

	
Erasmus+	Call: 2014 KA2 – Cooperation and Innovation for Good Practices

SOCCEs - Baseline Study on Current Practices in virtual collaboration and infrastructure *(Results from the provided inquiry “Virtual infrastructure and the virtual learning environment”)*

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Related documents:	Baseline Study on Current Practices in virtual collaboration and infrastructure

Baseline Study

on

Current Practices in virtual collaboration and infrastructure

(Results from the provided inquiry “Virtual infrastructure and the virtual learning environment”).

*The Baseline study is developed by Bulgarian team,
according Project’s Activity Code 01-A2*

June 2015

The questionnaire has the objective to analyze the virtual infrastructure and the virtual learning environment at the SOCCES partner institutions – Coventry University, Laurea University, University of Bologna, University of Montpellier, University of Veliko Tarnovo and NHTV University. The information is collected, consulted and gathered by the SOCCES project team at the respective university and can be consulted with other colleagues, teachers, ICT and E-learning experts, administration and management of the respective university.

In the first question “What kind of virtual infrastructure is used in your organization?” the results are the following:

All of the partner organizations pointed that they have infrastructure for virtual learning portal(s). Except this common infrastructure:

1. The University of Bologna, NHTV University, University of Veliko Tarnovo use virtual laboratories and virtual library(ies).
2. The University of Montpellier and the Coventry University have also infrastructure for virtual laboratories and virtual classroom(s).
3. The Laurea University uses also virtual faculty and virtual center for education.

The second question is “Do you have some experience with 3D Virtual Learning Environment?”

Four of the partner organizations (University of Montpellier, Laurea University, University of Bologna and NHTV University) do not use 3D Virtual Learning Environment and have no experience in this field. The University of Veliko Tarnovo and The Coventry University answered that they use episodically such kind of environment, but mainly in profile courses.

The third question of the inquiry is “List the main advantages of applying virtual infrastructure in learning process (i.e. reasons for using in your institution).”

Here are the results:

1. **According to the representatives of the University of Coventry** - University Teaching, Learning and Assessment strategy states: To ensure that teaching is designed to inspire and engage students in their chosen course through a range of techniques which encourage

lively, interactive learning, and by drawing on relevant research and professional practice. Excellence in classroom teaching will be enriched by appropriate use of virtual environments, technology and specialist facilities'. Advantages seen as providing increased opportunities for participation, student engagement and access to real world learning opportunities. Technologies can also provide efficiencies, for example in the assessment process, enabling quicker student feedback. Development of digital literacy is also important. Main requirements for designing virtual learning applications: ensuring focus is on the learning outcomes, not the technology; allowing for flexibility.

2. **According to the VTU system administrator** the virtual infrastructure is cheaper, time independent and comfortable for students.

3. **The answer of the University of Montpelier** could be generalized in the following way: This infrastructure allows university students and staff to access virtual desktops and applications via Web, both in computer classes at the University, and for self-working at home.

4. **The Laurea University listed the following advantages:**

- The students have access to a wider variety of courses than when they are not tied to physical distances or spaces.

- Flexibility: the students can fit the studies to match with their personal life (work, family, hobbies).

- Online courses make it possible to speed up the studies and graduate faster than following a traditional off-line path.

- In online courses the students have a chance to get a wider perception of the topic (vs. information given by the lecturer during a lecture), to apply the information found in internet and also to get the "big picture" of the course topic.

The main requirements for a virtual learning application are:

- a well functioning and user-friendly virtual learning platform;
- the content of the course designed for online learning, not just inserting the lecture slides online;
- a course design that encourages interaction;
- a manuscript of the course to guarantee a logical learning path for the students and tasks that measure the achievement of the course objectives;

- clearly defined evaluation criteria for the course.

5. The University of Bologna list the following:

- to foster student's engagement;
- to provide students with multiple stimuli;
- to facilitate creativity;
- to decrease language barriers;
- to foster student's engagement.

6. The NHTV University pointed as advantages:

- access everywhere and at anytime;
- using videos and online learning tools will help the students prepare at any moment, and they can practice with feedback outside the classroom.

The main requirements for designing virtual learning applications according the NHTV University are:

- clear goal;
- achievable goals;
- depending on the goal, good infrastructure;
- clear feedback;
- clear information in what to do and how to do it.

