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Erasmus+ KA2 Partnership Programme: D-Light Network Project

Blueprint for Digital Learning Solutions

"Identifying e-services and e-products and guiding dependant person how to use them"

An ADDIE based Template for Designing Digital Learning Solutions.



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1. Analysis: Competency Gap, Target Audience and Digital Playboard.

1.1. **Instructional Goals:** Analysis of Competency Gaps as Specified in the Competency Framework.

Confer the [Competency Framework for this Digital Learning Solution](#).

1.2. **Target Audience Characteristics:** Analysis of Student Prerequisites.

Confer the [Competency Framework for this Digital Learning Solution](#).

1.3. **Digital Playboard:** Analysis of Technical Possibilities and Limitations.

Confer the Common Digital Playboard (added later still under process).

2. Design: Creating a Blueprint for a Digital Learning Solution.

2.1. Learning Objectives: Specification of a Competency Focus and Creation of Learning Goals.

This digital learning solution is focused on training the skills and knowledge of the students, so that they will be able to support (home) care providers and facilitate their work with respective competences to manage information on e-services and e-products to guide dependant persons in their everyday activities.

The learning objectives/goals for this learning solution are specified through the general (GC) and partial competencies (PC) listed below.

The total amount is 1ECVET (26 lessons), whereas 18 academic hours (1 hour 45 minutes) will be either at zoom or classroom and 8 hours for individual work.

GC1 Understand the needs of elderly person

- o PC1.1. student is able to read the profile of the dependant person according to the previously prepared nursing plan.

Common health conditions and all following topics are already learnt at basic care workers module – this is for repetition where teachers use different activate methods – panels, discussions, case studies etc a.

Common health conditions:

- Hypertension (High Blood Pressure);
- Diabetes;
- Obesity;
- Asthma;
- Arthritis;
- Depression;
- Anxiety Disorders;

Kommenterede [MH1]: •What is the scope of this digital learning solution in terms of its competency span? Why?

•What, then, is the specific competency focus for this digital learning solution? Why?

•How does this competency focus translate into learning goals that aim for the construction of specific knowledge and skills?

- Cardiovascular Disease;
- Respiratory Infections;
- Allergies.

Topics:

- Mobility limitations (in-depth understanding of mobility limitations and how they impact individuals you provide care for);
- Cognitive impairments;
- Safety concerns associated with aging.

GC2 Assessing the appropriateness of e- services and e-products.

- PC2.1. Assessing the appropriateness of digital solutions.
Student has relevant background knowledge about the individual, including personal history, medical history, current medications, and any previous assessments or interventions (interviews, medical records, or questionnaires) and safety concerns (confidentiality, camera privacy issues).
Student assesses the features and functionality and the ease of use and reliability.
- PC2.2. Preferences for digital solutions (knows how to choose the correct suitable solution).
Assesses the data privacy of digital solutions to ensure they meet the specific needs and preferences of elderly individuals; conducts risk assessment to identify potential risks associated with the use of digital solutions in elderly care; evaluates the safety and security measures implemented by the e-service or e-provider to protect personal health information and ensure the physical safety of the elderly individuals.

GC3 Guiding dependant person or his/ her relatives to use e-services and e-products

- PC3.1. Communicates effectively in order to provide adequate information. Effective communication with elderly individuals and their relatives about the recommended e-services and e-products by explaining the purpose, benefits, and usage instructions clearly, using non-technical language.
- PC3.2. Guiding ethically the dependant person to use the services and products Ethical implications and regulations associated with recommending e-services and e-products in elderly care (avoid non-neutral marketing meaning not preferring certain companies services following "competition authority") Provide guiding via demonstration to ensure elderly individuals can utilize the digital solutions safely and effectively.

2.2. Instructional Strategies: Determination of the Required Learning Activities, Educational Contents and Methods for Reaching the Learning Goals.

Delivery method: Digital simalon task

Evaluation type: Automatical based on set branching scenario(s)
Students can't move on without choosing the wright one(s)

The proposed learning solution will focus on a so-called Digi simulation, in which the student works on-line. The learning activity consists of one case where background information about the senior citizen is revealed.

The aim of this task is to choose suitable e-service or e-product to assist the client to manage his/ her daily functioning. There are different options and the student can find different solutions. At first there might be five different scenarios based on each country's personas description.

Kommenterede [MH2]: •What types of learning activities and experiences can lead to the construction of both knowledge and skills that are specified by the learning goals?
•What types of educational content (e.g., curricula, texts, cases, videos, images, etc.) is required to create a learning experience that can facilitate the construction of the intended knowledge and skills with the students.

