



This document represents the Digital Educators' Guide of the STUDICODE project (Intellectual Output „Digital Educators' Guide“).

This document is also available on the project website under the section „results“ (<https://www.studicode.med.tum.de/en/results>).



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## **Educators' Guide**

A handbook for drawing conclusions to kickstart your own course

### **Executive summary**

There are many reasons why you might be thinking about developing an online course for your students in higher education. Online learning might have specific advantages or disadvantages depending on the field of study, the term your students are enrolled, the support you have in creating online materials and the experience of your students in optimally using the materials for advancing their knowledge.

The STUDICODE consortium consists of four partners from four countries who jointly developed an online dementia course for medical students. The steps and lessons learned provided here were carefully drawn throughout the 2-year duration of the project. For this guideline, we have abstracted the learnings to create a practicable handout that can be shared with others and support their journey in creating an online course.

This guide will draw conclusions based on the STUDICODE experience regarding the following questions:

- Which preparatory steps are needed for creating an online course?
- In which way are digital formats superior to traditional ways of education?
- What content is best delivered by which formats and media?
- How to evaluate an online course, which instruments to use?
- Which parts of an online educational program are most valued by users?
- Which is the best way to address users of different occupational disciplines?
- Which didactic formats are appropriate to promote interdisciplinary understanding and collaboration?
- What is the optimal length for such a course?

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## Lessons learned

At the beginning of the STUDICODE project, the STUDICODE group consisted of educators in the field of dementia from institutions in Romania, Slovakia, Slovenia and Germany. Although the educators had experience in teaching, the partner institutions did not have extensive practice in providing online learning materials to students in the field of dementia.

STUDICODE project was designed in an online format before the corona pandemic, pandemic which underlined the advantages of online learning and led to advancements in digital learning formats, and especially in East European countries, it helped a lot with the digitalization of the entire educational infrastructure.

Through undertaking the project, the group gained expertise in using a variety of media formats as well as communicating the success of the STUDICODE online course within their partner institution.

Based on the project activities, STUDICODE would like to share the following lessons learned:

- Set course objectives as well as learning objectives before drafting any chapters.
- Pilot the course by asking colleagues and a small group of students for feedback before rolling out the course.
- Using an online (Moodle) course for teaching is not the same as teaching in a face-to-face format.
- Make content available through a Creative Commons licence on Open Education Repositories.

## Why an online course?

The biggest advantage of an online course is that your classroom and instructor (theoretically) are available 24 hours a day, seven days a week. Your only excuse for missing class is not getting online! Otherwise, everything is available to you. You can get announcements, access notes, review assignments, take practice quizzes, discuss questions, chat with fellow students, and study any time you want. Other than certain due dates, you make your own schedule for completing the requirements of the course.

You can study any time you want. You can study with whomever you want. You can study wearing anything you want (or nothing if you prefer!) Online courses give you the flexibility to spend time with work, family, friends, significant others or any other activity you like. Sometimes, Online students often find that their family or friends get involved in the course. Oftentimes, a student will study with that special someone present.

On the other hand, there are several disadvantages which is important to be mentioned. Disadvantages like spending more time studying and completing assignments in the online environment than in an on-campus course, procrastination, demanding to develop personal time-management skills.



1. Online courses are convenient.
2. Online courses offer flexibility.
3. Online courses bring education right to your home.
4. Online courses offer more individual attention.
5. Online courses help you meet interesting people.
6. Online courses give you real world skills.
7. Online courses promote life-long learning.
8. Online courses have financial benefits.
9. Online courses teach you to be self-disciplined.
10. Online courses connect you to the global village.



1. Online courses require more time than on-campus classes.
2. Online courses make it easier to procrastinate.
3. Online courses require good time-management skills.
4. Online courses may create a sense of isolation.
5. Online courses allow you to be more independent.
6. Online courses require you to be an active learner.
7. Online courses don't have an instructor hounding you to stay on task.
8. Online courses give you more freedom, perhaps, more than you can handle!
9. Online courses require that you find your own path to learning.
10. Online courses require you to be responsible for your own learning.

## Steps

Designing and respecting a structured approach when preparing an online course is of paramount importance for ensuring a seamless and effective learning experience.

By following a systematic process, educators can clarify their course objectives, target the right audience, and organize content in a coherent manner. This not only enhances the overall quality of the course but also helps instructors maintain a clear sense of direction throughout the development process.

Each step, from defining learning outcomes to selecting a suitable learning management system, contributes to the course's comprehensiveness and accessibility. Adhering to these steps not only improves the course's educational value but also boosts student engagement and satisfaction.

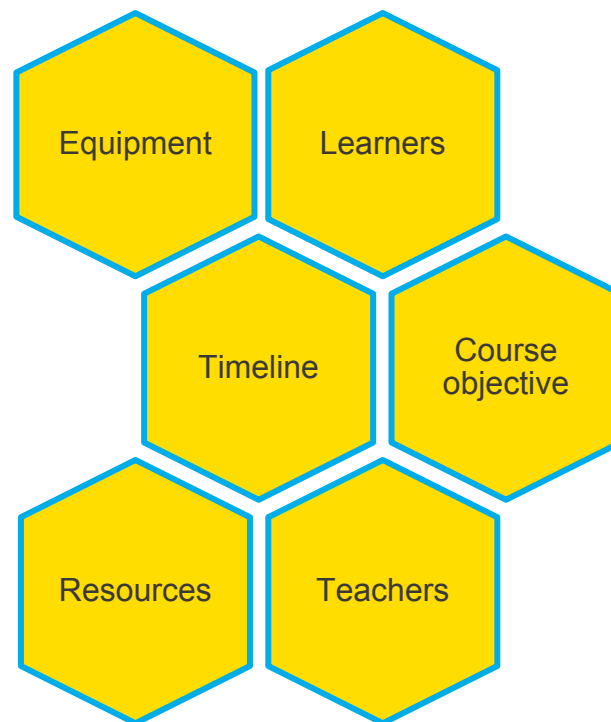
Moreover, structured course preparation allows for the identification of potential issues early on, enabling educators to address challenges proactively and deliver a polished, well-rounded online course that maximizes learning outcomes for students.



