



Dr. PED-Chef

Hands-on nutrition training for pediatric primary health care practitioners: a novel combination of culinary and applied nutritional education to promote healthy eating habits in childhood
Acronym: Dr. PED-Chef

Methodology for the design of the training curriculum

A Guide for the development of the modules



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This document has been developed by the consortium of the project 'Hands-on nutrition training for pediatric primary health care practitioners: a novel combination of culinary and applied nutritional education to promote healthy eating habits in childhood – Dr. PED-Chef. The partnership comprises 6 partners from 6 countries:

	ORGANIZATION	COUNTRY
Coordinator	NTNU – Norwegian University of Science and Technology	Norway
PARTNERS	Prolepsis – Institute	Greece
	University of Navarra	Spain
	CSI – Center for Social Innovation Ltd	Cyprus
	GAZI UNIVERSITESI	Turkey
	Andrology Pediatric and Adolescent Foundation	Italy



Table of content

Introduction.....	4
Background.....	6
Results from Output 1	7
Review of education and training opportunities regarding nutrition and culinary medicine for health professionals in selected EU member states, and Norway (EEC-member)	7
Focus groups results (health professionals, VET-providers, and parents)	8
The European Qualification Framework for lifelong learning.....	9
Content of the curriculum	12
Allocation of modules.....	12
Timeframe	12
Module structure.....	13
e-learning adjustments and e-learning platform blueprint	15
Quality assessment and validation.....	15
References.....	15
Annexes	17

Introduction

‘Hands-on nutrition training for pediatric primary health care practitioners: a novel combination of culinary and applied nutritional education to promote healthy eating habits in childhood’ – Dr. PED-Chef, is a European co-funded Erasmus+ project (Agreement number: 2019-1-NO01-KA202-060229). The project aims to develop training for pediatric primary health care practitioners on childhood nutrition-related issues through the combination of hands-on nutrition science education with culinary medicine education.

Through the design of training tools and materials about nutritional issues in childhood, as well as culinary medicine education, the Dr. PED-Chef project is expected to enhance practitioners’ expertise and abilities in offering nutritional counseling to children and their families. Dr. PED-Chef will achieve this by defining the necessary skills and needs of professionals working in relevant pediatric settings, and by developing training curriculum that can be implemented in practice. The inclusion of innovative educational practices is believed to further reinforce the development of skills and key competences related to the issues of nutrition and well-being. Dr. Ped-Chef has three main priorities:

- support pediatric primary health care practitioners in acquiring and developing skills and key competences on nutritional counseling adapted to the special needs of children and their families
- support the uptake of innovative approaches and digital technologies for teaching and learning when targeting health professionals
- strengthen key competence in initial and continuing vocational education and training for health professionals in the field of public health promotion

The present document, which is the deliverable of Output 2, is informed by Output 1. It provides specific guidelines for the development of an innovative curriculum and training tools that will be used to develop relevant and high-quality skills and competences among pediatric primary health care practitioners. Based on the overview of partners’ country profiles (see separate report), and focus group interviews, the target groups include health professionals and all those providing health services to children and adolescents. Targets groups of the Dr. PED-Chef training is:

- Pediatricians
- Pediatric nurses
- Public health nurses
- General practitioners (GPs) and family doctors
- Medical students
- Nursing students specializing in pediatrics and public health
- Other healthcare professionals and/or relevant professionals¹

The faculty (teachers/trainers/researchers) to deliver the training should be professionals experienced in the specific topic they will be teaching and should be able to support the delivery and assessment of the modules.

¹ Potential target groups could be lifestyle coaches, teachers and other professionals that provide nutritional advise and counseling for children, adolescents, and families.

This document includes detailed recommendations for the training modules to be developed for:

- (a) the face to face training and
- (b) the training provided through the e-learning platform.

Necessary decisions were made by all partners in the 2nd project partner meeting, which was held virtually February 4th and February 11th 2021, both days arranged by University of Navarra, Spain.

The first part of this guide summarizes the literature in the field, and key findings of the Dr. PED-Chef Output 1 (literature and training opportunities review, and focus groups with health professionals, parents, and VET-providers). Findings identified training gaps, needs, barriers, and difficulties among health professionals related to nutritional counselling for children, youths, and parents.

Next the European Qualification Framework (EQF) descriptors for Knowledge, Skills and Responsibility and autonomy, in the different levels are presented.