In the 4th question the interviewees are asked to list the main disadvantages of using virtual infrastructure in learning process. Here are the generalized results:

- May hurt the physical class participation and engagement;
- May be perceived as a substitute of physical presence in classroom;
- May inhibit social relation among students in classroom. No group spirit;
- No direct contact with teacher. For the student it is difficult to get immediate feedback from the teacher.
- The higher cost.
- Differences in the managing/meeting student expectations.
- Sometimes it is hard to identify who is on the student computer.

- The students need to be more self-disciplined when learning online - higher drop-out rates.
- The students and teachers are not capable of using the virtual learning environments and tools.
- The systems and software applied are not always working as they should.

The 5th question is “What kind of virtual technologies are used in your organization?”.

The University of Montpellier does not use any virtual technologies at the moment. All the other partner organizations use social networks. The University of Bologna, the NHTV University and Coventry University use cloud computing, The University of Bologna uses also GRID Technologies and VTU has its own software platform.

The question 6th is “To what extent is the virtual collaboration applied for virtual learning in your organization?”

The following table presents the results from the answers of the interviewees:

Partner Organization	Level of applying the virtual collaboration
Coventry University	Medium
Laurea University	High
University of Bologna	Very low
University of Montpellier	Low
University of Veliko Tarnovo	Medium
NHTV University	Medium

The 7th question of the inquire is “What kind of access to virtual infrastructure and its support is necessary for effective collaborative learning? What are the most important requirements for an effective collaborative learning process? Please list them.”

According to University of Bologna a highly specialized support team is requested for training professors and final users. A strong commitment among teachers is also requested.

The NHTV University listed the following requirements:

- ICT support;
- Single access (username and password) to different tools;
- Embedding the tools in the structure of the product (results from different tools should be possible to transfer);
- Office tools should be able to be use within the environment (example MOODLE and ONENOTE).

The requirements of Coventry University are: the institutional infrastructure should provide a range of tools to support different learning approaches and provide a secure, safe environment. Access should also be available to cloud based tools that provide a greater range of functionality (though recognizing associated risks). The most important requirements for an effective collaborative learning process are for learning design led approaches; ensuring staff capability and experience in delivering and supporting. Awareness of student experience and access to technologies is also important.

According to the Laurea University and VTU the requirements should be:

- Good internet connections available and up-to date equipment.
- In order to facilitate a collaborative learning process it is important to count with a learning platform that enables interaction between the participants; e.g. group work, discussions, peer review.
- Apart from the technical aspects, the most important thing is that the teacher builds the collaboration in the online learning path.

The 8th question is “Are cultural differences a key factor for the collaborative learning process? If yes, please write your argumentation? How many languages is good to support collaborative learning?”

The following table presents the generalized answers of the partner organizations of the first part of the question:

