



**ATS2020**  
Assessment of Transversal Skills



# Professional Development Programme

ATS2020 - Assessment of Transversal Skills 2020  
[www.ats2020.eu](http://www.ats2020.eu)



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## ATS2020 - Assessment of Transversal Skills 2020

### D3.1: Professional Development Programme

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#### Related documents/material:

- Teachers' Training booklet ([https://resources.ats2020.eu/resource-details/ADM/training\\_booklet](https://resources.ats2020.eu/resource-details/ADM/training_booklet))
- ATS2020 toolkit – A step by step guide (<https://resources.ats2020.eu/resource-details/ADM/toolkit>)
- Online training course (<https://mahara.ats2020.eu/OnlineTrainingActivities>)
- Learning Designs booklet ([https://resources.ats2020.eu/resource-details/LEDE/ld\\_booklet](https://resources.ats2020.eu/resource-details/LEDE/ld_booklet))
- Resources and tools online repository (<https://resources.ats2020.eu>)



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## INTRODUCTION

The ATS2020 teachers' professional development Work Package is expected to provide the teachers involved with the necessary clear and common understanding of the ATS2020 learning and assessment model for the development and assessment of transversal skills. It is also expected that the trainings will guide and support teachers, as well as equip them with the necessary tools to develop their learning designs based on the ATS2020 learning model and implement them in the field trials.

Emphasis is given in the active involvement of teachers during the training and the teachers' contribution to the development of the training material and resources. The whole training programme, apart from workshops, includes the real classroom implementations and reflections as part of the teachers' training. Thus, the teachers' training involves 4 levels:

- teachers' involvement in the design and development of the training material and resources
- teachers' participation in face to face experiential workshops
- teachers' participation in webinars, online meetings and support
- teachers' school-based support by a coach

It is important to stress that the classroom implementations are considered from the beginning of the design of the professional development programme as essential part of the teachers' training.

The ATS2020 Continuous Professional Development (CPD) programme, followed a multipliers approach. Thus, a number of trainers were trained in the early beginning of the programme, so as to be able to actively contribute to the design and development of learning designs and other educational material and resources. Based on their own training, they were supported to design and deliver their national trainings, both through workshops and coaching, supporting implementing teachers through the year for their classroom implementations.

This deliverable provides a description of the ATS2020 teachers' development programme as designed and implemented, in both project and national level, with references to supportive documents. It starts with a short literature review on key elements of teachers' training programmes that were taken into consideration for the teachers' professional development programme. It then provides the approach and content of the CPD programme as designed and implemented at project level. A description of the preparation and implementation of the CPD programme as captured at national level in the implementing countries, then follows. The resources and tools used for the CPD programme are also provided with a short description and references. Finally, a discussion on the CPD programme is closing with reflections and recommendations.

## LITERATURE REVIEW

Change and innovation are not uncommon in education, especially in the last few years with the technological developments occurring. The need for continuous and appropriate training and professional development for teachers in an innovative environment, cannot be emphasized enough.

Various **models and approaches of change** and for adopting and guiding innovations have been developed. To begin with, Fullan (as cited in Somekh, 2007) discussed in his model the following stages of adopting an innovation, where multiple perspectives of change are included. Change is faced as a linear and staged process: negotiation to become involved or not, adoption, implementation, and continuation if it was not rejected in the previous stages. Hord and Sommers (2008) in their theory of change, created a "backward map" and included the relationship between professional learning and student learning. They also argued that the environment,

resources, previous knowledge, skills and behaviour are important in the change process. Also, Guskey's (2002) model of change, faces change as a gradual and difficult process for teachers and highlights the need for regular feedback and on-going support. It is also argued that teachers' practices are influenced by the professional development they are involved in and only after improvement in students' learning is identified by teachers, their beliefs and attitudes change. Finally, Wang (2008) described a generic model for guiding the integration of ICT into teaching and learning, which comprises of three main components that interact with each other; pedagogy, social interaction and technology.

Hooker (2008) defined three categories of teacher professional development (TPD): Standardised, Site-based and Self-directed. Standardised is a centralised approach, offering the same training to all teachers without on-going support. The site-based approach is implemented in schools or regions for groups of teachers, where learning and training is intensive and long-term changes can be achieved. Finally, the self-directed approach is ideal for lifelong learners, with teachers designing their own professional development. Depending on the number of teachers the training addresses, and the type of training desired, the above should be considered when designing training programmes and sessions.

Teachers' resistance to change is an issue discussed often in regard to educational change and change models. Könings, Brand-Gruwel and van Merriënboer (2007) identified four of the reasons that teachers are resistant and hesitant to change: the willingness to learn, the lack of consciousness of teaching behaviour, the incomplete reflection, and finally the dominant conceptions of teaching and learning.

Serdyukov (2017) suggests that the way an innovation is introduced is important. Innovations that come **from 'the top'** are not always supported by the teachers; but on the other hand, innovations coming from 'the bottom' might face obstacles and be limited to a small scale. This is something that should be taken into account, in regards to implementing innovations and educational reforms. It can also be applied to training and teachers' professional development that should not only be suggested from 'the top', but also take into account the needs, expectations and thoughts of the bottom; in this case, the teachers themselves.

Based on the above it can be indicated that the teachers' role in the implementation and change process is crucial along with the **training** and support offered. Teachers' training and professional development along with life-long learning are considered important when aiming to improve the quality of teaching (Serdyukov, 2017). This also applies when implementing innovations and training and preparing teaching for this innovation.

For a successful and sustained implementation of an innovation the **teachers' role** is critical. One of the factors identified in the literature is teachers' commitment to the innovation (Boschman, McKenney, Pieters and Voogt, 2015). They discuss that teachers' commitment to the innovation's implementation can have an important role or even define the success or failure of the implementation. Similarly, **teachers' involvement** plays an important role not only in successfully implementing the innovation, but in the nature and content as well (Boschman, McKenney, Pieters and Voogt, 2015; Serdyukov, 2017). Participatory designs that encourage teachers' active participation in the designing and decision taking processes are expected to lead to successful implementations (Könings, Brand-Gruwel and van Merriënboer, 2007; Zuljan and Vogrinc, 2010). Teachers during the innovation should be allowed to be creative and innovative, should be encouraged to take initiatives and be trusted that they will manage the task (Serdyukov, 2017).

Another issue that has been discussed in regard to implementation of innovations is **teachers' efficacy**. High self-efficacy teachers with relevant and appropriate background are more likely to implement an innovation or a curriculum (Sy and Glanz, 2008). This was highlighted by Könings et. al (2007) who suggested that teachers need

to think and believe they have the skills and have a positive expectancy of the innovation to implement it successfully.

Serdyukov (2017, p.18) suggested that for an innovation to be successful and have an effect “an army of implementers” is required. It is also important that teachers are supported in this effort by the leadership and are provided with the necessary assistance and encouragement (Zuljan and Vogrinc, 2010). Finally, it should be noted that training needs to be continuous for the change to be sustainable (Bauer et al., 2003).

Apart from the above, limiting factors for the implementation of an innovation should be identified. In their project, Sy and Glanz (2008) found that time is an important factor. Shorter periods, such as a school term, do not facilitate successful implementations. Zuljan and Vogrinc (2010) highlight the need to take into account time limitations for teachers and their daily workload. Other factors identified were complexity of the implementation, in their case it was curriculum implementations, and scheduling difficulties. Brownell et. al (2006, p.170) suggest that ‘a mismatch between the teachers’ style or personality and the instructional practice, problems adapting the instruction to suit their style or student needs, lack of in-depth understanding of the practice, disinterest in learning the strategy’ are some of the factors that can be impeding the innovation and its sustainability. If teachers feel that what is expected from them is different from their teaching practices and thinking, it is less likely that they will adapt and implement it. In addition to the above, innovations tend to take teachers out of their comfort zone and their routines, which is sometimes an obstacle in the implementation of innovations (Serdyukov, 2017).

Furthermore, even though ideal conditions and support are provided for the teachers to implement an innovation, it is not always certain that the innovation will be adopted and sustained by the teachers (Brownell et. al, 2006).

As ATS2020 brings an innovative learning model in the schools, teachers’ training is an integral part of the project and aims at teachers being involved in the project from the early stages. At the same time, the training focusses on continuous support, both school based and online, in addition to centralised workshops. Finally, part of the training is to support teachers to design and develop their own activities and educational material, or support them to adapt existing ones already developed from the project educational resources pool.

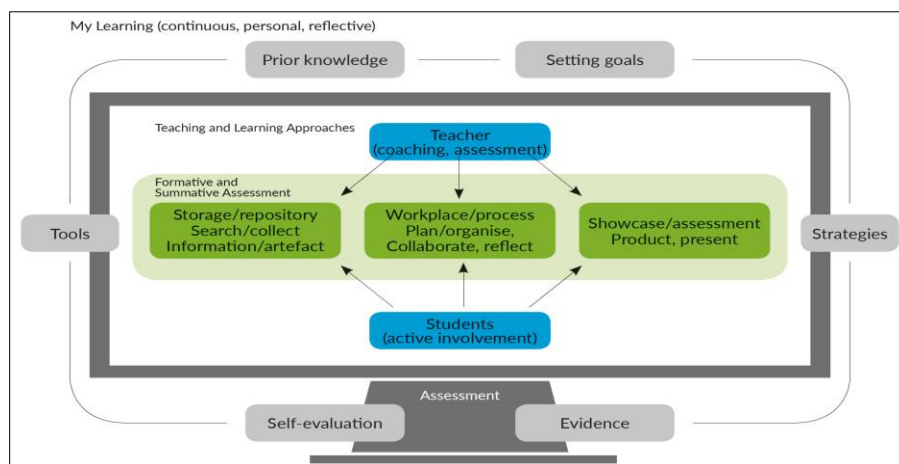
A successful training should include specific training strategies, developing an implementation plan and practicing the teaching methods involved (Sy and Glanz, 2008). It is also discussed that for trainings to be helpful, additional assistance and support should be offered in comparison to what teachers would understand and learn if working on their own. Also, examples, evidence and strategies are helpful and have an encouraging role for teachers. Dialogue, communication and exchange of ideas and practices between the teachers can also contribute to a supportive climate (Cain, 2004).

