

Handbook

Future-proof your classroom – teaching skills 2030

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1. Didactical design of the course

1.1. The course: Blending cBook and iLab

Project objective. The project Teaching2030, starting 1st of September 2017 and ending 29th of February 2020, produced an innovative blended-learning course including a cBook and an iLab, based on 40 chapters throughout eight modules, each module providing 5 chapters. The entire course is worth 16 ECTS (2 ECTS per module). Additional 4 ECTS can be awarded by a teacher training assessment.

cBook. The cBook has been developed by the company Create 21st century that oversaw the design and technical implementation of the course. The cBook is the web-based training part of the course, presenting the eight modules whereupon each module comprises five chapters with main topics. The cBook offers four categories of learning with specific templates that are described in detail in the next chapter of this handbook, like

- information (text, hot spots, sequences, videos),
- interactive exercises (drag and drop, multiple choice, memory),
- personal experiences and tasks (told by Lucia and Marco)
- reflection tasks (exercises called iLab, iThink and iRead)

Moreover, each module includes a presentational video of the partner institution, an introductory video by Lucia and Marko and five major tasks for self-study, called “iLab Activity”. Moreover, the cBook also provides a reflection task, called “iThink” for discussion and the iRead, a list of used and/or recommended literature. The impact and transferability of the final cBook course, either as a stand-alone MOOC or combined with the iLab in a blended-learning format is aimed at a widespread and flexible use all over Europe. As the course represents an entire unit the MOOC can be implemented within teacher trainings at tertiary level. Moreover, certain electronic exercises can be chosen for incorporating them into existing programs. Several electronic exercises can be selected and integrated within other LMS platforms. The entire cBook can be integrated in third party platforms as well via the SCORM package. This is of great advantage when working with institutions all over Europe providing different LMS platforms. The cBook is furthermore optimized for tablet PC and desktop use, but creation and authoring via mobile phones can be adapted. This means a benefit to the project as universities can use a part of the cBook for further development according to their own needs and requirements.

iLab. The iLab as part of the blended-learning course is an on-site, open, self-directed learning space of two days for each module. These innovative study labs expand on the topics of the cBook by giving the participants the chance to test several skills proposed in the cBook. Therefore, the cBook and iLab are closely interlinked. They have to accurately fit which needed a concept and design that was well thought-off from the beginning.

Module Layout. Therefore, in the first phase of the project each project member started the “Module Layout”, an Excel file with the planning of the contents regarding the cBook first and later on the iLab. During the entire project, this Module Layout gave direction but was adapted according to the development of the project. Each partner in charge for their respective module has been working on this Module Layout. The iLab therefore can be organized as a training format under supervision of a Teaching2030-developer, or without them as a self-directed learning space. The iLab therefore allows flexibility according to the contents in the respective countries. Additional exercises, tools, materials and links also enrich the iLab in a manual of 25 pages. The manual explains the didactical approach of the entire course and a glossary at the end refers to the central terms used in the course. The manual is available on the website of the project in a special section for the iLab-training.

1.2. The characters: Storytelling with Lucia and Marko

The didactical concept of the entire blended-learning course differs to a huge extent from other initiatives and e-learning courses that only present a collection of electronic materials. In contrast, the course Teaching2030 performs as an entire unit by using the storytelling approach. Storytelling is quite common in company trainings but not used in educational courses so far, but within Teaching2030 it is an essential part to perceive the blended-learning course as an entire unit.

This meant to arrange the contents and exercises of the cBook and iLab not in a common way, but in a dramaturgic one. During the entire modules a story of teaching experiences is told to get the future participant of the course involved in the “play”. Each university in charge of their module had to arrange the contents according to this dramaturgic stage play via storytelling to keep up the attention of the participants.

For this reason, two mid-aged teachers at a higher education institution were created, Lucia and Marko, facing the new trends and struggles in teaching. They tell stories about their recent success in class, their fears of trying out new approaches, they give teaching advices and support and at least help each other to manage the challenges of future educators. In this sense, the participants of the course should identify with the two characters. Moreover, the contents of the modules is recalled easier when using a story instead of facts only. Lucia and Marko appear both in the cBook and in the iLab.

The innovative media didactics go together with audiovisual communication that created a virtual learning world for the two parts of the blended-learning course, the cBook and the iLab. The iLab extends the virtual learning world and the stage-play-approach by adapting the same style used in the cBook. The design of the iLab-manual therefore represents the visual style used in the electronic part of the course. This is of advantage for two reasons, firstly one perceives the course as an entire unit and secondly, the recognition throughout Europe will be facilitated and emphasized.

The cBook and the iLab manual, both with Lucia and Marko, including the colors and the logo, has been designed by Create 21st Century, a technical company located in Vienna and specialized in the development of future learning designs. The company created the key visuals and was in charge of the entire implementation of the cBook within the course in order to guarantee a trouble-free installation. Moreover, Create recorded a teaser video for the promotion of Teaching2030 and eight introductory videos with Lucia and Marko for each module, presenting the contents in short.

Lucia and Marko are represented by two actors which have been casted by Create and the UAS Burgenland as coordinating institution. They are both professional actors who appear in the project as following:

- in the teaser video (short dialogues)
- in the introductory video of each module in a short sketch
- on the diverse storytelling templates (please refer to chapter 2)
- in audio-sequences (dialogues with pictures) at the end of each chapter

It was decided to choose a black male and a white female person at the age around 30 to 35 with English as a native language and English as a foreign language. This should represent the everyday situation of teachers at higher education institutions, working in an international environment.

1.3. The chapters: 40 topics arranged in 8 modules

Contents. The final blended-learning course comprises eight modules with decisive future teaching skills. The eight core topics were developed by the consortium leader, the UAS Burgenland, based on the results of two previous projects, desk research and a media review. The topics were agreed on at the kick-off meeting at the University of Maribor in September 2017. Each partner of the consortium was in charge of developing and producing a module according to the competencies of the team members:

Four basic modules. The Eszterházy Károly University in Eger elaborated on module 1, the professional teaching role, as the project was located within the Faculty of Pedagogy which is a significant intellectual knowledge center within the Northern Region of Hungary, encouraging the use of modern IT and communication technology. As the role of educators and students change, subsequently module 2 focused on communication in on-campus classes, enhancing personalized learning processes and student-centered learning. St. Kliment Ohridski University in Bitola was responsible for this module as innovative teaching at this University is based on a problem-solving approach. The University of Aveiro worked on module 3, designing an on-campus training by combining face-to-face training with e-exercises and tools to complement and enhance student's learning experience. The project team has broad experience with new technologies, and in particular educational digital media. Therefore, the University of Maribor, Faculty of Economics and Business was in

charge of module 4, the creation and use of e-learning materials and how the tools can be produced and implemented for teaching without major efforts for teachers. The project members at the FEB have technical competence in visualization and multimedia for producing e-learning-materials.

Four advanced modules. The Faculty of Tourism and Hospitality Management in Opatija expanded on the topic in module 5, working with social media and networks in class. The project team in Opatija has profound competence in adopting IT tools and trends in teaching, especially mobile technology, mobile apps and social media. Module 6, developed by the UAS Burgenland, dealt with an issue not even discussed yet at universities, writing skills on the web. Writing processes in the future will shift from paper to web, which means greater collaboration and user activity. The University of Valencia was responsible for module 7, designing virtual classroom trainings, for its profound experience in this area and the innovative approaches adopted. The module focuses on the question of which kind of exercises best fit which purposes when the educator is in the role of a moderator in virtual classrooms. The University of Perugia worked on the module 8, structuring the blended learning process, as it converges all other competencies and skills developed in the former modules. The team members brought to the project a strong expertise in the design and implementation of training programs, ideal for integrating traditional teaching, e-learning platforms and innovative approaches.

Module 1: The role of teachers in 2030

Module 2: Communication in on-campus classes

Module 3: Designing on-campus training

Module 4: Creation and use of e-learning materials

Module 5: Teaching with social networks

Module 6: Writing skills for the web

Module 7: Teaching in virtual classrooms

Module 8: Developing a blended learning course

Module 1: Teaching role	Module 2: Communication	Module 3: On-campus classes	Module 4 E-learning materials
Chapter 1 New challenges facing the teaching Four challenges of teachers: roles, technology, learning spaces, networking	Chapter 1 Communication is like a large ocean The teacher as presenter, moderator, coach in action; communication	Chapter 1 Engaging in the on- campus experience Characteristics of good/great teachers, incorporating the needs of students	Chapter 1 Technology is on your side Decreasing fear of technology, overview on e-learning materials and tools

Chapter 2 Teachers as technical performers Technology as important requirements for successful teaching, overcoming hurdles	Chapter 2 Storytelling in Teaching The teacher as presenter, storytelling, infotainment and attracting attention	Chapter 2 Promoting skills-based learning Four key skills for the future regarding learning outcomes	Chapter 2 LMS help your teaching Advantages and essential functions of LMS to convince colleagues
Chapter 3 Teachers as personal guides Diverse roles as a presenter, coach, moderator, personalized learning and guidance counselling	Chapter 3 Two-sided communication Working in inverted classrooms, the power of feedback and peer learning	Chapter 3 Diversifying learning approaches Diverse learning approaches like team and field work, peer learning: principles	Chapter 3 The effective use of MOOCs Definition and use of cMOOCs and xMOOCs, features when using MOOCs
Chapter 4 Creators of learning environments Designing new learning spaces, highlighting classroom climate	Chapter 4 Inspiring discussion in class The Socratic method for Critical Thinking, self-reflection	Chapter 4 Organizing learning spaces Classroom design to keep up attention (light, space, furniture, colour)	Chapter 4 Producing instructional videos Video production for teaching, diverse types, technical requirements
Chapter 5 Social media networkers Using SN for the professional career, acquisition of projects, interconnectivity and collaboration	Chapter 5 Intercultural communication Managing intercultural classes, culture and communication, problem solving of intercultural issues	Chapter 5 Gamification Gamification in class, serious games, diverse player styles, elements of fun in learning	Chapter 5 Playing with realities Blending real and virtual worlds with AR, VR and MR, advantages and strategies for use, technical requirements

Module 5 Social networks (SN)	Module 6 Writing skills	Module 7 Virtual classrooms	Module 8 Blended learning
Chapter 1 SN as teaching tools Connective, collaborative and sharing functions of SN, SN in class, benefits for teachers and students	Chapter 1 Understanding online text types Characteristics and use of interactive and monoactive text types, from book chapters to blogs	Chapter 1 Let's go virtual in classrooms (VC) Importance, advantages and differences to traditional classrooms, essential functions	Chapter 1 The philosophy of blended learning (BL) BL within digital learning approaches, the balance of tasks, tools and phases
Chapter 2 SN as innovative teaching instruments Connecting functions, SN in regard to the diverse teaching roles, SN tools in class	Chapter 2 Raising awareness for online writing Characteristics of online writing, interactive and monoactive writing	Chapter 2 Skills and abilities of a VC teacher Communicating in class and mastering the tools and tasks, problem solving in VC	Chapter 2 Teaching the next generations Characteristics of Gen Z, matching learning styles and students' attitudes, providing relevant tasks
Chapter 3 Using SN for collaboration in class Diverse ways of using social media in class for reinforcing class materials	Chapter 3 Presenting research to non-academics Science goes public and online, principles and tools for online marketing	Chapter 3 Planning an effective VC session Dealing with time, group size, tools, using the right tools for the right tasks, proposed exercises	Chapter 3 Blending different teaching methods Blending face-to-face teaching, online teaching and self-study, methods and activities used
Chapter 4 User generated contents of SN Interactive media and types of UGC like blogs, forums, videos, pictures to engage students	Chapter 4 How to use visual elements effectively The power and characteristics of visuals, highlighting messages with visuals	Chapter 4 Implementing an effective VC session Communicating with students, time management, technical trouble shooting	Chapter 4 Getting ready for teaching Teaching and monitoring a BL course, learning & teaching strategies, motivation

Chapter 5 Risks and challenges of SN Minimizing potential risks to be on the safe side, privacy policies and copyright issues	Chapter 5 Writing in a responsible way Respect, responsibility and rights, legal issues for the web, data protection and intellectual property	Chapter 5 Evaluating an effective VC session Self-evaluation and tips for constructive students' evaluation, evaluation tools	Chapter 5 Promoting BL courses Marketing and networking activities to attract students on-campus and online
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1.4. The challenge: teacher training assessment