Coventry University	yes
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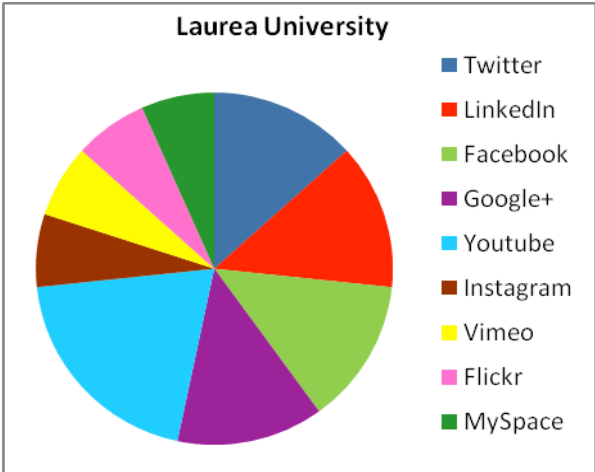
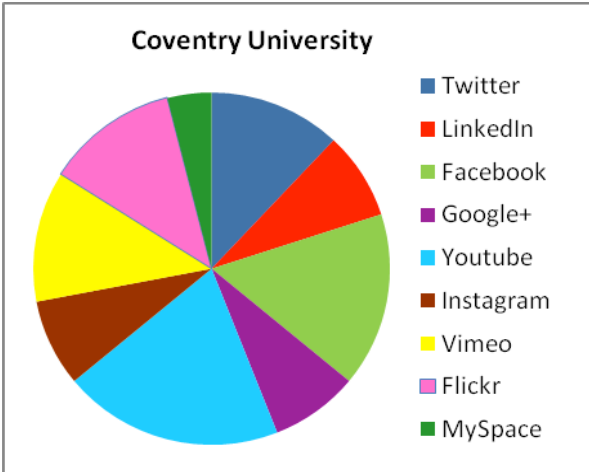
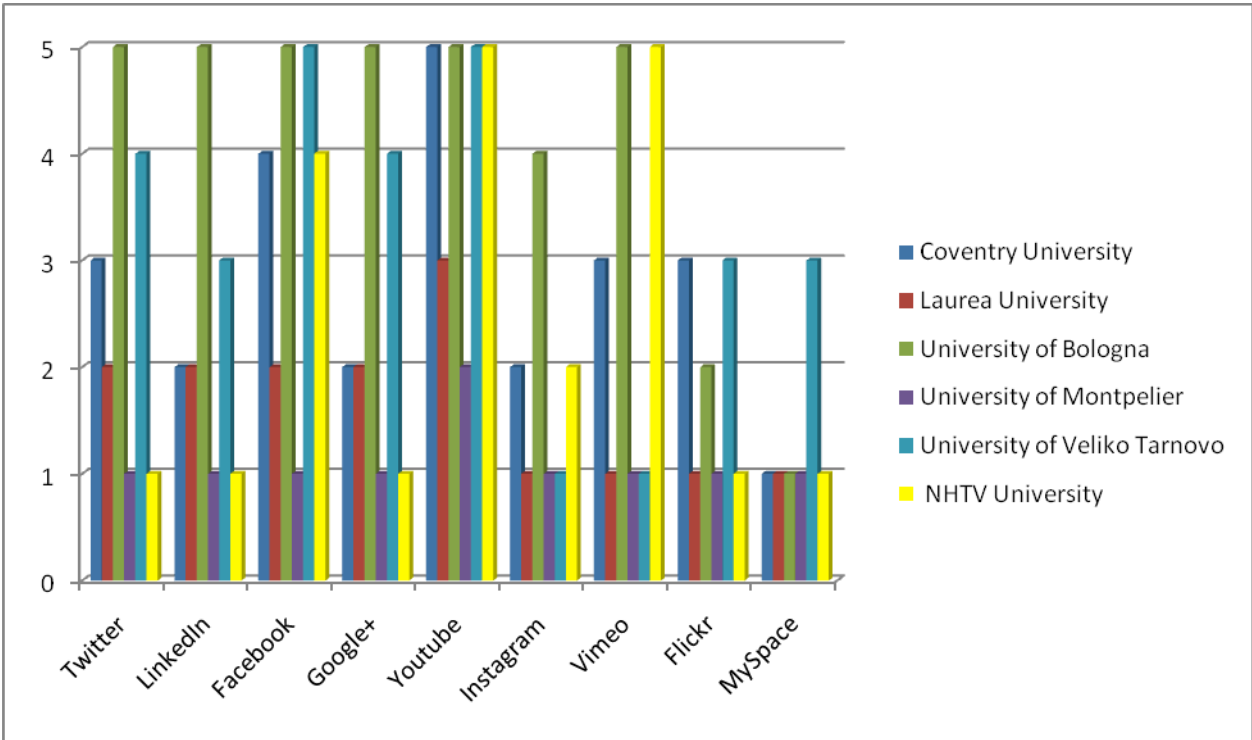
Laurea University	no
University of Bologna	yes
University of Montpellier	no
University of Veliko Tarnovo	no
NHTV University	no