Additionally, teachers **working together** toward the innovation, as a community of practice, can be a factor contributing to the implementation of the innovation. Through collaboration with colleagues and other people involved in the innovation, teachers are inspired, encouraged and supported (Boschman et. al, 2015; Brownell et. al, 2006). Thus, the creation of communities of practice among the teachers in each country as well as across all participating countries, is designed through an online space of communication and through a number of online meetings for sharing experiences and exchanging good practices.

## DESIGN OF THE ATS2020 PROFESSIONAL DEVELOPMENT PROGRAMME

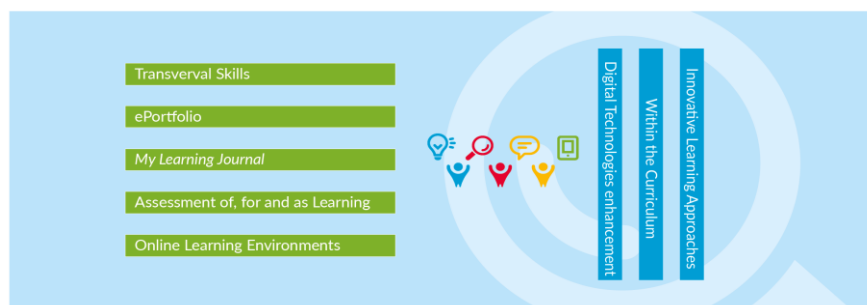
### Goals and content

The teachers' professional development programme is expected to provide the teachers involved in the project with the necessary clear and common understanding of the ATS2020 model for the development and assessment of transversal skills. By the end of the training programme, teachers are expected to familiarise themselves with the ATS2020 transversal skills framework and to be able to design and implement lessons that allow transversal skills development and assessment. Additionally, they should understand and use the ePortfolio three-level developmental process (repository, workspace and showcase) (Abrami and Barrett, 2005) with an embedded continuous reflection cycle of "My learning" by using the "My Learning journal" tool (as introduced in the *EUfolio-EU Classroom ePortfolios* project 2013-2015<sup>1</sup>).



*ATS2020 Learning and Assessment Model*

Equally important, teachers should gain a deeper understanding of the ATS2020 learning model basic elements, including assessment of, for and as learning, ePortfolios as an innovative method of assessment of students' learning (focussing on transversal skills), and assessment using formative assessment scaffolding tools (teacher assessment, peer-assessment, self-assessment). From the training programme, teachers should also get familiar with digital technologies enhanced learning, using online learning environments (Mahara and O365 OneNote Notebook), using and creating digital content, and exploiting opportunities for digital communication and collaboration. Finally, they should explore transversal skills existing frameworks and analyse the ATS2020 transversal skills framework.



*Basic Elements of the ATS2020 Learning Model*

<sup>1</sup> <http://eufolio.eu>, <https://eufolio-resources.eu>



One important aspect of the teachers' training is also the Learning Design process, since teachers are supported to design their own educational scenarios or adapt existing ones that were developed at project level. For that purpose, a Visualised Learning Design (VLD) approach is adapted for the needs of the project, based on the work of the UK Open University (Conole et al, 2008) and the European project "Design Practice – PREATY"<sup>2</sup>. (Avraamidou and Economou, 2011).

It is also expected that the trainings will guide and support teachers, as well as equip them with the necessary tools to develop their learning designs and implement them in the field trials. Throughout the real classroom implementations, as part of the teachers' training, teachers will implement the ATS2020 model, apply and expand their knowledge on what they have learnt, improve their practice and reflect upon their teaching.

In summary, the content of the training programme aims to:

- provide the teachers involved in the project with the necessary clear and common understanding of the ATS2020 model, including assessment of, for and as learning, ePortfolios as an innovative method of assessment of students' learning (focussing on transversal skills), and assessment using formative assessment scaffolding tools for the development and assessment of transversal skills
- teachers' understanding of the ePortfolio three-level developmental process with an embedded continuous reflection cycle of "My learning" by using the "My Learning journal" tool
- teachers' gaining a deeper understanding of the ATS2020 learning model basic elements
- teachers to familiarise with digital technologies enhanced learning, using online learning environments, using and creating digital content, and exploiting opportunities for digital communication and collaboration
- engage teachers in exploring transversal skills existing frameworks and analysing the ATS2020 transversal skills framework
- support teachers to design their own educational scenarios or adapt existing ones that were developed at project level
- guide and support teachers, as well as equip them with the necessary tools to develop their learning designs and implement them in the field trials

### Approach and methodology

The teachers' professional development programme of ATS2020 embeds a mixed method approach with focus on the active involvement of teachers. Professional learning is supported by classroom implementation and school based, as well as, online support from trainers/coaches.

In order to train all the ATS2020 teachers, a multipliers approach is planned. Thus, each implementing country is expected to appoint a number of trainers (an average of two) to be trained as trainers for their country. The trainers are expected to be involved from the early beginning of the project, so as to be part of the development of learning designs and educational material, as well as the design of the national trainings. They are also expected to be involved in the discussions of the finalisation of the ATS2020 framework. In order to do so, a project level training of two days is designed. During these two days, the trainers will be actively involved in hands-on experiential workshops so as to acquire the necessary understanding of the ATS2020 theoretical background and its basic elements, learn how to use the two online learning environments to be used by going through the activities designed in these environments, experience the Visualised Learning Design approach, develop ATS2020 educational scenarios at the macro level, and finally suggest the training scheme they would follow in their country.

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<sup>2</sup> <http://www.design-practice.org>, <http://www.pi.ac.cy/preaty>

Consequently, ATS2020 teachers are expected to participate in experiential workshops, where theory and practice meet, in order to gain an understanding of both the approach and basic elements of the ATS2020 model and how they are applied in everyday teaching and learning. During the workshops, teachers are expected to take up the role of students, as well as teachers, so as to experience the learning model in action. Training activities are expected to be planned close to the practice of teachers, to provide more internal motives and give practical importance to the workshops. In national training workshops, countries' curriculums are to be taken into consideration, so as the new practices are in agreement with the overall objectives of the local school system. A participatory approach is to be used to connect the daily practice of teachers with theory and skills development. Moreover, this helps to create a sense of ownership and influence, which reduces resistance to change. Thus, teachers are expected to design their own educational scenarios following the VLD approach, or adapt the existing ones already developed by their trainers and later on other teachers' shared designs.

The ATS2020 teachers' training does not finish after the workshops. The classroom implementations of the ATS2020 learning model are part of the teachers' professional development process, as they offer the opportunity to put theory into action. Teacher can experiment with the ATS2020 model, learning methods and tools. Consequently, the teachers reflect upon this process, set new goals, design teaching strategies, request and receive support and redesign their lessons. Teachers are not left alone during the whole implementation process, since a crucial part of their training is the support they receive from their trainers/coaches both online and in their schools. With continuous online support, teachers can resolve any issues that come up, find answers and receive feedback quickly and at the moment needed. Countries are expected to carry on the national workshops online, by providing webinars that continue teachers' professional development and enhance their practice. School based support by trainers/coaches is expected to provide teachers with decentralised opportunities to discuss and improve their learning designs, receive feedback, enhance the reflective process and share experiences and good practices. Moreover, they can receive personalised support on the effective exploitation of the online learning environments to support the implementation of the learning design and improvement and assessment of students' transversal skills.

For teachers' professional development, communities of practice at a national and transnational level, create an environment of learning and sharing with those involved. Those could work both online and with face-to-face meetings and workshops organised in the participating countries. Members can interact and learn from each other's experience, seek and share information, strategies and resources; discuss, reflect and provide feedback.