Teacher training assessment. As stated in the introduction, the course Teaching2030 can be implemented within teacher training programs at universities, worth 16 ECTS (2 ECTS per module). For those who wish to complete the course with a diploma, 4 additional ECTS can be awarded for a final assessment of its participants at the end of the course. During this assessment, each participating teacher must conduct a 90-minute lesson, incorporating e-learning materials and innovative teaching skills and deliver a lesson plan thereof. First and foremost, the spirit of Teaching2030 should be reflected in this lesson. The lesson plan the teacher has to deliver puts into practice the spirit of Teaching2030 as well. The lesson and the plan thereof have to be composed of certain elements and arranged in a creative, but comprehensible way. The description of the lesson plan therefore incorporates:

- The structure of the entire lesson
- The topic of the lesson and related learning outcomes
- (Electronic) materials and exercises to be used
- Stories to be told in class
- Adopted role of the teacher (guide, coach...)
- Environmental issues (arrangement of learning spaces)
- Methods to be applied (e.g. PBL)
- Timetable of the lecture related to the structure

Assessment manual. An assessment manual was developed in the final phase 5 of the project providing all the information regarding the assessment, like the description of the lesson, the description and specification of the lesson plan, the assessment criteria and the profile of the assessors, which all have to be closely interlinked. The tasks were distributed as following:

- University St. Kliment Ohridski: description of the lesson (general information)
- University of Aveiro: description of the lesson plan (time, exercises, learning outcomes...)
- UAS Burgenland: specification of the lesson plan (paper, blog, podcast, video) for delivery
- University of Valencia: development of the assessors' profile
- University of Perugia: development of the assessment criteria

When delivering the lesson plan the teacher is free to choose the media. The delivery of the lesson plan can be done in various ways, in a written paper, a video, a podcast or on a website in a personal blog. For each media, the assessment manual describes the cornerstones in order to make them comparable which means that the length of the written lesson plan, for instance, has to correspond with the length of the video/podcast or the efforts in a blog. Moreover, the quality of the media (e.g. layout/web layout/sound/image quality) was defined. The assessment criteria match the lesson plan as well. The criteria were defined in the assessment manual, describing and specifying the learning outcomes and according to their percentage related to the final 100%. The manual also defines which criteria contribute to which extent to the result. The assessor of the lesson can either be a #Teaching2030 developer or, additionally, instructional designers or teachers for whom the criteria are defined in the assessment manual as well, like long lasting teaching experience and skilled in technology. The assessment manual can be found on the project website.

2. Description of the cBook

Virtual world in a cBook. The virtual learning world with its storytellers was designed at the kick-off meeting in Maribor in September 2017 and refined during the work on the eight modules. As the actors and scenes remain the same within the eight modules, they give orientation paving the way for the learners' endeavour. This virtual learning world was implemented via templates in a web based training using the cBook design with a combination of explanatory videos, video presentations of project members, virtual scene plays, text explanations with quizzes and interactive exercises like multiple choice and drag & drop as well as interactive presentations. There exists a broad range of didactical tools how to establish the virtual world of future teaching skills. It was of great advantage that Create maintains an in-house media production infrastructure such as a green box video studio, a music/text recording studio, as well as state of the art software and hardware facilities.

Power point mock-ups. At the kick-off Create 21st Century presented the virtual learning world of the cBook and the templates that should be used, including the storytelling. This was essential in order to give the entire consortium an idea of how to produce the cBook. On the one hand, the templates and the storytelling approach had to be explained, on the other hand all technical issues on how to produce the cBook within the back-end system were

required. In order not to work on the contents and the technical implementation as well the consortium decided to develop the contents first with power point mock-ups, resembling the final cBook. In this phase 1 of the project the Module Layouts were defined and up to phase 3 the consortium worked with these power point templates. In a parallel way Create 21st Century showed how to use the backend system of the cBook for the implementation of the power point templates, done via virtual meetings, mainly separately on request for each partner. In phase 4 the technical implementation has been completed then. It turned out that several templates were harder to implement than others – in this case Create 21st Century assisted in the implementation or took over the implementation by itself. Phase 4 therefore was led by Create.

Back-end editing system. The decision for using a cBook format had various reasons. The cBook provides a multimedia story creation function, which means that work within the content creation back-end system via web-access at Create is possible. Multiple users can have access to this back end for social features like curating, enhancing, discussing the contents of the storyline. For all partners it was of advantage that they had access to the storyboards written by the other partners directly on the backend and to discuss them. This made feedback processes easier at a huge extent. As there were different phases within the project that required either more feedback between all partners or feedback between the partners and Create (see the final chapter) the back-end function fostered this process.

Integration within LMS systems. The cBook can be integrated in third party platforms (currently often on LMS platforms – Learning Management Systems - Export in SCORM 1.2) which is of great advantage when working with eight partner institutions in Europe providing different LMS platforms. Even if the cBook is normally hosted on a Create server, it can be hosted on other servers as well; the multimedia data is stored on the Create server, but single data input and output is possible and can be implemented (interfaces to other servers, applications, tools, platforms). The c-Book is optimized for tablet PC and desktop use, but creation and authoring via mobile phones can be adapted on request.

2.1. Information templates

The information templates are the following:

- text with one picture
- text with three pictures
- text with a video
- video only
- hot spots
- sequences

They provide information on the respective topic. The **text templates** had been challenging to create as this meant to select the information given very carefully, especially if a topic was quite complicated, broad or very detailed. The information templates therefore had to be *texted*, not written, as each information had to be selected very carefully. Moreover, the information had to fit into the storytelling approach that had to connect the first topic with the next. So the text templates and the storytelling templates are closely interlinked. In order to guarantee a user-friendly design, the text templates are limited to 150 words for avoiding scrolling down. If a topic extended this amount of words, the templates had been doubled. The text templates incorporate links to other modules if a participant wants to click directly on the information related to the linked template.

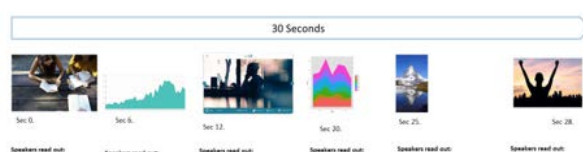
The **video templates** are related to the information in several ways. Either the video supports or enhances the information; or the information provides a task that is related to the video (“Watch the video and...”). The **“hot spot”-templates** were very essential for providing additional information. If the participants of the course click on one of the dots (hot spot), an additional template with information appears. The hot spots were limited to five dots. The hot spots provided an additional possibility for information without “overloading” it as the participants is free to make use of this function.

The **sequence templates** have been very essential for two reasons: They incorporate short audio sequences, either recorded at Create 21st Century or by the project partners themselves and are enriched by images. The sequences are used mainly for two reasons within the course: Some partners used them for the self-presentation at the start of each module (“This is us”), but they were also created for summing up each chapter of a module and connecting it to the next (see also 3.3.). For this reason, each partner wrote five short dialogues for the storytellers Lucia and Marko that were recorded at Create, and then used the dialogues for designing the sequences. Hence, storytelling templates with Lucia and Marko had to appear in this sequence at the start and the end where the main keywords of the chapter had been summarized. The sequences are essential to guarantee a smooth connection between the five chapters of a module.





Sequence: audio dialogue chapter 4 Lucia and Marko



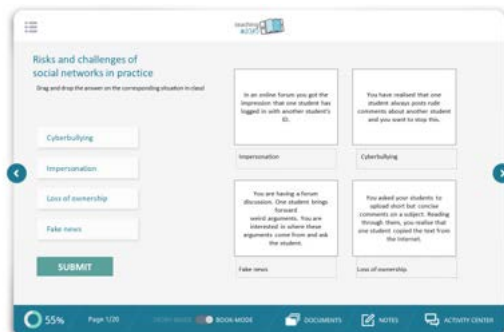
2.2. Interactive templates

The interactive templates are the following:

- drag & drop
- multiple choice
- memory cards

The interactive templates within the course are very essential to enhance the motivation of the course participants and to keep them on track. The templates provide exercises regarding the topics presented and involve the participants for active participation.

Drag & drop-templates were mainly used to review an information, to match statements with definitions or to recap central items of a topic. **The multiple-choice templates** with more than one answer possible were mainly used for personal experiences: A situation has been described and the reactions or solutions are given, the participant has to select the most appropriate reaction for the situation given according to what they have learnt so far. Whereas the drag & drop-templates are rather recapitulating information, the multiple-choice templates are used for practical implementation. The **memory cards** represent a special templates format. They have been used for several reasons: Either the frontside shows images displayed in the course, then the participants should try to recapitulate the information that was given in connection with this image and checking it on the flipside of the cards; or keywords are displayed with more information on the flipside. The memory cards are designed in a six-cards- and four-cards- format. The essential idea behind always is that the participant firstly should reflect on the answers before turning the cards.



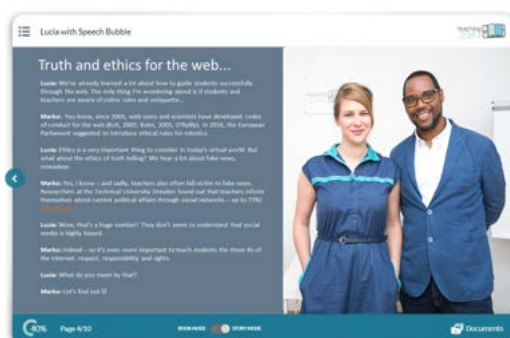
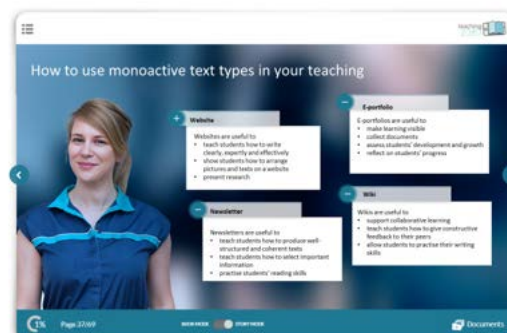
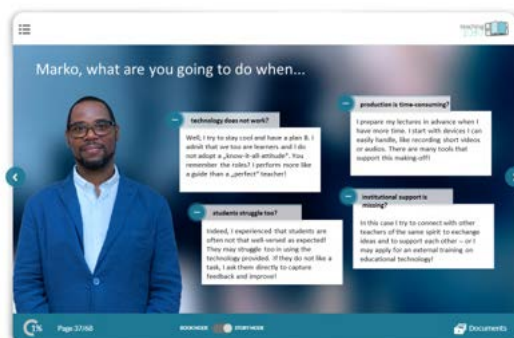
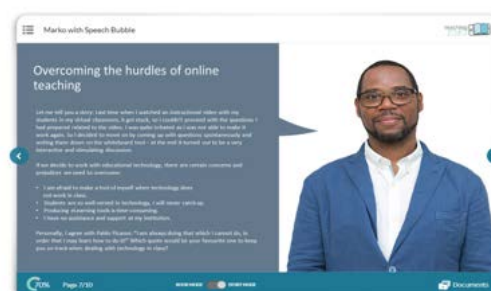
2.3. Storytelling templates

The storytelling templates are the following

- Lucia or Marko with text
- Lucia or Marko with hot spots
- Lucia and Marko in dialogue
- Marko with speech bubble

As storytelling is the central didactical concept of the course (please refer to 1.2.), the storytelling templates are the core of the project. For this reason, two actors have been casted at Create. They appear in the course as a common thread in order to perceive it as an entire unit, to give direction, to involve the participants of the course in the “play of learning” and to resemble kind of role models. Their main task is to tell personal experiences about their teaching with new technologies, about the changed roles of teachers in future, they also tell stories about their fears and successes regarding the transformed world of instruction. Lucia and Marko also may sum up useful information or give recommendations for teaching and tasks for the students. They are also discussing topics (Lucia and Marko in dialogue) at the start or the end of a chapter.

The storytelling templates are closely interlinked with the text templates and the interactive templates. They may introduce or sum up a topic, so it was essential to position the templates in the right order by giving the single chapters of a module the holistic structure. The storytelling templates have various formats: They are designed as text templates, as hot spots (see 2.1.), for a dialogue (both are displayed) and with a speech bubble for motivating participants ("Try out ..."). The iLab-template also makes use of the storytelling (see 2.4.).