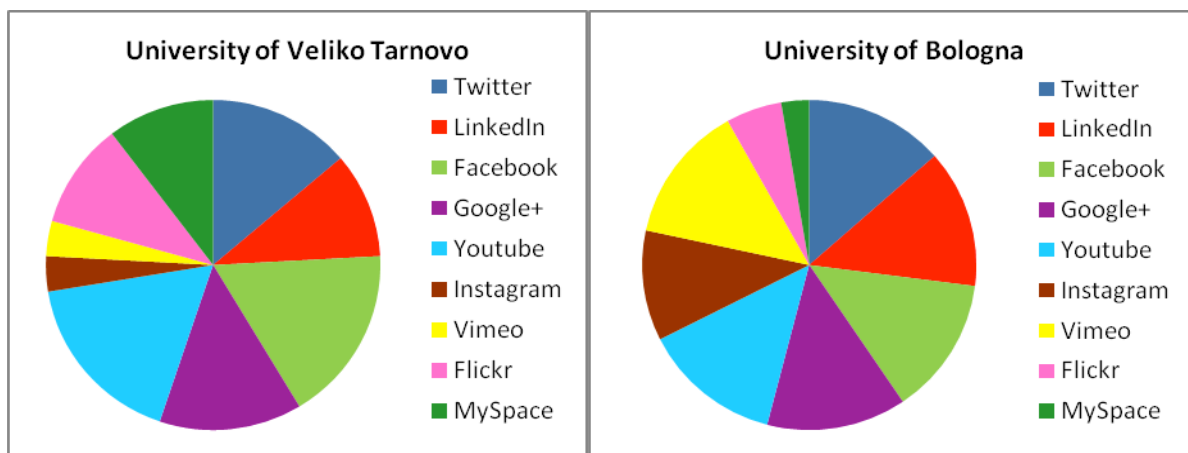
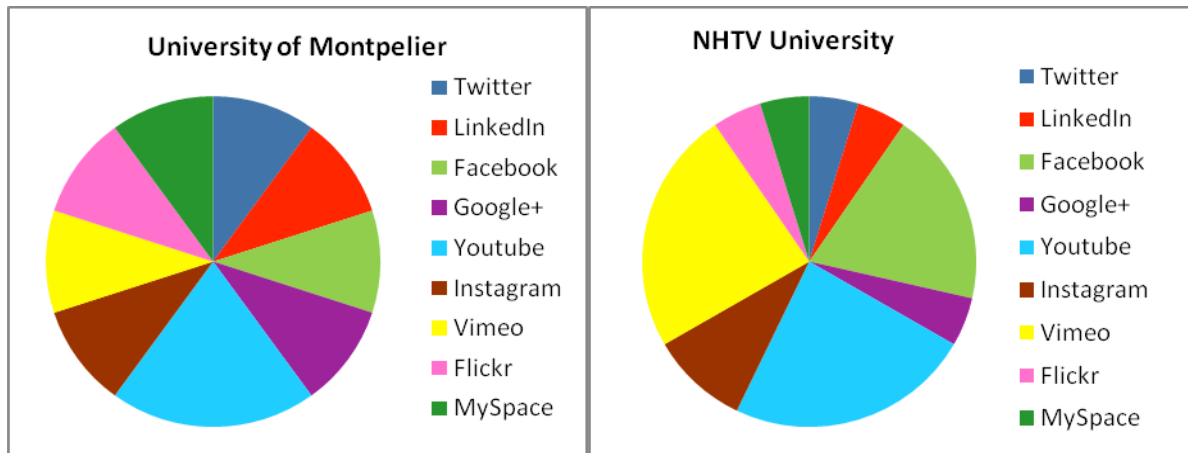
According to Coventry University it is important to be aware of cultural differences and how participants might engage differently. Clarity of communication is important which means that having a consistent language is beneficial. The representative of the Bologna University think that multicultural classes occur more and more often nowadays and has a huge potential in terms of diversity enhancement.

The other partners think that English is enough to support collaborative learning.

The 9th question is “Rate each of the following social networks (as a virtual infrastructure for learning), depending on the degree of usage in your organization?”. (1 – if you don’t use it at all , 2 – for less usage, 5 is for the most often usage).

The following diagrams show the generalized results. The first bar diagram visualizes the degree of usage of different social networks by the partner organizations, and the next 6 pie diagrams show what is the situation within the each partner institutions.





The question number 10 is: “Has your Institute or University some experience in the use of social media in education?”.

