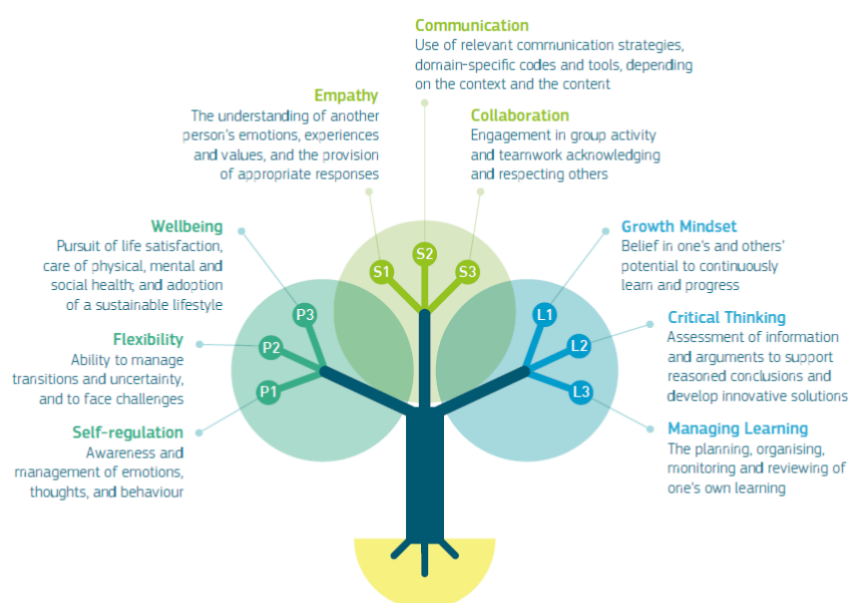

Fig1. Visual overview of innovative learning approaches

Task 3.3 adopted this as a guide as the basis for deriving and developing the present strategy:

➢ Focus on developing new learning offers in the area of "learning to learn" instead of harmonising existing programmes.

➢ Use of the concept of a study path and delivery format adapted to the learner's rhythm, providing opportunities to gain competences in different learning settings.

Filling the gap

Modules in soft skills such as communication, problem solving, creativity, interpersonal skills and emotional intelligence are often part of accredited engineering programmes and seen as essential competences for engineers. More recently, the integration of learning for the green transition and sustainable development has become a priority for the whole Education sector. (Council of the European Union (EU) 2022 Recommendation on learning for the green transition and sustainable development). However, this is not yet the case for Lifelong Learning offers (with the exception of specialized courses or MOOCs).

The strategy developed by task 3.3 for the area of Lifelong Learning aims to fill this gap at the same time as offering learners the autonomy and opportunity to develop their own learning pathway.

The Concept

A pool of self-learning modules covering the individual key competences of lifelong learning. Participants of Lifelong Learning programmes of each EUt+ campus have free access during the duration of their programme and can selectively train

themselves in additional competence areas of their choice. The individual modules are designed to be intercultural and international. If they wish, the learners can take an examination at the end and thus receive a certificate of the competences they have acquired.

Co-Creation - All EUt+ partners would be invited to contribute modules and courses to the pool. These may be delivered on campus, on-line or mixed methods. For example, a model like the Blended Intensive Learning programmes, (BIPs) which include online learning modules and an intensive week's mobility.

EUt+ and the learners benefit from the competences that form different focal points at the different locations. It is also possible that teachers who are not primarily active in the field of continuing education contribute to a successful implementation.

Opportunities - The proposed LLL strategy offers numerous development opportunities for the future. Modules would be offered freely to EUt+ students, researchers, teachers, or administrative staff, thus having the potential to also become an internal training tool for our universities.

There is also the perspective of combining several modules and units into short programmes and offering them as a separate continuing education programme with its own accreditation/ or EUt+ certificate.

Self-Learning Modules – Concept and development

In development of self-learning modules, task 3.3 was inspired by the competency fields advanced in the LifeComp framework. (Fig.1)

It was decided to begin with developing self-learning modules aligned with the competences set **"Personal, social and learning to learn competence"** and within that *L 3 Learning management* was chosen as a model to start with.

Conception Phase

The competences set out in "L 3 Learning Management" are divided into three different sub-sets:

- o L3.1: Awareness of one's own learning interests, processes and preferred strategies, including learning needs and required support.
- o L3.2: Planning and implementing learning goals, strategies, resources, and processes.
- o L3.3: Reflecting on and assessing purposes, processes, and outcomes of learning and

  knowledge construction, establishing relationships across domains.

Taking the L3.1 objective of being aware of one's own learning interests and needs and the required support, task 3.3 plans to begin developing modules that address:

+ Meta-Cognition

+ Procrastination

+ Informal Learning

+ Learning strategies: Elaboration, Retrieval Practice, Spaced Practice, Dual Coding,

Implementation and Testing Phase

The next step will be to develop and make available this self-learning unit. The creator and authoring tool 'Articulate 360', is selected as a tool which makes it simple to build online learning including interactive activities to keep learners engaged. The budget for this is yet to be validated but we aim to make a first module available for students in the September 2024.

Conclusion

Over the past 3 years, task 3.3 has examined the context of apprenticeships and Lifelong Learning across the EUt+ partners.

The apprenticeship context proved to be different in each European nation and Higher education system making the development of an intercampus EUt+ programme complex and unrealizable at this stage. Harmonisation of vocational education and training by policy-makers at European and national levels is needed. Considering the complexity and number of stakeholders needed for this, a long-term perspective must be assumed.

Task 3.3 therefore concentrated on a strategy for the development of a EUt+ Lifelong learning offer. This deliverable has outlined the concept of establishing self-learning courses to foster competences for lifelong learning.

This strategy aims to:
+ be applicable to different disciplines,
+ be feasible as far as possible independent of location and time,
+ not be affected by too many national regulations,

+ not fail due to questions of financial contributions.

+ be attractive to participants and offer sustainable added value.

A medium-term development is quite conceivable although it remains complicated due to the disparity between the bodies responsible for these types of programmes at each partner.

These relationships will need to be built, perhaps based on the formulation of 'clusters' as has been done in tasks 3.1 and 3.2 to successfully develop harmonized programmes and joint degrees.

It is necessary to consider different funding models for payment of teachers and administration staff. This is seen as a central obstacle to engagement by the universities, teaching, and administrative staff.