Practice	DIGITAL TEACHING THROUGH IPAD
Source/Link	
Country/region/city	Italy – Piedmont region – EnAIP experience
Time frame	July 2020 – ongoing Regarding the text: from Oct 2020 (3 years)
Sector	☒ VET ☐ School education ☐ Higher education ☐ Continuing vocational training ☐ Other (spec. _____)
Target group	**22** trainers were trained on the use of teaching apps (Apple world) and on its application in VET courses addressed to young students (14-18 years old) **80** students (belonging to 5 classes) received an IPAD and now they are studying with their trainers who integrate traditional and innovative methodologies of teaching.
Short description	In July 2020 EnAIP Piemonte started a project aimed at introducing innovation in teaching. The project included two activities: ● training for trainers in collaboration with REKORDATA focussed on two aspects: a) technical skills and their application in classroom: trainers were involved to improve their knowledge and ability to use learning apps; b) digital coaching role: trainers were trained to develop the ability to support colleagues in integrating digital technologies in teaching. ● After the training, 3 trainers became Digital Teaching tutors and mentors for other colleagues who wanted to implement new innovative approaches ● In Sept. 2020/21 the testing phase started in 3 VET schools with the involvement of 5 classes for a total of 70 students (14-18 age). The testing phase lasts 3 years: the first one (2020/21) ended; the second one (2021/22) is closing and the third one (2022/23) will start in September.
Methodologies and animation techniques used	The aim: to integrate the traditional ways to teach with new digital solutions applied to learning both online and onsite. Through the distributions of IPAD (an opportunity to support innovation) to the trainees, the trainers tested if and how digital apps could improve teaching strategies in order to increase learning abilities (in a self and/or peer to peer perspective), engagement and motivation, digital skills. Apps and digital solutions are not the goal but the means though which a VET organization could pursue its educational mission and a trainer could innovate his/her way to teach. In the testing phase the organization let the trainers free to integrate and include the digital solutions according to aims, contents and development of each lesson plan and also according with personal attitudes (a sort of integrated approach to digital technologies which are not seen as substituted but rather as integrated tools). The use of digital solutions into educational practices is based on: ● the idea that IPAD should be a tool to propose activities that could not be done on the PC (not a simple transposition of the job but a technological development in order to integrate tools) ● the idea to support active learning and engagement of each student

	● the idea to support students with special needs respecting the different ways and times of learning (the accessibility advantages students) ● the involvement of trainers who teach theoretical subjects (Maths, Italian Language, Foreign Languages, Science and History) as well as trainers who teach practical and manual matters. ● the proposal of interdisciplinary projects to link theory and practice in an integrated and interactive way
Digital solutions used	- APPS for games, quizzes and exercises: KAHOOT, LEARNINGAPPS, WORDWALL, WORD GEOGRAPHY GAME, GENIALLY, GOOGLE FORMS, MICROSOFT FORMS - APPS for extraction of names or random questions: WHEEL OF NAMES - APPS for presentations/slides: PPT, GOOGLE PRESENTATION, KEYNOTE, CANVA, PREZI, MIRO - APPS for mind and conceptual maps: CANVA, PREZI, MIRO, KEYNOTE, PADLET, QUIZLET - APPS for image research: PEXELS, PIXABAY, UNSPLASH, FREEPIK, FLATICON - APPS for writing: WORD, GOOGLE DOCS, PAGES, NOTES - APPS for numbers: EXCELL, GOOGLE SHEETS, NUMBERS - APPS for databases and sharing documents: ONEDRIVE, GOOGLEDRIVE, ICLOUD. - APP for basic skills IMathematics and IFisica - App to create video IMovie - App for writing and sharing ideas NOTABILITY
Contents/issues on which methodologies and animation techniques are applied	Students attending VET courses are often not well motivated, with lack of competences and notions, not only from a technical point of view but also considering citizenship skills and abilities to participate in social life. Some of them abandon school and arrive to the VET system after an experience in other schools, where they did not feel at ease with the traditional approach, and after realizing that they prefer a more practical rather than theoretical way of studying and learning. They often benefit from different and more interactive teaching techniques, in order to be more involved and learn through a practical and active approach. Trainers need to develop strategies, methodologies and tools to keep students engaged and to teach them practical skills for a future job. The pandemic period has revealed the difficulties of trainers to apply and use digital solutions to support their teaching role. The testing phase involves 5 classes: - Electrical operator in VET school in Grugliasco - Sales service operator in VET school in Grugliasco - Graphic operator in VET school in Novara - Electrical operator in VET school in Acqui Terme - IT operator in VET school in Acqui Terme Trainers who teach in these classes were left free to test and implement the digital solutions according to their training objectives and contents, their attitudes and skills. In addition to the classes involved in the testing, during these two years of implementation, the adoption and integration of digital solutions into teaching practices was widespread in other classes, especially thanks to some trainers who have permanently changed their teaching methods and others who decided, watching with curiosity the experience of other colleagues, to adopt and adapt such solutions to their practice (a sort of mutual contamination process).
Technical equipment	IPAD APPLE equipped with teaching apps (native for IPAD or developped by apple community; free or paid) and Office.