The third part of the document provides a step-by-step guidance on how to develop the content of the training modules. The whole training program should be equivalent of a 5-day training (a total of 40 study hours), which include all types of learning activities. Number of hours for each module will vary depending of intensity and proposed duration, please see table on page 10.

At the end of this document, templates are provided for the development of the modules. Please use these when developing your module content.

Background

The World Health Organization (WHO) has raised the alarm on obesity-related complications and mortality of non-communicable diseases. Unhealthy nutrition habits and obesity are often initiated in early life stages. The highest rates of childhood overweight are found in Southern Europe, i.e. Greece, Cyprus, Italy and Spain, ranging from 18% to 52% in boys and 13% to 43% in girls (WHO, 2018). The causes of overweight and obesity are embedded in a complex system of genetic and epigenetic factors that interacts with a social framework that determines behavior, as well as environment and living conditions (Recette, Deusinger & Deusinger, 2003). The factor that puts children at greatest risk of being overweight or obese is having obese parents, as about 70% of the variations in BMI is explained by genes (Fleten, Nystad, Stigum et al., 2012). Another known risk factor for overweight and obesity in the western world is lower socioeconomic status (Shrewsbury, & Wardle, 2008). Further, children who grow up in urban areas have less risk for developing overweight and obesity compared to those growing up in rural areas (Biel, Hovengen, Groholt et al., 2013). Furthermore, psychological and emotional distress may be a link between socioeconomic status and weight gain. Children growing up in families with socioeconomic disadvantages are more exposed to parental frustrations, neglect, abuse and violence and lack of support and cohesion. These children are at increased risk for emotional overload that could trigger maladaptive coping strategies, such as eating to suppress negative emotions (Hemmingsson, 2014). Even if psychological issues, emotional eating strategies and adverse childhood experiences are risk factors for developing overweight and obesity, these areas have had little focus in strategies for preventing overweight and obesity for children.

To pave the way toward preventive strategies for overweight and obesity among children one should identify potential risk factors. Further, to improve prevention outcomes for overweight and obesity, interventions should be targeted through social structures and preferably as early in life as possible (Følling, 2020). The socioeconomic gradient is important to acknowledge when it comes to challenges with overweight and everyday choices, and thereby address the diversity and numerous risks children, adolescents, and families face in their everyday life. Unfortunately, dysfunctional families and inappropriate eating behaviors have a strong positive relationship (Jung, 2004). It needs to be kept in mind the complexity of reasons for performing non-optimal nutritional choices on an everyday basis, despite knowledge of best practice.

One fundamental issue is knowing how to motivate to change in eating habits and dietary choices. As previously reported in studies examining nutrition communication or other nutrition education programs, establishing a respectful relationship is critical to succeed (Halgunseth, Peterson, Stark, et al, 2009). When mutual respect is established, open communication is reinforced, and addressing the more sensitive topics such as nutrition and healthy eating renders possible. Implementing patient-centred communication in nutrition counseling is essential in this matter, and the application of patient-centered communication and other social learning theories, can improve educational interventions for patients (Cushing, 2015). The core concepts of patient-centered communication include: 1) eliciting and understanding patient perspectives 2) understanding the patient within his or her unique psychosocial and cultural contexts, 3) reaching a shared understanding of patient problems and the treatments that are concordant with patient values and 4) sharing power and

responsibility (Epstein, Franks, Fiscella et al, 2005; Epstein & Street, 2007). Three main barriers are identified in patient-centered communication and need to be addressed: health providers perceived lack of time, negotiating evidence-based treatment plans with patients, and provider attitude (Naughton, 2018). Including parents in nutrition-related interventions is necessary because children have limited control over their own food choices, especially in early ages (Hingle, O'Connor, Dave, et al. 2010). The indirect role parents have on their child's nutritional choices becomes important as children and adolescence get opportunities to make selections themselves, before having fully developed abilities to defend themselves from persuasive attempts (Carter, Patterson, Donovan, et al. 2011).

