Training Material Development

Deliverable 5 (WP3-05)

WORKPACKAGE 3

Outplacement Support for Doctorates in Emerging Areas – OUTDOC

600865-EPP-1-2018-1-ES-EPPKA2-KA

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ABSTRACT:	**The present guide sets out the working methodology followed for designing the learning contents for the online training course of the OUTDOC project, as well as a description of the main objectives sought by teaching this competency-based training course.** **It also includes a description of the student profile and brief notes on the evaluation and monitoring possibilities for tutoring programme participants.**
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1   Introduction

The OUTDOC project was created with the aim of contributing to the employability of doctoral students at European companies working in emerging sectors. To this end, an innovative online training programme has been developed for them to acquire new skills and competences that they will need for accessing these jobs in the near future.

The present guide sets out the working methodology followed for designing the original contents, as well as a description of the main objectives sought by teaching this competency-based training course. It also includes a description of the student profile and brief notes on the assessment and monitoring possibilities for tutoring programme participants.

The list of competences the programme handles is:

1. Self-motivation and initiative

2. Work organisation

3. Responsibility

4. Flexibility and adaptation

5. Oral communication

6. Written communication

7. Creativity

8. Teamwork

9. Conflict resolution and decision making

10. Professional ethics

2   Unifying threads of the programme

The present training programme is structured around three unifying threads that provide coherence and unity to the educational contents designed.

2.1 Focus on employability

The first unifying thread is related to a focus on employability, which is the final outcome that has shaped all the educational decisions made when writing the original contents. Employability is defined herein as the ability to adapt our personal and professional circumstances, our capabilities, competences and knowledge to the needs of the labour market at the time when we embark upon an outplacement process.

The first impact on employability – naturally – arises from our selection of the 10 competences, extracted from a study in which 250 plus European companies working in emerging sectors took part. Thus, the alignment of the contents to employers' demands in the current employment scenario is assured due to the source employed for their selection.

The second impact resides in the actuality of all the contents created, which are firmly based on professional practice here and now. All the people who participated in creating the original contents are active professionals with not only the theoretical-practical knowledge to write them, but they have also contributed tips, keys and tools from their own professional experiences, adding an important added value to the contents created.

The third and last impact is related to incorporating technological resources and digital tools as a natural and essential part of the educational contents. New technologies are an integral part of all modern-day professions, and their assimilation by doctors must be total in order to improve their employability.

2.2 Cross-sector approach and indexing of contents

The second unifying thread that has governed the design of contents is related to two concepts closely related to the essence of the competences: their cross-cutting nature and indexing.

Competences are – by their nature – cross-cutting tools and skills, whose learning can be put into practice in all situations and settings after being assimilated, both in personal life and in professional practice. And the global objective of this project, which is precisely helping doctors in their active job searches, in itself entails a hybridisation of both settings – personal and professional – to the degree that this search must be a personal full-time task, albeit not one that can be characterised as a professional activity, given that it is not linked to any company or institution and, obviously, will not generate any income. This intermediate stage – the 'no man's land' of outplacement – consequently involves the need to activate students' full potential. We have wanted to add this essential trait to the contents via examples and activities that combine both personal and professional situations.

Moreover, and due to the cross-cutting essence of the competences, the present training programme provides a continuous indexing of contents. Here, we define indexing as the

organisation of concepts so that they can be found quickly and effectively throughout the 10 competences. There are diverse techniques and methodologies in this course that could be applicable, related to and even expand the different competences. For these cases, the text is pointed out that encourages participants to visit the similar competences, with the aim of complementing their knowledge.

2.3   Perspective of emotional intelligence

The project's third unifying thread is related to the perspective provided by emotional intelligence when acquiring and training in the competences.

Emotional intelligence is defined in this guide as the ability to recognise and identify one's own emotions and know how to manage and control them to favour – instead of twisting or even blocking – our performance and productivity. Emotions are intertwined in our daily lives and the present-day work arena requires professionals who know how to control and manage their emotions, both personally and in interpersonal relationships.

PhDs invest a huge amount of time in acquiring specific scientist knowledge. The training of emotional intelligence supplements the technical formation, building complete professionals with a distinguishable added value able to stand out against other candidates for a job.

Bearing this truth in mind, the educational focus of the present training programme handles the need to access the job market in a cross-cutting way from the perspective of this emotional management, given that this is positive not only for participants, but also for the groups in which they will be working and, consequently, for the organisations and institutions that hire them.

3   Index of competences

An index of each of the 10 competences is set out below, with the aim of presenting the scope of the contents handled, as well as setting out and making visible certain bridges that exist between them.

3.1   Self-motivation and initiative

1. Motivational sources

　1.1. Types of motivations

1.2. Theories on sources of motivation

2. Analysis of motivational processes

3. Impulse and initiative: action guidelines

3.1. Features that comprise initiative

3.2. Actions guidelines to develop initiative

4. Review of motivational indicators: KPIs

4.1. Characteristics of KPIs

4.2.