	Wireless connection. *Costs*: € 450 (each IPAD with Apple pencil) – ca €700 assurance included During this experience EnAIP bought about 80 IPAD given to students in free loan (under payment of a deposit) and about 20 given to trainers.
Experiences, findings, results, lessons learnt (Project internal view)	To analyse the findings, we focus on the OPERATOR FOR CREATIVE/GRAPHIC PRODUCTION (EnAIP Novara): in this course, students are familiar with digital tools and the introduction of digital apps increases the effectiveness of teaching. The most useful apps (from the trainers' perspective) are those which allow students to organize brainstorming and to produce and share ideas, to build conceptual maps, and to quickly self-evaluate the comprehension of a lesson. Teachers also created more interesting lessons through the use of different multimedia techniques and tools to search videos and images, to work on images (such as to create a stop motion video). Connected with the topic of the course: the use of graphic programs (illustrator and photoshop) and different devices (smartphones, tablet, pc): the approach is based on the assumption that, in a creative process, the person should be able to choose and adapt their tools, software programs and even devices according to the goal they want to achieve, instead of bending and adapting the creative process to the devices they have or the ones they are supposed to used. A digital tutor has been identified to support colleagues in integrating digital tools into practice. From an organizational point of view: inside the VET school the testing had a positive impact also among trainers not immediately involved in the project.
Strengthen	• The pedagogical idea behind the testing phase: tools to support the integration of digital solutions in the teaching methods. The IPAD and the apple learning APPS must be integrated in the didactics and follow the learning objects. The added value lies in the learning of a process (a way to organise lessons and to make teaching methods more dynamic) and not in a tool. • The voluntary engagement of teachers/trainers and their motivations. • The empowerment process of students: students selected for the project are taking care of their IPAD, are responsible for their use and feel them protagonists • The reduction of differences among students and inclusiveness • Using digital solutions integrated in the teaching methods allow students to have different visions developing creativity (achieving the same learning goal with different ways) • Immersive learning Increase students'engagement • Improvement in students' attention • Possibility to use some APPS ready-to-use already prepared with standard and general content • The role of "digital solution tutor" to support colleagues in integrating digital tools in the teaching methods.
Weaknesses	• Some APPS are too much complex and time consuming if you want to personalise and contextualise contents. • Apple environment: despite it is a performing ambient, it is necessary to develop the knowledge and the use of other solutions to make flexible the digital learning environment.

	• The training was intensive, some aspects were not taken into account: a general presentation of the tool (IPAD) and its potentials; a focus to the use of apps (app-oriented) that confused and stiffened some less technological trainers; no time was dedicated to a reflexive process on what tested. • Lack of engagement and motivation: some trainers during the testing didn't want to apply digital solutions integrating their methods • Lack of peer-to-peer learning among trainers who teach the same subjects.
Other relevant information	Next year EnAIP plans to include in the IPAD projegt 5/6 new classes, doubling the number of students, classes and trainers.
Comments	This practice represents a first step done by EnAIP Piemonte to innovate teaching through digital solutions. It represents an example and a lesson learnt for UPDATE because with its lessons learnt will make the learning platform and the testing more effective. Regarding methodological aspects: using digital tools is not the aim, but the aim is to teach and keep engaged students with difficulties. Each innovation needs to be based on the engagement and empowerment of trainers who act supporting in peers. Regarding the blended course for trainers: the structure of a course needs to include some reflexive aspects to support contextualization of the training into practice. Regarding the implementation of digital teaching and learning in the classroom, the use of mixed digital solutions is fundamental to support engagement and motivation of learners. Also the presence of a "digital solution tutor" as a referent for the colleagues in each VET school is an organizational solution that supports innovation. Finally, the implementation of a community of practice in which trainers can share their experience in digital solution applications (discussion on tools) and their experience on contextualization to specific contents and following specific learning objects (discussion on learning content) can make innovation integrated to practice in a sustainable way.
A contribution by	*EnAIP Piemonte*