12 months  
prior to launch

Initial goalsetting, resource review and timeline setting

About one year before the online course launches, you (and your colleagues) might kick-off the courses development in a brainstorming format. We recommend that you discuss and think about the following aspects:



## Equipment

Before jumping into drafting any course chapters, we recommend that you review existing equipment and tools that are available to you. This may include cameras, editing software, already existing photos/illustrations/maps, lighting, microphones, teleprompters, drawing software etc. – it may also include already existing online courses at your institution that could act as models for your own course.



*While having high-quality equipment is beneficial, your content's value and how well you communicate with your learners are just as important. Choose equipment that aligns with your course's style and your budget, and focus on delivering engaging and informative content.*

## Learners

Think about your students: Where are they in their overall study programme? How much do they already know about the topic? How much time do they have for your course? What do your students expect from the course?



*Not every learner will be a perfect fit for your course, and that's okay. It's important to focus on delivering value to those learners who align with your course objectives. By carefully selecting and catering to the right learners, you can create a more meaningful and impactful learning experience for them.*

## Timeline

Think about the broad timeline for creating the course: When do you want to launch the course? How much time is available to you (and your colleagues) for creating the course?



*The actual duration of each phase may vary based on your resources, schedule, and the complexity of your course. It's important to set realistic goals and allocate enough time for content creation, technical setup, and marketing efforts. Adjust the timeline as needed to ensure that you can provide a high-quality learning experience for your students.*

## Course objective

Taking into consideration the equipment which is available to you, your timeline, and the expectations that your students may have from your course, try to define one objective of your envisioned course. How should the overall level of detail and depth of information be?



*These objectives outline the specific skills and knowledge that students will gain from the course. Each objective is clear, measurable, and directly tied to the learning outcomes of the course.*

## R e s o u r c e s

Try to assess the resources available for creating an online course: there are several MOOC platforms, edX, coursera, Moodle and other platforms which can support you in building your course and making it easily accessible for students – your institution may have one designated platform including access to royalty-free music, photos and video material.



*Adapt these resources based on your specific needs and the nature of your online course. Continuous research and learning will contribute to the success of your course preparation process.*

## Teachers

Don't forget to consider your own role. How much experience do you have in creating online materials? Can you collaborate with colleagues to develop the course? Can you use the envisioned materials in some of your other classes?



*In online teaching, the teacher plays a vital role in guiding and supporting learners through the digital learning journey. Effective online teaching requires a balance of instructional design, communication, technology use, and a deep understanding of the unique challenges and opportunities that the online environment presents.*



12-9 months  
prior to launch

Conceptualising phase, designing, course planning platform modules,  
formats in each module  
Include tips on how to use, structure explain, joint language, colour scheme

After you have clarified the aspects mentioned above, you are ready for a more detailed plan for your course.

Based on your previous considerations, you may already have selected a platform for hosting your course which may imply some aspects for the layout of your course (e.g., restricted / unrestricted access, self-paced mode). Familiarize yourself with the chosen Learning Management System (LMS) to effectively organize and deliver your content.

Also, you may have some guides from your institution on the colour scheme of the materials and language to be used for the course. If not, we strongly recommend developing a set of “rules” for the course: choose a few colours that are used for all course materials, define a common language for the course (patient, client, senior).

The most important aspect in this phase is conceptualising the course. Based on the overall learning objective, you may be already able to derive a set of sub-objectives and corresponding learning outputs. Try to ask yourself the following questions:

- **What main take-home message should students remember after taking the course?**
- **What should be the duration of the course?**

Depending on the overall learning objectives and your recourses, think about some case vignettes that could make the course interactive. This could be a scenario where the learnings are applied in real life.

This consideration will lead you to the next aspect: which media formats do you want to use in your course? This could include the following formats:

- texts
- videos (cartoons or interviews, with / without subtitles)
- infographics (animated or static)
- games (drag-and-drop games, word games, immersive, scenarios)
- quizzes and assessment / test (with or without course completion certificate)

## Texts

Texts play a crucial role in online courses as they convey information, explanations, instructions, and engagement with learners. Balancing text with other media formats like videos, images, and interactive elements creates a well-rounded learning experience that caters to different learning styles and preferences. Here are different ways to use text effectively in an online course:

<b>Course Content</b>	Written content such as articles, lecture notes, and summaries provide foundational knowledge to learners. Clearly organized text helps learners understand complex concepts and theories.
<b>Slide Presentations</b>	Visual aids like slides with concise text support your video lectures. Use bullet points, headings, and visuals to break up text and make it more digestible.
<b>Discussion Boards and Forums</b>	Encourage engagement by posing thoughtful questions and prompts. Share relevant articles, research papers, or news to spark discussions.
<b>Assignment Instructions</b>	Provide detailed, step-by-step instructions for assignments and projects. Include examples and guidelines to clarify expectations.
<b>Course Policies and Expectations</b>	Outline course policies, attendance requirements, and academic integrity guidelines. Clearly communicate expectations regarding participation and interaction.
<b>Course Overview and Objectives</b>	Begin the course with an overview that outlines learning objectives and expectations. Concisely describe what learners can expect to gain from the course.
<b>Additional Resources</b>	Recommend supplementary reading materials, research papers, or articles for further exploration. Provide links to reputable online resources to enhance learners' understanding.