2.4. The “i”-section templates

The “i”-section templates are the following:

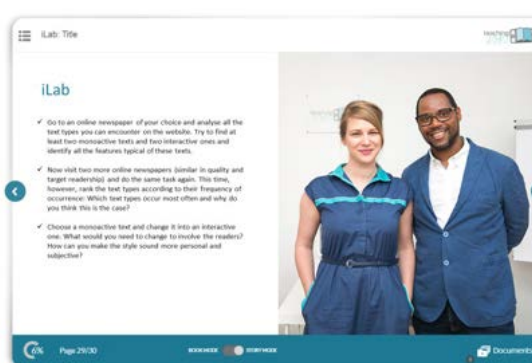
- iLab (Activity)
- iThink (Reflection)
- iRead (and iWatch)

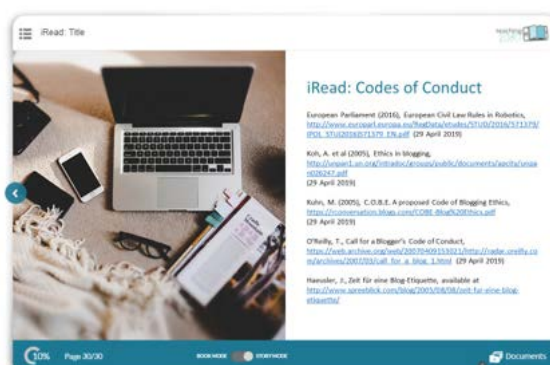
The “i”-section was mainly designed for reflection tasks for course participants, for major tasks for students as well as the references and recommended literature. The templates always use the same image, the light bulb for the iThink, the storytelling chart in pairs (also used for dialogues) for the iLab and the computer for the references. All the three templates had to be used in each chapter, the iRead at the end, the iLab before the sequence (that sums up the chapter at the end) and the iThink wherever it fitted best.

The **iThink-template** describes a reflection task for the participants regarding the topics within the module. It can be combined with task to be done or only created for reflection. It is mainly used for topics that need a personal commitment or may be controversial. The participants in this case should confront themselves with pros and cons, advantages or disadvantages of a topic, task or approach in order to develop a personal judgement. The template is used in each chapter once and applied where it seemed to be appropriate or necessary.

The **iLab-template**, on the contrary, offers a major activity for participants they should work on with their students. The preparation of the activity is estimated to take 5 hours, based on tools, materials and approaches that are presented in the respective chapter. The iLab template forms an essential part in the sense that it links the cBook with the on-campus training of the course, also called iLab (see 1.1.). The activity described on the iLab template is also a part of the iLab-manual that has been written for each module. Each chapter of the manual includes and enriches the activity from the iLab-template of the cBook. Each chapter therefore provides five iLab Activities, described both in the cBook and the iLab.

The **iRead-template** summarizes the references from literature that has been used in the respective chapter. It sometimes is enlarged with an iWatch when having used videos to a huge extent. The iRead also incorporates links. It may also provide recommended literature.





3. Storytelling in action/example of Module 6/Chapter 5

3.1. Presentation video of the partner institution

At the start of each module, the University in charge of its production gives a short presentation on the department, the project members involved and the tasks the members were involved in the project. According to the diverse categories, the team members explained if they were responsible as a researcher for the contents, as a technician for the implementation or as administrator for project management issues.

The Universities have chosen two kinds of presentation: Either they produced a short video or a sequence of 3 to 5 minutes length, like the one at the end of each chapter with Lucia and Marko but recorded by the Universities themselves. Some Universities also included image videos of their University. According to the technical standards, it was recommended to use semi-professional equipment in order to have a good result.

The University of Applied Sciences Burgenland decided to produce a sequence. Module 6, “Writing skills for the web”, starts with the presentation by the three project members. The audio sequences have been recorded at the University of Applied Sciences Burgenland with semi-professional audio-equipment, a photographer of the marketing-department took the pictures of the team members for the sequence; the images of the University were also provided by this department.

The project members wrote the text for the audios and an English professional lecturer proofed the text. In a storyboard, the text has been matched with the pictures in order not too have too much or too less text regarding the display of the pictures in the sequence. The project members then met for the audio recording and did some pre-test to check the length. This was essential as the audio-recording had to be done without cutting in one take. The technician then produced the sequence by implementing the text and the images in the back-end system of the cBook.

3.2. Introduction video by Lucia and Marko

The presentation video is followed by an introduction video of 3 minutes length by Lucia and Marko. The video has the purpose to introduce the main topic and ideas of the module as a short scene play. It was decided to record these videos for each module instead of a “table-of-contents”-templates for a more appealing design that suited best the entire learning environment of the course. The eight videos for the eight modules with the two actors representing Lucia and Marko have been recorded by Create under supervision of the project leader, the University of Applied Sciences Burgenland, on March 2019.

All partners wrote the dialogue for the video with the scene descriptions that explained how Lucia and Marko had to act, the final revision then had to be done by the University of Applied Sciences Burgenland. Some of the dialogues had to be shortened or changed, but without losing the main idea of the scene. The videos took place in the “office” of Lucia and Marko, representing the design of the entire course (colours, clothing, logo, materials...). The following example shows the scene description and dialogue:

Example: scene description and dialogue for the introduction video Module 6

Lucia sitting in front of a pile of paper + a tablet

Marko enters. Stands next to her, looking over her shoulder.

Lucia sounds a bit exhausted.

Lucia: *I have to put this online for our blog project by the end of today... It's tricky... Bring me a cup of coffee! ... waits ... What are you waiting for?*

Marko keeps standing next to her and looking at the papers.

Marko: *Lucia, that's not very netiquette?*

Lucia keeps working, but then looks up.

Lucia: *It is what?*

Marko: *Netiquette.*

Lucia stops working.

Lucia: *You are right. Sorry, Marko. We should be nice to each other online... and offline... It is simply because I'm still not satisfied with the project...*

Marko: *Look, this is my students' science blog on marketing. Maybe this helps you a bit. Look at the web text, style and the visuals.*

Lucia studies the tablet. Smiles a bit.

Lucia: *Ah Marko, that is great help. Do you have something on legal aspects as well?*

Marko points at the tablet.

Lucia: *Great stuff.*

Lucia starts working again, looking at Markos solution.

Marko: *Now I get you some coffee.*

Lucia is looking at the camera.

Lucia: *As you see, this module is all about writing on the web.*

3.3. Sequence by Lucia and Marko

The sequence templates have been used mainly for summing up a chapter and bridging it with the following (see 2.1.). They have been recorded for each Chapter of the module with the two actors, then the audio files were sent to the partners who produced the sequence for the cBook. Like in the introduction video, the universities responsible for their modules wrote the five short dialogues, which had been feedbacked by the University of Applied Sciences Burgenland as one sequence should not exceed 30 seconds.

Example: dialogue for the audio sequence Module 6, Chapter 5

Marko: *To whom belongs the idea presented on the web? We have seen that although the internet is free, its contents isn't!*

Lucia: *This is sometimes hard to understand – especially for our students! I therefore very much like your idea of the three R for the web: respect, responsibility and rights!*

Marko: *Oh, thank you! I really tried to narrow down that tricky topic ...*

Lucia: *...paving the way to a responsible use of internet sources at the end of our writing module!*

3.4. Storytelling in Module 6, Chapter 5

Storytelling. As the entire course follows the concept of storytelling, a well thought of Module/Chapter design had to be followed as the two storytellers lead through the course. For working this out, the single templates had to be interconnected in a kind of “stage play”. This had been challenging for the partner universities as usually information is given without a story behind. On the contrary, for this course the universities had to write and conceptualize the chapters of their module as a “story” by *texting* the information given.

number	template type	title of template	scope	length (sec)
1	Title	How to write....	Short title	3
2	Drag & Drop	Netiquette: net + etiquette	due to chart	40
3	Story	Truth and ethics	120 words	30
4	Text	The three Rs	150 words	40
5	Story	R for Respect	150 words	...
6	Text & Video	Writing style & communication	150 words	
7	Multiple choice	How would you react?	due to chart	
8	Story	R for Responsibility	150 words	
9	Text with quotes	Fighting fake news	due to chart	
10	Drag & Drop	How responsible are you?	due to chart	
11	Story	R for Rights	150 words	
12	Hot spot (5)	Data protection	due to chart	
13	Multiple choice	Worth a thousand words	due to chart	
14	Story	My personal manifesto	150 words	
15	iThink	Seven reflections	150 words	
16	iLab	Netiquette diary	150 words	
17	Sequence	Audio dialogue chapter 5	180 words	
18	I Read	Codes of Conduct	4 to 5 quotes	

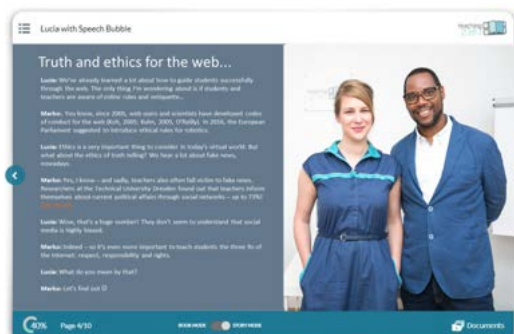
Module layout. For better support, the intellectual output 1 represented the design of the course in a Module Layout, an Excel file displaying the number, type and title of the template, including the amount of words that were defined before and the length of the template (how long it would take for the participant of the course to read the template, to capture the information, to do the interactive templates, to watch a video....). The universities had to tackle the issue, how much information should be given within one chapter, how much details should be provided, how the single templates had to be connected and how the storytelling templates could have been included. In order to give direction, it was agreed not to exceed 20 templates and more than 30 minutes learning time. This was quite difficult to estimate as some participants may only browse through the course while others doing all the exercises, including iThink reflection tasks and watching the proposed videos. The iLab-Activity described in 2.4. is an exception as it is calculated with 5 hours of work for the on-campus training (the iLab). Nevertheless, the estimations worked out, based on previous experiences of e-Learning projects by Create and literature recommendations. During the realization of the cBook some templates had to be changed, rearranged included, so the Module Layout had to be changed as well – one could say that the theoretical work on the Module Layout in phase 1 of the project (intellectual output 1) had to be changed during the making off. At the end of the project in phase 5 the iLab manual had been written and designed which was incorporated into the Module Layout to give an entire overview and display the connection of the single parts of the course. The following templates demonstrate the storytelling approach in Module 6, Chapter 5:

Example: Storytelling in Module 6, Chapter 5

The title template is always displaying the title, the subtitle and the same picture for each chapter. Finding a good but not too long subtitle had been essential.



The title is followed by drag & drop, matching information with definitions of netiquette (see 2.2.). The participants capture the first essentials on netiquette, involving him/her actively at the start.



Now it is time for Lucia and Marko in a dialogue template where they argue on the importance of truth and ethics for the web. Marko suggests the “three Rs” for writing to stimulate Lucia as well as the participant to read on.



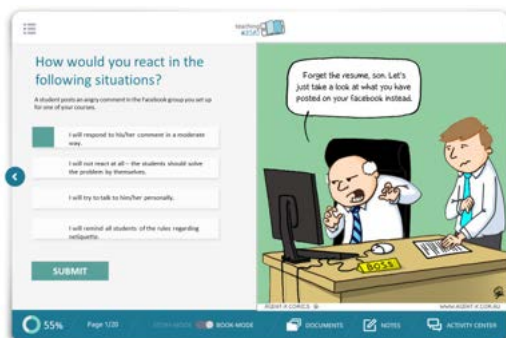
The information template explains in short the “three Rs” Marko mentioned before to link and enlarge the topic. It is also meant as a general overview on what to expect in this chapter.



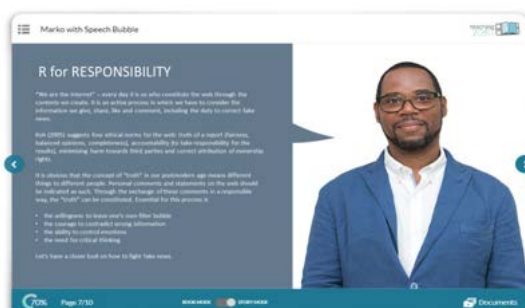
Marko goes into detail with the first R, respect, and gives some recommendations for writing for the web. He also speaks about the problems and thus reflects experiences other teacher may have.



The information template with a video elaborates on writing style and communication for the web regarding to respect, the templates gives recommendations how to behave properly and this is supported by the video as well.