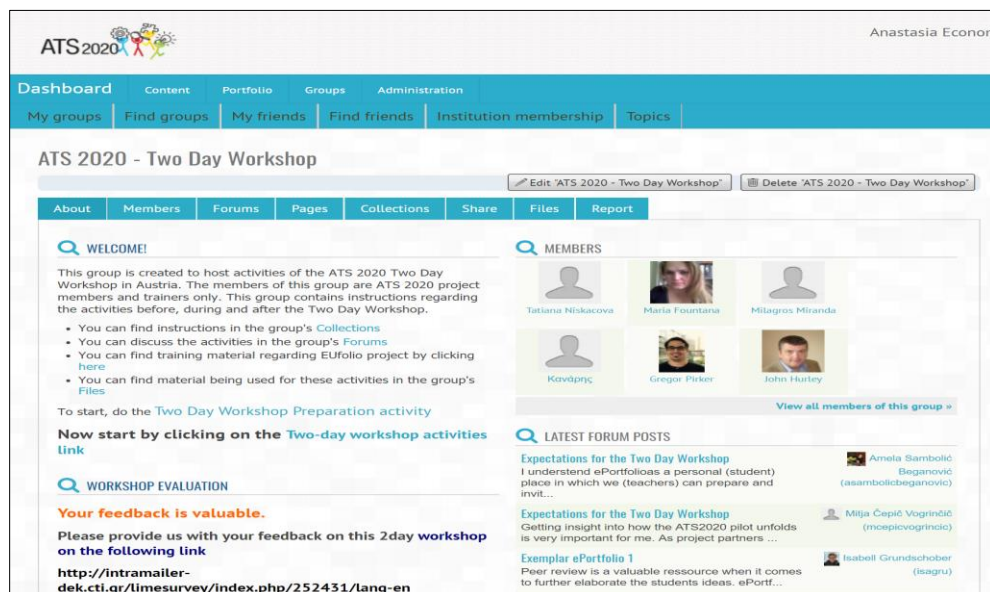
Useful resources coupled with appropriate tools are created to support the teachers' professional development. Resources are created to provide the theoretical background and explain the elements of the model and furthermore to guide the implementation of the ATS2020 learning model at a practical level (a trainers' booklet was developed for that purpose). Tools are created to support the model and teachers can adapt and use them in their lessons. Resources can be found in either paper or digital form, or both. The ATS2020 resource portal is the environment where all resources are collected for easier access.

## **IMPLEMENTATION OF THE ATS2020 PROFESSIONAL DEVELOPMENT PROGRAMME**

### **Train the Trainers workshop (Project level)**

For the preparation of the implementation of the project, the Train the Trainers Workshop was designed. The Cyprus Pedagogical Institute, the partner responsible for the ATS2020 Professional Development programme,

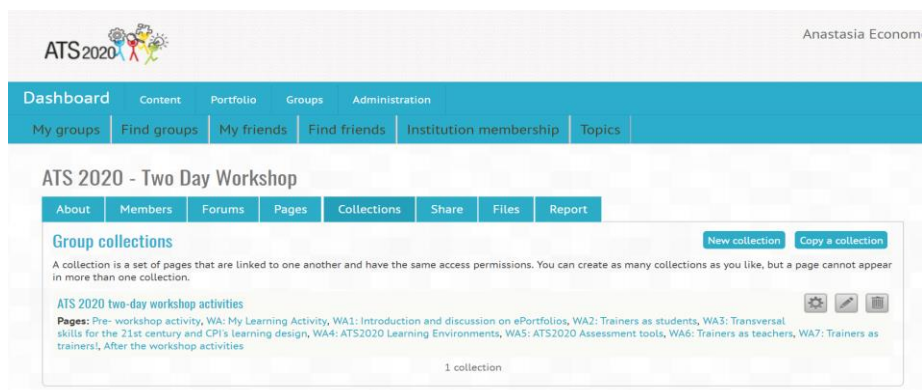
designed a two days' workshop that was to be offered to the implementing countries' trainers. The workshop activities were offered online, on the Mahara online environment, with the parallel aim that participants would learn and develop further their skills on using this online learning environment.



*ATS2020 Train the Trainers workshop online*

The online course followed and supported the workshop programme, and was designed as follows:

- Pre- workshop activity
- WA: My Learning Activity
- WA1: Introduction and discussion on ePortfolios
- WA2: Trainers as students
- WA3: Transversal skills for the 21st century and CPI's learning design
- WA4: ATS2020 Learning Environments
- WA5: ATS2020 Assessment tools
- WA6: Trainers as teachers
- WA7: Trainers as trainers!
- After the workshop activities



*ATS2020 Train the Trainers workshop online activities*

At the end of each activity, participants were asked to reflect on their learning and evaluate the activity with comments. They were always prompted to work on the activity as students, and at the same time reflect on it as trainers, thinking how they could implement the activity with their own teachers and students.

ATS 2020 two-day workshop activities

by ATS 2020 - Two Day Workshop

Through this activity, you will go through learning activities in the role students, in order to understand the process that students will need to go through and also to be able to discuss issues that might come up.

**1. IMPRESSIONISM ARTWORK CHARACTERISTICS**

In order to proceed with this activity please visit the following Group and request to join the group (top right corner of the page). You will find all instructions there.

[ATS 2020 - Impressionism Activity group](#)

**2. FEEDBACK**

When you are done with this activity, please provide your feedback by adding your comments below.

**Feedback**

Christina Christakoulis (Christina Christakoulis - christa) - 12 November 2015, 1:59 PM  
as a Student - I lost for a while but found my way when I collaborated with my colleagues  
- I found the paper given very helpful  
as a Teacher - I realized the steps I need to follow in order to prepare such an activity

Simed Tushy (tushy) - 12 November 2015, 1:20 PM  
This activity was a good example of collaboration and could provide excellent feedback if the learners are aware of the success criteria for the activity

Rodovan Eragic (eragic) - 12 November 2015, 1:20 PM  
Comment removed by the author

Edita Rabizade (edita Rabizade - edita Rabizade) - 12 November 2015, 1:21 PM  
Activities were involving, learning activity had features of autonomous and digital learning.

Bonet Campet (bonet) - 12 November 2015, 1:22 PM  
Good examples, motivational presenter, motivated peers... Nice to work with Mahara, when you want to do something in transversal way. Thank you!  
Photo source: <http://edinburgh.exercity.com/media/gallery/image/4/students.png>  
Attachments: students.png (362.5 KB)

Elie Reisenbuk (elien) - 12 November 2015, 1:22 PM  
It was a good activity to learn how works Mahara.

Virginia Novickiene (virginia Novickiene - virginia Novickiene) - 12 November 2015, 1:23 PM  
I have enhanced my digital competences.

Dimitris Athanassopoulos (dathari) - 12 November 2015, 1:23 PM  
I found the activity well structured, involving communication and collaboration. Also very good for the students to visit it as a letter stage and easily assess their learnings.  
Possible improvements: Less tabs, a back button.

danalimahony (Daniel O' Mahony - danalimahony) - 12 November 2015, 1:23 PM  
• I really think we have to ask students good questions so that they are challenged  
• They also have to see the points of online feedback for learning

Lucija Orjanovic (lucija Orjanovic - lucija Orjanovic) - 12 November 2015, 1:23 PM  
I like this group work but wish we had more time to do them.

*Examples of the participants' reflection after going through an activity*

The workshop took place in Krems, on the 12<sup>th</sup> and 13<sup>th</sup> of November 2015. A task was sent to the trainers in advance so as to be ready for the first activity, whereas the workshops were followed by online work and sharing. At the same time, participants were also asked to share their expectations for the workshop with the rest of the group, as well as their thoughts and expectations of their participation in the project.

ATS 2020 - Two Day Workshop

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Forums > Pre-Workshop Activity 1

Expectations for the Two Day Workshop

06 November 2015, 2:55 PM

Anastasia Economou (anastasia) Posts: 10

What are your expectations for the two-day workshop for ATS2020 teacher trainers?

08 November 2015, 4:05 PM

Christos Christakoulis (Christos Christakoulis - christak) Posts: 15

Re: Expectations for the Two Day Workshop

1. To have a hands on experience in using mahara as a trainer
2. To learn about best practices for mentoring teachers who will implement the activities
3. To meet other trainers catching their point of view

08 November 2015, 4:23 PM

Dimitris Anastasiadis (dathan) Posts: 6

Re: Expectations for the Two Day Workshop

- To be able to utilize ATS2020 ePortfolio tools (Mahara, O365) in an effective way
- To be able to transfer my knowledge to teachers in Greece
- To meet and work with teachers from the rest of the countries

08 November 2015, 6:29 PM

Spyros Christodoulou (spyros) Posts: 7

Re: Expectations for the Two Day Workshop

To be able to get familiar with ATS2020 suggested tools, to get informed about how these tools may be integrated in the learning process, to communicate with teachers from a number of diverse countries.

08 November 2015, 6:54 PM

Nera Malbasa Kovacic's profile picture  
Nera Malbasa Kovacic (neramk) Posts: 6

Re: Expectations for the Two Day Workshop

Hello!

My expectations for the two – day workshop for ATS2020 teacher trainers are:  
how to use the ATS 2020, ePortfolio tools as effectively as possible,  
how can these tools be integrated into the learning process.

09 November 2015, 4:59 AM

Siniša Tušić (sinisy) Posts: 18

Re: Expectations for the Two Day Workshop

I hope to:

- Deepen my knowledge of Mahara and other platforms
- Share ideas with trainers from other countries
- Learn more about the potential CPD activities for our teachers

09 November 2015, 6:50 PM

Ljiljana Đorđević - Knežević (ljiljana) Posts: 9

Re: Expectations for the Two Day Workshop

I expect to familiarize with ATS 2020 tools, to work on creating learning scenarios examples and to get some ideas for national teacher trainings.

09 November 2015, 10:31 PM

Elie Reinkenbuck's profile picture  
Elie Reinkenbuck (elierre) Posts: 3

Re: Expectations for the Two Day Workshop

My expectations:

- to learn to use Mahara;
- to meet trainers of other countries;
- to transfer my knowledge to Estonian teachers.