**Remember these tips to optimize the use of text in your online course:**

- Keep paragraphs short and focused.
- Use a readable font and appropriate font size.
- Use bullet points and numbered lists for clarity.
- Be concise while providing necessary information.
- Use headings, subheadings, and formatting for easy scanning.
- Incorporate visuals like images, charts, and diagrams to complement text.



**Videos**

***Engage learners through storytelling and visual exploration.***

Videos increase student engagement, which in turn helps boost achievement. If students are interested in the material, they will process and remember it better. They offer the flexibility to pause, rewind, or skip throughout the video to have class discussions or review particular areas.

Some studies show that our brains significantly retain more information when watching a video as compared to reading text. One study from Forester Research suggests that

one minute of video equates to 1.8 million words of text. Here are different types of videos you can create for your online course:

<b>Lecture Videos</b>	Traditional lectures where you explain key concepts, theories, and information. Use visuals like slides, graphics, and diagrams to illustrate points.
<b>Tutorial Videos</b>	Step-by-step demonstrations of how to perform specific tasks or skills. Particularly useful for courses that involve practical skills or software usage.
<b>Case Study Videos</b>	Present real-world scenarios or case studies relevant to the course topic. Analyse the situation, discuss challenges, and explore potential solutions.
<b>Interview or Expert Videos</b>	Invite industry experts, professionals, or guest speakers for interviews. Gain insights, perspectives, and real-world experiences from those in the field.
<b>Whiteboard or Chalkboard Videos</b>	Use a digital whiteboard or physical chalkboard to visually explain concepts in real-time. Mimic the feel of a classroom setting.
<b>Animated Explainer Videos</b>	Use animation to simplify complex concepts, processes, or theories. Visualize abstract ideas in an engaging and easy-to-understand manner.

When deciding which types of videos to include in your course, consider your course objectives, the nature of the content, and the preferences of your target audience. A mix of different video formats can keep learners engaged and cater to various learning styles. Additionally, ensure that your videos are well-edited, have good audio and video quality, and are accompanied by supplementary materials where necessary.



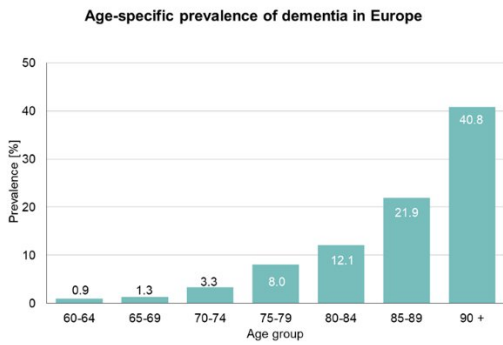
*Example: Types of videos used in STUDICODE project (left: Animated Explainer Videos; right: Interview or Expert Videos)*

## Infographics

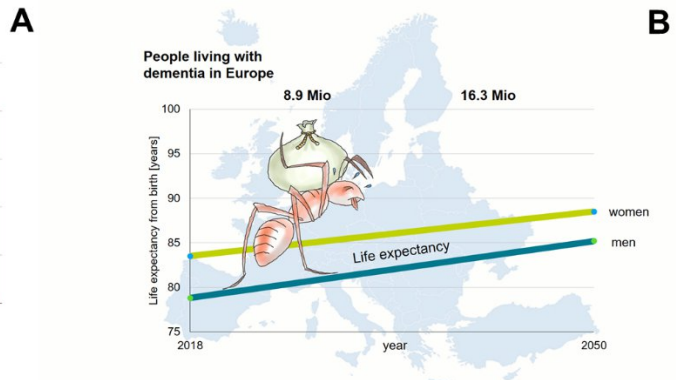
Infographics are visual representations of information that can be highly effective in conveying complex concepts in a simple and engaging manner. They can be a valuable addition to your online course materials. Here's how you can use infographics in your online course:

<b>Data Visualization</b>	Present statistical data, research findings, or comparisons in a clear and understandable format. Choose appropriate charts, graphs, and diagrams based on the data you're presenting.
<b>Visual Summaries</b>	Summarize key points, concepts, or lessons from a module or section of your course. Provide learners with a quick reference to review important information.
<b>Process or Workflow</b>	Illustrate step-by-step processes, workflows, or procedures. Use arrows and icons to guide learners through each stage.
<b>Comparison and Contrast</b>	Compare different concepts, theories, products, or solutions side by side. Use contrasting colours and visual elements to highlight differences.
<b>Concept Mapping</b>	Visualize relationships between different concepts, showing how they connect and interact. Help learners see the bigger picture and understand the context.
<b>Cause and Effect</b>	Illustrate cause-and-effect relationships to explain how one event leads to another. Use arrows or flowcharts to show the progression.
<b>Interactive Infographics (Advanced)</b>	Create interactive infographics that allow learners to click on elements for more detailed information. Utilize online tools or platforms that support interactive content.

