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Designing Curricula for the New Profile “European Expert in Sustainable Local Development”

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Abstract. Mankind has reached a point where it can no longer ignore the vital problems of the planet. Personalities with insight and awareness not only draw attention to challenges, but also offer solutions. Globally, these solutions have been combined in the 17 Global Goals of United Nations. Nevertheless, not all practical measures to reach these goals can be identified or effectively implemented by the central governments of the countries. There is also an implicit need for greater involvement by local authorities and communities in identifying and implementing specific measures. Subsequently, the need for a new professional figure has emerged. Partners representing local development, VET training, tourism, and academia from 6 countries has joined in a European project to design the profile and the training course for the European Expert in Sustainable Local Development. The stages of the partnership's approach were: a) identifying the competencies necessary for this expert up to a certain level; b) the study of similar professional profiles existing in the partnership countries in order to identify the necessary competencies and to avoid proposing a profile that is too similar and, implicitly, inefficient; c) designing the training course for the person who will become an European Expert in Sustainable Local Development.

Keywords. curricula design, training course, sustainable local development.

1. Introduction

Humanity faces many critical issues that affect the current population, but which can profoundly influence the future of people to come. After several negotiations between countries, the United Nations set a number of 17 Global Goals. But while much can be done at the central level (world organizations, central governments, and regional governments), the deepest and most sustainable results are at the level of local communities.

No one can deny that the agreement on the Sustainable Development Goals (SDGs) is a great achievement. But the implementation of their objectives at national and local level raises some issues, related to the correlation between economic development and sustainability [1].

Even if some restrictions imposed mainly by environmental protection considerations would seem an obstacle to economic development, practice has shown that the Sustainable

Development Goals can be a good opportunity for the robust development of small and large companies [2]. Of course, companies with polluting technologies should be restructured.

Because sustainable development is important for all stakeholders in a community, it has rightly been emphasized that there must be a cross-sector collaboration between all those locally involved [3].

There is a danger that local authorities and economic agents will prioritize certain Sustainable Development Goals and neglect others [4], ignoring the correlation between them as a whole [5]. Consequently, the need to have local experts in sustainable development becomes obvious.

Another intensely debated is how to determine whether a community, region, or country has met the requirements of one of the Sustainable Development Goals. A number of indicators have been established, but there is a fear that these indicators (and especially their critical values) will not be universally relevant [6]. Thus, there is a need to interpret these indicators objectively at the local level, in line with local characteristics.

Researchers and education specialists are concerned with how sustainable development is taught in educational institutions [7, 8] and have proposed specific guidelines. In order to achieve an effective transfer of the spirit of sustainable development to students, it has been found that the educator should possess a range of competencies, which are grouped according to the KOM-BiNE model [9, 10]: planning and organizing; visioning; communicating and reflecting; networking; knowing and acting; valuing and feeling.

Given that the teaching of subjects related to Sustainable Development falls within the area of vocational education training (VET), the particular aspects of VET should be taken into account. For example, there is a tendency for VET trainers to act individually and with a focus on his/her subject to the detriment of interdisciplinary cooperation and overall orientation [11], which is essential when teaching a complex structure such as Sustainable Development.

Universities and other formal education institutions have developed curricula in the spirit of Sustainable Development Goals, but they often represent either isolated approaches or theoretical approaches [12].

There is a need for educational and training institutions to transfer learners holistic and locally applicable skills related to Sustainable Development. It would be good for the curricula to be developed by a plethora of specialists, from education, but also from the fields relevant to Sustainable Development. Given that the Sustainable Development Goals are global in their inner nature, it is recommended that a curriculum be developed from the perspective of several countries.

It is obvious that achieving the Sustainable Development Goals requires actions at the level of communities and businesses, actions that should be part of a transformative change at the local level. Each area is characterized by local priorities, sometimes conflicting interests of stakeholders, and specific uncertainties [13, 14]. Obviously, there is a consistent need for a professional figure with the necessary skills to understand the local situation and design a strategy and plot effective actions. However, the task of building the associated professional profile is not an easy one, given that the local context varies significantly [15].