The task consists of three stages:

1. One case where background information about the client is presented (prepared by the teacher)– the care plan and additional information to illustrate the living conditions and his/ her hobbies, relatives etc. According to this information the student must choose which field of daily functioning should be supported (eating, walking, socialization etc.). Which seems to the student most crucial – he/she sets the objective. This first stage covers the competence of understanding the needs of elderly person and especially important is the ability of functional reading. This part is the most important. After having read the profile of the client the student has to choose one main problem as she sees and she must form a problem question and present an objective. First the student must present the problem in a form of a question (the question should not be “yes” or “no” and not “why” question). If the student has not formed the question correctly, she cannot move further, she must set correct question. After formatting the problem, the student must set an objective following **SMART** rule (fillable box with letters S M A R T), and again, if this is not correct, some part is missing, she cannot move further. For aid, there should be the possibility to contact teacher for help, the teacher could answer within 24 hours on workdays.
2. According to the objective she/ he is going to present possible e-services/ e-products. There is a list of available e-services and e-products and a link to the clarification of the services and products in case the student needs additional information. There are approximately 5 services and products at the beginning. Relying on the list the student must choose one. Here he/she must explain preferences by answering (questions below step 2) and taking into consideration the risks that might occur. This part relates to the competence of assessment. For helping the student there are question for the student to answer. After choosing the service or product the student must answer for the following questions: 1. Name max three abilities that the product/ service supports; 2. Why have you chosen this service/ product? 3. List the risks that might occur? 4. How can you prevent these risks?
3. Finally, the third part of the scenario is to teach the usage of the chosen e-service or e-product. The demonstration part is filmed by the student himself/ herself and later uploaded. After having done this the students can open a video prepared by the teacher. Teachers video will be visible only after the student has uploaded their video. The student has an opportunity to compare the video made by himself/ herself and the video made by the teacher. The final part of this phase is a checklist, where questions for self-reflection are presented. 1. Did you use proactive language by teaching the client (did you turn to the client by using the name, did you use polite style, how many “must” word did you use during the teaching process; 2. Do you think that the client learn to use the service/ device (did you ask the client show you the usage process, did you let the client to explain in her own words the usage process, did you consider the clients peculiarities for example she is left handed. Filled questions are saved and printed out in .PDF format.

GC2 assessing the appropriateness of e-services and e-products is used throughout the whole task.

Need to prepare:

1. Persona’s profile(s) including client background information (cases including care plan, living conditions, hobbies, relatives, additional information).
2. Digital solution to enter the profile data and present it. Digital solution needs to be able to add new personas and cases in the future.
3. 12 possible daily functioning (Roper-Logan-Tierney’s theory for example eating, walking, socialization etc) students know them previously.

Kommenterede [EV3]: I feel like here needs to be added a step about GC2. The students needs to analyze what e-products are available (in a list or something comparable), and then compare the functions of the e-products with the needs of the client. And then make the choice.

Kommenterede [EV4R3]: Here also, what does the student do in this step. Give examples of specific actions

Kommenterede [EV5]: How do the students teach this? Describe specifically how this looks like in the digital environment. And take into account that when it should be validated automatically, it should be more in a format then when a teacher will validate

Kommenterede [MS6]: Describe/detail how these activities are supposed to be structured, designed and function in the application. It is not clear e.g. how students will make choices or assess in practice.

Kommenterede [EV7R6]: For example: how should the students present their choice? Multiple choice question, write a paragraph, make a video with explanation, etc.

Kommenterede [HR8R6]: Question to tp5. Can it be done via AI chat integration or should we change questions assessments method and/or adjust the questions?

4. List of all (common) possible e-services and e-products with the information/website link to clarify the content. To future management functionality: item is active/not active with country measurement. For example some e-services are available meaning "active" in certain countries. The lists context can be adjusted by country and by cases.
5. Assessment supporting questionnaire (step 2 see questions below).
6. A place to upload the videos (teachers and students).
7. Checklist for video comparison and for self-reflection (step 3 see questions below).

2.3. System design: Design of Appropriate Delivery Medium, Format, Usability, Application, Availability, and Interface of the Digital Learning Solution According to the SAMR-model.

This Digi simulation is a task, that students should be able to implement independently, it should be available on their computers.

At first there might be five different scenarios based on each country's personas description.

Each step must be fulfilled. After each stage (three stages) there will be information and feedback available for the student.