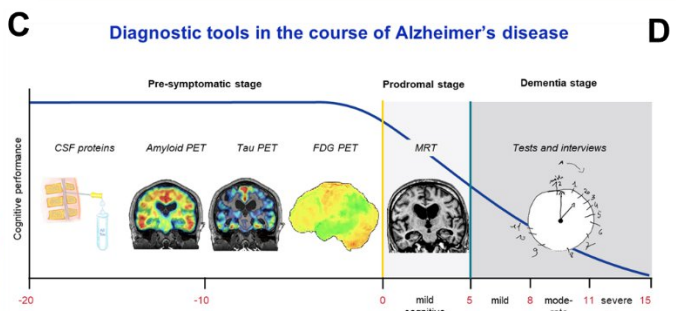
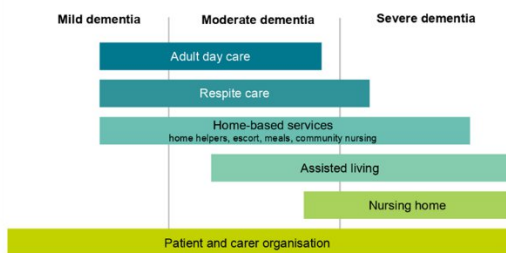
To create infographics, you can use various tools and software, such as Canva, Piktochart, Venngage, Adobe Illustrator, or even PowerPoint. Make sure your infographics are visually appealing, organized, and not overloaded with information. Balance text and visuals to convey the message effectively. Infographics can serve as valuable supplementary materials that enhance learners' understanding and retention of course content.



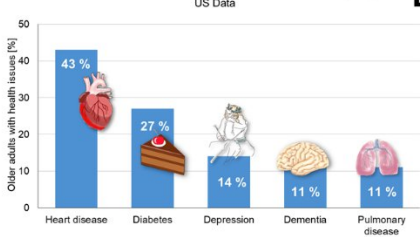
Alzheimer Europe: Dementia in Europe Yearbook 2019



**Services and facilities involved in dementia care**

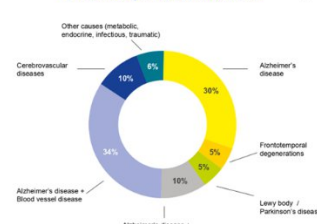


**Selected common health issues of older adults (65+)**

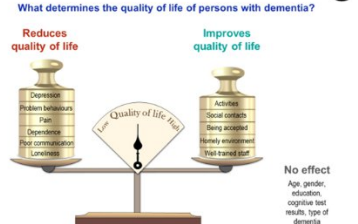


Figures taken from National Council on Aging, Arlington, VA, 2021

**The most frequent causes of dementia**



**What determines the quality of life of persons with dementia?**



Data taken from: Pudas et al. Alzheimer's & Dementia: Translational Research & Clinical Interventions 3: 453-458, 2017; Martyr et al. Psychol Med 48: 2130-2136, 2018; Holmgren et al. Dementia 18: 1027-1037, 2019

Example: Types of infographics used in STUDICODE project

**Games**

Incorporating games into an online course can enhance engagement, interactivity, and the overall learning experience. Gamification techniques can motivate learners, reinforce concepts, and create a more dynamic and enjoyable educational environment. Here are different ways to use games in your online course:

**Quizzes and Trivia Games**

Create interactive quizzes or trivia games that challenge learners' knowledge. Offer immediate feedback and scores to encourage participation.

**Gamified Assessments**

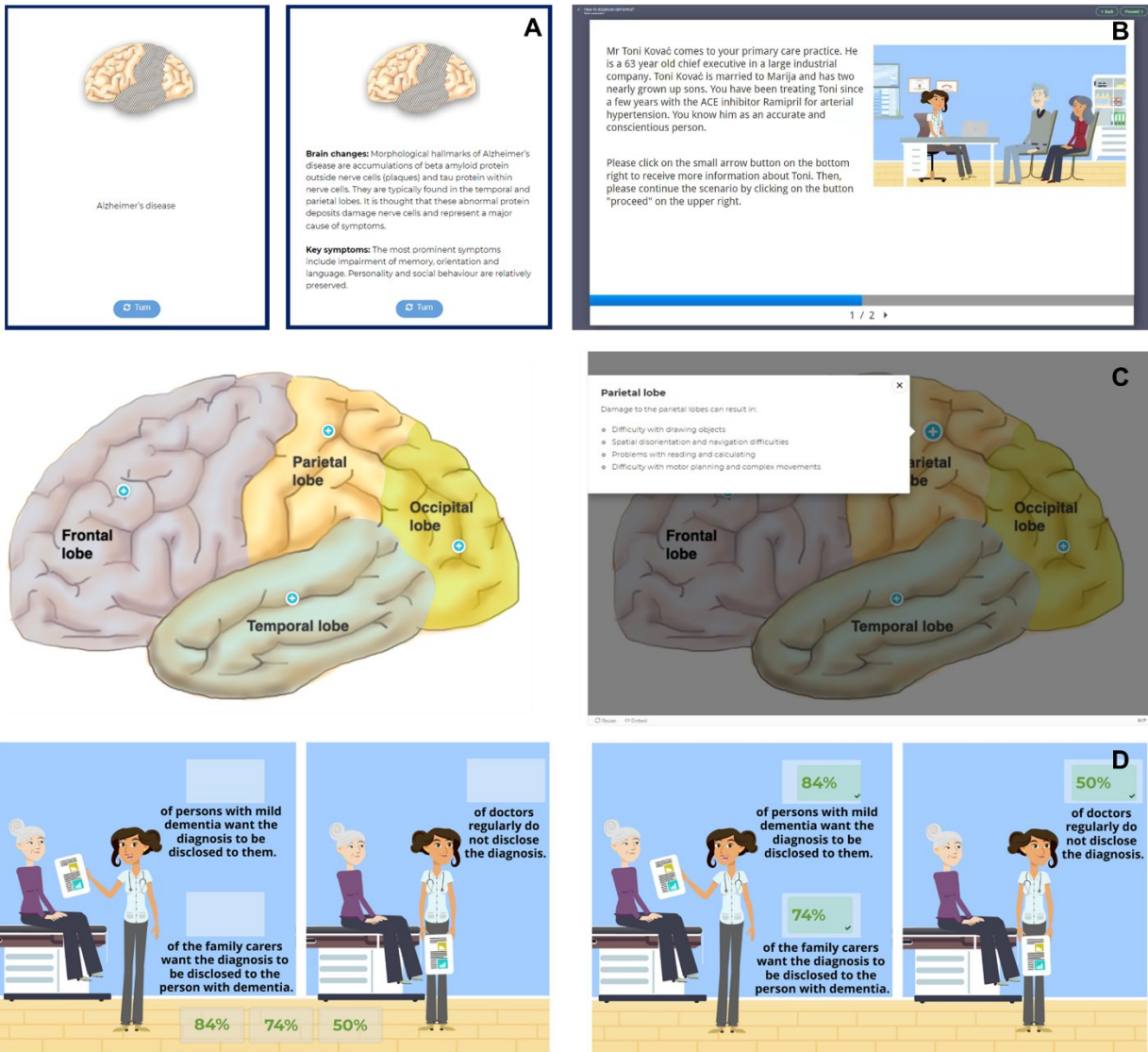
Turn assessments into games where learners progress through levels or earn points for correct answers. Use leaderboards to foster competition and motivate improvement.