3.2   Work organisation

1. Analysis of professional tasks

1.1. Identification of professional tasks

1.2. Prioritising tasks / The Eisenhower Matrix

2. Thieves of time

2.2. The most common thieves of time

2.2. How to prevent the thieves of time from influencing you

2.3. Importance of organising the workplace

- Office
- Computer: hierarchical organisation of folders

3. Structure of tasks by blocks

3.1. Tools to structure and organise work

- Team organisation tools: Trello, Asana

- Tools to remain focused: Forest, Focus
- Integration of email, calendar and storage (Outlook and OneDrive)

4. Time management from the perspective of emotional intelligence

4.1. Features of emotional intelligence

4.2. Evaluation of how you manage work and time

4.3. Time management tools

- Making a list of tasks
- Organising tasks on the calendar
- Creating SMART goals (specific, measurable, achievable, relevant, time bound)
- Pomodoro Technique
- Pareto principle (80-20%)
- ABC list method

3.3   Responsibility

1. Self-knowledge and development of personal attitudes

1.1. Self-knowledge: professional interests and motivations

2. Importance of emotional intelligence in the workplace

3. Developing the feeling of belonging at the organisation

4. Responsibility for effective work management

4.1. Responsibility in teamwork

4.2. Responsibility and leadership

3.4 Flexibility and adaptability

1. Direct relationship between flexibility and adaptability

    1.1. What it means to be equipped with flexibility and adaptability

    1.2. Relationship between flexibility and stress

2. How to develop flexibility and adaptability

    2.1. Influence of the perception process

    2.2. Beliefs, our engine in life

    2.3. Feelings and emotions

    3.4. Perceiving the workplace positively

3. Social skills associated with the labour arena

    3.1. Assertiveness

    3.2. The consequences of being assertive

4. Guidelines that reflect that we are flexible and adaptable people

    4.1. How to detect a low level of flexibility

3.5 Oral communication

1. General features of oral communication

    1.1. Verbal and nonverbal language

    1.2. Physical and mental preparation: handling oral communication

1.3. Beliefs and emotions in oral communication

2. Factors involved in oral communication

2.1. Purpose and goal of our oral communications

2.2. The speaker: self-control and self-confidence

2.3. The audience

3. Efficacy in oral communication

3.1. Preparation and planning for oral communication / Design of the presentation and staging

3.2. Tools and technologies associated with oral communication

3.3. Time management

3.4. Stress management

4. Assessment of results

4.1. Assertiveness

4.2. Evaluation of the presentation and logging results

3.6   Written communication

1. **Importance of written communication**
   1.1. Written communications in the workplace

