





MENTEP National Workshop report Italy 7 December 2017

The aim of the national workshops was to discuss and interpret at country level the results and data analysis from the MENTEP field trials with National Public Authorities. In particular, the objectives were for national stakeholders to get acquainted with the results at national and European level, to interpret them within the national policy and practice context, but also to develop the implications and next steps for teacher training and the adaptation and sustainability of the technology enhanced self –assessment tool TET-SAT.

Each MENTEP partner that participated to the field trials organised a workshop in its own country (Cyprus, Czech Republic, Finland, France, Greece, Estonia, Italy, Lithuania, Spain, Portugal, Slovenia). MENTEP partners were asked to invite between six and fifteen participants with a core interest in the project: policy makers, researchers, teachers, representatives from teacher training organisations, teacher training curriculum authorities and inspectorates.

The Italian national workshop took place on 7 December 2017 at the office of the MENTEP partner organisation INDIRE in Firenze. 18 participants attended the workshop, including representatives from European Schoolnet (2), the research institute for the evaluation of public policies IRVAPP (1), the MENTEP partner organisation INDIRE (8), the University of Florence (1), the University Bicocca Milan (1), head teachers (2), and teachers and digital animators responsible for teachers' training on digital topics at school (3).





Presentations & Discussion

This national Discussion Workshop Report summarises the conclusions reached in the national workshop in Italy. It consists of the following sections, each time



summarising the key points of the presentation and the discussion afterwards, both with a particular focus on the most striking findings evolving from the data analysis within the context of Italy and the impact of the TET-SAT.

- 1. About the MENTEP project
- 2. The new self-assessment tool TET-SAT
- 3. The research design of the policy experimentation
- 4. Results of the experimentation national descriptors
 - The response rates to the Follow-Up Survey (FUS)
 - The characteristics of the MENTEP teachers
 - Teachers' use of the TET-SAT: Numbers, satisfaction & feedback score
- 5. Results of the experimentation the impact of the TET-SAT
- 6. National and international developments in relation to the TET-SAT, competence assessment and certification
- 7. Conclusions & next steps in Italy

Gabriella Taddeo, MENTEP national partner, INDIRE, chaired the workshop. In the morning, she welcomed workshop participants and introduced the goals of this workshop: to discuss the MENTEP research results and analyse them further as well as to discuss the further implementation of the TET-SAT. The idea is that self-assessment is a first step for teachers' development. The TET-SAT could also be promoted in connection to other tools and frameworks, according to Taddeo.

Then, European Schoolnet set the scene with two presentations on the rationale of the MENTEP project and the newly developed self-assessment tool TET-SAT, which was tested during the field trials.

1. Presentation: About the MENTEP project

Anja Balanskat, European Schoolnet, presented the rationale of the MENTEP project: As a policy experimentation, it is not "just" a project but the aim is to test an intervention resulting in reliable evidence based on a strong methodology. European Schoolnet coordinates the project, with 15 partners from 13 countries. Workshop participants had no particular comments on this presentation.

Find out more here;

Presentation available here

2.a Presentation: The new self-assessment tool TET-SAT

Katja Engelhardt, European Schoolnet, also introduced workshop participants to the new self-assessment tool <u>TET-SAT</u> that the MENTEP consortium developed, with the help of experts, on the basis of existing tools and frameworks. The TET-SAT aims to trigger teachers' self-reflection, identify learning needs and initiate actions to further develop their competences. The tool assesses four dimensions of digital competence: digital pedagogy, digital content use and production, digital communication and collaboration and digital citizenship. Teachers are invited to position themselves for each competence choosing the one of 5 statements that most closely describes their practice. After answering the 30 questions, teachers receive personalised feedback, including links to national and European ecosystems of training resources mapped against the competence areas of the tool.