10 November 2015, 6:53 AM

Marios Kyrianiou's profile picture  
Marios Kyrianiou (marios) Posts: 12

Re: Expectations for the Two Day Workshop

Hi,

My expectations:

- Learn more about mahara and implementations, ePortfolio tools (Mahara, O365)
- Clarify the transversal skills and ways of helping colleagues involved in ATS2020
- Learn more about learning scenarios and implementations in classroom
- Clarify what I should guide my colleagues to do (sample of expected work outcome)

10 November 2015, 10:52 AM

Anne Rungas (annarungas) Posts: 4

Re: Expectations for the Two Day Workshop

Hello, I have been thinking a lot about students and teachers real motivation: not in the way that we intelligent people somewhere far away have decided that e-portfolio is good and best tool for you. I also wonder about easy steps and a clear user interface. E-portfolio should support other learning activities, not just another new thing among other new things. It would be nice to chat in the workshop meeting about these things. How to use this or that platform mechanically/technically interests me not so much. More the social pedagogical aspects dynamics in learning and how to plan these.

« First Previous 1 2 Next Last »

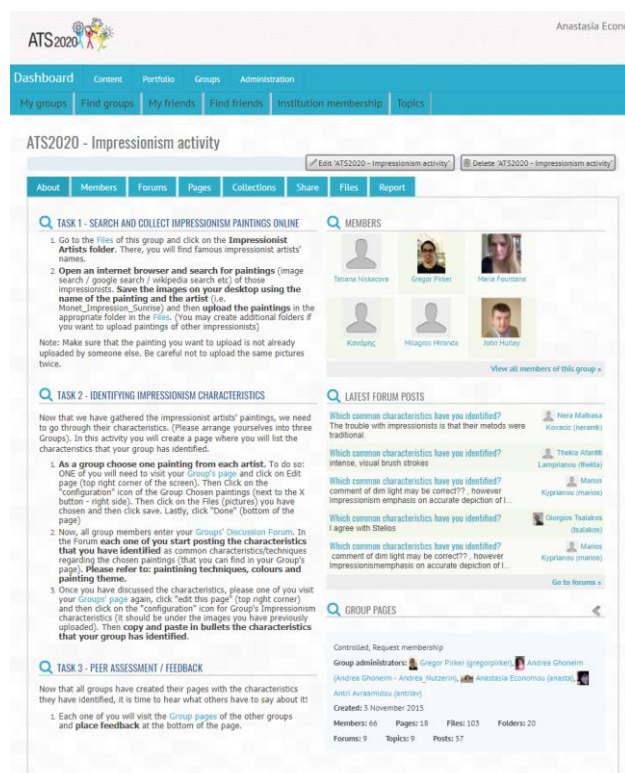
*Examples of the participants' expectations on the ATS2020 Train the Trainers workshop*

In total, 35 trainers from all pilot countries attended the training along with the partners. A blended approach was used during the workshops, combining presentations with hands-on exercises, online lessons, discussions, collaborative work and lesson design. Participants went through several activities and worked in online learning environments. Participants took the role of the student, the teacher and the trainer to have a complete view of the model. As students, they worked in the online learning environment, they were introduced to the theory,

and they worked with the ATS2020 model elements. As teachers, they created their learning designs and as trainers they began preparing the national training schemes.

Participants of the workshop on 12/11/2015, drew on previous experience with ePortfolios to discuss their existing work on ePortfolios. They were presented and discussed theory on ePortfolios, assessment and transversal skills of the 21st century. The ATS2020 project and learning model was presented to them. Then they were asked to identify ePortfolios from examples they were given. The aim of those activities was for the participants to be able to identify and discuss ePortfolios common features, affordances and issues, to develop common understanding on ePortfolios as a learning process and assessment for learning terminology and their implementation.

Then, they took the role of the students and went through learning activities of a learning design on Impressionism, using the Mahara platform. This activity gave them the opportunity to understand the students' experience. Moreover, this way they went through a lesson that integrated features of the ATS2020 model to have an idea on how this is done in practice. This also provided them the opportunity to use the Mahara online learning environment. They used Files, Groups, Forums, Pages, they uploaded material and went through peer and self – assessment activities.



Example of a hands-on activity (trainers as students) during the ATS2020 Train the Trainers workshop – The Impressionism Activity

Participants then had a discussion on transversal skills as they experienced them through the learning activities they went through. The learning design of the lesson was presented and discussed. This way trainers were introduced to the learning design approach. Afterwards, they were presented with the ATS2020 transversal skills framework, which they discussed and gave their input.



At the end of the day they were introduced to the Mahara online environment as administrators, so as to use and manage the project's Mahara environment. They were presented the features to support the ATS2020 learning model and they provided feedback for its improvement.

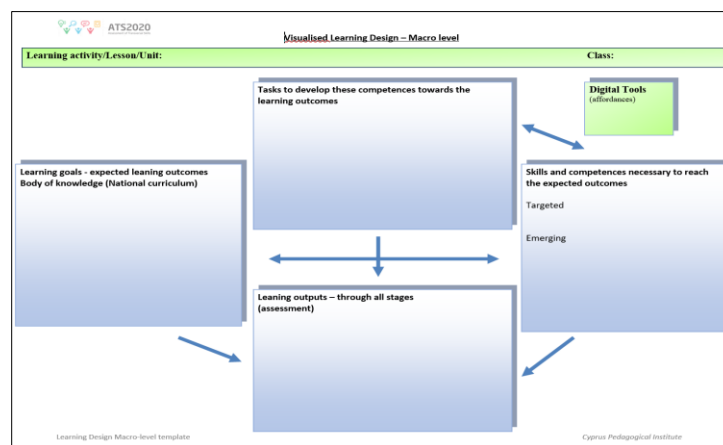
Finally, they wrote, shared their reflections and provided feedback for the first day of the workshop.

On the 13th of November 2015, the training continued. Trainers discussed about the tools for ATS2020 and their affordances and shared their thoughts. Since, besides Mahara teachers would have the alternative option to use O365 online learning environment, the O365 tools were presented and they got more familiar with them.

Focus was then drawn on formative assessment. Trainers went through a specific learning design, identified the critical points for attainment goals, assessment and feedback; they discussed examples of innovative assessment activities and tools that were incorporated in the example; they discussed how to use assessment data and evidence.

Afterwards, trainers started working on their national training programmes schemes in separate groups. They followed an approach that was discussed in plenary, and they were supported through their work. They would continue their work and finish their national training plans in the following weeks, so as to share them with the rest of the group online.

Then, trainers worked collaboratively to create short learning designs applying the ATS2020 learning model, for specific subjects of their practice/interest. They shared their learning designs and received feedback. In order to do so, trainers were introduced to the Visualised Learning Design approach to design their lessons. They first worked at a macro level (using the template below), in which they set the learning goals (as described in the national curriculum, along with transversal skills goals), then described the activities to achieve these goals, and the expected outcomes of the activities.



*The Visualised Learning Design approach – Macro level*

They were then introduced to the meso level of the VLD, where teachers align the activities within the learning cycle with the corresponding transversal skills that are tackled in each activity, in order to make sure that all activities are actually designed for these goals. Finally, they elaborated on each activity and task describing them in detail, in a micro level, leading to a complete lesson plan and supporting material. Through the whole process,

the teachers were scaffolded to think about the ATS2020 learning model, focussing on its elements and their successful deployment.

Lastly, participants reflected on their experience of using the ATS2020 learning approach and platforms, and designing learning activities during the workshops. They also suggest ways of continuing their interaction after the workshop. A community of practice group (<https://mahara.ats2020.eu/group/view.php?id=4>) was created for the participants on the Mahara platform to continue their communication.

In the table below, the training programme is presented.

PRIOR the WORKSHOP		
Time	Activity	Learning Outcomes
Open	Refer to existing example practices on ePortfolio (from EUfolio resources) and invite trainers to go through and discuss online (set up trainers area on Mahara/O365—online discussions to be common)	i. To introduce ePortfolio practices / implementations to trainers ii. To prepare trainers for the 2-day training activities

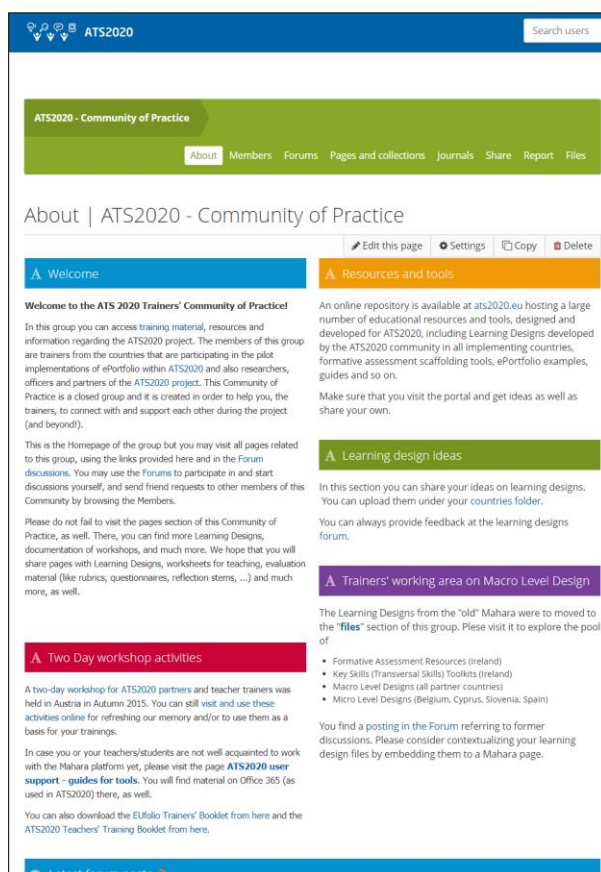
DAY 1 – Thursday, 12 November 2015		
Time	Activity	Learning Outcomes
09:00 – 11:00	1.a. Discussion on existing work on ePortfolios 1.b. Presentation/discussion of ePortfolios, Assessment and transversal skills for the 21 <sup>st</sup> century 1.c. Presentation of ATS2020 project and Learning Model 1.d. Which is an ePortfolio?	1.a. To identify and discuss ePortfolios common features, affordances and issues 1.b. To develop a common understanding on ePortfolios as a learning process and assessment for learning terminology and their implementation 1.c. Identify ePortfolios
11:00 – 11:30	Coffee break	
11:30 – 13:00	2.a. Go through learning activities (hands on) of a Learning Design developed for students, on Impressionism, using the Mahara platform	2.a. To go through specific learning activities for students, that integrate features of ATS2020 learning model on Impressionism (to be able to use Files, Groups, Forums, Pages and upload material and go through peer- self- assessment activities)
13:00 – 14:00	Lunch break	
14:00 – 16:00	3.a. Discussion on transversal skills through the learning activities they went through 3.b. Presentation of the whole learning design regarding that subject 3.c. Presentation of the ATS2020 transversal skills framework	3.a. To discuss transversal skills and other matters through their experience with the specific learning activities that they went through 3.b. To discuss a whole predesigned learning design with emphasis on transversal skills. Trainers to be introduced to the learning design approach. 3.c. To discuss and have input on the ATS2020 skills framework
16:00 – 16:30	Coffee break	
16:30 – 17:30	4.a. Get to know ATS2020 Mahara environment	4.a. To use the project's Mahara environment and provide feedback 4.b. To learn how to manage Mahara environment
17:30 – 18:00	Closing of the day	Reflection and feedback