Although the environment (parents, school, peers) influences obesity, a WHO report (2016) emphasizes that pediatric care professionals are equally important supervisors. Increasing the health professionals' knowledge and improving skills in communication and counseling play an important part in families' initiatives for change. However, a review study showed that nutrition issues are insufficient incorporated in medical education, and this can affect students' knowledge, skills, and confidence to implement nutrition care into patient care (Crowley, Ball, Hiddink, 2019). Culinary medicine is an evidence-based field that brings together nutrition and culinary knowledge and skill to assist patients in maintaining health and preventing and treating disease. Culinary nutrition education programs are naturally experiential, social, skills-based, and effective in improving nutrition-related beliefs, knowledge, and behaviors, and can serve as motivational experiences that have been identified as 'drivers' of behavior change (Fredericks, Koch, Liu, et al, 2020). Culinary medicine can also be provided as part of medical curricula or incorporated as continuing education. In culinary medicine courses basic healthy food preparation and acquisition skill are addressed while taking into consideration time, financial resources, and cultural food traditions of patients aiming to make dietary changes (Hauser, 2020).

Results from Output 1

Results from Output 1 in Dr. PED-Chef formed the present methodology document and the main findings are summarized below. Please refer to the final reports in Output 1 for further information.

Review of education and training opportunities regarding nutrition and culinary medicine for health professionals in selected EU member states, and Norway (EEC-member)

Within the last decade several data underscore the significant gaps in knowledge of pediatricians related with the field of nutrition as well as the recommendation regarding the prevention and/or management of increased weight in childhood. Several training opportunities are available for health professionals' knowledge and skills related to nutrition and healthy eating. A significant heterogeneity in the number of trainings is observed, with some countries providing various opportunities, while other only very few. It should be also noted that recent evidence suggests that culinary medicine enables health professionals to increase their confidence in nutrition and obesity counselling and facilitate patients' self-care skills (La Puma, 2016; LeBlanc-Morales, 2019; Ring, Cheung, Mahadevan, et al., 2019). However, even though culinary medicine provides health professionals with very useful skills and tools to support their patients and promote healthy eating,

very few education programs focus on culinary medicine at a European level. This is probably observed because culinary medicine is a relatively novel approach.

Focus groups results (health professionals, VET-providers, and parents)

The training of healthcare professionals suggested by the Dr. PED-Chef program concerning the promotion of healthy nutrition to children and parents, received a positive response from healthcare professionals from Greece, Cyprus, Italy, Spain, and Turkey who participated in this study. The participants believe that it would improve their knowledge and capabilities in consulting and communicating with children and their parents, who mostly belong to the “healthy children” category, but also to children on the cusp of obesity or those already obese/overweight. In other words, the training will boost healthcare professionals mainly when it comes to practicing preventative medicine for nutritional issues but also in terms of intervening in cases of obesity. However, in such cases, it appears that healthcare professionals refer the patient to a specialized nutritionist, endocrinologist etc.

It should be noted, that in Greece, Cyprus and Spain, VET providers and healthcare professionals mentioned the lack of organized primary care services (diagnostic and disease-preventing services without hospitalization). In their daily practice, physicians do not focus much on promoting healthy nutrition, especially in cases of children/adolescents who do not have a weight problem. They mostly intervene about nutritional issues (providing information to parents) up until the child reaches 1.5 to 2 years old; until their transition to solid foods has stabilized. Other barriers related to the provision of healthy nutrition to parents and children are: (a) time constraints of healthcare professionals, (b) lack of knowledge concerning healthy nutrition in general (and not nutrition that is related to diseases, such as allergies, diabetes etc.), (c) lack of knowledge on how to effectively communicate with parents and children about healthy nutrition, and (d) parents; perceptions, attitudes, cultural and socioeconomic background. Norway has well-organized primary care services and regarding healthy nutrition, the Public Baby Well Centre and the School Nurse Centre provide crucial services. They keep records of each child’s weight and development and provide advice to parents about healthy nutrition. Parents feel comfortable enough to “ask everything that concerns them with regards to nutrition” and trust the information that is provided by health nurses. Health nurses follow the national dietary guidelines and disseminate relevant web sites with tips, tools, and videos, as well as informative materials, e.g. pamphlets. The nurses are responsible for referrals to physicians or other professionals if need be. Even though the reactions of all the Norwegian participants to the Dr. PED-Chef training were quite clear, decisive and convincing (“not a good idea”), they indicated that since the existing trainings for healthcare professionals are more focused on disease diagnosis and treatment rather than prevention this could be “a barrier in the provision of nutritional advice to children/adolescents and their parents”. This might make the pilot implementation of the Dr. PED-Chef training in Norway a possibility.