2. Project SKILLED - Sustainable Skills for Local Developer

The project SKILLED “Sustainable Skills for Local Developer” is an innovative European project (Erasmus+) aiming at creating the professional figure of the EESLD (European Expert in Sustainable Local Development), the professional able to design innovative territorial development plans, interfacing with technical as well as policy level actors. [16]

The project also intends to create a transnational skills validation methodology to promote transparent validation tools in the EU (supporting flexibility) and formalize non-formal and informal competences (acquired by more experienced persons) to be inserted in training programmes addressed to young VET. [16]

When working on the project proposal, recognized issues in the field of VET and Sustainable Development Goals were taken into account, as they were known from the scientific literature and practical experience. Thus, it was taken into account when forming the partnership that the associate organizations should be from different European countries, the organizations should be of different types, to propose a mentor from each organization, etc.

3. Project's Partnership

The project partnership consists of eight organizations from six countries (Austria, Italy, Greece, Romania, Spain, and Turkey). These organizations are:

Fundación Pascual Tomás (FPT) (Spain) is the project coordinator. The foundation is known for innovative and quality teaching. Its training centres are located in different municipalities of Comunidad de Valencia. Fundación Pascual Tomás offers a wide range of courses, both face-to-face and online, all of them adapted to new professional demands of the labour market. It has a Quality Certificate in vocational education and training (VET). The foundation staff is expert in: developing educational methodologies in non-formal education; developing educational contents; developing training programmes; advising companies about training gaps and developing customized programs; offering subsidized courses suited to the training needs identified by the public administration.

Alpine Pearls (AP) is a transnational association of 25 municipalities across the alpine regions of Austria, Italy, Slovenia, Germany, France, and Switzerland and it is located in Werfenweng (Austria). It aims at promoting sustainable tourism activities for local development. It was created in 2006 as a tool for the development of two EU projects - Alps Mobility and Alps Mobility II. Its activities aim at promoting a new sustainable holiday concept, to contribute to the environmental protection and sustainability of the alpine area. The activities raise awareness on issues like climate change and soft mobility, and at the same time promote the local identities, heritage, and traditions of the involved communities. [17]

Development Agency of Karditsa (AN.KA) (Greece) is a Development Agency of Local Authorities. Its staff is working in different departments such as: administration and finance, technical services, planning, studies and services to local authorities, entrepreneurship, and rural development. AN.KA has gained great expertise in various fields and its main objective is to develop, manage, maintain, protect and make the best use of natural resources, by means of: innovation and entrepreneurial approach diffusion in the productive system, introduction and increase of the use of renewable energy sources, support and development of new collective structures, contribution to the social development and the general development of Karditsa and other Greek areas. [17]

Consortium for Training, Innovation and Quality (CFIQ) of Pinerolo (Italy) is an organisation specialised in training of young people and adults, both employed and unemployed. Responding to the increasingly specific demands of the market, CFIQ offers numerous courses every year aimed at job placement, professionalization and the acquisition of competences and qualifications. Thanks to the presence of highly trained staff, CFIQ also offers guidance services and integration activities in the labour world. CFIQ also carries out numerous research, study and evaluation activities in the field of education and vocational training, to guarantee activities and training proposals that are always updated and in line with the socio-economic situation of the territory. [18]

Foundation - "Professionalism for the Development of Ecosustainable Energy Systems" (Fondazione ITS) aims to contribute to changing the models of production, consumption, and energy saving, supporting companies and local authorities in dealing with complex problems that insist on different economic sectors and of the country. From alternative energy sources to sustainable construction, from energy saving to the construction and maintenance of plants, Green Economy leads us to a renewed and less ideological attention to issues of the environment and the quality of living. In particular, the sectors of energy and construction are areas for which it is essential to increase and develop the competences acquired by specific professionals, capable of increasing the competitiveness of local companies. [19]

POLITEHNICA University of Bucharest (Romania) is a renowned research university. Research programmes envisage fundamental research as well as applied research, carried-out through national and international frameworks, contributing to roughly half of POLITEHNICA's income. POLITEHNICA University of Bucharest is a part of the international academic community, sharing the same belief in moral, educational, scientific, and cultural values. As a result of globalization, POLITEHNICA is concerned with the international exchange of values, and because of the prestige enjoyed, there are currently collaborative programmes with over 150 universities in 27 countries in Europe, America, Asia, and Africa [17]. Also, the Skilled project is part of a long series of international projects aimed to develop complex courses for newly emerged professional figures [20].