DAY 2 – Friday, 13 November 2015		
Time	Activity	Learning Outcomes
09:00 – 09:45	4.b. Discussion on tools and specifications for ATS2020	4.c. Presentation of tools to be used and their affordances 4.d. To share trainers' thoughts on tools
09:45 - 11:15	4.c. Get to know ATS2020 O365 environment	4.e. Presentation of O365 tools and affordances 5.f. Use of ATS2020 O365 environment
11:15 - 11:30	Coffee break	
11:30 – 13:00	5.a. Formative assessment – transforming a learning design into an assessment scaffolding tool for transversal skills 5.b. An example of task to be used for the pre-test assignment	5.a. To go through a specific learning design, identify the critical points for attainment goals, assessment and feedback 5.b. Discuss examples of innovative assessment activities for learning and tools incorporated in the example 5.c. Discussion on how to use assessment data - evidence
13:00 - 14:00	Lunch break	
14:00 – 15:00	7. Country training programmes	7.a. Presentation of training programme and implementation 7.b. Trainers to suggest a plan for training participating teachers and supporting material that will be needed during implementation considering teachers' needs.
15:00 - 16:00	6.a. Implementation ideas and material development	6.a. Trainers to collaboratively create short learning designs (implementation ideas) for the ATS2020 project, for specific subjects of their practice/interest
16:00 - 16:30	Coffee break	
16:30 - 17:00	6.b. Trainers' learning design sharing	6.b. Trainers to share their learning designs and receive feedback from peers
17:00 – 17:30	8. Reflection and feedback Closing	6. a. Trainers to reflect on their own experience using the ATS2020 learning approach and platforms, on the 2-day workshop activity and the process of designing their own learning activities 6 b. To suggest ways of continuing their interaction after the workshop
AFTER the WORKSHOP		
Open	Use of online environment to review and finish their ideas and work <a href="#">Group ATS2020 Trainers - Community of Practice</a>	

*ATS2020 Train the Trainers Workshop – Krems, Thursday-Friday, 12-13 November 2015*

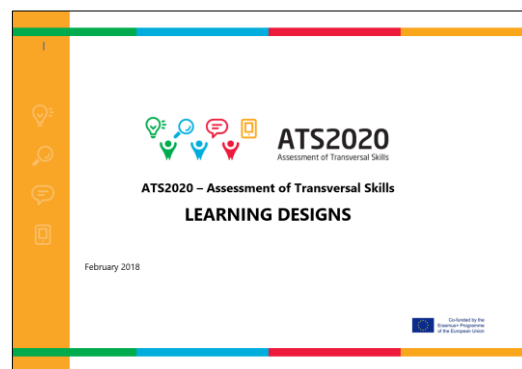
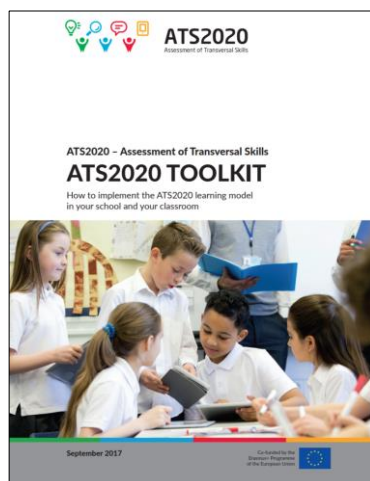
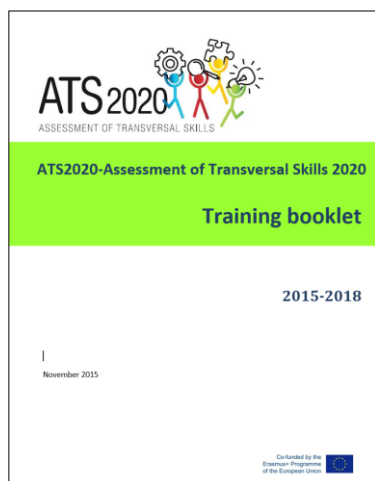
After the workshop, the online course that was used in the 2-days workshop in a blended learning (f2f and online) was updated and provided as an open online course for trainers and teachers to use, at <https://mahara.ats2020.eu/OnlineTrainingActivities> or through the ATS2020 – Community of Practice at <https://mahara.ats2020.eu/group/view.php?id=4>. At the same time, a similar course was developed in the O365 OneNote Notebook Online environment. Furthermore, a common space for teachers and trainers was created in the O365 project space, so as to support teachers who chose to work with the O365 online learning environment instead of Mahara (the project aimed to use an open source and a business product for the online learning environment), with reciprocal references from one to the other.



ATS2020 Community of practice with access to training material and online activities

The teachers training is also supported offline with a number of booklets available:

- Teachers' Training booklet ([https://resources.ats2020.eu/resource-details/ADM/training\\_booklet](https://resources.ats2020.eu/resource-details/ADM/training_booklet))
- ATS2020 toolkit – A step by step guide (<https://resources.ats2020.eu/resource-details/ADM/toolkit>)
- Learning Designs booklet ([https://resources.ats2020.eu/resource-details/LEDE/ld\\_booklet](https://resources.ats2020.eu/resource-details/LEDE/ld_booklet))



Furthermore, the online resources repository was developed at <https://resources.ats2020.eu>, which is continuously enriched with resources and tools developed by the ATS2020 community in addition to the initial ones that were developed on project level. For more information on the resources portal please refer to D3.2.



*ATS2020 online resources and tools repository*

### Online Meetings (Project level)

Along with the online asynchronous communication taking place through the Mahara online environment and email communication, synchronous online meetings were also arranged with trainers and teachers, so as to allow the proper implementation and exchange of experiences and best practices from pilot implementation in the participating countries.

The first online meeting was arranged on the 23<sup>rd</sup> of February 2016, a couple of months after the Krems face to face meeting with the trainers, so as to discuss their national training programme plans as well as to share their learning Designs at macro level. In addition, they were introduced further to the O365 OneNote Notebook as deployed for ATS2020 and gave their feedback.

A “Train the Trainers” online meeting was also organised on the 11th November 2016, just after the school implementations started. In the webinar, the trainers’ role was discussed and useful documents and tools were presented to enable the smooth implementation of the project and support the trainers’ role. The resource portal structure ([resources.ats2020.eu](https://resources.ats2020.eu)) and useful resources and tools were presented. The trainers were invited to share resources in the portal. Participants exchanged good practices from their country’s teachers’ community and discussed needs, ideas and suggestions.

On the 31st of March 2017, another trainers’ online meeting was organised. During the online meeting CPI trainers presented more tools and resources. These included assessment scaffolding tools, new resources and features on the online resources repository portal were presented, useful resources were promoted and the process of uploading resources on the online portal was demonstrated. Furthermore, trainers had the opportunity to share parts of the work that has been done from the teachers of the experimental group and best practices and challenges were discussed. This process allowed further insight into the trainers’ work.

