

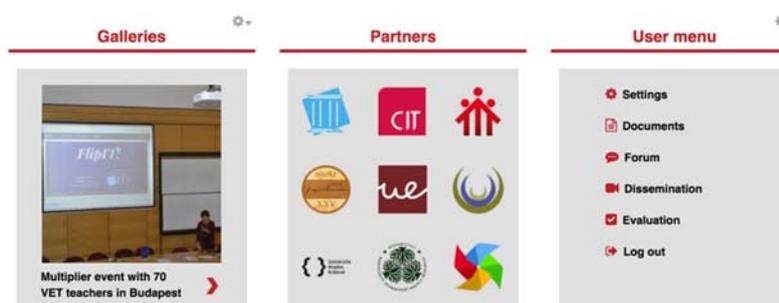


The aim of Intellectual Outcome 1 was a comprehensive review of the present state-of-art and experiences in using flipped classroom methods in the partner countries, and to design and carry out a survey with VET teachers, in order to define the training needs as an input for the curriculum and course design.

Before starting the professional work, the project coordinator implemented a collaboration platform based on the open source Drupal Content Management System, as a comfortable technological background to give a usable environment to the partners for communication (forum with different topics), storing documents for common work, and supporting the QM activities by online evaluation and reporting tools. The front-end of the portal is a public, multilingual website for the visitors with information about the actual stage of the project implementation, results and events.



The back-end area is restricted for the partners, the user menu - which navigates to the collaboration functions - is available only after login with partner accounts.



COUNTRY REPORTS

The Flipped Classroom Methodology is new in Europe and especially in the vocational education. The aim of the first working phase was to get a state-of-art review about the experiences in using flipped methods in the partner countries. All partners elaborated a country report based on a common document structure, which includes information on the ongoing educational innovations, on the available technology-related teacher training programs and the present state of using flipped methods in the education in the country by including case studies on concrete experiences.

Based on the country reports provided starting points for designing the survey for revealing the training needs needed when they want to use flipped method in the classrooms.

As Flip-IT Consortium intended to elaborate the “Flipped Classroom Methodology” (textbook, curricula, online training), it was important to understand the potential for utilizing final results, e.g. are teachers open to an FC model, are they ready to use FC methods in the classroom, do they have necessary IT-skills, does the school have sufficient equipment and IT infrastructure for teachers and students? The aim of the survey is to carry out a comprehensive research and needs-analysis in Hungary and in Spain - the target countries of the project.

The questions grouped are around the following hypotheses:

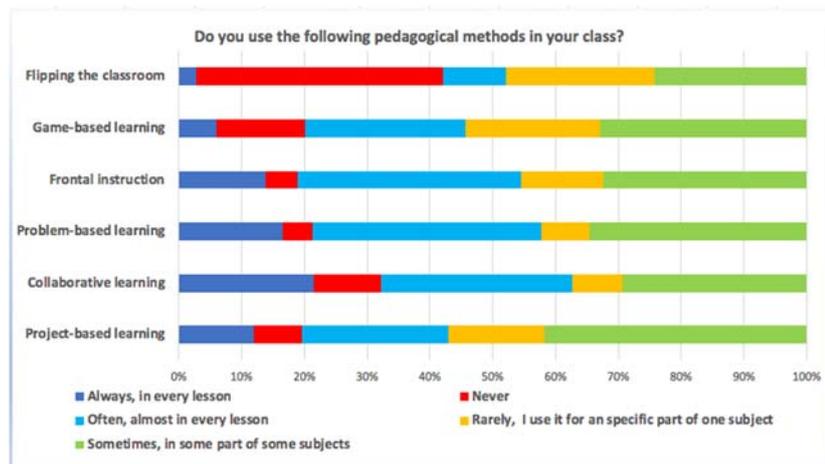
- H1 - Infrastructure: Schools have the requisite IT infrastructure to apply an FC model, and students have access to this equivalent infrastructure to do their homework, while studying at home.
- H2 - IT skills of teachers: The teachers have basic IT skills, but are not trained in using specific IT tools (e.g. applications for creating & editing video, or Web 2.0 tools) needed for FC methods.
- H3 - Methodology: modern pedagogical methods are known to some teachers, but that the Flipped Classroom methodology is not known, and not widely used among VET teachers in the target countries (Hungary, Spain).
- H4 – Motivation: teachers are motivated to introduce new innovative pedagogical methodologies that include the use of technologies.

According to the original plan we intended to carry out the survey in the target countries, in Spain and in Hungary, but finally the questionnaire was translated into Czechish as extra task as well, as the experts of our Czech partner (University of Hradec Kralove) were interested in the having the results in their country as well. The total number of respondents was 534; Czech Republic: 54 Hungary: 120, Spain: 360.