<p><b>Scenario-Based Games</b></p>	<p>Scenario-based training uses real-life situations to support active learning. Rather than passively absorbing information, learners are immersed in a story. Using realistic work situations provides relatable, relevant, and impactful learning experiences.</p>
<p><b>Role-Playing Games (RPGs)</b></p>	<p>Assign roles to learners and immerse them in a narrative-driven experience. Encourage collaboration, problem-solving, and decision-making.</p>
<p><b>Interactive Storytelling</b></p>	<p>Create interactive stories where learners make choices that shape the plot. Engage learners in the content by allowing them to influence outcomes.</p>
<p><b>Hotspots</b></p>	<p>Whether invisible or navigational, hotspots play an essential role in student involvement. Thanks to these buttons you can push users to discover the information hidden inside an image, exploring its graphic elements.</p>
<p><b>Flashcards and Memory Games</b></p>	<p>An alternative to the hotspots H5P games, are the flashcards. In this educational approach, also stimulating the visual learning. Use digital flashcards or memory games to reinforce vocabulary, terminology, or key concepts. Promote active recall and retention. According to a study by the University of Washington at St. Louis, using flashcards to activate active memory recall strengthens memory by 50%.</p>
<p><b>Drag and drop games</b></p>	<p>Drag and drop game is perfect to engage users and deliver educational information's. Like in a puzzle, users must drag objects and position them at the right place.</p>

When integrating games into your online course, consider the course objectives, target audience, and the level of complexity appropriate for your learners. Ensure that the games align with the course content and learning outcomes. Also, provide clear instructions and guidelines for participating in the games. Gamification can make learning more enjoyable and effective, but it's important to strike a balance between entertainment and educational value.



*The score of these games is not important, and the students could read the course further, but this type of interactive activity could help them to fix better the information.*



Example: Types of infographics used in STUDICODE project (A. Flashcards game; B. Scenario game; C. Hotspots game; D. Drag and drop game)

## Quizzes and Assessments

Quizzes and assessments are essential components of an online course, serving as tools to gauge learners' understanding, reinforce learning, and evaluate their progress. Here's how to effectively implement quizzes and assessments in your online course:

### Formative Assessments

These are ongoing assessments that provide feedback to learners throughout the course. They are not usually graded but help learners understand their strengths and weaknesses.

### Summative Assessments

These are comprehensive assessments that evaluate learners' understanding of the entire course or a specific module. They are often graded and contribute to the final course grade.

**Question Variety**

Use a mix of question types, such as multiple-choice, true/false, short answer, essay, and scenario-based questions.

Different question types assess different skills and concepts.

**Progressive Difficulty**

Organize questions by increasing difficulty level, allowing learners to start with foundational concepts and progress to more advanced ones.

**Clear Instructions**

Provide clear and concise instructions for each quiz or assessment.

Clarify how many attempts are allowed, time limits (if any), and how scores will be calculated.

**Balanced Coverage**

Cover the breadth of the course material in your quizzes and assessments.

Ensure that no specific topic or concept is overrepresented or underrepresented.

**Timely Feedback**

Offer immediate feedback on formative assessments to guide learners' understanding.

Provide feedback on summative assessments after they are completed and graded.

**Randomized Questions**

If feasible, randomize the order of questions and answer choices to discourage cheating.

This can ensure that learners receive different versions of the assessment.

**Assessment Security**

Implement measures to prevent cheating, such as timed assessments or randomized question pools.

Use plagiarism detection tools for assignments if necessary.

**Gradual Progression**

Structure the course assessments so that they gradually increase in complexity as learners advance through the course.

**Final Assessment**

Consider a comprehensive final assessment that covers the entire course content.

It can serve as a capstone evaluation of learners' overall understanding.