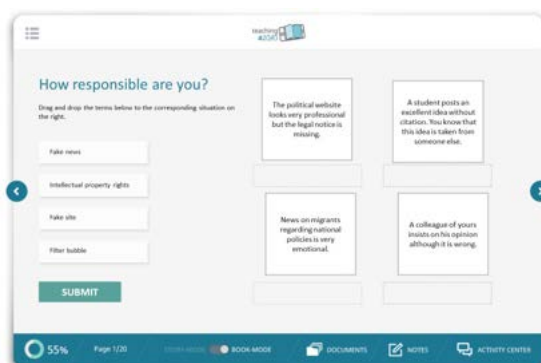
The interactive multiple-choice template describes a situation and the participants is requested to find the right solution, deriving from what he or she has learnt in the previous templates.



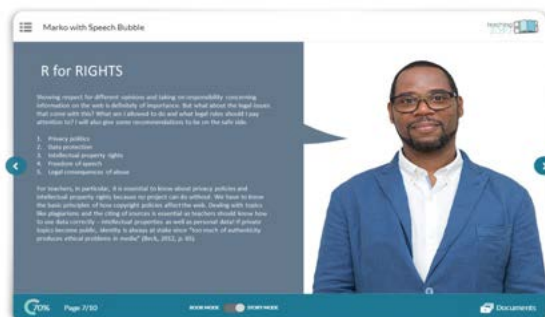
Marko elaborates on the fact that “we are the internet” and the concept of truth on the web. He introduces the next topic: How to deal with fake news.



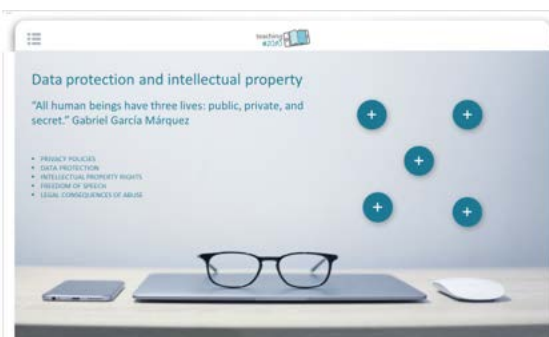
Consequently, the next information template gives recommendations on how to fight fake news, including 10 short tips on the right for a quick overview.



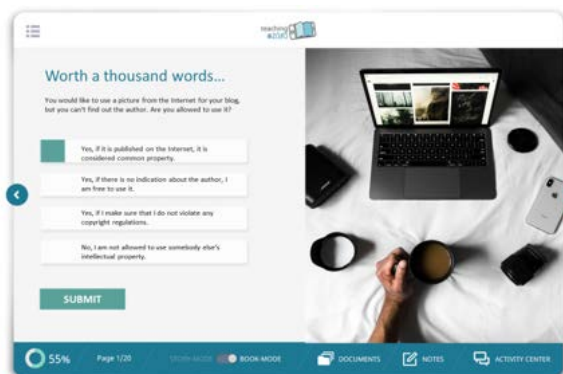
The drag & drop template then demonstrates four situations and asks the participants of the course to match the theory with these situations, raising awareness for fake news.



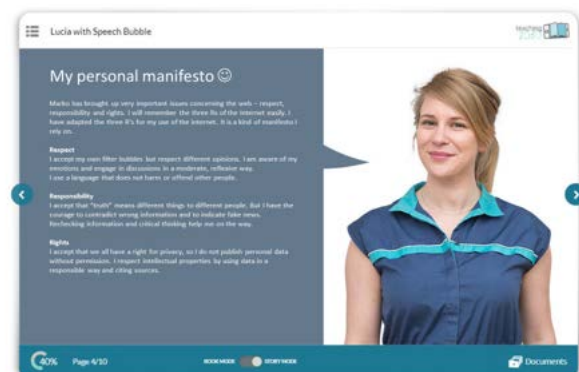
Marko then elaborates in a storytelling template on the third "R" (rights), covering the legal aspects of internet use. He mentions five important points that have to be taken into account and with this introduces the next hot spot template.



The hot spots template then repeats the five points; when clicking on the dots a template with additional information appears, The participant therefore is free to choose this option.



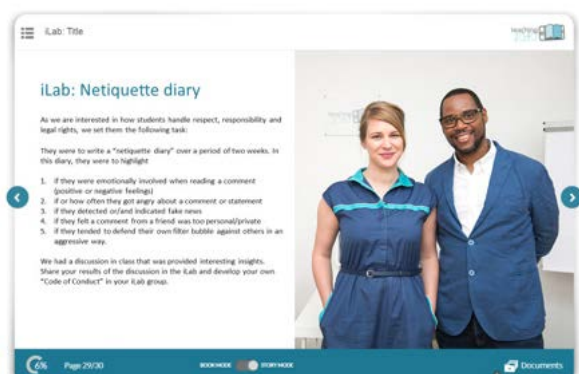
A following multiple-choice template deals with a legal issue on the web (use of images), describing a situation, the participants has to choose the right answer.



Whereas Marko has led through the chapter and introduced the three “R”, Luisa is summing them up by giving a personal manifesto. In doing so, she gives the participants the chance to identify with this manifesto.

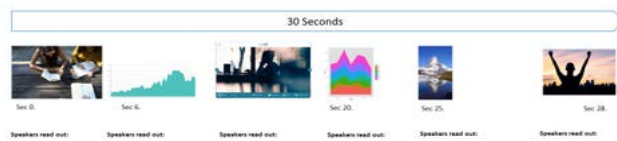


Deriving from the manifesto, the iThink-template suggests seven reflections on the three “Rs” for the participants - either for themselves or for reflection in class with the students.

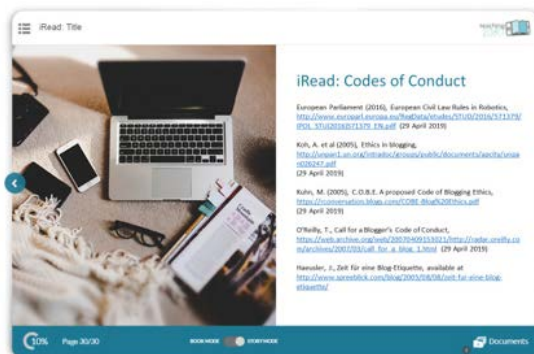


The iLab-template covers the activity of 5 hours for use and discussion in the iLab (two days`on-campus training) – the students should write a etiquette diary; the teacher should moderate the results in class and discuss them with the colleagues in the iLab for creating a personal netiquette or manifesto (close of the learning circle).

Sequence: audio dialogue chapter 5 Lucia and Marko



The sequence at the end of Chapter 5 and the entire Module 6 recapitulates the importance of proper internet behaviour and displays again at the end the three “R” – respect – responsibility y – rights.



Three iiRead-templates provides the references for the Chapter, codes of conduct and useful links on the topic.

4. Description of the iLab (manual)

4.1. Design of the iLab

iLab training. The iLab is short for innovation Lab and is the on-campus training part of the blended learning course Teaching2030. Each module provides an iLab, a two days' training either under the supervision of a Teaching2030 developer or in a self-directing setting to give participants of the course the chance to try out skills, competencies and tasks acquired through the cBook. Hence, the cBook and the iLab are closely interrelated, mainly by the iLab Activity provided in the cBook. The iLab Activity is an in-depth task, covering appr. 5 hours of work. Each chapter of a module includes an iLab Activity, which means a workload of 25 hours (1 ECTS) per module for the iLab Activity in the self-study period. The iLab itself covers 16 hours of contact-lessons, one module of the cBook requires a learning time of appr. 5 hours (1 hour/chapter), doing all exercises, watching additional videos and reading supplementary literature. Additional 5 hours per module are dedicated to the 5 iThink tasks in each chapter of the module for reflection in a self-study period (1 ECTS).

iLab manual. Each iLab provides a manual of 25 to 30 pages in the same style like the cBook with its virtual learning world in the center. The manual therefore represents the visual style used in the cBook of the course to perceive the course as an entire unit. The iLab manual enriches the topics of the cBook by various information and tasks. The manual includes the contents and structure of each module, the didactical concept of the blended-learning course, the exercises and tasks applied in the two days training as well as additional core information related to the module. Due to the storytelling approach each manual provides two stories to be told in class. The stories use the same characters Lucia and Marko,

designed for the cBook, through which the identification with the course should be fostered. Moreover, the contents of the module will be recalled easier when using a story instead of facts only.

Teacher training assessment. As the blended-learning course incorporates a final teacher training assessment to accredit the course within the educational teacher training programs at universities, the tasks, exercises and grading as well as the didactical concept has been finalized within an additional paper brochure and uploaded on the website (see 1.4.). The iLab is the ideal place to get training and assistance for this assessment.

The iLab

- is a 2 days' on-campus training, (16 hours)
- is an ideal preparation for the teacher training assessment (4 ECTS)
- can be led by a Teaching2030 developer or
- is organized in a self-directed way
- provides a manual of 25 to 30 pages, corresponding with the cBook and including two stories by Lucia and Marko about their teaching experiences (lie in the cBook)
- is connected to the cBook via an exercise in each chapter, the so called iLab Activity, covering 5 hours of self-study work, so in sum 25 hours per module

4.2. Sections of the iLab manual

In order to unify all eight iLab manuals, a common procedure was agreed and the parts that had to be compulsory or add-ons were defined. The following table shows the diverse sections of the manual to be described in short which had been sent to all partners:

Example: Criteria for the design, sent to all partners

Didactical approach	Connection between the cBook and the iLab: <i>what the iLab is meant for (trying out ideas in a safe environment), either with a teacher, or self-directed, or with changing moderators</i>	<i>1 page, written by UAS Burgenland for all modules</i>
Table of contents	Contents of the iLab manual: <i>The contents follow the 5 chapters of the cBook, but not necessarily – if other classifications seem reasonable or if you would like to highlight special issues</i>	<i>1 page, individual, written by the partner in charge of the module</i>

Additional information	<p>Additional information refers to the contents of the iLab and could serve for:</p> <ul style="list-style-type: none"> • enhancing special issues • presenting further tasks • describing useful (!) theory • summarizing teaching experiences • demonstrating blended learning concepts, e.g. 	<p>15 pages, individual, written by the partner in charge of the module</p> <p>The 2 stories, the iLab tasks, the iThink tasks and the external resources should be integrated where they fit!</p>
2 stories	<p>Story charts within the cBook: Lucia and Marko, or only Lucia or Marko, they tell two stories about their teaching experiences in order to link the storytelling approach between the cBook and the iLab, appr. half a page for 1 story</p>	<p>1 page, individual, written by the partner in charge of the module</p>
5 iLab tasks	<p>iLab chart within the cBook: covering 5 hours of self-study work each, to be described in the iLab in more detail by giving additional information</p>	<p>3 pages, individual, written by the partner in charge of the module</p>
5 iThink tasks (not compulsory)	<p>iThink chart within the cBook: reflection tasks, covering 1 hour of self-study work each (not specified), to be described in the iLab in more detail by giving additional information; not compulsory to integrate</p>	<p>2 pages, individual, written by the partner in charge of the module</p>
External resources	<p>Enriching material: adding useful links, literature, podcasts, videos, Ted Talks...by describing in short, why you find it essential (review)</p>	<p>1 page, individual, written by the partner in charge of the module and integrated within the “additional information”</p>
Glossary	<p>Definition of core terms and/or concepts: 5 terms/concepts per module, in sum 40 definitions; particularly such used by the EU</p>	<p>2 pages, written by the partners in charge for the module</p>

Didactical approach. As both, the cBook and the iLab are closely interlinked via a unique design and the storytelling approach; this didactical approach had to be explained at the beginning of the iLab manual. The UAS Burgenland wrote the didactical concept and the partners gave feedback on it. After an English proofread all partner institutions implemented this didactical approach at the start of their respective iLab manuals.

Example of the didactical approach (intro text) for all eight iLab manuals

Welcome to the course Teaching2030!

Technology rapidly changes the way we think, live, learn and lead. Education plays an essential role in this transformation process. Teachers and trainers have to be prepared for new challenges and learning environments in order to guide future generations the best way possible. Based on these considerations, the blended-learning course “Future-proof your classroom – teaching skills 2030”, Teaching2030 for short, addresses teachers, tutors and trainers in higher education institutions providing them with instructional competencies and skills over eight modules. The course comprises a web-based training course (cBook) and an on-site learning space (iLab) and can be accessed without limitations and is free of charge. It is funded by the Erasmus+ Austrian National Agency under Key Action 2 Strategic Partnerships.