       - Curriculum vitae

       - Cover letters

   1.2. Approaching written communications

2. **Written genres**
   2.1. Scientific articles

   2.2. Essays

2.3. Outlines

2.4. Reports and presentation of results

2.5. Writing simplified texts for the general public

- Press releases
- Articles for journals

2.6. Skill for explaining complex concepts in simple language

3. Citation and reference models

3.1. APA

3.2. MLA

3.3. Tools for scientific and humanistic popularisation

4. Writing in the digital context

4.1. Style

4.2. Plagiarism

3.7 Creativity in professional environments

1. Analysis of disruptive thought / Agile methodologies

1.1. Disruptive thought

1.2. Keys for developing it

1.3. Agile methodologies

- SCRUM

- KANBAN

2. VAK learning systems / Creative resources

2.1. Visual (see it): visual thinking

2.2. Auditory (hear it): podcast

2.3. Kinaesthetic (do it)

3. Traits that maximise creativity at the workplace

    3.2. The working space

4. Tools to analyse the creative perspective Training in creativity to drive forward efficacy

    4.1. The creative routine

3.8   Teamwork

1. Characteristics of working teams

    1.1. Characteristics of working teams, the '5 Cs'

    1.2. Training working teams

2. Communication and teamwork

    2.1. Importance of assertive communication in teamwork

    2.2. The communication styles

    2.3. Social skills

3. Leadership and emotional intelligence for teamwork

    3.1. Leadership

    3.2. Emotional intelligence

4. Synergy in teamwork and between teams

    4.1. Synergies

    4.2. The maturity of the team

    4.3. Intra-group relations: conflict resolution

3.9 Conflict resolution and decision making

1. Conceptualising the problem / Problem analysis process

    1.1. Problems and conflict at the workplace: identification and analysis

    1.2. Types of labour conflicts

    1.3. Phases of conflict

2. Skills for preventing and resolving workplace problems and conflicts

    2.1. Steps to prevent labour conflicts

    2.2. Skills for resolving the problem or conflict

3. Decision making and tools to search for solutions

    3.1. Keys to effectively resolving a conflict

    3.2. Phases for resolving a workplace problem or conflict

    3.3. Tools and techniques for conflict resolution according to the phases

4. Action plan, putting into practice and evaluating the conflict resolution process

    4.1. Action plan and implementation

    4.2. Evaluation of the conflict resolution process

3.10 Professional ethics

1. Professional ethics and ethical values

    1.1. Ethics and ethical values

    1.2. Responsibility, perseverance and discretion

    1.3. Fairness, honesty and loyalty

2. Types of ethics

    2.1. Personal ethics

    2.2. Professional ethics

    2.3. Social ethics

3. Professional ethics and its practical applications

    3.1. What is ethics for? The official codes of ethics

    3.2. Personal standards, a self-analysis

4. How to develop your own ethics for your job

    4.1. The virtues of the employer

    4.2. The virtues of the employee: best practices

4   Objectives

The global objective of the training project is to contribute to the employability of doctoral students in emerging areas, such as renewable energies, waste management, the digital sector, innovation and technology.

4.1   General objectives

The general objectives of the training programme are:

-   To provide participants with up-to-date information and quality training on the 10 competences identified as those that will be required in near future markets for doctoral students

-   To train participants in performing jobs at companies in emerging areas via training in competences aimed at adapting them to future employment demands

-   To favour interactions between the participants from different European universities that are involved in the programme

- To foster an improvement in language competencies, employing English to this end as the working language of the consortium

- To strengthen participants' digital skills via an educational system based on e-learning technology, with personalised tutoring

4.2   Specific objectives

The specific objectives of the training programme are:

- To acquire and train on the 10 selected competences

- To train participants to work in today's labour context, characterised by international mobility, teleworking and continuous innovation

- To offer participants a panoramic vision of the tools they should implement to effectively improve their employability

- To equip participants with the methodologies and practical usage keys that they can employ in real work settings

- To empower doctors to actively search for jobs that match their level of studies and their desires, aspirations and personal and professional motivations

5   Working methodology for creating the contents

This online training programme has been created by following the regular guidelines for content design for e-learning environments.

Teaching decisions were made starting from the idea that doctors' learning should be primarily independent (self-learning). Thus, the functions of the tutor who will work with the participants on their training may be related to issues that are not exclusively linked to the contents. For example, actions centred on motivating the participants, incorporating cooperative working proposals, such as participation in forums or chats for the course, or the collaborative creation of knowledge via the possibility of sharing and commenting on news. The tutors will also reinforce the theoretical acquirement of the skills supporting their practical implementation

The design process for this course is comprised of five separate phases, which are detailed below.

5.1 Creation of original contents

The first step is to create original contents. As mentioned, the contents for the 10 competences have been created ad hoc by working professionals who are experts on these topics.

This initial phase relied on the advisory services of the entire consortium, with the aim of reaching mutual agreements on the contents on which to work. After establishing the content indexes, each of the specialists developed the contents in writing. After finishing, they were shared with the rest of the partners, who in turn provided interesting improvement proposals for the initial texts. After unifying all of the partners' contributions, the final text was drafted.

The contents are structured around a series of educational contents:

1) Definition

The definition of each competence was handled from a twofold focus: on the one hand, in the introduction to each of the topics and, on the other, by creating short 2D animation videos featuring the 'Key' character, who introduces participants to the course in a friendly and approachable way, setting out a succinct explanation of the competence in question.

2) Contents

The contents are the bulk of the course, and are presented in an independent and interactive reading format. Participants must read all the contents to pass each topic.

These contents have been designed specifically for the forecasts target market or student profile, namely doctors from European universities. Via simple but technical language, the theoretical and practical pathway is detailed for each of the competences.

3) Activities

Activities are inserted within the contents of the competences, with the aim of providing the students with small practical exercises on a continuous basis to secure two fundamental matters: first, that the learning is eminently practical and experiential and, second, that the students remain focused on and interested in the course through these little breaks in the contents to do the activities.

There are two activity types:

> **- Interactive activities:**
>
> Require the participants to do certain actions within the course itself before continuing
>
> **- Independent activities:**
>
> Proposals for the participants to do on their own, given that they are about more reflective issues or require a longer time to complete

4) Final test

At the end of each competence there is a small final test to assess how well the participants have assimilated the theoretical-practical contents. They contribute to giving them time to reflect on the new possibilities offered by the course with regard to their own employment possibilities.

The final test has two parts:

   - Self-assessment test:

   Five questions that let participants evaluate their mastery of the theoretical-practical contents.

   - Deliverable activity:

   A small activity for students to reflect on the competence acquired and turn in to their tutor via the platform. The purpose of this activity is not so much the assessment of the knowledge students have learned, but instead reflection about how the acquired competences can improve their own employability after completing the course.