The results could be seen in the following generalized table:

Partner organization	Yes/No	If yes, what kind of media is used
Coventry University	Yes	Twitter, Google Drive, Facebook, Social bookmarking, wikis, blogs, Skype, adobe connect, you tube, e-portfolio, go-to-meeting
Laurea University	Yes	YouTube, Google Drive, Google Sites, Twitter, Facebook, Wikiplatforms,

		Screencast-o-Matic, Scoopit, Pearltrees, Yammer, Prezi, Diigo, Quizlet
University of Bologna	No	
University of Montpellier	No	
University of Veliko Tarnovo	Yes	YouTube
NHTV University	yes	different courses social media are use as communication tool or instruction tool

Question 11 is: “What are the most important requirements for creating/facilitating a Virtual learning environment? Please list them.”

The University of Bologna pointed training and continuous training of all the stakeholders (professors, technicians, students). For the NHTV University the requirements are good infrastructure, high Uptime and sufficient bandwidth. The Coventry University suggests different modes for ensuring sharing/connection and access/visibility of communication. The VTU requirements are Skills for creating virtual content and feedback evaluation and the Laurea University pointed that virtual learning environments of today (and tomorrow) needs to be easy to access (e.g. project partners outside the university); be flexible in structure to serve different learning needs and different learning styles.

Question 12 is “Please, identify the necessary functionality of the environment for productive co-creative interaction.”