Lucia and Marko will guide you through the cBook and iLab

*The didactical concept of the entire blended-learning course follows the principles of **storytelling**. Storytelling is quite common in company training but has so far not been commonly used in educational courses. It is, however, an essential part of Teaching2030. Throughout the modules, Lucia and Marko, two teachers at a higher education institution, who will guide you through your learning experiences, helping you deal with the new trends and difficulties you might experience in your future teaching, will accompany you. They tell*

stories about their recent successes with their students and their reservations about giving new approaches a try, they provide each other with teaching advice and support, and, last but not least, they help future educators manage the challenges they may face. They are both a constant presence in the cBook and in the iLab, which are closely interlinked.

*The **cBook (computerBook)** is a web-based training environment that hosts the eight modules of the course, each of which comprises five chapters organised around key topics. The cBook offers you a diverse range of learning material, like information (texts, hot spots, didactic sequences), interactive exercises (drag and drop, multiple choice, memory, surveys, word clouds), reflection tasks, videos and additional materials and links. Each cBook module contains five major tasks entitled “iLab”, indicating that these tasks are better suited for use within the iLab. In addition, the cBook provides reflection tasks, called “iThink”, for discussion in the iLab. Nevertheless, you can also work with the cBook as a stand-alone MOOC.*

The iLab (innovationLab), as part of the blended-learning course, is an on-site, open, self-directed learning space, estimated to require two days per module. It can be organized as a training environment under the supervision of a Teaching2030-developer, or without supervision, as a self-directed learning environment for teachers who would like to widen and strengthen their teaching approaches and skills. The iLab is designed to be used flexibly, as it provides additional exercises, tools, materials and links, but it is recommended that the cBook be completed first in order to build a solid basis for the iLab. Each iLab module offers a guide explaining the didactical approach of the entire course and a glossary containing the central items and terms used by the development team.

Give Teaching2030 a try and have fun!

Your development team:

CREATE 21st century GmbH
 Eszterházy Károly Egyetem Eger
 Fachhochschule Burgenland GmbH
 Faculty of Tourism & Hospitality Management
 Universidade de Aveiro
 Università degli Studi di Perugia
 Universitat de Valencia
 University St Kliment Ohridski Bitola
 Univerza v Mariboru



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 Erasmus+ Programme
 of the European Union

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Additional information and external resources. The additional information given in the iLab manual covers scientific research; so the manual incorporates scientific information, but written in a more appealing manner and style. The text also explains how these concepts, methods, tools can be used in class by giving examples, links, recommendations, task and further didactical materials. It was of great importance to both integrate scientific research on the topics as well as didactical hands-on material.

Five iThink Reflections. The iThink templates appear in each of the five chapters of a module in the cBook, especially to dig deeper into a topic. As mentioned in the section 2.4. on the description of the "I"-templates, It can be combined with tasks to be done or only be created for reflection. It is mainly used for topics that need a personal commitment or may be controversial. The participants in this case should confront themselves with pros and cons,

advantages or disadvantages of a topic, task or approach in order to develop a personal judgement. The template may also appear in the iLab manual when it seemed appropriate to enrich a topic.

Example: Module 6 Chapter 2

iThink Reflection

If you take the five features into account, what are your personal experiences? And what about your colleagues' experiences? Are you aware of your own filter bubbles?

Take a few minutes and think about the following three situations:

- ✓ *Have you ever been exposed to inappropriate comments on your postings? If so, how did you react? Alternatively, did you not react at all? What advice would you give someone else?*
- ✓ *Have you ever written something very emotional that you later regretted? If so, in what situation did this happen? And why got your emotions the better of you? How could you have prevented this situation from happening?*
- ✓ *Have you ever been confronted with inappropriate postings within a student group when collaboratively working on social platforms?*

How did you react in this situation?

Five iLab Activities. The iLab templates also appear in each chapter of a module and represent a very important link between the cBook and the iLab as they appear in both learning sources. In the cBook, the templates are called “iLab Activity”, referring in the iLab manual then as “Activity” so demonstrate the similarity. Each chapter of the manual includes and enriches the activity from the iLab-template in the cBook. The iLab templates offer major tasks of five working hours in self-study, so in sum 25 hours per module.

Example: Module 6 Chapter 1

Activity: The style of online newspapers

- ✓ *Go to an online newspaper of your choice and analyse all the text types you can encounter on the website. Try to find at least two monoactive texts and two interactive ones and identify all the features typical of these texts.*
- ✓ *Now visit two more online newspapers (similar in quality and target readership) and do the same task again. This time, however, rank the text types according to their frequency of occurrence: Which text types occur most often and why do you think this is the case?*
- ✓ *Choose a monoactive text and change it into an interactive one. What would you need to change to involve the readers? How can you make the style sound more personal and subjective?*

4.3. Storytelling in the iLab

The storytelling is also prolonged in the iLab manual to demonstrate the unique style and design of the entire project. Each iLab manual therefore incorporates two stories by Lucia and Marko, The story can be told by either Luca or Marko, but also dialogues may appear, reporting about teaching experiences and issues. The stories should give an idea of how a teacher could make use of them in class or change them according to their needs.

Example: Module 6 Chapter 2

Story

Lucia: *Recently I had a very interesting discussion with my international students on Greta Thunberg and the importance of Fridays for Future. Due to the activity “Open Your Course 4 Climate Crisis” (<https://fridaysforfuture.at/oc4cc>) we moved on by writing short statements arguing the personal opinions. The students were so engaged that we decided to take pictures of the entire group and to post the statements on the university’s facebook page to raise awareness for the topic in teaching. Students experienced how to phrase short statements in a personal but fact-based manner for the web.*



4.4. Glossary terms

The final section of the iLab manual incorporates five glossary terms, defining the most important concepts, issues or keywords the respective module is dealing with. On the one hand, the definitions are based on literature review, on the other hand they describe how the project members interpret and use them within the course Teaching2030.

Example: Module 6

Glossary

Monoactive text: A monoactive online text is a text that encourages less active engagement on the part of the user. The roles of author and user are usually fixed and not interchangeable. Users do not participate in the production and creation of the text. Examples of monoactive texts are company websites and electronic newsletters.

Interactive text: An interactive online text is defined by requiring an extensive involvement of both the reader and the author, with their roles being interchangeable. Users are encouraged to become authors participating in the production of texts. Interactive online texts show a high degree of subjectivity while the writing style is often quite personal. Examples of interactive texts are blogs and tweets.

Hypertext: A hypertext is a text that allows information to be organised in a multi-linear fashion, connecting the various elements through links. Information is arranged in a way that is much more complex than the traditional print medium. Hypertext is the fundamental unit of the WWW.

Filter bubble: the term Internet activist Eli Pariser introduced “filter bubble” in 2011. According to Pariser, users are often surrounded by information that confirms what they believe in. For example, search engines gear their results towards the users’ preferences. Users are thus less exposed to conflicting and divergent viewpoints and are thus more vulnerable to manipulation and intellectual isolation.

Visual literacy: Visual literacy refers to the skills that are required to understand and make meaning from text communicated in visual formats. It describes users’ ability to navigate our highly visual digital world. The term was coined by John Debes in 1969 and has experienced a great renaissance with the advent of digital technology.

Online disinhibition effect: The online disinhibition effect is the dramatic loosening of social restraints and inhibitions that are normally present in face-to-face interactions. As a result, people behave online in a way they never would in real life. The online disinhibition effect was first described in detail by researcher John Suler (2004). He distinguishes between benign disinhibition and toxic disinhibition: The former refers to behaviour where people tend to disclose more online than compared to offline. The latter refers to cruel and violent behaviour on the Internet (e.g. cyberbullying).

5. Project Management

5.1. 3 intellectual outputs and 5 project phases

First intellectual output: 10/2017 – 12/2017. In detail, the first output included the programming of a module as a prototype for demonstrating reasons at the kick-off meeting in Maribor to give an overview on the possibilities of the didactical implementation. The design and selection of the templates, the design of the virtual learning world with its actors and scenes and the structure of the modules were an important result at this stage of the project. The first Intellectual Output represents the eight Module Layouts that can be found on the website of the project under “Project documentation”.

Second intellectual output: 01/2018 – 02/2020. The second Intellectual Outputs took place during the major project lifetime for producing the final versions of the electronic part of the eight modules, the cBook. Within the cBook each module provides the five chapters, arranging the four types of templates (information, storytelling, interactive and “I”-section templates like described in chapter 2 of this handbook) in a cohesive way. Each module includes the presentational video of the partner institution, the intro video by Lucia and Marko, presenting the topic of the module, appr. 15 e-exercises with additional materials and links, the iThink Reflections and iLab Activities, the sequence with Lucia and Marko at the end of each chapter to bridge it to the next. The project website hosts the eight cBooks.

Third intellectual output: 07/2019 – 02/2020. The Intellectual Output 3 was related to the on-campus part of the course, the innovation Lab (iLab). In order to finalize the Blended Learning course, all materials for the iLab had to be ready for use and implementation. The eight iLab manuals (please refer to the previous section 4) were produced in the same style like the cBook with its virtual learning world in the center. The design of the materials therefore represent the visual style used in the electronic part of the course. This is of advantage for two reasons, firstly one perceives the course as an entire unit and secondly, the recognition throughout Europe will be facilitated and emphasized. All iLab manuals are available on the website of the project together with the cBook modules.

The project produced the three Intellectual Outputs in five phases. 4 transnational project meetings, serving as milestones of the project, and 11 virtual meetings to monitor the process accompanied the five phases. The **first project phase 01 (10/2017 – 12/2017)** concentrated on the design and structure of the respective modules. Each partner developed a table of contents with the main topics of the respective module for the cBook and the iLab. Each module provided five decisive chapters. In this phase, it had to be defined very clearly which parts of a module will be delivered via the cBook and which parts within the iLab. At the end of the phase, the draft versions of the Module Layouts, displayed in the “Project document” section of the website, had been written and adjusted during the lifetime of the project. The phase started with the kick-off meeting in Maribor and included virtual meeting 1 in November 2017 with the project team discussing the storyboards, the design and structure for the modules.

Each partner then developed the module and wrote the storyboards in a PowerPoint mock-up version in the **project phase 02 (01/2018 – 06/2018)**. Create gave feedback on the design and on the e-exercises if changes had to be made. In virtual meeting 2 and 3 in January and April 2018 Create introduced the cBook in order to prepare the project team for the technical skills needed. In virtual meeting 4 in May 2018 the project team shared first experiences with the cBook and checked the final contents of the modules. At the first interim meeting in Valencia in June 2018 all contents work in the mock-up versions for the cBook had been ready and presented. Create also designed the website including the visual performance (logo) in this phase. Furthermore, the teaser video and the intro videos for the eight modules had been recorded.

Phase 03 (07/2018 – 02/2019) was a vital part of the project as the UAS Burgenland was consolidating all 40 chapters of the eight modules by giving individual feedback to each partner via virtual meetings between October and December 2018. As the project incorporated nine partners from eight countries, cultural implications had to be taken into account. This was essential for the project to be perceived as one entire unit and that all partners can identify with the contents and implement it in their countries. This "cultural consolidating" in phase 03 fostered the output and enhanced the impact and the transferability of the course across Europe. Additionally, the virtual team meetings 5 in October 2018 took place where the implementation into the cBook had been discussed. Virtual meeting 6 took place in January 2019 (phase 3) where the work with the cBook was in the center and how the partners manages to work with the backend system. The phase also covered the English proofread by the UAS Burgenland. Whenever a chapter or module had been checked and proofread, the implementation into the cBook could start.

After the consolidating of each module the final cBook production of all modules started in **phase 04 (03/2019 – 06/2019)**. The production covered the final implementation of the mockup versions of the modules into the cBook. Hence, Create was the lead partner in this phase. The better the modules had been developed at this stage of the project, the easier the technical production was. All texts, exercises, stories for the cBook had to be completed so far. The latest start date for the production was March 2019. Nevertheless, the production could have started earlier when a module had completely gone through the revision process. This guaranteed an effective use of time as some modules needed more revision than others. In virtual meeting 7 in March 2019 the ongoing implementation process was monitored as the cBook should have been completed for the second interim meeting in Opatija in Mai 2019. For the main testing phase in October and November 2019, the final questions were agreed on in the 2nd interim meeting, including two open questions. The project partners had prepared the questions in advance and coordinated them at the meeting. Moreover, Create 21st Century demonstrated the technical implementation of the testing. The contents and design of the iLab manual had been discussed as well. During this phase, all partners of the content team recorded a short presentational video or sequence presenting the tutors and professors developing the module. The videos serve as an introductory part for each module.