When the mistakes are big, then the student cannot move forward but has to find another solution. Only when the solution is reliable, the student can move on. Here can be mistakes for not understanding the profile of the person (choosing not the most important or crucial field of daily functioning) , or maybe the presented services and products are not suitable (not supported by the state and the person cannot afford it), or the guiding part is not sufficient (uses language that it not understandable).

2.4. Testing Strategies: Integration of Methods for Evaluation and Feedback into the Digital Learning Solution.

This task requires feedback and explanatory information.

When the student makes a less ideal choice, he/ she cannot move on. At the end of the scenario, there is a possibility to give some extra information on what went wrong. Then the student can try again (later).

Kommenterede [MH9]: •What digital formats/interfaces can serve as appropriate and efficient mediums for facilitating an interactive learning solution that can accommodate both the learning experiences and educational content that are required for students to reach the specified learning goals?
 •How is the application of this digital interface/format/medium affecting the didactics of the learning situation? Substitution, Augmentation, Modification or Re-definition (cf. SAMR)?
 •What digital formats are useable/available in all partner countries?

Kommenterede [DT10]: Functional requirements missing according to TP5 of Finland, crash course: [Functional requirement - Wikipedia](#)

Kommenterede [MH11]: •How can test protocols and feedback – both formative and summative – be integrated into the digital learning solution?

2.5. **Validation:** Feedback from Ongoing Stakeholder (TP 2+3+5) Review of the Proposed Learning Solution.

2.6. **Visual Representation:** Model of the Digital Learning Solution.

3. **Develop:** Creation of a Showcase that Realizes a Part of the Blueprint.

3.1. **Showcase System Design:** Detailed Description of the System Design of the Showcase.

3.2. **Learning Resources:** Creation of Educational Content, Media, Guidance for Activities, and Instructions for Using the Digital Learning Solution.

3.3. **Validation:** Ongoing Stakeholder (TP2+3+4) Review of Learning Resources and Activities.

3.4. **Pilot Test:** Adjustments are Made to the Showcase based on Small-Scale Tests.

4. **Appendix:** Relevant Documents and Models

4.1. Competency Framework

Kommenterede [MH12]: •What do TP2+3 say about the didactic and pedagogical aspects of the digital learning solution?

•What do TP5 say about the useability, availability, and feasibility of developing this digital learning solution?

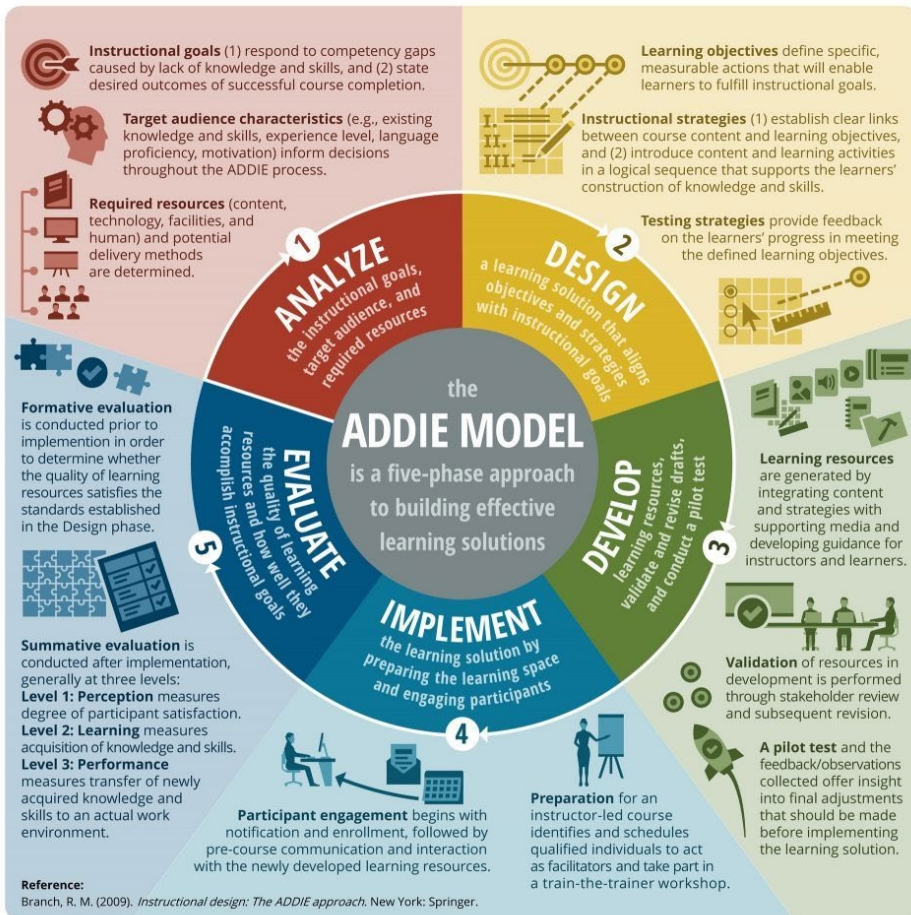
•What technological, didactic, pedagogical, organizational or infrastructural considerations might we have overlooked?