On the 3rd of April 2017, a teachers’ webinar was organised for teachers of the experimental group from participating countries, in order for them to share Learning Cycles they had prepared and implemented in class, exchange good practices etc. During the teachers’ meeting, ATS2020 trainers presented some resources from the ATS2020 resources portal in order to facilitate implementation. A couple of exemplar learning cycles and

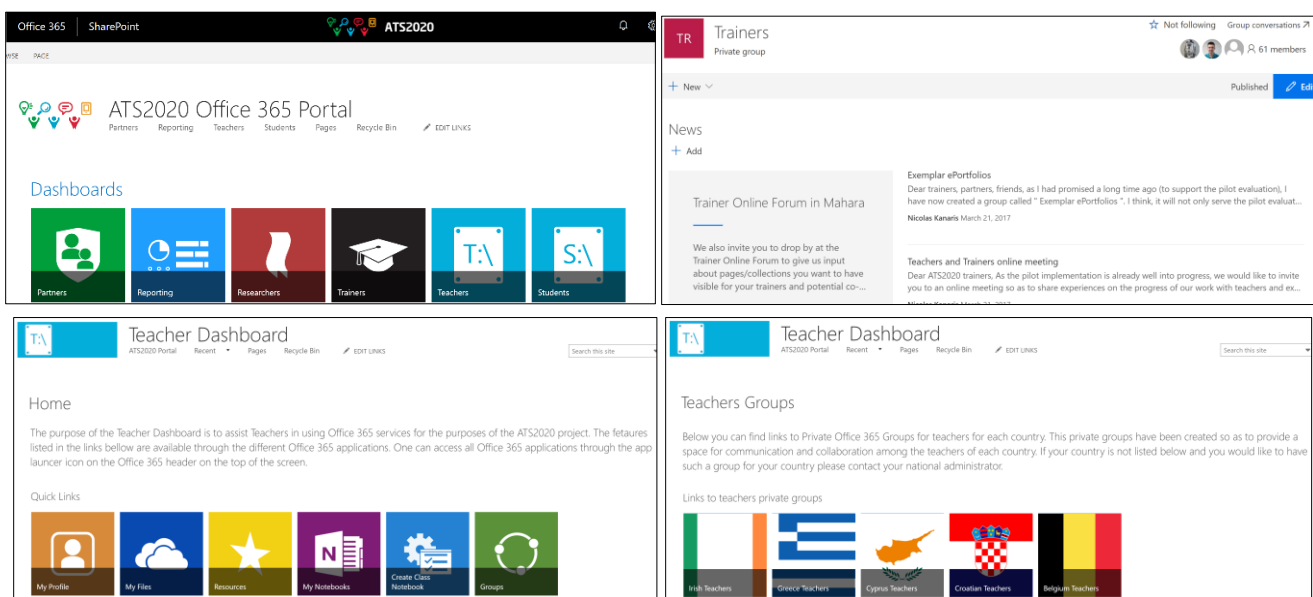
ePortfolios were discussed. Teachers from different countries shared some of the Learning Cycles they had prepared, discussed challenges and exchanged good practices.

### Communities of practice (Project level)

To enable sharing, communication and collaboration between trainers and between participating teachers, different spaces were created online.

The Mahara trainers' community of practice (<http://mahara.ats2020.eu/group/view.php?id=4>) allowed trainers to access training material, resources and information regarding the ATS2020 project. For example, they could locate learning designs, documentation of workshop, and similarly they could share pages with learning designs, evaluation material etc. Also, the forum space in this Mahara group allowed participants to participate in or begin discussions themselves.

In Office 365 SharePoint project partners common space (<https://0365.ats2020.eu>), dedicated private spaces for trainers (<https://ats2020.sharepoint.com/sites/trainers-group>) and teachers (<https://ats2020.sharepoint.com/teachers/SitePages/Home.aspx>) were created, in order to allow sharing of resources and thoughts. Some partners, also asked for a country's teachers group in order to enable communication on their national language and education context.



ATS2020 project shared space on O365

Moreover, as derived from trainers' and teachers' suggestions, an online space was created in Microsoft Teams application to host communities of teachers dealing with the same or relevant subjects on a European level. In total, 14 communities have been created corresponding to different subject areas. This action aimed to facilitate interaction of teachers of the experimental group across different subject areas on how to incorporate the ATS2020 learning model in the classroom. Unfortunately, substantial participation has not been achieved in Teams. Teachers seem to either prefer local communities of practice, or this wasn't promoted adequately, or they couldn't find the time to participate actively.

The successful final conference of the project on the 2<sup>nd</sup> of February 2018, brought together a good number of teachers from all the implementing countries (an average of 2-3 teachers), who had the opportunity through a poster session to exhibit, discuss and share their implementations with all the conference participants and most

importantly among themselves. It seems that this face to face opportunity provided a good base for the sustainability of the ATS2020 teachers' community of practice.

### National trainings planning (Country level)

For the preparation of the teachers' training programme, a preparatory document has been shared, based on which implementing countries designed and planned their national training scheme. During the "Train the Trainers" workshop in Krems, the general approach on national trainings and teachers' professional development was discussed and each country began developing the country's training scheme. On the aspect of content, the teachers' professional development programme was expected to provide all the necessary information and theoretical background of the ATS2020 learning model for the development and assessment of transversal skills, but moreover, teachers through the programme should develop the skills to be able to implement the learning model in their learning designs, create appropriate online learning environments and then move on to apply it in their classes. Regarding the approach to be taken, before the implementation, a series of workshops -either face to face or online or both- would give the teachers the theory and skills through activities that would combine several teaching methods, concentrating on practical experience. During the implementation, according to the teachers' needs, workshops could continue but focus would be given to personalised support of the teachers with school visits and any other form of communication with them to create a better learning experience by responding to their learning needs.

For the planning of the national training schemes a template was agreed to be completed. The template aimed to collect information from all partners in order to enable the design, development and implementation of a professional development program to support the ATS2020 experimentation. In the template, it was asked to describe what it is expected from the teacher's professional development programme, both at a transnational level and national level and both during and after the pilot implementation. Moreover, countries were asked to describe the content areas they would focus on for the teacher's professional development programme, both regarding their trainers and their teachers, along with the type of material they consider important to support the training programme. In their planning, they were asked to describe the training approach and the activities that would be carried out before and during the pilot implementation. Finally, countries were asked to provide any existing material and resources that could be used for the ATS2020 professional development programme. The filled in templates with the national training schemes and a consolidated report on the national training implementations are provided in *Deliverable 3.4. Consolidated Country Reports on the CPD Programmes*.

### National trainings implementation (Country level)

All the pilot countries made a meticulous effort to provide high level training to the teachers that would implement the ATS2020 model in the piloting phase of the project. More than 500 teachers all over Europe were trained on the ATS2020 learning model and its key elements. Each country described in detail the training process they have taken in their national reports in Work Package 4. In Deliverable 3.4 "*Consolidated Country Reports on the CPD Programmes*", a short summary is provided for each country of the training and support programmes that took place. The next paragraphs provide an overview of the kind of activities that were done at national level for the CPD programmes.

Before the implementation, all countries assured that through the initial training the piloting teachers would have the adequate knowledge and skills to complete the pilot implementation of the ATS2020 learning model successfully. All countries held face to face workshops for the teachers and some countries also combined them with online workshops to facilitate the situation and the teachers, since there were long distances between the

participating teachers. Workshops combined several teaching methods like presentations, demonstrations, hands-on activities, simulations of in-class practice, presentation and discussion of examples and cases, creation of material and learning designs, exercises on online platforms, questions and answers sessions, collaboration between the participants, discussions and reflective meetings, self and peer assessment activities. Most workshops had practical, hands-on activities for the teachers that allowed active learning. Workshops were offered mostly before the implementation period, but also during.

Concerning the content of the workshops, the countries made sure that teachers would familiarise with the ATS2020 project process and ATS2020 learning model. Therefore, the workshops' aims were: by the end of the initial training teachers would be able to incorporate transversal skills in their learning designs, that they would be able to design activities for transversal skills assessment, that they would use ePortfolios as a learning and assessment process, that they would use effectively online learning environments to support the development of transversal skills. During the workshops teachers took the role of both the teacher and the student. The basic elements of the ATS2020 learning model, as elaborated in the "train the trainers" workshop, were also part of the national trainings.

The classroom implementation was an integral part of the teachers' continuous professional development programme, since they had the opportunity to apply in their classes what they have learnt and reflect on this way of working with their students. A big part of the process, was the creation, sharing and discussing with the supporters and other teachers of their learning designs according to the ATS2020 model. Teachers received personalised support during the implementation from supporters/trainers/coaches that each country had allocated with the task of the continuous support to teachers. The supporters responded to the teachers' learning needs, provided feedback and encouraged reflection. Teachers received help with creating and implementing learning designs, as well as, with using the online learning environments and tools effectively. Supporters also provided useful documents, resources and tools. The communication between teachers and supporters was done via phone, emails and online meetings, but also, with school based face-to-face meetings that allowed for more interaction, discussion, reflection and sharing.

Some countries held workshops and webinars during the implementation to comply with teachers' needs for more training and to provide opportunities for sharing teachers' experiences, answer questions and resolve issues.

The creation of communities of practice was desirable in countries and between countries to enable sharing of good practices, experiences, material and even teachers' collaboration. Therefore, to facilitate the development of teachers' communities of practice, national project teams created Mahara pages, forums, Teams in O365, Yammer groups, blogs and held webinars and regional meetings.

After the implementation, many countries organised events for participant teachers to display their work and to share their experiences. Countries also used existing relevant events in the country to disseminate the activities of the project and the teachers' work. Furthermore, they encouraged teachers to write articles for teachers' newspapers/newsletters/journals.

For the CPD programmes the ATS2020 resource portal was available with a plethora of resources since each country could enhance the material with their own. Some countries also used other webpages to host their material either a national project website, or a space in Mahara or Office 365. The resources include information on the theory behind the elements of the ATS2020 learning model, learning designs, supporting material for the online platforms, assessment tools, tools for the teachers and the students, etc. It should be mentioned that

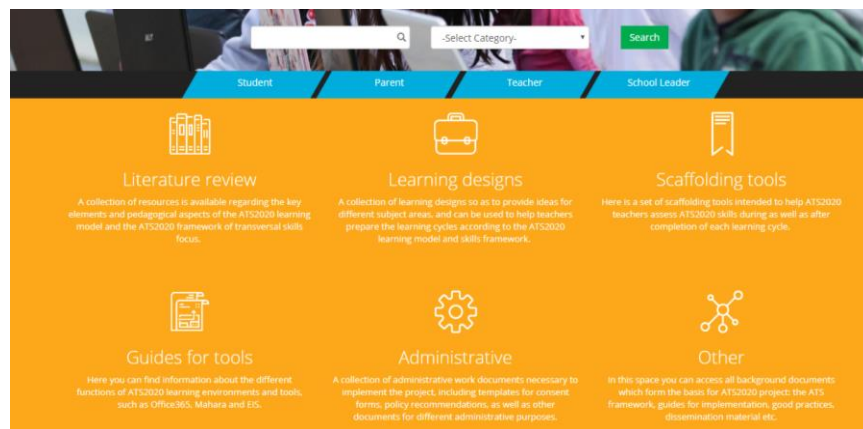


since trainers offered personalised supports to teachers they often created and sent resources especially for the needs of the teacher they were responsible for.