In **phase 05 (07/2019 – 02/2020)** the testing of the eight modules, the production of the manuals for the iLab and the teacher training assessment took place. Virtual meeting 8 in September 2019 discussed the testing of the cBook, done via an electronic survey, and gave a first outlook on the final meeting in Assisi in December 2019. In virtual meeting 9 in October 2019 the ongoing testing was a matter of discussion. The phase also included the final meeting in Assisi in December 2019. The University of Maribor presented the results of the cBook testing, including two open questions, which have been summarized. The project team presented the iLab manuals and agreed on the criteria for the teacher training assessment. Virtual meeting 10 in January 2020 was dedicated to final issues regarding this iLab manual and the teacher training assessment manual. In the final virtual meeting 11 in February 2020 the team discussed project management issues related to the finalization.

5.2. The distribution of tasks among the partners

The **UAS Burgenland** as the applicant had been in charge of the overall project management, especially regarding quality management issues. The UAS Burgenland had the lead in phase 03 where the major quality management regarding the contents of the modules took place. The UAS Burgenland also was responsible for the English proofread in the same phase and unified all iLab manuals and the Module Layouts at the end of the project. The UAS Burgenland was in charge of the monitoring, reporting, budgeting and conflict resolution between the project partners and towards the National Agency. Moreover, the University produced Module 6, writing skills for the web, and hosted the 11 virtual meetings.

Create 21st century was responsible for the production of the technical part of the blended learning course, the cBook, assisting the content team regarding the implementation and the UAS Burgenland in quality management. The company created the virtual learning world and the key visuals of the course, including the logo and the website. Create was in charge of the entire implementation of the cBook within the course in order to guarantee a trouble-free installation and therefore had the lead in project phase 04. The company also produced the teaser video and the eight introduction videos for project promotion.

Eszterházy Károly University (EKU) created module 1 of the cBook, the professional teaching role in 2030, as the project was located within the Faculty of Pedagogy. The EKU was supposed to have the lead in the quality management process in phase 05 but due the notice of an important project member, the UAS Burgenland together with Create took over. The UAS Burgenland wrote the final iLab manual for the same reason.

The **University of Maribor (UM)** was in charge of module 4 and had the lead in dissemination activities together with the FTHM Opatija. The UM also hosted the kick-off-meeting in September 2017 for a good start of the project. Creating module 4, the UM developed a “core module” of the project, and also had an intense testing of this module during the phase 05 with teachers on-campus, besides the electronic survey. The UM therefore was in charge for presenting the final results of the survey at the final meeting.

The **Faculty of Tourism and Hospitality Management Opatija (FTHM)** elaborated on module 5, working with social media and networks. The project team in Opatija has profound competence in adapting IT tools and trends in teaching, especially mobile technology and social media. Consequently, the FTHM was responsible for the coordination of the dissemination activities. An important tool had been the dissemination list, shared on Dropbox, and monitored by the FTHM. Moreover, the University hosted the second interim meeting.

St. Kliment Ohridski University in Bitola (UKLO) was responsible for module 2, communication in on-campus classes. Within project management, UKLO was in charge of the monitoring of the iLab manuals regarding the layout and design. UKLO had as well the lead of project phase 01, designing and structuring of the contents (starting the Module Layout) and the responsibility for the description of the lesson for the teacher training assessment. UKLO also got involved with dissemination regarding the printing of the project folder and the production of dissemination materials.

The **University of Perugia (UNIPG)** worked on module 8, designing a blended learning course, as it converges all other competences and skills developed in the former modules. The UNIPG assisted the UAS Burgenland in quality management of the project and was in charge of the description of the assessment criteria for the teacher training assessment. The UNIPG also hosted the final meeting in Assisi.

The **University of Valencia (UVEG)** was responsible for module 7, teaching in virtual classrooms for its profound experience in this area and the innovative approaches adopted. UVEG also got involved with dissemination as the University presented the project at several national conferences (INTED). UVEG also was in charge of the description of the assessor's profile for the teacher training assessment and hosted the first interim meeting. UVEG also reached most respondents within the testing phase 05 of the cBook.

The **University of Aveiro (UA)** elaborated on module 3, designing an on-campus training, by combining exercises used in face-to-face training within a holistic learning experience and e-exercises and tools. The UA worked together with the UKLO in assisting the process of the layout concerning the iLab manual and was in charge of the description of the lesson plan for the teacher training assessment. The project team contributed with a broad knowledge of online teaching, so the module 3 is one of the most interactive. UA therefore had the lead in phase 02.

PARTNER	MODULE (cBook & iLab)	LEAD & MEETINGS (phases)	LEAD & MANAGEMENT
Eisenstadt	Module 6 Writing skills for the web	Lead phase 3 Cultural consolidating/feedback	Lead in overall project management Assistance in quality management Assistance in dissemination Communication with National Agency Final proofread/check of the cBook
Eger	Module 1 The role of teachers in 2030	Lead phase 5 Testing & evaluation of all modules	Lead in quality management Assistance in dissemination Teacher Training Assessment
Maribor	Module 4 Creation & use of eLearning materials	Kick-off-meeting	Technical assistance cBook assistance in dissemination assistance in quality management Teacher Training assessment
Opatija	Module 5 Teaching with social networks	2nd interim meeting	Lead in dissemination assistance in quality management Teacher Training assessment
Ohrid	Module 2 Communication in on-campus classes	Lead phase 1 Design & structure of contents	Final layout of the iLab manual assistance in quality management assistance in dissemination Teacher Training assessment
Perugia	Module 8 Developing a blended learning course	final meeting	Final coordination Assistance in quality management Assistance in dissemination Teacher Training assessment
Valencia	Module 7 Teaching in virtual classrooms	1st interim meeting	Technical assistance cBook assistance in dissemination assistance in quality management Teacher Training assessment

Aveiro	Module 3 Designing on-campus training	Lead phase 2 Developing the contents/writing the storyboards	Final layout of the iLab manual assistance in quality management assistance in dissemination Teacher Training assessment
Create	No module	Lead phase 4 Final production of the cBook	Creation of the cBook and visual design design of the key visuals for the project hosting of the project website teaching2030.eu including social media technical production and hosting of the cBook allocation of the templates for the cBook production of a teaser video for the project technical assistance of the content team (cBook) assistance in QM and dissemination

5.3. Meetings, milestones and monitoring

The kick-off meeting took place at the University of Maribor from September 28th to 30th 2017, hosted by the International Department of Business and Economics. The first day was dedicated to project management; the second day was designed as a workshop to demonstrate how to produce the online course modules within the cBook. Additionally, the communication tools for the project, like the use of dropbox for sharing documents and WebEx for online communication were agreed on and demonstrated. At least, every partner recorded a short video statement for dissemination reasons. The university organized a side-program, visiting two vineyards to end the first project meeting in a relaxed atmosphere. The project team paid the program privately. Although the budget was calculated for one person only, some universities attended the kick-off with two or even three persons, in sum the team consisted of 14 members.

The first interim meeting took place at the University of Valencia from June 25th to 27th at the Faculty of Economics. The meeting was dedicated especially to content and design work on the modules, both for the cBook and the iLab, as well as organizational matters. All together, 15 participants of the project took part in the meeting, 12 are indicated below, but the UAS Burgenland, the University St. Kliment Ohridski Bitola and the University of Aveiro took part with 2 project members by transferring grant money from project management to transnational project meetings. So the entire consortium was represented, mainly with the

professors of the respective university involved in the project. First and foremost the main issue of the meeting covered feedback on the eight modules of the online part (cBook).

The second interim meeting took place at the Faculty of Tourism and Hospitality Management, (University of Rijeka) May 15th to 18th in Opatija. The main topics of the meeting were the presentation on selected cBook templates in order to complete the electronic part of the course, preparation work for writing the manual for the iLab (the on-campus part of the course), the discussion on the testing of the cBook regarding the questions and the implementation, as well as dissemination and marketing issues. All project partners contributed to the meeting, in sum, 15 participants of the project took part, 11 are indicated below, but the University of Aveiro, the University of Maribor, the Esterhazy Karoly University Eger and Create 21st Century were present with 2 project members.

The final meeting took place at the University of Perugia from December 9th to 12th 2019 in Assisi. The final meeting covered topics such as the presentation on the final cBook modules, the presentation and design adjustment of the iLab manuals, the discussion on the Teacher Training assessment, the summary of the cBook testing results, dissemination and marketing issues as well as the evaluation of the entire project. All project partners contributed to the meeting except the Eszterhazy Karoly University due to the notice of a project member. A presentation with core issues was given online instead to compensate the absence. In sum, 16 person were present, 11 are mentioned below, the University of Aveiro, The University of Maribor, the FTHM Opatija and the St. Kliment Ohridski University in Bitola were present with 2 project members, the University of Valencia with 3 project members.

Virtual meetings via WebEx. The 11 virtual meetings took place via the Cisco WebEx tool, hosted by the UAS Burgenland and accessible for all other partners without any application via the link to the personal room of the project coordinator. They took place in phases of the project where joint work and mutual feedback processes were essential to agree on the further course development. It was assumed that four meeting will be sufficient but by the end, 11 virtual meetings were held as the project members very much appreciated this kind of exchange. Virtual meetings also took place as a 1:1 on demand in feedback phase 03 as they are a very useful, easy to handle and a flexible way for all partners to share the same level of work. Via the sharing function, the modules have been discusses, giving immediate feedback, or other documents have been displayed. The tool was applied very easily for moderation, exchange of ideas and feedback processes where all partners are required.

Minimum one project partner at the respective university attended all virtual meetings, In virtual meeting 1 (**phase 1**) in November 2017 the project team discussed the storyboards, the design and structure for the modules (called Module Layout which can be found in the section “project documentation on the project website) and the first ideas on the contents.

In virtual meeting 2 in January 2018, (**phase 2**) Create 21st century introduced the cBook in order to prepare the project team for the technical skills needed. Virtual meeting 3 in April 2018 (**phase 2**) discussed first experiences with the cBook, the final contents of the modules for unifying the entire course. In the virtual meeting 4 in May 2018 (**phase 2**) the project

team shared first experiences with the cBook and checked the final contents of the modules, including the preparation for the first interim meeting in Valencia in June 2018 where all contents work in the mock-up versions for the cBook had been ready.

In October, virtual meeting 5 in October 2018 (**phase 3**) took place in the intense feedback phase, so the work with the cBook had been discussed, together with the text for the didactical concept and the intro dialogues for the sequences. Virtual meeting 6 took place in January 2019 (**phase 3**) where work with the cBook was in the center, as well as in virtual meeting 7 in March 2019 (**phase 4**) where the cBook should have been completed for the second interim meeting in Opatija in May 2019.

Virtual meeting 8 in September 2019 (**phase 5**) discussed the Testing of the cBook and gave a first outlook to the final meeting in Assisi in December 2019, together with virtual meeting 9 in October 2019 (**phase 5**) where the ongoing testing was a matter of discussion and the final programme for Assisi. Virtual meeting 10 in January 2020 (**phase 5**) was dedicated to final issues regarding the iLab manual and the Teacher Training Assessment Manual. In the final virtual meeting, 11 in February 2020 (**phase 5**) the team discussed project management issues related to the finalization of the project.

WebEx meeting 1 on November 28th, 2017

Storyboards: Design and structure for the Teaching 2030 modules

Introduction, Summary (Petra, Michael), first feedback (10 minutes)

- First feedback: How is everybody doing?
- Dropbox: Does it work? Power-Point Templates. Module-Layout in Excel, ok?
- Do you have everything you need to work on the modules, is something missing?