Kommenterede [MH13]: Finally, the work above is visualized by creating a model og flow chart which sketches the learning process and interaction with the digital learning solution.

Kommenterede [MH14]: Insert high-resolution image of the competency framework here.

4.2. Modified ADDIE Model

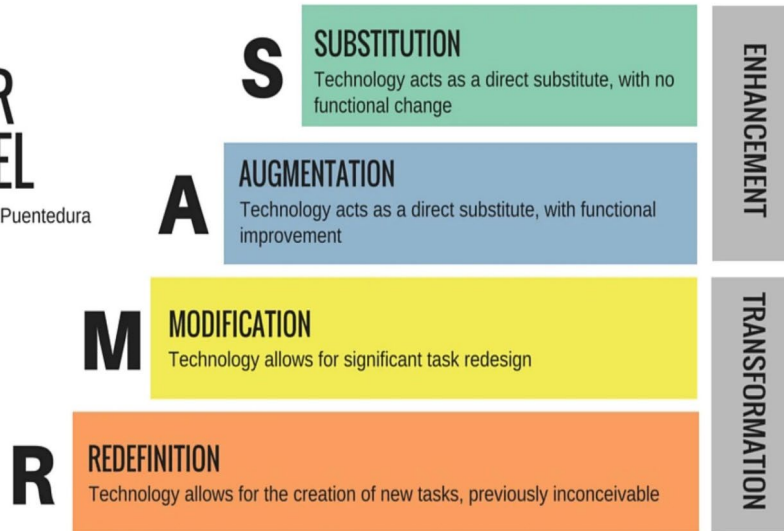
Kommenterede [MH15]: Edit ADDIE model in accordance with our final proces.



4.3 SAMR Model

THE SAMR MODEL

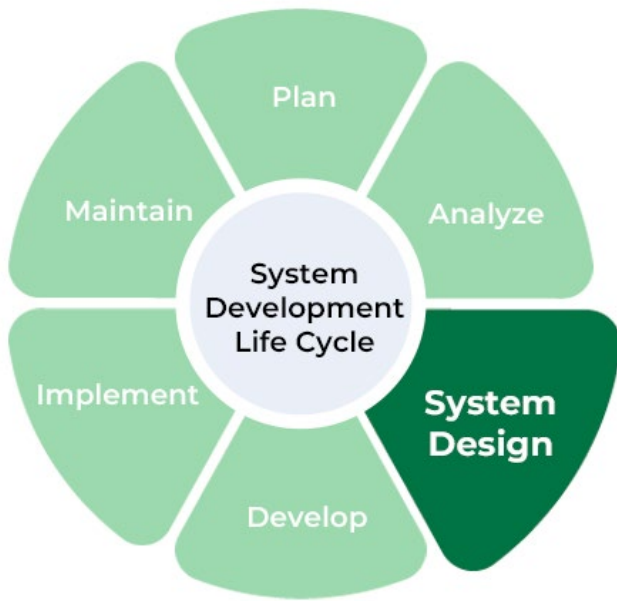
Dr. Ruben R. Puentedura



4.4 Digital Playboard

Kommenterede [MH16]: Insert a model of our common digital playboard,

4.5 System Development Life Cycle



Kommenterede [DT17]: TP5 of Finland considers us to be in a slightly different stage compared with the ADDIE model. He feels that the steps we have covered in the ADDIE model so far puts us somewhere between "Plan" and "Analyze" in the System Development Life Cycle and we want to go straight to develop. As such he wants the system design step developed further. This could be an addition of more steps between 2.3 and 2.4 or expansion of step 2.3. In any which way this development step is best done with profiles 2 and/or 3 together with 5. at this point this might be best discussed in Bilbao or after. This of course is also dependant on how technically advanced the solution is to be, a complex solution requires careful and detailed planning at 2.3 and a simple one less so (a simple one might make profile 5 redundant?)