## RESOURCES AND TOOLS

The ATS2020 learning model elaborates multiple concepts and brings together innovative approaches to teaching. The need for resources to support the model implementation and as a part of teachers' professional development programme was tackled from the beginning. The project website at <http://www.ats2020.eu> provides basic information on the project and its outcomes, while the news and events section and the national sites within the ATS2020 portal, provide more context-based news and events for every participating country.

It was very important, however, to create the ATS2020 resource portal <http://resources.ats2020.eu>, so as to bring together the resources developed from all project teams, to have a common reference point and to create a place for autonomous self-directed learning for teachers. The portal structure reflects the areas that needed to be covered regarding resources and tools.



*Main categories of the ATS2020 online resources and tools repository*

First of all, the elements of the learning model are explained on a theoretical and pedagogical level. Educational resources regarding ePortfolio, formative assessment and transversal skills were gathered in ATS2020 resource portal (<https://resources.ats2020.eu/leterature-review>), but also in Mahara, for the needs of the training workshops (<https://mahara.ats2020.eu/view/view.php?id=178>).

A powerful resource for ATS2020 teachers is the provision of a collection of learning designs that follow the learning model (<https://resources.ats2020.eu/learning-designs>). The learning designs provide ideas for different subject areas and can be used to help teachers prepare the learning cycles according to ATS2020 skills framework. Teachers were free to use them, adapt them or take them as a starting point for their ideas. The learning designs, as a resource, are expected to provide teachers an insight and an understanding of how their own learning designs and lessons could look like, to provide examples of the education process regarding what to teach, how to teach and how to assess in the framework of the project. The pool of learning designs helps the teachers to envision the teaching process with the incorporation of the ATS2020 methodology. On project level, the first 20 complete learning designs were created before the beginning of the implementation and were uploaded to the resource portal. They were created by a teacher trainer to have the teacher's perspective on the model. The list of those lessons with links to the lessons in the resource portal can be found in the table below.

No	Primary/ Gymnasium	Grade	Subject	Title and Description	Link to Resource Portal
1	Gymnasium	C	ART	Self-portraits – Exploration of Identity	<a href="https://resources.ats2020.eu/resource-details/LEDE/Artselfportraits">https://resources.ats2020.eu/resource-details/LEDE/Artselfportraits</a>
2	Gymnasium	A	GEOGRAPHY	Sustainable Development	<a href="https://resources.ats2020.eu/resource-details/LEDE/SustainableDevelopment">https://resources.ats2020.eu/resource-details/LEDE/SustainableDevelopment</a>
3	Gymnasium	A	HISTORY	Archaic Period Art	<a href="https://resources.ats2020.eu/resource-details/LEDE/historyarchaicperiodart">https://resources.ats2020.eu/resource-details/LEDE/historyarchaicperiodart</a>
4	Gymnasium	B	MATH & ICT	Introduction to research	<a href="https://resources.ats2020.eu/resource-details/LEDE/lessonIntroResearch">https://resources.ats2020.eu/resource-details/LEDE/lessonIntroResearch</a>
5	Gymnasium	B	ENGLISH LANGUAGE	Endangered Animals Online Campaign	<a href="https://resources.ats2020.eu/resource-details/LEDE/EndangeredAnimals">https://resources.ats2020.eu/resource-details/LEDE/EndangeredAnimals</a>
6	Gymnasium	A'	ENGLISH LANGUAGE	Fairy-tales writing	<a href="https://resources.ats2020.eu/resource-details/LEDE/WritingFairytale">https://resources.ats2020.eu/resource-details/LEDE/WritingFairytale</a>
7	Gymnasium	C	HOME ECONOMICS – HEALTH EDUCATION	Volunteering	<a href="https://resources.ats2020.eu/resource-details/LEDE/Volunteering">https://resources.ats2020.eu/resource-details/LEDE/Volunteering</a>
8	Gymnasium	B	HOME ECONOMICS – HEALTH EDUCATION	Bullying	<a href="https://resources.ats2020.eu/resource-details/LEDE/Bullying">https://resources.ats2020.eu/resource-details/LEDE/Bullying</a>
9	Gymnasium	A	GREEK LANGUAGE	Argumentative Talk (Unit 3: Journey in the World of Nature)	<a href="https://resources.ats2020.eu/resource-details/LEDE/argumentative">https://resources.ats2020.eu/resource-details/LEDE/argumentative</a>
10	Gymnasium	C	GREEK LANGUAGE	Unit 3: We are all different. We are all the same	<a href="https://resources.ats2020.eu/resource-details/LEDE/different">https://resources.ats2020.eu/resource-details/LEDE/different</a>
11	Primary	Sixth Grade	GEOGRAPHY	Tropical Africa - Chapter 4: Tropical flora and fauna, Chapter 5: Natural Wealth	<a href="https://resources.ats2020.eu/resource-details/LEDE/africa">https://resources.ats2020.eu/resource-details/LEDE/africa</a>
12	Primary	Fifth Grade	GEOGRAPHY	Tourist Development of Cyprus	<a href="https://resources.ats2020.eu/resource-details/LEDE/tourism">https://resources.ats2020.eu/resource-details/LEDE/tourism</a>
13	Primary	Fifth Grade	HEALTH EDUCATION	Children's party organisation Unit 2: Development of safe and healthy lifestyle Subunits: 2.1 Healthy lifestyle and living conditions 2.2 Food & Health	<a href="https://resources.ats2020.eu/resource-details/LEDE/childrenpartyorganisation">https://resources.ats2020.eu/resource-details/LEDE/childrenpartyorganisation</a>
14	Primary	Sixth Grade	HEALTH EDUCATION	Internet Safety Unit: Safety	<a href="https://resources.ats2020.eu/resource-details/LEDE/internet_safety">https://resources.ats2020.eu/resource-details/LEDE/internet_safety</a>
15	Primary	Fifth grade	GREEK LANGUAGE	Unit 11: Games – Electronic Games	<a href="https://resources.ats2020.eu/resource-details/LEDE/games">https://resources.ats2020.eu/resource-details/LEDE/games</a>
16	Primary	Sixth Grade	GREEK LANGUAGE	Unit 16 – Museums	<a href="https://resources.ats2020.eu/resource-details/LEDE/museum">https://resources.ats2020.eu/resource-details/LEDE/museum</a>
17	Primary	Fifth Grade	SCIENCE	Classification of living organisms	<a href="https://resources.ats2020.eu/resource-details/LEDE/living_organisms">https://resources.ats2020.eu/resource-details/LEDE/living_organisms</a>
18	Primary	Sixth Grade	SCIENCE	Soil	<a href="https://resources.ats2020.eu/resource-details/LEDE/soil">https://resources.ats2020.eu/resource-details/LEDE/soil</a>
19	Gymnasium	C	MATHEMATICS	Unit 7: Solid Geometry – Surface area and volume of prism	<a href="https://resources.ats2020.eu/resource-details/LEDE/prism">https://resources.ats2020.eu/resource-details/LEDE/prism</a>
20	Gymnasium	B	HISTORY	Justinian A' and his work (527-565)	<a href="https://resources.ats2020.eu/resource-details/LEDE/justinian">https://resources.ats2020.eu/resource-details/LEDE/justinian</a>

*Initial pool of exemplar learning designs*



The “Impressionism” learning design ([https://resources.ats2020.eu/udata/contents/files/Resources/Learning-designs/ATS2020\\_WA3\\_TrainersActivityLearningDesign\\_Impressionism.pdf](https://resources.ats2020.eu/udata/contents/files/Resources/Learning-designs/ATS2020_WA3_TrainersActivityLearningDesign_Impressionism.pdf)) was used in the transnational training of the trainers as the activity in which trainers took the role of the students to go through the activities of the lesson plan and then as teachers they discussed and reflected upon the learning design and how the ATS2020 model was incarnated in the learning design.

All countries developed learning designs and shared them with the participating teachers in the portal and through the national training programmes.

For the designing of the Learning Cycles based on ATS2020 model, the methodology of Visualised Learning Design has been adjusted for the needs of the project. Specifically, for the learning design, a template was used, that was consisted of three levels: macro level, meso level and micro level. In the macro level, the objectives of the curriculum (knowledge and subject specific skills) would be chosen and connected with the ATS2020 targeted transversal skills, then the activities and tasks for the achievement of the learning and skill goals are described and the expected learning outcomes and assessment are presented. The micro level presents in detail the activities of the lesson that are to be implemented. The activities in the micro level are aligned with the subject area goals and transversal skills, what the teacher does in every activity, what materials and tools are needed, the methodology – class arrangement and how the achievement of the goals is assessed. The template used for the learning designs is available in the portal: [https://resources.ats2020.eu/resource-details/ADM/LD\\_template](https://resources.ats2020.eu/resource-details/ADM/LD_template). The process of writing learning designs in this form, aimed to help the teachers think deliberately about choosing learning objectives and transversal skills, creating activities that meet the learning and skill goals, be prepared for the lesson regarding materials and tools and create assessment that corresponds to the expected outcomes. Therefore, if the teacher is more prepared and made the connections between goals, activities and assessment the lesson should be more meaningful to students.