5) Bibliography and resources to learn more

There is a bibliography and resources of interest section at the end of each competence so that the participants have references about possible future readings, as well as digital links and tools to put what they have learned into practice.

5.2   Instructional design

The second phase is the instructional design, or the process through which the learning environment is created, as well as the materials needed, with the aim of helping the students to develop the skills they need to acquire the knowledge and skills proposed in the course. The objective sought is to plan and sequence the educational contents in the most dynamic and efficient way possible to favour the assimilation of the learning objectives in e-learning contexts.

Unlike a physical classroom methodology, where the training burden rests primarily on the teacher's actions, in online training the setting changes to learning that is much more dependent on students' independent learning. All participants must access the contents and advance through them at the pace each of them prefers, with the freedom to do their own planning in accordance with their interests and skills.

In this phase, the contents are reorganised to sequence them, putting the focus on the online learning objectives.

5.3   Graphic design

The graphic design phase is implemented in parallel to the instructional design process, as the visual items and infographics are fundamental to assist with content assimilation.

We drew inspiration from the classic board game *Trivial Pursuit* for creating the graphic line of the project, where players need to answer questions right to get 'cheese wedges' and only the person who gets all the pieces can consider their learning as complete. Continuing with this idea, each of the competences is characterised by an identifying colour and icon. This allows for great versatility for the graphic rendering of the contents, mixing traditional design with photographs and details of an infographic nature.

5.4   Digitisation

The next phase of the process is digitising all contents after both the graphic and educational designs have been completed, to host them on the online learning platform. We chose the SCORM format for this process, as it is universal and can interact with any type of LMS platform. This means that the project will be compatible with the online learning platforms of all European universities, given that they are based on this technology.

The added value of SCORM – with respect to other educational content export formats – is that it can generate complete reports on the learning process of all participants and/or groups in order to provide continuous assessment and monitoring. These reports include information on the time spent on each content, doing the activities, participating in the work forums and chats, communicating with tutors via the instant messaging systems, and so forth.

Digitisation tasks are done in two phases:

1) Creation of the contents in SCORM packages

Digitisation starts by transforming the initial contents in flat image-text format to an interactive format, by employing the suitable digital tools. After the transformation is done, the files are exported in these SCORM packages, which can interact with the platform.

2) Design of the e-learning course on the platform

After all the contents have been created and compiled in SCORM packages, they are housed on the platform and distributed suitably, bearing in mind the educational planning for each of the topics. This final structure is what participants will end up seeing, composed of the sections detailed above: definition video, contents, activities, final test and bibliography.

5.5 Interactivity and gamification

Interactivity and gamification are not a phase in and of themselves, but instead form part of the entire design process of the courses. However, they do merit a separate mention given their relevance, as these two concepts are the engine that keep participants involved in the course. They are working methodologies typical of digital contents, where a series of small challenges and goals are proposed to the students to keep them motivated and prevent them from quitting the course.

Interactivity, as characterised above, is related to the fact of creating – every specific amount of time – a call to get the participants' attention, meaning pushing them to do a specific digital action: press a button, draw down a menu, pick the right answer, select true/false, and so forth. These small tasks keep students awake and active at all times.

For its part, gamification consists of incorporating mechanics and dynamics typical of games into non-entertainment environments, such as training. It is a very interesting possibility and the outcome of new teaching methodologies. In this case, gamification is presented from conceiving of the complete educational project like a game in the style of *Trivial Pursuit*, where the participants have to pass all the tests required in order to obtain the 10 badges, representative of having completed the 10 competences within the established timeline and method. This approach opens up interesting possibilities for tutoring in the course, as score rankings can be created, along with challenges and activities to motivate the participants.

6 Student profile

The target profile for this educational project is doctoral students and/or doctors from European universities. In this respect, they are students with high education levels who are normally accustomed to working with new information and communication technologies. This student profile tends to be competitive and have intrinsic motivation. Thus, it is expected that they will be able not only to successfully pass the different training actions, but to do so experientially, assimilating the contents and tools to put them into real practice in their outplacement processes.

The course contributes in this way to overcome the traditional prejudice against academics, supplying these students with practical skills, in order to transfer their knowledge into real implementations to become professionally proficient.

7 Learning assessment system

The learning assessment system is continuous. In a programme with these characteristics, what is important is not the mark that participants could obtain, but instead the assimilation they are capable of, along with the internalisation of the theoretical-practical contents for their direct application to their professional performance.

In this respect, more than a quantitative assessment, we propose a qualitative tutorial monitoring, meaning an accompaniment in their processes to acquire and learn the contents of the course.

However, and give that this training is framed within the setting of higher education institutions, it is somewhat unavoidable to have a quantifiable test. To this end, two final assessment activities are included, which were described above: a short final test and a small activity based on personal reflection about how the learning of these competences could be used by students for their subsequent professional development.