Iniciativas de Futuro para una Europa Social Coop. (IFESCOOP) (Spain) provides vocational training for different target groups, where priority is given to specific disadvantaged groups such as migrants, women, disadvantaged people, etc. At regional and local level, IFESCOOP cooperates with different organisations and institutions and has established working networks and collaborations that can be used for the dissemination and exploitation of projects results and products. The organisation benefits from the experience of its founders and collaborators: experts in vocational training and adult education with more than 30 years of experience in the area; trainers and training programmes designers; IT specialists; web designers; experts in project management and implementation at regional, national, and European level. [17]

Yasar University (Turkey) is an ideal environment for research, personal development, and learning. Yasar University enriches its high-calibre teaching by strong collaboration with civil society, industry, and commerce both in a national and international context. Through the European Union Research Centre, Yasar University has become one of the most active Turkish foundation universities in academic and student mobility exchanges and projects with European Universities and institutions under the framework of European Union Programmes. Yasar University has established international partnerships and developed strong links with the business sector and other universities. Yasar University is an accredited European Voluntary Service organization and implements EVS projects. [17]

4. Designing the Profile of European Expert in Sustainable Local Development

The stages of the partnership's approach in designing the profile of European Expert in Sustainable Local Development (EESLD) were:

- 1) identifying the competencies necessary for this expert up to a certain level;
- 2) the study of similar professional profiles existing in the partnership countries.

Designing the professional profile of the European Expert in Sustainable Local Development was performed by working separately each partner within its organisation, exchanging files between partners, and debating in online meetings of the whole partnership.

A first set of competences were identified and these were grouped in two large categories: a) **general key-competencies** (linguistic, communicative, and relational, scientific, and technological, legal and economic, organizational and managerial) and b) **technical-professional competencies** connected to the applications required by the labour market and the territory, to respond to different situations and contexts.

Afterwards, the competences were deployed. The general key-competencies were set out in different fields:

a1) **linguistic, communicative and relational field** (Master the language tools and information and communication technologies to interact in life and work contexts; Concert, negotiate and develop activities in working groups to address problems, propose solutions, help produce, order and evaluate collective results; Prepare technical and regulatory documentation that can be managed through computer/data transmission networks; Manage communication and relational processes within and outside the organization both in native language and in English (as lingua franca for Europe); Assess information flows with respect to the effectiveness and efficiency of the management of production or service processes, also by identifying alternative solutions to ensure their quality).

a2) **scientific and technological field** (Use mathematical and statistical tools and models both in the description and simulation of the different phenomenologies of the area of reference, in the application and development of the appropriate technologies; Use tools and methodologies belonging to experimental research for the applications of the technologies of the area of reference).

a3) **legal and economic field** (Find the sources and apply standard and rules that regulate the organization and its external relations at national, European, and international level; Know the organization's constitutive factors and the impact of the company in the territorial context of reference; Use negotiation strategies and techniques with reference to the contexts in which the organizations operate in order to strengthen their image and competitiveness).

a4) **organizational and management field** (Knowing and managing quality organizational models fostering innovation within the organizations of the sector of reference; Recognize, evaluate and solve critical situations and work problems of different nature such as: technical-operational, relational, organizational; Know, analyse, apply and monitor, in specific contexts, management models of production processes of goods and services; Manage relationships and cooperation within the organizational structure in work contexts and evaluating their effectiveness; Manage external relationships and cooperation – both interpersonal and institutional; Organize and manage, considering a level of autonomy and responsibility, the working environment, the human context and the technological system of reference in order to achieve the expected production results).

Similarly, the technical-professional competencies were deployed in:

b1) **understand, analyse and apply sustainable local development principles** (Understanding dimensions and principles of the Local Development between Government and Governance; Know the policies supporting Local Development and sustainability of local territorial systems; Understanding the local dimension in sustainable development processes; Knowing how to implement territorial governance - tools and procedures; Participate in the definition of local tools to support strategic planning of the territories; Participate in the definition of territorial marketing strategies in a sustainable key; Know the different levels of welfare and the actors involved; Map and analyse the stakeholders network).

b2) **project and co-project: from community policies to strategies for sustainable local development** (Know the European policies for cohesion, competitiveness and cooperation; Know the EU support framework and implementation tools; Understand national and regional

policies and tools supporting Local Development; Understand policies and tools supporting Local Development promoted by private entities; Master and apply Project management techniques; Master methods of analysis and writing of projects; Master budget design techniques and reporting rules: analysis of expenditure items and scenarios; Know the main reporting rules, typically related to the use of structural funds and, in general, of public funding; Understand and know the principles of feasibility and sustainability of a project; Analyse and use Collaborative Design and Systemic Design techniques for the design of sustainable local development interventions; Know the main participatory planning techniques and direct involvement of the beneficiaries).