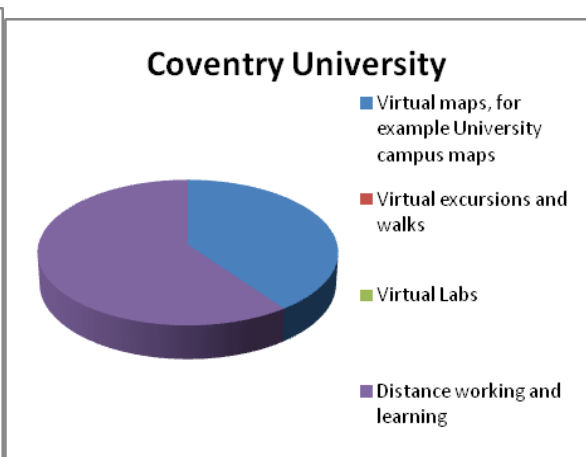
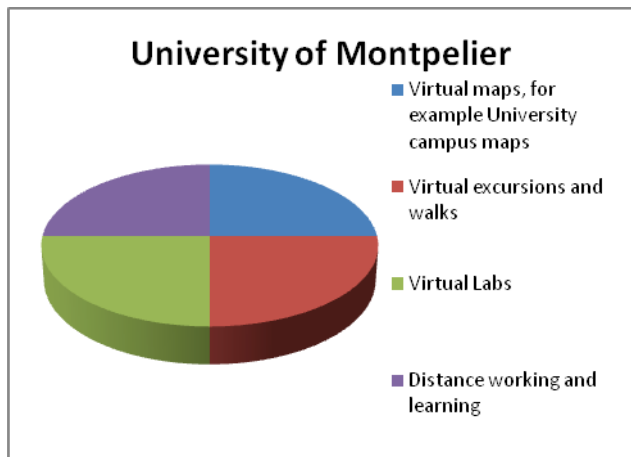
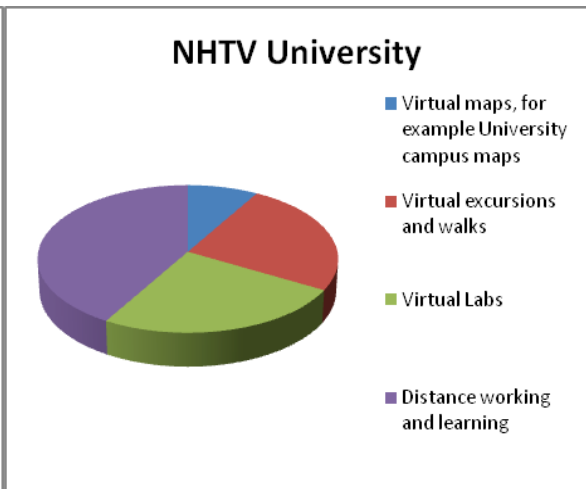
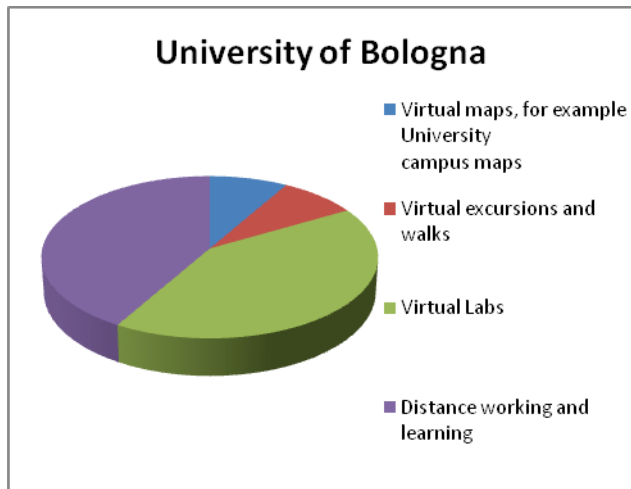
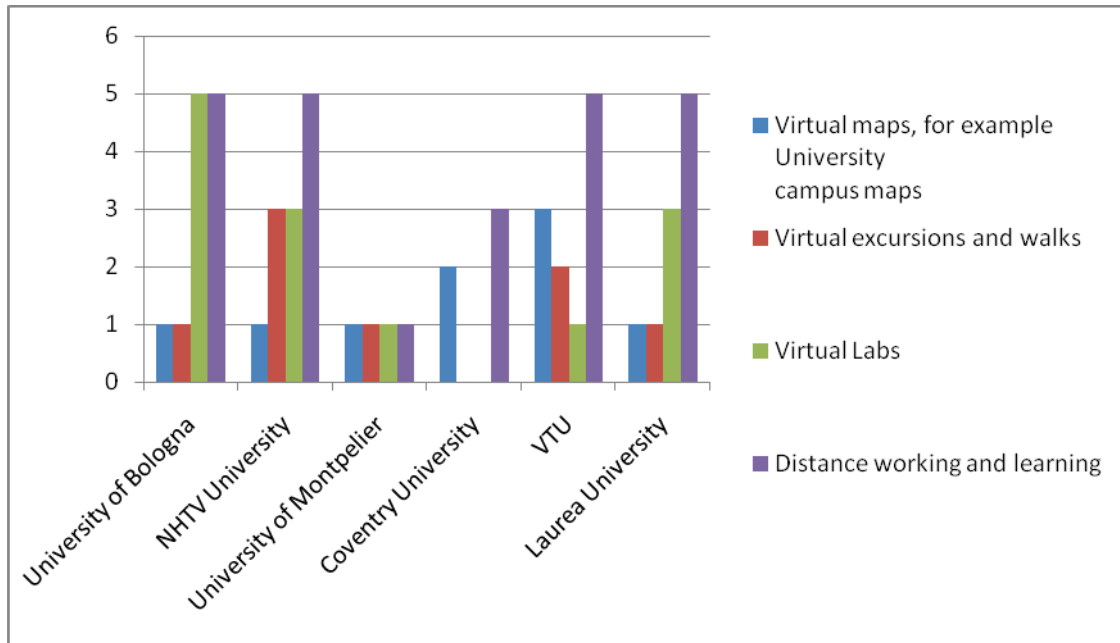
One answer from the Coventry University interviewee is: This will be dependent upon the learning design. For example for collaborative design projects screen sharing using tools such as Go-to-meeting is suited. For collaborative discussion this might require synchronous or asynchronous communication. Another opinion from VTU is that the necessary functionality is related with shared spaces and good synchronization. For Laurea University, it is an environment that brings the co-creation process forward, creating a safe structure/framework for generating ideas and building them further.