Apart from the demonstration of healthy recipes from chefs and their own participation in preparing meals, healthcare professionals suggest the Dr. PED-Chef training has to include: scientific knowledge on healthy nutrition for healthy children/adolescents in order to prevent excess weight/obesity; ways to communicate effectively with parents/children about healthy nutrition; practical tools for healthy nutrition; and informative material that could be disseminated to parents, such as pamphlets,

booklets and websites that contain practical tools for healthy nutrition. Concerning the type of training, participants mentioned face-to-face training due to the nature of the specific training. They also supported the creation of a digital platform which will include all the information of the training modules, videos/demonstration of recipes, and informative material. Concerning the training method, participants stressed the fact that the training should be mainly (but not exclusively) experiential, with participants working on case studies and best practices in groups, i.e. case studies and real-life experiences.

The European Qualification Framework for lifelong learning

The European Qualifications Framework for lifelong learning (EQF) aims to improve the transparency, comparability, and portability of people's qualifications. The EQF was set up in 2008 as a common reference framework of qualifications, expressed as learning outcomes at increasing levels of proficiency. The framework serves as a translation device between different qualifications systems and their levels. The EQF Recommendation was revised in 2017². Its revision has kept the core objectives agreed a decade ago. The revision was one of the 10 key actions of the New Skills Agenda for Europe, which aims to improve the quality and relevance of training, make skills more visible, and improve skills intelligence.³ The EQF defines a qualification as *'the formal outcome of an assessment and validation process obtained when a competent body determines that an individual has achieved learning outcomes to given standards'*.⁴ The qualifications help education and training authorities and providers to determine the level and content of learning acquired by an individual. European education and training systems are diverse and reflect national traditions. The EQF is a common reference framework that allows qualifications from different countries to be compared easily. This is achieved by supporting the use of learning outcomes for each qualification.

The EQF, and all National Qualifications Frameworks (NQFs) that have been referenced to it, follow a learning outcomes approach. This means that both the content and the level of a qualification reflects what holders are expected to know, understand and be able to do. The EQF is defined by eight learning outcomes-based levels. Accompanying level descriptors show how expectations of knowledge, skills, autonomy and responsibility increase as learners progress from level 1 to level 8. Most countries have introduced eight-level frameworks, though some have less or more (e.g. the French framework has 5 levels, the Irish 10 and the Scottish 12). Several countries also use sub-levels, which is seen as important in order to meet the interests of certain stakeholders and sometimes accommodate legacy awards. The Framework for Qualifications of the European Higher Education Area provides descriptors for three cycles agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process. Each cycle descriptor offers a generic statement of typical expectations of achievements and abilities associated with qualifications that represent the end of that cycle.

² https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2017.189.01.0015.01.ENG&toc=OJ:C:2017:189:FULL

³ <https://ec.europa.eu/social/main.jsp?catId=1223>

⁴ Social Europe (2018). The European Qualifications Framework: supporting learning, work and cross-border mobility. 10th Anniversary. [Ec.europa.eu/social/publications](https://ec.europa.eu/social/publications)

1. The descriptor for the short cycle developed by the Joint Quality Initiative as part of the Bologna process, (within or linked to the first cycle), corresponds to the learning outcomes for EQF level 5.
2. The descriptor for the first cycle ('Bachelor's level') corresponds to the learning outcomes for EQF level 6.
3. The descriptor for the second cycle ('Master's level') corresponds to the learning outcomes for EQF level 7.
4. The descriptor for the third cycle ('PhD/doctoral level') corresponds to the learning outcomes for EQF level 8.

Descriptors defining levels in the European Qualifications Framework (EQF)⁵

	Knowledge	Skills	Responsibility and autonomy
	In the context of EQF, knowledge is described as theoretical and/or factual.	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments).	In the context of the EQF responsibility and autonomy is described as the ability of the learner to apply knowledge and skills autonomously and with responsibility
Level 1 The learning outcomes relevant to Level 1 are	basic general knowledge	basic skills required to carry out simple tasks	work or study under direct supervision in a structured context
Level 2 The learning outcomes relevant to Level 2 are	basic factual knowledge of a field of work or study	basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	work or study under supervision with some autonomy
Level 3 The learning outcomes relevant to Level 3 are	knowledge of facts, principles, processes and general concepts, in a field of work or study	a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	take responsibility for completion of tasks in work or study adapt own behaviour to circumstances in solving problems

⁵ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2017.189.01.0015.01.ENG&toc=OJ:C:2017:189:FULL