Teachers from all the countries could share their learning designs in the resource portal as examples for other teachers to use, to get ideas from and to give other teachers an insight on how the model is implemented in action. Exemplar Learning scenarios from all countries, are also presented in Deliverable 3.3 “*Learning Designs booklet*” ([https://resources.ats2020.eu/resource-details/LEDE/ld\\_booklet](https://resources.ats2020.eu/resource-details/LEDE/ld_booklet)).

Examples of ePortfolios are also presented in the portal as examples of good practices <https://resources.ats2020.eu/Exemplar-ePortfolios>. In addition, at the same space, videos of students presenting their ePortfolios and their experience in the project can be found.

A set of scaffolding assessment tools were created with the intention of helping ATS2020 teachers assess ATS2020 skills during, as well as after the completion of each learning cycle. They were uploaded in the resource portal and presented in trainers’ seminars. The following table shows the main assessment tools created for the project. Teachers could select some, according to purpose and context, in order to assess and gather evidence on their students’ development of transversal skills. Other assessment tools were uploaded relating more specific tasks for example the creation of a presentation, a Mahara page, a poster. Most assessment tools took the form of rubrics with grades or levels, with or without detailed descriptions for each level.

Formative Assessment Scaffolding tools			
What	When	Who	File location
Assessment Scaffolding Tool for students' ePortfolios	For each unit and at the end of the Learning Cycles	Teacher	<a href="https://resources.ats2020.eu/resource-details/SCTS/assessmentToolePortfolio">https://resources.ats2020.eu/resource-details/SCTS/assessmentToolePortfolio</a>
Formative Assessment Scaffolding Tool of Students' Competences and Skills for Teachers	For each unit and at the end of the Learning Cycles	Teacher	<a href="https://resources.ats2020.eu/resource-details/SCTS/assessment-scaffolding-tool">https://resources.ats2020.eu/resource-details/SCTS/assessment-scaffolding-tool</a>
Formative Self-Assessment Scaffolding Tool of Students' Competences and Skills	For each unit and at the end of the Learning Cycles	Students	<a href="https://resources.ats2020.eu/resource-details/SCTS/assessment-student">https://resources.ats2020.eu/resource-details/SCTS/assessment-student</a>
Formative Self-Assessment Scaffolding Tool of Students' Competences and Skills-Extended version	When deemed necessary by the teacher	Students	<a href="https://resources.ats2020.eu/resource-details/SCTS/assessment-skills-student-extended">https://resources.ats2020.eu/resource-details/SCTS/assessment-skills-student-extended</a>
Self-Assessment Scaffolding Tool for Students' Autonomous Learning Skills (My Learning Journal)	For the assessment of students' My Learning Journals whenever is deemed necessary by the teacher	Students	<a href="https://resources.ats2020.eu/resource-details/SCTS/MyLearningJournal_assessment">https://resources.ats2020.eu/resource-details/SCTS/MyLearningJournal_assessment</a>

Another type of resource are the guides for the tools. ATS2020 teachers would use online learning platforms that they weren't familiar with, therefore, besides training, it was considered essential for teachers to have guides for the tools that they were going to use. In the resource portal a special section was dedicated for that purpose (<https://resources.ats2020.eu/guides-for-tools>). Guides regarding the use of Mahara and Office365 were created according to the teachers' need. Of course, it should be noted, that teachers during the implementation have received a lot of personalised support on the use of the platforms from their trainers, either during school visits or by responding to specific requests and queries over the phone and via email.

Resources were also created for the ATS2020 project teams and trainers. They were collected in the resource portal at <https://resources.ats2020.eu/administrative> and were shared with partners in meetings and through Office 365 SharePoint. Those resources include administrative work documents necessary to implement the project like templates for consent forms, guide to upload material to the resource portal, templates for the learning journal and learning designs, guide cards for students and teachers, certificate samples etc.

A **training booklet** was created before the implementation of the project for the trainers and participating teachers with the aim of introducing teachers and trainers to the ATS2020 project and to provide a starting resource material to support the ATS2020 Trainers Community of Practice regarding the implementation of ATS2020 learning model for the development and assessment of transversal skills. The booklet is available at [https://resources.ats2020.eu/resource-details/ADM/training\\_booklet](https://resources.ats2020.eu/resource-details/ADM/training_booklet). The booklet provides a theoretical background regarding transversal skills for the 21st century, assessment for learning and ePortfolios in order to share a common understanding. Then, examples of previous implementations and more specifically the ATS2020 project and its implementation, are presented and implementation issues and recommendations are discussed. Furthermore, the two main ePortfolio tools (Mahara and O365) to be used in this project are presented and examples of learning activities developed for ePortfolio use are given for further guidance. Lastly, a suggested

implementation path is outlined as guidance for the in-classroom implementation of the ATS2020 learning model.

A **toolkit** was also created for the implementation of the ATS2020 learning model. It is available at <https://resources.ats2020.eu/resource-details/ADM/toolkit>. This toolkit can be used by schools and teachers to implement the ATS2020 learning model on their own. The ATS2020 toolkit aims to guide school leaders and teachers towards the implementation of the ATS2020 learning model in their schools with their students. It provides some general guidelines, along with step by step implementation suggestions. At the same time, it provides references to resources and tools that support the implementation, as well as examples and tips for good practice. The guide consists of two parts. Part A discusses the basic elements of the learning model, so as to achieve a common understanding among all parties involved. Part B presents a step by step guide to support the schools and teachers for the ATS2020 implementation.

The toolkit is part of the dissemination material for the project with the aim to support its exploitation. Other dissemination material includes presentations for schools about the project, leaflets and brochures.

For a complete review of the resource portal and training material and resources please consult Deliverable 3.2. *“Training Material and Resources”*.

## DISCUSSION

More than 570 ATS2020 experimenting teachers all over Europe received training and support to implement lessons that involve the development and assessment of transversal skills, based on the ATS2020 learning model. Their professional learning involved the use of innovative teaching and learning approaches, such as the use of ePortfolios as a learning process, approach assessment of, for and as learning, involve students in the planning of their own learning, employ technology enhanced pedagogy. In order to do so, a mutual satisfying and rewarding interaction took place among trainers, project team and teachers, in providing support in every step of the process. The whole process was a learning experience for all.

The ATS2020 learning model consists of many innovative elements. That meant that effort and time was needed for teachers' training, both on behalf of the trainers and the teachers. Every element of the model was quite complex for the teachers to attain, given their different pedagogical background, varied educational system context, digital competency and limited teachers' available time. Trainings compensated different learning needs and more personalised support was provided school-based. The online learning platforms, though easy to use for digital environments users, were quite complex for a lot of teachers who were not accustomed to such environments. The lack of ICT skills from some teachers, made things even more difficult for them, since they needed to learn about all the integrated tools. In such cases, co-teaching and collaboration among teachers was very efficient, as more technical oriented teachers were supporting the work of the coaches.

The training and personalised support that the teachers received from their coaches was very important for teachers' professional development. School-based training and support, in real classroom situations, and when the teacher needed it, was a rewarding feature of the CPD programme. It is obvious, though, that such complex learning models need a progress in time, in order to be integrated in the teachers' teaching practice. In most cases, the progress of the ATS2020 teachers' professional learning, and more specifically their digital skills as well as their understanding of the innovative pedagogical approaches incorporated in the ATS2020 learning model (such as ePortfolio as a learning process, formative assessment, My Learning journal, designing lessons for transversal skills and digital enhanced pedagogy) was obvious at the end of the classroom implementations. It

is important to mention how some teachers were commenting during the final conference, that “Now, after the learning cycles I implemented, I understand what the ATS2020 learning model encompasses. Next year I will know better what to do without the support of my coach”.

Communities of practice was also an integral part of the ATS2020 CPD programme. Even though, both online asynchronous and synchronous opportunities were in place, teachers’ engagement in transnational level did not reach satisfying numbers of participation. This might be due, to teachers’ preference to participate in local communities because of some teachers’ lack of confidence in using a foreign language. It could also be that teachers’ time is limited as they have tight time schedules that did not leave them enough time for the expected interaction.

A rich pool of resources and tools was also an important part of the CPD programme. The resource portal developed provided a good number of resources in many languages and in a dynamic and easy way to use. Even though, resources have been uploaded from different countries, more material was produced that has not yet been shared. The portal seems not to be exploited, as expected, to its full potential by all teachers. One reason might be that during the experimentation, teachers could find the resources in their national portals and communities of practice, so they did not need the portal as much. However, the portal is live, and since schools and countries continue implementing the ATS2020 learning model, the portal is continuously updated. At the same time, the resource portal has become a place for lifelong learning, where teachers go and locate useful material, information and tools, to support their professional learning.

To sum up, the progress of the ATS2020 teachers’ professional learning was evident at the end of the experimentation. The “Train the Trainers” workshop was the base line for the national trainings, based on the participants’ comments and reflections, it was successful. Furthermore, during the whole implementation process as well as in the final conference, it was rewarding to see innovative learning designs and students’ ePortfolios, where transversal skills were prominent.

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