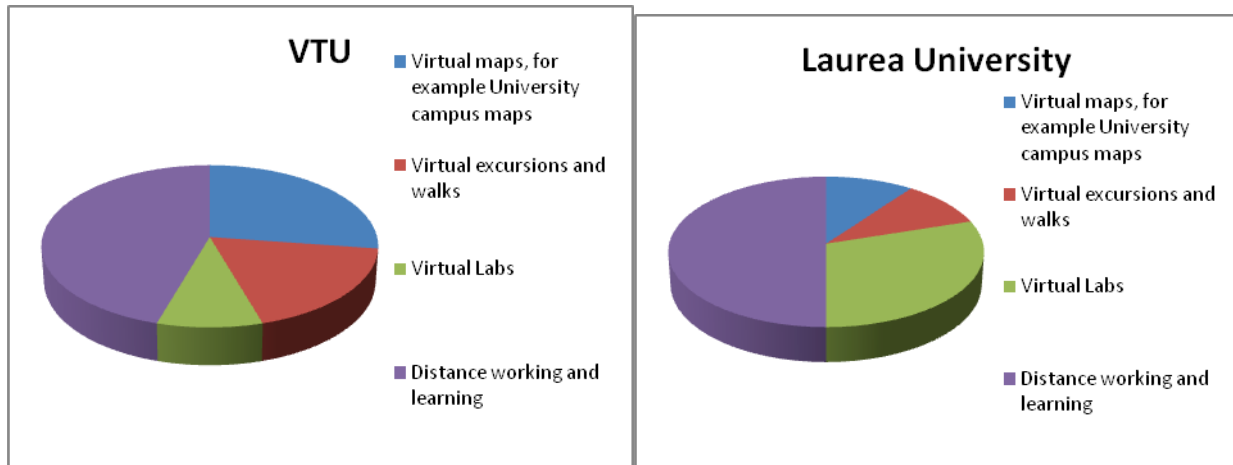
Question 13 “To what extent does virtual learning help creating interdisciplinary competences, for example: working in teams, collaboration, project management, etc. List concrete disciplines (courses), where such competences are obtained”.

The following table shows the results from the answers of the partner organizations:

Partner organization	Level	Explanation
Coventry University	High	When using methodologies such as: case study, problem solving, creative problem solving and virtual planning in any discipline.
Laurea University	Medium	Virtual environments are not always good for collaboration. It depends on the learners' perspective. Less Tech savvy learners will not like virtual environments
University of Bologna	Low	
University of Montpellier	High	Engineering Business Computing
University of Veliko Tarnovo	Very high	
NHTV University	No answer	The response can be any of the above, depending on the pedagogical design and contents of the course. E.g. in marketing course containing an authentic work life project the score is very high whereas in an accounting course (mostly individual learning process) the score can be very low.

Question 14 is “Do you have experience in implementation and usage of concrete virtual infrastructure for: (1- None 5 - Very extensive)”. The following diagrams show the results of the answer processing.





Question number 15 is “What are the key pedagogical aims and in your opinion how are they to be addressed when designing the implementation for the virtual learning space? The table below shows the generalized answers of the interviewees from the partner organizations:

Partner organization	Answers
Coventry University	Development of digital literacies; Participation and interaction; Provision of authentic learning opportunities; Greater access to information.
Laurea University	The learning space is easy to access, the student sees who else is around, the student can get feedback from his/her progress, the progress is made visible during the course. Several tasks rather than just one big task/exam at the end of the course. The student is given freedom of choice in presenting his/her learning outcome.
University of Bologna	Virtual learning spaces request a constructivistic approach on learning. Learner needs to be considered in his/her active role in the learning process. Professor is a facilitator for learning. Contents can be proposed in many different ways and languages, according to student's learning strategies, styles, etc. Contents need to be actualized and applied in form of problem solving. Students need to acquire the key

	concepts and tools and then discover all the rest through guided learning practices, where professor accompany and sustain them.
University of Montpellier	No answer
University of Veliko Tarnovo	To attract learner's attention and build durable knowledge.
NHTV University	Developing knowledge and skills for their future career. So they should not be different from the original goals. Virtual learning is a tool not a goal.

The last question is “Which are significant characteristics of pedagogical designs?”. The colored cells in the following table show the chosen answers from each of the partner organizations’ representatives:

Significant characteristics of pedagogical designs	Coventry University	Laurea University	University of Bologna	University of Montpellier	VTU	NHTV University
The use of complex, realistic and challenging problems that elicit in learners active and constructive processes of knowledge and skill acquisition;						
The inclusion of small group, collaborative work and ample opportunities for interaction, communication and co-operation;						

The encouragement of learners to set their own goals and provision of guidance for students in taking more responsibility for their own learning activities and processes.					
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