Level 4 The learning outcomes relevant to Level 4 are	factual and theoretical knowledge in broad contexts within a field of work or study	a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5 ^{(*)1} The learning outcomes relevant to Level 5 are	comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	exercise management and supervision in contexts of work or study activities where there is unpredictable change review and develop performance of self and others
Level 6 ^{(*)2} The learning outcomes relevant to Level 6 are	advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts take responsibility for managing professional development of individuals and groups
Level 7 ^{(*)3} The learning outcomes relevant to Level 7 are	highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research critical awareness of knowledge issues in a field and at the interface between different fields	specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8 ^{(*)4} The learning outcomes relevant to Level 8 are	knowledge at the most advanced frontier of a field of work or study and at the interface between fields	the most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

- (¹) The descriptor for the short cycle developed by the Joint Quality Initiative as part of the Bologna process, (that can be within or linked to the first cycle), corresponds to the learning outcomes for EQF level 5.
- (²) The descriptor for the first cycle corresponds to the learning outcomes for EQF level 6.
- (³) The descriptor for the second cycle corresponds to the learning outcomes for EQF level 7.
- (⁴) The descriptor for the third cycle corresponds to the learning outcomes for EQF level 8.

EQF implementation in several countries have resulted in a higher level of parity between Vocational Education and Training (VET) and higher education in some countries. EQF descriptors are neutral with regards to academic and professional training, and do not prescribe on what level different types of qualifications should be placed. The implementation of the EQF shows that vocationally and professionally oriented qualifications can also be referenced to levels 5-8.

It was decided at the 2nd partner meeting that the learning outcomes for Dr. PED-Chef must be at level 7.

Content of the curriculum

Allocation of modules

The selection and distribution of modules per partner took place in the 2nd project partner meeting. It was based on previous findings in the literature, in Output 1, and the expertise of each partner. Themes and responsible partner are listed in the table below.

THEME	RESPONSIBLE PARTNER	STUDY HOURS
1. A PUBLIC HEALTH APPROACH TO HEALTHY NUTRITION FOR PRIMARY HEALTH CARE PRACTITIONERS	Androlab (with contributions from NTNU)	(4?)
2. USEFUL RESOURCES AND EFFECTIVE TOOLS FOR PROMOTING HEALTHY EATING TO FAMILIES	Gazi University	(4?)
3. INTRODUCTION TO CULINARY MEDICINE	CSI (with contributions from UNAV and Prolepsis)	(4?)
4. HEALTH COMMUNICATION AND COUNSELING ON PROMOTING HEALTHY EATING	NTNU	8
5. HEALTH COMMUNICATION AND COUNSELING ON OBESITY MANAGEMENT	Prolepsis (with contributions from NTNU)	(8?)
6. CULINARY MEDICINE IN PRACTICE	UNAV (with contributions from CSI and Prolepsis)	(12?)

Timeframe

Below is a Gantt-chart of tasks and deadlines, please see a separate document for details.

	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022
Theme 1	-----	-----X	-----	X		
Theme 2	-----	-----X	-----	X		
Theme 3	-----	-----X	-----	X		
Theme 4	-----	-----X	-----	X		
Theme 5	-----	-----X	-----	X		
Theme 6	-----	-----X	-----	X		
C1 Joint-staff event				X		
Final curriculum description					X	
eLearning platform blueprint		-----	-----X	-----→	X	
C2 Blended mobility						X

Module structure

This section presents a step-to-step guide on how to develop the modules for Dr. PED-Chef curriculum. The attached templates should be used since they assure that the modules are developed and described in a consistent and coherent way by all involved partners. Each module should be developed in an acceptable high level of English. Afterwards, each partner is responsible for the translation of the module into their own language.

Each module should have the following structure:

1. Module description: Provide a brief description of what the main theme of the module will be and what topics it will cover.
2. Learning objectives/outcomes: The learning objectives should be described in bullet form what learners at the end of the module will have knowledge of, be able to do (skills) and be able to take responsibility of at what autonomy level (ref. to EQF and descriptors at selected level). Learning objectives are measurable actions the participants should be able of after the learning activity is completed. Examples of formulating the objective is starting with the following: "At the end of the training, the student should be able to..." or "At the end of the training, the student would identify...".