Each partner (12 minutes – approx. 1,30 hours)

- Quick-line-out of each module: What is the focus and learning goal for your #t2030 module?
- Each partner gives a brief overview of his current state and presents 2 issues:
 - Main overview of the module and detailed overview on the first chapter in Excel (Module Layout)
 - Presentation of 5 content-slides of the first chapter you have designed already, including the characters and the storytelling
 - Are there any problems you experience?
 - Are you satisfied with your progress?
- Feedback and discussion, questions, cross links with other modules

CREATE (approx. 20 minutes)

- Storytelling examples– Examples of how you could use them.
- cBook demo. How you can use the interactive templates
- Working with learning goals; keep your learning goals in mind

UAS Burgenland (5 minutes)

- Next steps, what to do next
- Deadlines

WebEx meeting 2 on January 24th, 2018
Introduction to the cBook, chapter 1 and 2
Introduction and summary (Petra, Michael, 10 minutes)

- First Quick-Round, how is everybody doing?
- Most important and/or urgent questions

CREATE (Michael, approx. 45 minutes): First introduction to cBook creator (Backend system)

- cBook back-end overview, user names, access to the back-end
- Structure of one cBook, how to add a chart and how to change a sequence
- How to edit text and pictures in a chart
- Introduction to the Asset Manager: administration of media and pictures in the back-end demonstration of special slides, like multiple choice, e.g.

Each Partner (7 minutes – approx. 55 minutes)

- Presentation of the five chapters within the Module Design (Excel-Sheet) to avoid overlapping
- Short report about the state of play concerning chapter 1 and 2

Further outlook for the next meeting in March (Petra, 5 minutes)

- Final structure of the five chapters within the Module Design
- Final storyboards (Power Point) of the first three chapters
- 30 seconds intro dialogue on the contents of the module for the video of Lucia and Marko

WebEx meeting 3 on April 18th, 2018
First experiences with the cBook, chapter 3 & further meetings
CREATE (Michael, 40 minutes): First experiences with the cBook (Back-End System)

First experiences with the cBook, Q and A session

Presentation of further templates and charts to use within the cBook

ALL PARTNERS (40 minutes): Overview on chapter topics/final modules

- Presentation of the final contents of the 40 chapters – interrelations (completion of

excel file “module layout”):

- Each partner comments on the chapters – especially on *chapter 3* (storyboards of chapter 1 and 2 should be ready for implementation within the cBook) - font size: 11 points! – 5 minutes per partner

UAS BURGENLAND (Petra, 20 minutes): Project management and dissemination

- Feedback on the intros – recording on May 3rd with Lucia and Marko (CREATE)
- Dissemination: list and planned activities (OPATIJA and MARIBOR)
- Progress report: answering the two questions I have sent until 12th of April

UAS BURGENLAND and VALENCIA (20 minutes): Further outlook on the meeting at Valencia

- VALENCIA: Organizational requirements (accommodation, location of meeting)
- Transfer of money (from project management to transnational project meetings)
- Preparation for Valencia: what should be ready/prepared – overview
- Date for the next WebEx meeting in May: preparation for Valencia – details

WebEx meeting 4 on May 28th, 2018

Further experiences with the cBook, chapter 4 & Valencia

CREATE (Michael, 40 minutes): First experiences with the cBook (Back-End System)

- First experiences with the cBook, Q and A session
- Presentation of further templates and charts to use within the cBook
- Impressions from the recording of the intros with Lucia and Marko on May 3rd

ALL PARTNERS (40 minutes): Overview on chapter 4

- Each partner comments on *chapter 4* – 5 minutes per partner

UAS BURGENLAND (Petra, 10 minutes): Project management and dissemination

- Q and A session on the progress report (budget already spent)
- Presentation of the dissemination list and planned activities (Petra and Tomislav)

UAS BURGENLAND and VALENCIA (30 minutes): Further outlook on the meeting at Valencia

- Draft programme for Valencia
- Preparation for Valencia: what should be ready/prepared?
 - Entire module (5 chapters) in PP storyboards – presentation of each partner (45 minutes)
 - List of additional tasks for the module (audios, videos, assistance from CREATE required?)
 - Module layout in Excel with detailed templates/charts
 - 5 major self-study tasks per module provided in the cBook for the iLab (1 task per chapter, special template)

→ iLab manual: first ideas on didactical concept (1 page); materials (15 pages), 8 exercises (4 pages), 8 stories (2 pages)

WebEx meeting 5 on October 18th, 2018

Feedback on dialogues, glossary, didactical concept, work with the cBook

CREATE (Iris, 20 minutes): experiences with the cBook (Back-End System)

- Recapitulating work with the cBook (core principles, use of browsers e.g.)
- Essential questions regarding work with the cBook (creating charts and templates)
- Organization of the regular jour fixes via Webex for assistance (dates)

ALL PARTNERS (40 minutes): Feedback on the didactical concept

- Each partner comments on *the didactical concept* – 5 minutes per partner

UAS BURGENLAND (Petra, 60 minutes): five dialogues for Lucia and Marko and core items for the glossary

- Feedback on the five chapter dialogues that will be recorded by Lucia and Marko (40 minutes)
- Feedback on the five core items of each module (10 minutes)
- Date for the next WebEx meeting

WebEx meeting 6 on January 24th, 2019

Completion of all chapters, financing & first outlook Opatija

CREATE (Iris, 15 minutes): cBook tutorial

- Information on all final functions
- Q & A session on important issues and further assistance
- negotiation on a new jour fixe date

UAS Burgenland (Petra, 45 minutes): completion of all chapters

- *General feedback* on all modules (title charts, wording → glossary, storycharts, interrelations → links, iThink)
- *Reminder: audio-dialogues* for each chapter ending (summary, lessons learned → transition next chapter): sequence chart
- *Partner video*: 2 to 3 minutes length: presentation by the team members why the module is important: elevator pitch

UAS Burgenland (Petra, 30 minutes): Project management

- *Information on expenses:* time sheets, phases, intellectual outputs, documentation of tasks
- *interim report:* Q and A session (if required)
- *Dissemination:* updated dissemination list and planned activities

UAS Burgenland and Opatija (Petra, Tomislav, 20 minutes): First outlook on the meeting in Opatija

- Preparation for Opatija: what should be ready/prepared?
 - Entire module (5 chapters) in the cBook – presentation on selected charts (45 minutes)
 - Module design in Excel with detailed templates/charts (intellectual Output 1!)
 - Draft version of the iLab manual regarding the “instructions for the iLab manual” (July 2nd 2018)
 - partner video

WebEx meeting 7 on March 28th, 2019**Completion of all chapters & draft program Opatija****UAS Burgenland (Petra, 20 minutes): completion of all chapters**

- *audio-recordings* for each chapter ending: information on the recordings on March 25th (Petra)
- *Partner video* of 2 to 3 minutes length: state of play (each partner) → elevator pitch

CREATE (Iris, 30 minutes): cBook tutorial

- Information on all final functions, especially for the sequence chart for the audio-recordings (end of chapters)
- Q & A session on important issues and further assistance

UAS Burgenland and Opatija (Petra, Tomislav, 60 minutes): First outlook on the meeting in Opatija

- Short reminder: Preparation for Opatija: what should be ready/prepared? (Petra)
- Entire module (5 chapters) in the cBook – presentation on selected charts (45 minutes)
- Module design in Excel with detailed templates/charts
- Draft version of the iLab manual regarding the “instructions for the iLab manual” (July 2nd 2018)
- partner video

Presentation: draft programme for Opatija (Petra and Tomislav)

- Organizational issues (Tomislav)
 - Estimated costs per person (EU: 575.– per capita)
 - Accommodation: bookings, number of participants, arrival and

- departure dates,
- Information on the venue of the meeting
- Side-programme

WebEx meeting 8 on September 9th, 2019

Testing of the cBook & first outlook Assisi

Create (Iris, 15 minutes): cBook finalization

- Q & A session on important issues for finalization (image sources, final template)

UAS Burgenland (Petra, 15 minutes): iLab manual

- Q & A session on important issues for finalization

UAS Burgenland and Create (Petra and Iris, 45 minutes): Testing of the cBook

- *Presentation on the final survey statements*, agreed on in Opatija (Iris and Petra)
- *Presentation on the invitation email* for the testing (Petra)
- *Technical implementation for the testing*: links to the testing and the cBook (Iris)

UAS Burgenland and Perugia (Petra, Simone, 20 minutes): First outlook on the meeting in Assisi

Preparation for Assisi: What should be ready/prepared?

- *Entire cBook* with the implementation of the testing results (short demonstration by each partner, appr. 20 minutes)
- *Module design* in Excel with detailed templates/charts (intellectual output 1!)
- *iLab manual* regarding the “instructions for the iLab manual” (short presentation by each partner)
- *Teacher Training Assessment*: first ideas on tasks and grading system

WebEx meeting 9 on October 21st 2019

Testing of the cBook & program Assisi

Create & UAS Burgenland (Iris & Petra, 20 minutes): cBook finalization

- *TO DO list* after the first SCORM release

All partners (5 minutes each partner): Testing of the cBook

- *Short report*: How is the evaluation going on? (Problems? Number of participants? First results?)

Perugia (Simone, 20 minutes): Planning of the meeting in Assisi

- *Programme of the meeting*, time and date of the first meeting point
- *Organization*: travel, accommodation, venue...
- *Budget for traveling (Petra)*: money transfer with or without amendment

Reminder: What should be ready/prepared for Assisi?

- *Entire cBook* with the implementation of the testing results (short demonstration by each partner, appr. 20 minutes)
- *Module design* in Excel with detailed templates/charts (intellectual output 1!)
- *iLab manual* regarding the “instructions for the iLab manual” (short presentation by each partner)
- *Teacher Training Assessment*: first ideas on tasks and grading system

WebEx meeting 10 on January 29th, 2020**Wrap Up of the iLab & Teacher Training Assessment****Eisenstadt (Petra, 30 minutes): iLab finalization**

- *iLab*: short check with each partner regarding the state of play

All partners (70 minutes each partner): Short presentations of the Teacher Training Assessment and tasks

- *Ohrid*: description of the 1,5 hours lesson
- *Aveiro*: description of the lesson plan
- *Eisenstadt*: specifications of the lesson plan
- *Perugia*: description of the assessment criteria
- *Valencia*: profile of the assessors
- *Opatija*: Update of the dissemination list
- *Maribor*: Summary of the testing results

Eisenstadt (Petra, 20 minutes): Project management and reporting

- *Budget for traveling*: money transfer
- *Final report*: questions for the final report
- *Time sheets*: number of days and daily rates

Reminder: What should be ready to the end of the project (29th of February)?

- *cBook course* on the website of the project (short descriptions/150 words of each module)
- *iLab manual* regarding the parameters we defined in Assisi
- *Module design* in Excel with detailed templates/charts including the iLab
- *Teacher Training Assessment*: compilation of all parts

WebEx meeting 11 on February 26th, 2020**Eisenstadt (Petra, 30 minutes): Final work on the contents**

- **iLabs:** short check with each partner regarding the finalization
- **Module layout** in Excel with detailed templates/charts including the iLabs
- **Teacher Training Assessment:** compilation of all parts

Eisenstadt (Petra, 20 minutes): Final requirements regarding project management

- **Budget for travel:** money transfer
- **Final report:** questions for the final report
- **Time sheets:** number of days and daily rates
- **Dissemination:** presentation of the folder; money transfer for sending the folder

5.4. Evaluation process of the modules/cBook

Evaluation phase 05. As agreed at the second interim meeting all partners conducted the testing and evaluation of the cBook in phase 5 of the project. This phase is split into two parts, the first part started in July 2019 ending in November 2019 by delivering the results of the testing, the second part with the implementation of the changes lasted from November 2019 to the end of the project in February 2020. The ongoing quality management process through the entire project should have excluded major “mistakes” so far. It was not expected to change modules completely but to optimize certain aspects which turned out to be true regarding the results.

Implementation of the testing. This evaluation phase took place in October and November 2019. From November to February, the partner universities together with Create started with the implementation of the minor changes. Via an electronic questionnaire with six sections related to the contents, design and technical usability of the cBook. It was assumed that each university would at least select 25 educators (teachers, professors, trainers and tutors) of the home university and 25 teachers of other institutions in the respective country and Europe wide in order to test the final modules. So each university should have contributed with 50 persons, in sum 400 persons to get reliable results about the final quality of the course. In sum, the survey reached 255 persons who were involved in the evaluation project and got notice of the course Teaching2030 whereas 137 persons from 60 institutions fully completed the survey. The number seemed to be sufficient for the final improvements of the course as the answers regarding the two open questions were repeatedly given. (F 1: What did you like best in the cBook module? F2: If you would change or add one aspect of this module – what would it be?).