Effective quizzes and assessments engage learners, reinforce key concepts, and help them track their progress. By designing well-structured and thoughtfully constructed assessments, you can create a balanced and meaningful learning experience in your online course. Clearly worded questions with appropriate options ensure that learners understand what's being asked. Use consistent formatting for questions to avoid confusion.



For all these formats, a joint colour scheme and format usually leads to a coherent and professional impression.

And now it is time to start making the first draft of the course outline. We suggest starting with a simple table displaying the sub-objectives, respective learning goals and media formats. Please consider the sequence of sub-objective if the students should go through the course in a specific manner – in this case, the different blocks are not modular. Your table may look similar to this draft:

Course modules	Objective	Learning goal	Media formats	Duration
Chapter 1	Sub-objective 1	Learning goal 1	Video interview	10 min.
Chapter 2	Sub-objective 2	Learning goal 2	Infographic	5 min.
Chapter 3	Sub-objective 3	Learning goal 3	Game + text	15 min.
Assessment	Retainment of knowledge	-	Quiz	15. min

#### Course chapters and topics:

Nr	Chapter	Contents	Time (min)
A	Introduction	Welcome to participants, instructions on using the course	3
1	Magnitude and impact of dementia (macro level)	Numbers of people with dementia in Europe 2020-2050, major cause of mortality, high societal cost, stigma	10
2	Impact of dementia (micro level)	Progression, disability, determinants of quality of life, determinants of carer burden	10
3	Causes	Classes of causes, localization determines symptoms, pathology precedes symptoms, comorbidities	10
4	Diagnosis	Difference from normal aging, signs of early dementia in daily life	20
5	Communication	Impairment of communication in dementia, social and psychological role of communication, disclosure of diagnosis	10
6	Treatment	Contribution of non-pharmacological interventions, interprofessional collaboration, carer support	20
7	Services and facilities	Major types of services	15
B	Knowledge check	Multiple-choice questions	--
C	Evaluation	Online questionnaire	--

Example: 1<sup>st</sup> draft of the STUDICODE course chapters (2021)

9-3 months prior to launch
Development of materials, and review outsiders, online implementation  
Announcing and promotion

At this stage, you should have a detailed outline of the chapters or modules of your course, the different topics covered in each chapter as well as an overview of the materials you need to produce. Goal of this phase is to create these materials and

upload them to the course platform. In this phase, most resources will usually be needed – don't be shy and ask for support from your colleagues!

We recommend that you start with a video plan if your course includes videos. The style (cartoon, interview) of the video and the equipment that is available to you play an important role – specialised guidelines for how to make different types of videos exist and we therefore do not cover this topic in our guide. No matter what kind of videos you are developing, here are some tips that can be applied regardless:

- Start with a paper-prototype of the different scenes featured in the video / prepare interview partners.
- Learn how to use the equipment / editing software beforehand.

Once you have created a few materials (e.g., for the first chapter), you may try to upload these materials to the course platform in a sandbox chapter. This will allow you to learn how the platform works while you still can make adaptations to the pending materials if necessary.



*We recommend that you invite at least one colleague from your team to provide you with feedback on the first set of materials. Main aspects include: How long does it take to go through the chapter? Did the platform work from a technical viewpoint?*

At this stage, please also review whether your course adheres to diversity standards – your course should accommodate the needs of your students. Main points for you to assess include:

- Should the videos use subtitles (in different languages)?
- Is it possible for students to download materials (e.g., presentation slides)?
- Are the illustrations / photos provided in the course screen-readable?
- If online learning is not usually used at your institution, you may add a section at the start of your course where you provide some instructions for students who are new to online courses.

During this phase, you can also start thinking about how to make students aware of your course. There are numerous options for information your audience about the course including informing them via email, flyers, promotional videos, social media. Once you start announcing the course, make sure that the announced launch day of the course is realistic!

In our experience, the most pressing aspects of a new course for students are:

- What can I learn in this course?
- Does the course build upon any other courses?
- How much time and work does it take me to complete the course?
- Do I get a certificate for finishing the course?
- How and when can I enrol in the course?

3 months  
prior to launch

Constant quality review, attracting enrolments

At this step, you should have created all online materials and uploaded them to the online platform. Now, it is time to check the quality of the materials and make sure that no errors occurred during the uploading phase. We suggest that you create a checklist for this quality review – ideally, you invite others (colleagues or other experts from your discipline) to join the quality check:

- Grammar mistakes
- Logic errors in the structure of chapters / modules
- Correctness of information provided / try to identify any possible ambiguities or misunderstandings.
- Do the videos play, is the sound appropriate, do the games work correctly?
- Does the grading work correctly for the assessment / quiz?
- Are the citations / quotes correct?
- Is the content accessible (e.g., subtitles available machine-readability, downloadable material)

**Performing a comprehensive pre-check will help ensure that your online course is polished, effective, and ready to deliver a valuable learning experience to your students.**

Launch

Running the course

**Congratulations, your course is now online, and students start enrolling in the course.**

Launching an online course requires careful planning, dedication, and ongoing effort to create a positive and effective learning experience for your students. Here are some ideas for how to support a successful launch:

- Send reminder emails to students. Keep promoting your course through various channels to attract new students over time.
- Take notes of the reoccurring questions and any issues with the enrolment that might occur.
- Foster a sense of community among your students through discussion forums, live Q&A sessions, or virtual meetups.
- Encourage students to provide feedback on the course content, structure, and user experience.
- Monitor course engagement, completion rates, and student feedback to identify areas for improvement.