Bloom et al's (1956) taxonomy of educational objectives could serve as a guide for the formulation of learning outcomes where descriptions of qualifications that has increasing level, e.g. having knowledge or comprehension of, ability of application, synthesis, or evaluation. In the skills' domain it would be increasing degree of difficulty, and in the attitude domain it would be related to level of in-depth acquisition of attitudes related to ideas, concepts, and interest of the contents. Use of different verbs in the description of learning outcomes can also indicate the level that the module is aiming at, e.g. be able to describe or define (low level), determine or categorize (medium level), adapt or discuss (high level). The learning outcomes must be measurable, i.e. the verb form used must also be measurable. Learning outcomes of each module forms the basis of assessment and evaluation whether the student has acquired the qualification

3. Module units: A unit covers a specific topic in each module. Each unit must be connected to the learning objectives. List the units in a table.
4. Unit description: Provide a brief description of the topic covered.

5. Unit content: The content of each unit must be organized and written based on the learning objectives of the module. Use bullet points to describe the different content in smaller sections. Use active voice (e.g. In this unit you will: “Learn how to ...”, “Be able to communicate with ...”), be concrete, and use a consistent style/voice. Sequence the content in a logical way (what to learn first, second, third etc.).
6. Learning resources: List relevant references and resources for each unit in APA reference style.
7. Learning activities: Modules should be designed to include a variety and combination of teacher techniques and should contain active learning, practical training, and interactive student learning methods. The curriculum should include a maximum of 40 % lectures and at least 60 % experiential activities such as case studies, study visits, exercises, and practical training. You need not include all learning activities in each unit but select the ones that is appropriate for the presentation of content, and whether it is a type of knowledge, skill, or attitude that the student should acquire. Each activity should be described in detail so that it is clear to the students what to do (e.g. participate in a group, tasks to be done individually, get feedback from other students or supervisor, do practical task).

Pedagogical approach:

For high quality education, student motivation for learning is essential as very little learning can occur unless students are motivated on a consistent basis. The five key ingredients impacting student motivation are: student, teacher, content, method/process, and environment (Williams & Williams, 2011), and all these factors can be influenced through the learning activities to increase student motivation, and thereby improve the learning outcomes of the Dr. PED-chef course. Adult and professional learning is based on more autonomous and self-directed learning styles where problem-solving approaches are essential and should be promoted. Problem-based learning (PBL) methods result in increased independence in learning and improve critical reflection (Cooper & Carver, 2012; Williams & Day, 2009; Williams, Spiers, Fisk, et al., 2012). This means that traditional (classroom/auditorium) face-to-face, one-way lectures may not be well suited for the target group in Dr. PED-Chef. The learning activities in PBL benefit from using case study methodology with presentation of ‘personas’ (‘patients/cases) and simulated challenges (‘the problem’) as a starting point, and the activities should facilitate evidence-based problem-solving processes. The teacher/trainer acts as a leader and facilitator on both acquisition of knowledge and group discussions (Gwee, 2009). Role play is another learning activity that correspond to the adult student’s needs and motivation. A prerequisite for successful role play simulation is that these learning activities are well prepared and include post-facilitation/debriefing (Aldridge & Wanless, 2012).

8. Assessment of goal achievement of modules: Formulate assessment questions for each module that are connected to expected learning outcomes. Continuous assessment within each unit of the module is encouraged (e.g. small quizzes or assignments), as this both motivates students and ensures that the student has acquired the necessary knowledge and skills to go on to next unit.

e-learning adjustments and e-learning platform blueprint

In addition to the face-to-face learning methods, training material must be adopted to the e-learning platform. CSI will provide partners with templates for content in the e-learning platform.

Quality assessment and validation

The development of the curriculum is based on EQF which ensures a consistent level of the course. Certification after completing the course could be based on approval from a body such as the European Accreditation Council for Continuing Medical Education (EACCME) (<https://eaccme.uems.eu/home.aspx>) or a national body that approves credits for courses. Another option is using the European Credit Transfer and Accumulation System (ECTS). One ECTS credit point is equivalent to 25-30 hours of study (more information her: https://en.wikipedia.org/wiki/European_Credit_Transfer_and_Accumulation_System).

In addition to assessment of goal achievement for students of each module, questionnaires evaluating the overall satisfaction with the Dr. PED-Chef training, and perceived usefulness of the course as a whole. Responsibility for developing the evaluation questionnaire is (partner).

Also, see Evaluation/ Quality Assurance plan. Indicators for Output 2 and Output 3/4.

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Annexes

Annex 1: DrPedChef_Content_Development_Timeline.docx

Annex 2: DrPedChef_Content_Outline.docx

Annex 3: Dr.PedChef_Content_Template.docx

Annex 4 : DrPedChef_template_eLearning.pptx