Table 1: number and university of respondents

Answer	amount	percentage
FH Burgenland (Eisenstadt, Austria) (A1)	9	6,57%
Eszterházy Károly University (Eger, Hungary) (A2)	0	0,00%
University of Maribor (Maribor, Slovenia) (A3)	0	0,00%
"St. Kliment Ohridski" University (Bitola, Macedonia) (A4)	23	16,79%
University of Aveiro (Aveiro, Portugal) (A5)	9	6,57%
Faculty of Tourism and Hospitality Management (Opatija, Croatia) (A6)	11	8,03%
University of Valencia (Valencia, Spain) (A7)	20	14,60%
University of Perugia (Perugia, Italy) (A8)	5	3,65%
Other (A9)	60	43,80%

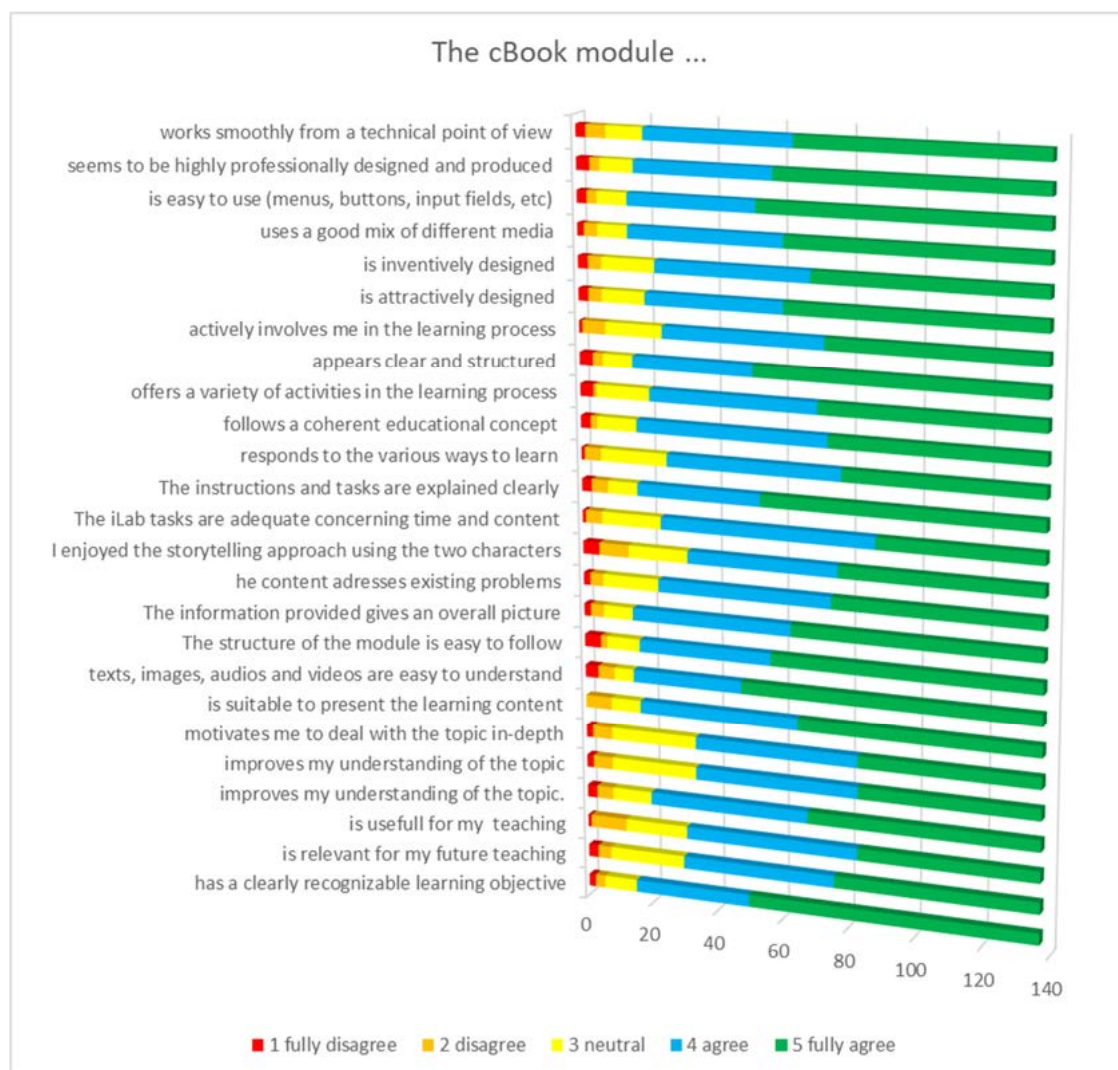
In the first part, they assessed the characteristics of a selected module by providing 25 answers on a scale of 1 (disagree) to 5 (fully agree) to measure the quality of the projects' outcomes regarding the following questions:

- a.) if the instructions and tasks are clearly demonstrated
- b.) if the tasks for the self-study periods are adequate
- c.) if the design is appealing and the learning path obvious
- d.) if the implementation of the cBook works smoothly

Quantitative results. Teachers and tutors could assess these items very precisely without doing all additional tasks and exercises. Nevertheless it gave valuable information about the final quality of the modules. The results of the quantitative analysis displayed an extremely positive attitude of respondents to the course Teaching2030. Out of 137 respondents on average 50.83% (69) respondents fully agreed with the statements on the cBook, 33.43% (46) agreed, 10.34% (12) were neutral, 3.47% (4) disagreed and only 1.93% (3) fully disagreed with the statements.

Statements that received the most positive answers (fully agree + agree = 89.05% (122)) were: "has a clearly recognizable learning objective", "texts, images, audios and videos are easy to understand", and "The information provided gives an overall picture" The statements that received the most negative answers (fully disagree + disagree = 10.22% (14) and 8.76% (12)) are: "I enjoyed the storytelling approach using the two characters", "is useful for my teaching". Respectfully, even in these two statements, 76.64% (105) and 77.37% (106) respondents provided positive feedback.

Table 2: cBook ratings



The

Qualitative results. The qualitative analysis addressed two open questions:

1. What did you like best in the cBook module?
2. If you could change one aspect of this module, what would it be?

The analysis was performed by Voyant text analysis tools using Collocates network Graph¹ where keywords (nodes) in blue are shown linked to collocates (leaves) in brown. The thickness of the lines represents the relations between the words. Even though Collocates network Graph is interactive, it provides more information than a better-known cloud graph by providing insight not only on words but also on the relations between the words. To explore a collocation network graph, first, select a node and then follow the lines to other nodes or leaves. Word combinations may show additional insight in the answers provided.

¹ <https://voyant-tools.org/docs/#!/guide/collocatesgraph>

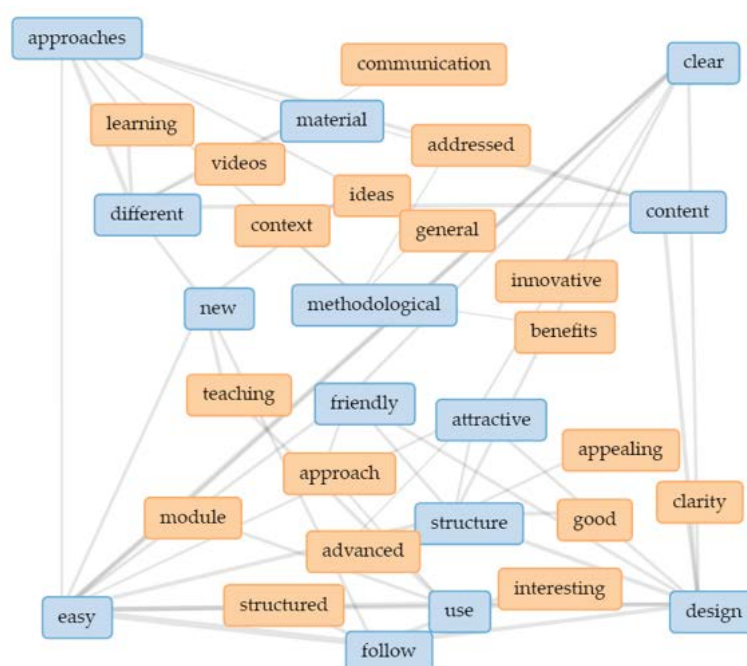
What did you like best in the cBook module?

In open responses to this question, 137 respondents provided 1,244 total words and 431 distinct word forms, average numbers of words per sentence was 17.8, which signifies the effort or respondents to relived comprehensive answers. The most frequent words in the corpus were easy (16); design (13); different (11); teaching (11); content (10).

The longest and therefore referenced answer was:

- "- The strategies' suggestions to apply in classes are relevant and interesting;
- The summarised and relevant topics that are well presented;
- The cBook is very user-friendly and "comfortable" to explore;
- New ideas and approaches are relevant and easily applied to our contexts in the classroom."

Table 3: What did you like best in the cBook module Collocates network Graph²



Voyant Tools, Stéfán Sinclair & Geoffrey Rockwell (2020) <https://voyant-tools.org/>

As displayed in figure 2, nodes (words in blue) are spread throughout the graph, while leaves (words in grey) are often related to only one or two nodes and are therefore usually in their proximity. To provide an easy overview, we will provide insight into the corner nodes and their relationships.

² <https://voyant-tools.org/?corpus=c3c43bf8ac7be9435dd7797a82db7f03>

- The node **approaches** are related to nodes **easy, content and different** and leafs **learning and ideas**.
- The node **easy** is related to nodes **new, clear, attractive, structure, use and follow** and with leaf **module**
- The node **design** is related to nodes **friendly, clear, content and follow** and with leaf **clarity**, which can be used as a synonym **clear**.

From the sentiment perspective, all the words and their combinations are very positive. Based on the text analysis of the first question, we can receive a supportive attitude.

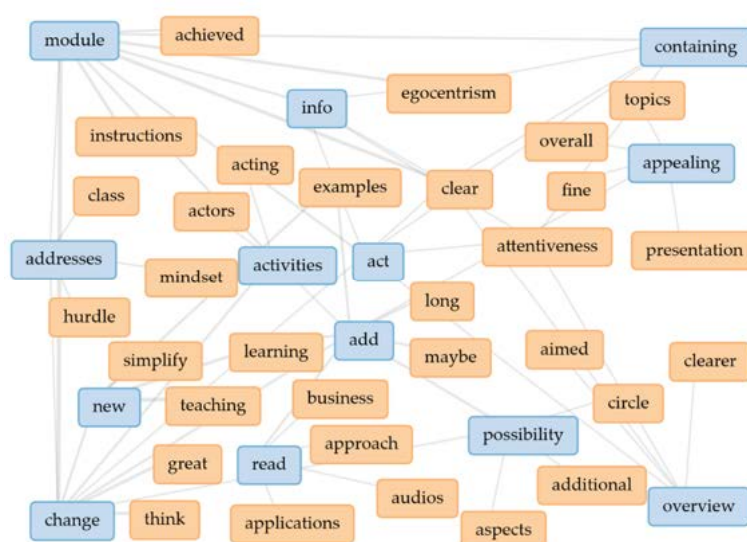
If you could change one aspect of this module, what would it be?

In open 137 responses, respondents provided 1,861 words in total and 689 unique word forms.

The average words per sentence were 19.8, with the most frequent words being: **change** (17); **module** (13); **add** (10); **learning** (10); **students** (9). Some of the shorter answers included positive variations of **Nothing** (15), **I wouldn't change anything** and (4) **More examples** (3).

Some answers focused on the format of the presentations such a: **Simplify texts. Simplify overall information**, and opposite: **A little bit more text/information would be useful, though**. From this, it can be deduced that the course Teaching2030 managed to provide the right amount of information.

Table 4: *If you could change one aspect of this module, what would it be?* Collocates network Graph³



Voyant Tools, Stéfán Sinclair & Geoffrey Rockwell (2020) <https://voyant-tools.org/>

³ <https://voyant-tools.org/?corpus=c3c43bf8ac7be9435dd7797a82db7f03>

As depicted in figure 3, the corner nodes are:

- **Module** is related to nodes **addresses, change, info and containing** and leafs **achieved, instruction, clear and egocentrism**.
- **Change** is related to nodes **addresses, new, activities, act, add, possibility**, and leafs **great and think**.
- **Overview** is related to node **act** and to leafs **clear attentiveness, aimed and clearer**.
- **Containing** is related to nodes **Module and act** and leafs **egocentrism, clear and attentiveness**.

In general, respondents provided constructive suggestions on the contents, they expressed the need for more examples and more activities related to specific teaching content. They provided some suggestions, corrections proposals and technical insights. The suggestions were taken up individually by the T2030 team.