The survey results have underlined, that the teachers have basic IT skills, but are not trained in using specific IT tools (e.g. applications for creating & editing video, or Web 2.0 tools) needed for FC methods. In Hungarian VET schools, the IT infrastructure is very poor according to the result of the survey. It does not mean, that the teachers are not able to apply FC methodology at all, however the IT tools for content creation are not fully to either teachers or students. In the majority of the schools the respondents only have a basic presentation setup for classroom work and the rate at which internet access is not available is at an extremely high level.

Teachers have a positive attitude in all partner countries toward the application of a Flipped Classroom model, and VET schools and students encourage them to innovate.

The survey showed that teachers are motivated to introduce new innovative pedagogical methodologies that include the use of technologies. Regarding the survey there is a strong need for training covering both the pedagogical and technological aspects of using the Flipped Classroom methodology in the teachers' daily work.



Modern pedagogical methods are known to some teachers, but that the Flipped Classroom methodology is not known, and not widely used among VET teachers in Hungary. Most of the respondents (72,5%) stated that they are supported by the staff and the leadership in their efforts. The FC-methodology has been used by many teachers and instructors in Spain and in the Czech Republic, but they feel they need pedagogical

training, above all for: Preparing Flipped Classroom lesson plans, designing class activities and learning strategies (for example to integrate the home activities with the classroom activities. In conclusion, methodology is a key area of interest underlined by the survey.

Although teachers consider themselves “advance users of IT”, some specific digital training is needed too in areas such as Digital timelines, Animations, Concept maps and videos and Hypertext and blogs. Overall, one of the most positive aspects picked up by the survey is the fact that innovation is largely accepted and encouraged by the teachers.

The evaluation reports are publicly available in English on the project portal, under the Project/Results menu.

URL: <http://flip-it.hu/en/content/o1-flipped-classroom-pedagogical-model-and-practice-vet>

Albeit originally the consortium wanted to use the results only for as a background for the curriculum design, both academic partners prepared scientific publications on the results.

“The Flipped Classroom model is becoming more and more important due to the opportunities offered by the information and communication technologies. On the basis of the realised comparative research, it can be claimed that teachers positively perceive opportunities to make students more active. Although the individual countries’ opinions on the Flipped Classroom model are not identical in some parameters, teachers are ready to get familiar with this model of teaching. The Flipped Classroom Model has become better known for students mainly thanks to Khan Academy, that means they got familiar with it during the process of their university studies (see the research survey). The potential of the Flipped Classroom is, however, perceived also in case of lower stages of the educational system.” (Maněnová M., et al, 2016).

While the publication of the Czech partner (University of Hradec Kralove) covered only the results of the survey, the researchers of the Spanish partner (Universidad Europea de Madrid) included into their paper the experiences of the pilot trainings as well.



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References

Maněnová M., Tauchmanová V., Burgerová J. (2016): Flipped Classroom from the point of view of teachers of secondary technical schools, Faculty of Education, University of Hradec Králové, (CZECH REPUBLIC), Faculty of Education, University of Prešov (SLOVAKIA)

Villalba, M. T., Castilla, G., & Redondo-Duarte, S. (2018). Factors with influence on the adoption of the flipped classroom model in technical and vocational education. *Journal of Information Technology Education: Research*, 17, 441-469. <http://doi.org/10.28945/4121>

PROJECT INFORMATION

Experiments are being run all over the world about how best to introduce new, innovative teaching, learning methods that meet the requirements of the 21st century. One of these methods is the 'Flipped Classroom'.

The aim of the project is to integrate the "flipped classroom" method into the pedagogical practice of the VET schools and training centers in the partner countries. The long-term aim of the project is to improve the quality of the vocational education and to engage a movement towards the work-based, collaborative and problem-oriented learning/teaching by utilizing the pedagogical potential of ICT tools.

PROJECT OBJECTIVES

- Review the theoretical studies and pedagogical experiences on Flipped Classroom method
- Carry out a needs-analysis by involving the teachers of the partner countries
- Elaborate the "Flipped Classroom Methodology" (textbook, curricula, online training for VET teachers)
- Pilot online course in the partner countries by involving VET teachers
- Validate the results in VET schools by involving students

TARGET GROUPS

Primary target group: VET teachers

Secondary target group: VET students

PROJECT BASICS

Acronym: Flip-IT!

Grant agreement number: 2015-1-HU01-KA202-013555

Title: Flip-IT! - Flipped Classroom in the European Vocational Education

Duration: 1 September 2015 – 31 August 2018

Program: ERASMUS+

Participating countries: Hungary, Ireland, Spain, United Kingdom, Czech Republic

Website: flip-it.hu

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