Consider evaluation results and ensure sustainability of the course for upcoming semesters.

- Plan some time to make small improvements accordingly.
- Major adaptations might be possible in case you are planning to re-launch the course in the next semester.
- In any case, make sure that your course is up-to-date – from a technical but also scientific perspective.

## The big divide: digital formats vs. traditional ways of education

The STUDICODE partners have many years of experience in teaching within the medical field at higher education level. Most of this teaching experience has been based on traditional formats such as giving lectures to 50-150 students. Also, the STUDICODE educators had some experience in teaching in a workshop format with a group of 10-30 student participants. This group of lectures – supported by research findings – noticed that other disciplines advanced their teaching by introducing new online teaching formats. This trend was accelerated by the Corona virus pandemic, but has started even before that in certain fields of study. Through the STUDICODE projects, the STUDICODE lecturers made the positive experience that – when used correctly – digital formats are superior (at least equally effective) to traditional ways of education.

Online learning offers several advantages for different learning styles, catering to a diverse range of students. Overall, four basic learning styles have been observed: auditory, kinaesthetic, read & write, visual.



*Auditory learners benefit from learning by hearing. Their tools may include verbal repetition, mnemonic techniques, reciting verbally, discussions (e.g., at this course's live Q&A session).*



*Kinaesthetic learners benefit from learning during physical activities. Their tools may include Repetition techniques during movement, tactile representations of the learning content.*



*Read & write learners benefit from learning by reading and writing. Their tools may include note taking, making their own flashcards, re-writing notes for repetition.*



*Visual learners benefit from learning by sight. Their tools may include Mind-maps, sketch notes.*

The flexibility and diversity of online learning platforms make it possible to cater to a wide range of learning styles. This inclusivity enhances the learning experience for all students, regardless of their preferred ways of acquiring and processing information.

## Effective course evaluation – how to use feedback to improve your existing course

After the initially enrolled students completed the course, we suggest that you take some time to review their feedback. Continuously improving your online course based on student feedback will contribute to a more engaging and effective learning experience, leading to higher satisfaction rates and potentially attracting more learners in the future.

### Feedback channels

#### Surveys

Create online surveys using tools like Google Forms or SurveyMonkey. Ask a mix of multiple-choice questions, open-ended questions, and rating scales.

#### Discussion Forums

If you have an online platform for your course, create a discussion forum where students can openly share their thoughts.

#### Emails

Send personalized emails to students who completed the course, asking for their input.

#### Social Media

Utilize social media platforms to reach out to your course participants and followers for feedback.

### Question Design

- Use a combination of quantitative and qualitative questions.
- Ask about specific aspects of the course such as content quality, instructional clarity, engagement level, and technical issues.
- Provide an open-ended question for general comments and suggestions.
- Time your feedback request appropriately. It's often best to do this shortly after participants have completed the course while the experience is fresh in their minds.
- Assure participants that their feedback will be kept confidential and anonymous if they prefer.

### STUDICODE students' feedback

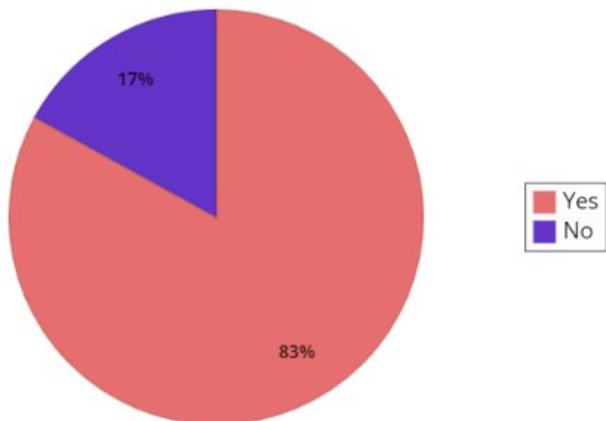
Based on the data analysed up until September 2023\*, a total of 113 students were involved in the assessment\*\*. 83% of students stated that the scope of topics featured in the course was “exactly right”. Moreover, 82% of students stated that the depth of information was “exactly right”. This is very important to the consortium as it demonstrates that complementary information on dementia is valuable to students in addition to the existing lectures.

*\*To access the most current student feedback findings, it is recommended to visit the official webpage of the STUDICODE project.*

*\*\*The data is sourced from students enrolled at the four partner institutions located in Germany, Slovenia, Slovakia, and Romania. The outcomes may exhibit gentle variations among students in these countries, which are contingent upon cultural disparities and differences in educational systems.*

## Scope of topics

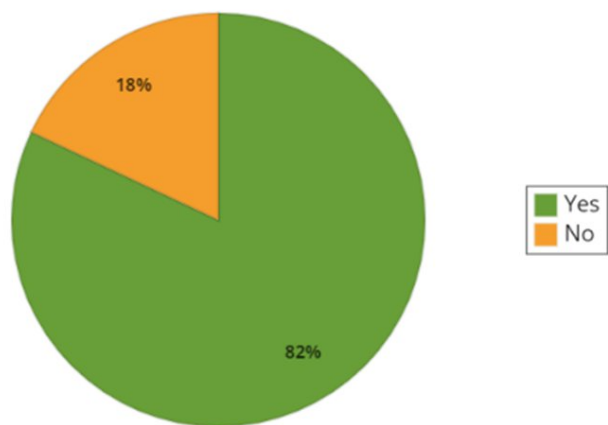
Exactly right



Regarding the various media formats, students stated that they found the media formats can contribute to a positive learning experience. They found the media formats to be the formats used in the STUDICODE course can encourage students to learn more about dementia. They described the media formats as “entertaining”.