b3) recognize, map and experiment financing related interventions, impacting at local, marginal, and peripheral level (Analyse and participate in the implementation phases of public-private partnerships; Map the main financial actors; Know the general principles of public finance; Map and know the main "classic" financing tools; Map and know the main innovative tools (financial and non-financial) and impact investing).

b4) use specific digital tools to understand and analyse the characteristics of territories and communities, in order to foster and strengthen the participation of the different actors and create new development scenarios (Know the basics of statistical analysis and statistical data research at different levels; Know the basics of marketing and digital marketing; Know the evolution of social innovation through digital; Know and use tools and applications to support the participation of Local Communities; Know and use the basic functions of the GIS (Geographic Information System) tools; Know and use main tools for project management).

b5) know and apply the main current regulations, in particular in relation with rural development, urban and sustainable development, territorial development (Know and apply European, national, and regional regulations).

The next step was the study of similar professional profiles in order to identify their competencies and to avoid producing overlapping profiles. For example, two similar profiles were identified in Romania: Counsellor for local and regional development (COR code 242229; COR being Romanian Occupation Classification) and Expert in durable development (COR code 242232). Both profiles are included in the base group "Specialists in administrative policies domain". They have a university level education (bachelor) and are assumed to work in public institutions. After a careful analysis of all identified profiles in the partnership countries, a refinement of competencies followed by a validation process was undertaken.

Afterwards, the partnership analysed if the future students should possess prerequisite competences. It was decided that prerequisites are necessary, and they should be assessed by an enrolment test. The list of prerequisites was decided to be: knowledge of the English language (Level B1); level 3 (intermediate) in at least 2 of the 5 areas of digital competence defined at European level (Information; Communication and cooperation; Creation of digital content; Safety; Problem solving); soft-skills (responsibility, teamwork, problem solving, decisiveness, ability to work under pressure, time management and flexibility); good writing skills; English language proficiency; personal interest in active citizenship and sustainable, green, circular development and economy.

5. Designing the Training Course for European Expert in Sustainable Local Development

Starting from the competences identified for the European Expert in Sustainable Local Development, the project partners designed and developed the training course materials. The course is based on five primary educational vectors that result from the technical-professional competencies, each of which being designed and organised in order to ensure that the

participants have access to a full complement of knowledge and tools in an individual field of knowledge that is both necessary and relevant during their career. These vectors are: (1) the understanding, analysis, and implementation of local development principles; (2) the development of community-based policies and general strategies for local development; (3) the financial analysis of local development projects; (4) the use of modern data analysis tools in local development projects; (5) the legal and regulatory framework proprietary to local development projects.

The identified competences and educational vectors were the starting point in defining the learning objectives and learning activities.

In order to evaluate the efficiency and effectiveness of the approach, it was decided that for the piloting stage the partnership should develop only some learning activities and after that to analyse the results of the piloting stage and eventually to improve the developed learning activities. Based on the accumulated experience, the rest of the learning activities will be developed.

Consequently, three main learning activities were established for which specific lessons were developed. The learning activities, their assigned learning objectives and lessons developed are presented as follows.

Learning activity 1 - Sustainable development in the EU: The Regional Policy. It has three learning objectives (Know the European policies for cohesion, competitiveness, and cooperation; Know the EU support framework and implementation tools; Understand national and regional policies and tools supporting local development) and consists of two lessons (Lesson 1: European policies for sustainable local development and Lesson 2: Regional policies in 2014 - 2020 and 2021-2027 at a glance). The content of the lessons focuses on the following subjects: European regional policies for cohesion, competitiveness, and cooperation; Regional policies and tools supporting local development; Sustainable development and Cohesion policy in 2014 - 2020 and future objectives for the following years and were drafted by: Yasar University (Lesson 1) and Fundación Pascual Tomás (Lesson 2).

Learning activity 2 - Giving life to cohesion: project and co-project techniques. It has seven learning objectives (Understand the concept and methodology of Project Cycle Management; Be able to apply the methodology of Project Cycle Management; Understand the basics and technique of Logical Framework Matrix; Apply the Logical Framework Matrix in the case of a given project; Know local, cross-border and transnational cooperation systems; Understand theoretical differences/communalities in different cooperation; Know main participatory planning techniques and the direct involvement of the beneficiaries) and consists of three lessons (Lesson 1: The Project Cycle Management (PCM) approach and beyond; Lesson 2: Local, Cross-border and Transnational cooperation for Sustainable Local Development and Lesson 3: Participatory planning: an asset for sustainable development). The content of the lessons focuses on the following subjects: General overview concerning Project Management; The Project Cycle Management method and Logical Framework Matrix technique; The phases of project cycle management as a critical phase in developing a successful project in terms of efficiency and stakeholders' satisfaction; Theoretical input about differences/communalities of local, cross-border and transnational cooperation for Sustainable Local Development and Participatory planning; Practical input through expert interviews of different cooperation; General overview concerning participatory planning techniques such as: future lab, hackathon, Serious Play, and were drafted by: POLITEHNICA University of Bucharest (Lesson 1), Alpine Pearls (Lesson 2) and CFIQ and Fondazione ITS (Lesson 3).

Learning activity 3 - Use specific digital tools to understand and analyse the characteristics of territories and communities, in order to foster and strengthen the participation of the different

actors and create new development scenarios. It has the following learning objectives: Enable the learner to understand the nature and structure of a statistical data set; Enable the learner to understand the nature of the problem to be solved and to be able to choose the proper statistical test or method; Enable the learner to interpret correctly the results of the statistical test or method and subsequently to give the right answer to the given problem; Understand digital marketing and communication tools and their advantages and disadvantages; Utilize digital marketing and digital marketing platforms. This learning activity consists of two lessons (Lessons 1: Basics of Statistical Analysis and Statistical Data Research and Lesson 2: Digital marketing for the SLD: aims, tools and methodologies) and their contents focus on: Basics of Statistics; Probability and Frequency; Statistical Distribution; Statistical Indicators; Statistical Tests; Technology that works for people; A fair and competitive digital economy; An open, democratic and sustainable digital society; Europe as a global digital player. These lessons were drafted by POLITEHNICA University (Lesson 1) and Yasar University (Lesson 2).

Syllabuses were developed for each proposed lesson in order to guide the trainer in his/her work with the students. Each syllabus contains data regarding the learning activity, the learning objectives that will be achieved after completion, duration, contents and planning of learning activities, evaluation test, recommended learning resources and proposals of supplementary learning activities that can be performed by the student.

In order to offer training opportunities for as many categories of learners, the partnership decided that the form of training should be eLearning using a learning management system. It is known that this form of training is distinguished by efficiency, flexibility, and user-friendliness.

The teaching materials made for EESLD training are varied: voice-over presentation files, video files with expert interviews, course text files, instruction files, quiz tests, etc. The teaching materials are accessible on a customised Moodle platform of the partner Fundación Pascual Tomás.

As it can be ascertained from the information presented above, the educational content of the course will ensure that participants will familiarize themselves with subjects that constitute the fundamentals of their future activity as European Experts in Sustainable Local Development.

6. Discussion and Conclusions

Among the many trends of evolution encountered in the contemporary society, two primary ones are sustainable development and subsidiarity, the latter being the process of transferring from the central level as many responsibilities, competences, and rights to develop projects as possible to the local level of governance. A partnership composed of eight organizations (from the areas of local development, VET training, tourism, and academia) from six countries was aware of the close correlation between the two trends and determined that there is a need for a professional figure who through her/his skills can professionally manage sustainable local development. It was found that this professional profile is missing from the classification of occupations in all partnership countries. Similar professional profiles have been identified, but they do not cover the necessary skills for the acknowledged area of action.

The partnership has developed three stages: a) identifying the competencies necessary for the European Expert in Sustainable Local Development up to a certain level; b) the study of similar professional profiles existing in the partnership countries; c) designing the training course for the person who will become a European Expert in Sustainable Local Development.

The identified general key-competencies were: linguistic, communicative, and relational; scientific and technological; legal and economic; and organisational and management. The technical-professional competencies were related to: sustainable local development principles;

project design and development; project financing; local reality analysis using digital tools; and application of current regulations.

In order to evaluate the efficiency and effectiveness of the approach, it was decided that for the piloting stage the partnership should develop only certain learning activities. Consequently, three main learning activities were established: LA1. Sustainable development in the EU: The Regional Policy; LA2. Giving life to cohesion: project and co-project techniques; LA3. Use specific digital tools to understand and analyse the characteristics of territories and communities, in order to foster and strengthen the participation of the different actors and create new development scenarios.

The teaching materials elaborated for EESLD training are varied: voice-over presentation files, video files with expert interviews, course text files, instruction files, quiz tests, etc. The teaching materials are accessible on a learning management system (LMS).

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