## Depth of information

Exactly right



### STUDICODE Course developers' feedback

One main goal of the STUDICODE project was to improve the digital competencies among dementia educators.

To advance the project groups' digital competencies, a series of Learning-Teaching-Training activities accompanied the project. The skills acquired through these activities were used for jointly developing an online learning course about dementia.

In order to quantify the increase of digital teaching skills, the Digital Competence Framework for Educators (DigCompEdu) was administered once prior to the STUDICODE intervention and once after finishing the implementation of the online course. Both times, the STUDICODE course developers were asked to answer the DigCompEdu questionnaire which is a self-assessment in the fields of "professional engagement", "digital resources", "assessments", "teaching & learning", "empowering learners" as well as "facilitating learners' digital competence".

The comparison of pre and post intervention assessment demonstrates that the STUDICODE course developers experienced a high increase of their skills in the field of “**professional engagement**” during the course development phase.

Another area where educators indicated great skills advancement was in regard to using digital resources which includes the selection, creation and modification of digital educational resources. This demonstrates that the course developers expanded their teaching skills through jointly working on the course creation and thus, benefited from the project.

## The best way to address course participants from different occupational disciplines

The STUDICODE online dementia course tells the story of Ana and Toni who both were diagnosed with dementia, as well as Marija who is Toni's wife and Ana's friend:





The screenshot shows a course navigation menu on the left with 'The Cast' selected. The main content area is titled 'The Cast' and displays four character cards. Each card has an illustration and a short introductory text block.

Character	Text
Ana	Hello, I am Ana. I have received the diagnosis of dementia a few days ago. It was a shock. All my plans and hopes are suddenly gone. I am so afraid of the future.
Toni Kovač	Good day, my name is Toni Kovač. It was at work that I first noticed something is wrong with me. The doctor has suggested that things might get worse. However, I will fight it as long as I can.
Marija	Hi, I am Marija, Toni's wife. I came with him when the doctor disclosed the diagnosis. My husband's problems are changing his life as well as mine.
Doctor Andrea Lucy	Hi, I am Doctor Andrea Lucy. Thank you for supporting me in the office for a few days. I trust you will manage the cases that come in. However, if you run into difficulty I will always be there to help you out.

Based on this fictional cast, the different chapters – the impact of dementia on the individual, diagnosis, treatment options etc. – are explored by the students. This way of storytelling aims at capturing the students' attention and enthusiasm regarding the topic of dementia. This technique allows students from different fields such as medicine, social work, psychology or occupational therapy to engage with the characters and focus on main theme.

STUDICODE's "lessons learned" in addressing learners from different occupational disciplines:

provide an overview on what kind of knowledge the students should have before enrolling in a chapter

-  provide summaries at the end of each chapter
-  include references and suggestions for further readings
-  include practical examples
-  use storytelling techniques

### Which didactic formats are appropriate to promote interdisciplinary understanding and collaboration?

Promoting interdisciplinary understanding and collaboration in an online course requires careful planning and the use of appropriate didactic formats. Here are several formats that can be effective for achieving these goals:





**Discussion Forums:** Encouraging students to participate in discussions allows them to exchange varied ideas and learn from one another. It's an adaptable framework that can be utilized throughout the course to encourage continued discussion.



**Collaborative Projects:** Assigning multidisciplinary group projects is an important technique to promote collaboration and the application of knowledge across fields. These projects should be large and require students to draw on their diverse experiences.



**Guest Lectures and Webinars:** Bringing in experts from many fields to offer lectures or webinars exposes students to new views and real-world implementations of interdisciplinary topics.



**Case Studies:** Case studies encourage students to apply knowledge from several disciplines to solve complicated problems, making them a good platform for teaching interdisciplinary thinking and problem-solving.



**Peer Review:** Including peer review in assignments enables students to critically assess and provide feedback on one another's work, which can lead to significant cross-disciplinary insights and collaboration.

These formats promote interdisciplinary understanding and collaboration in an online course in a balanced manner. However, the effectiveness of each format also depends on how well it corresponds with your course objectives and how well you facilitate these activities to ensure meaningful student engagement.

## What is the optimal length for such a course?



The optimal length for an online course can vary widely depending on several factors, including the course's subject matter, complexity, learning objectives, and the needs of the target audience. There is no one-size-fits-all answer, but here are some considerations to help you determine the appropriate length for your online course:

**Course Goals and Learning Objectives:** The objectives should guide its length.

**Course Content:** The volume and complexity of the material affect course duration.

**Target Audience:** Consider learners' prior knowledge and experience.

**Engagement and Interactivity:** Highly interactive courses may require more time.

**Scheduling and Availability:** Adapt to learners' scheduling preferences.

**Certification/ Accreditation:** Some certifications have specific duration requirements.

**Feedback and Iteration:** Longer courses allow for more feedback and revision.

**Learner Attention Span:** Shorter modules can help maintain engagement.

**Practical Constraints:** Consider available resources and technology.

Typically, online courses range from a few weeks to several months in length. Short courses may last 2-4 weeks, while more comprehensive courses can extend to 8-12 weeks or even longer for degree programs. It's essential to strike a balance between providing enough time for in-depth learning and engagement while not overwhelming your learners.

Ultimately, the optimal length for your online course should align with your specific educational objectives and the needs and preferences of your target audience. Conducting pilot courses and gathering feedback from students can help you fine-tune the duration for future iterations.