Try out the <u>TET-SAT</u> here; Presentation available <u>here</u> For further information: MENTEP Brochure 2017

2.b Discussion: The new self-assessment tool TET-SAT

After the presentation, workshop participants discussed possible improvements of the tool itself (level descriptions of the TET-SAT, the feedback page). However, they dedicated most attention to possible improvements of the ecosystems with training resources, and possibilities to further guide and support teachers' use of the TET-SAT.

Improvements of the TET-SAT

• It is too easy to detect the level that each answer option represents (teacher). Another teacher disagreed with this statement. Giovanni Abbiati (IRVAPP) commented that it is unavoidable that teachers have an idea of what answer items represent the low/high levels. However, normally they should not have an incentive to cheat. Some answer options can be ambiguous, a teacher added. It really depends on the actual wording and some answer options could be still more precise, according to Anja Balanskat (EUN). Finally, one teacher commented that the descriptions in the area digital competence contained too many personal views; they should be more competences based.

TET-SAT Feedback page

• We tried to make the feedback page encouraging for teachers, but perhaps it would be good to give teachers some more concrete recommendations (Anja Balanskat, EUN).



• It would be useful, if teachers could see their own answers again as part of the feedback page (teacher).

Ecosystems with training resources

- Learning paths could frame the training resources and help teachers to select the right resource (teacher). Otherwise, filters as a way to categorise different resources would also be an interesting option (INDIRE). Gabriella Taddeo (INDIRE) agreed. Metadata could help to link resources to relevant competences, also for external resources, and thereby increase the inter-operability of the TET-SAT.
- INDIRE already started to frame all the resources. Another possible solution is to publish guidelines with a grid so that users know immediately what each resource is about (teacher).

More guidance for teachers

- Self-assessment is just frustrating, if the exercise is not connected to self
- regulated learning. Therefore, some support should be offered to teachers (University of Florence).
- Teachers need some guidance before and after filling in the TET-SAT. Teachers might be tempted to go through the questions quickly to see their results. However, it is important to tell them that filling in the TET-SAT takes some time and concentration (teacher).
- The TET-SAT is an interesting tool, but possibly rather for teachers that already have a certain level of competence, as beginners might feel a bit lost (teacher).
- As teachers do not have a lot of time, the benefit of using the tool needs to be clear to them. To that end, the links to the resource pages need to be highlighted, and a light coaching should be in place to support teachers, as "just knowing that I do not know something is not enough." (Maria Ranieri, University of Florence).

Encourage teacher collaboration

- Perhaps it would be possible to connect teachers with a low score (and those with a high score) with each other via social networks, provided that there is a sufficient level of trust (INDIRE).
- Developing teachers' digital competence is also an organisational challenge. It is not only the task of the individual teacher to make progress. Hence, it can be very helpful to complement this self-reflection also with group activities with other teachers (INDIRE).

3.a Presentation: The Research design of the policy experimentation

Giovanni Abbiati (IRVAPP, responsible for the MENTEP evaluation) presented first the evaluation question, the counterfactual approach, the experimental design and the data collection plan. The evaluation question of the policy experimentation was: What is the impact of the Technology-Enhanced Teaching Self-Assessment Tool (TET-SAT) on teachers' TET competences?

More information about the research methodology here; Presentation available here

3.b Discussion: The research design of the policy experimentation

- Was the tool validated before the experimentation (Maria Ranieri, University of Florence)? The TET-SAT was validated by experts; also via feedback rounds with Ministries of Education and teachers (Anja Balanskat, European Schoolnet).
- How similar was the Benchmark Survey to the TET-SAT (Maria Ranieri, University of Florence)? Both instruments were deliberately designed very differently: the BS used a validated scale of self-assessment with a likert scale from 1 to 10, while the TET-SAT presented different teaching scenarios.
- It could have been interesting to first pilot the TET-SAT with a smaller group of teachers before the actual field trials. That would have helped to simplify the tool, as it is quite challenging. (Maria Ranieri, University of Florence).



4.1 Presentation: Results of the experimentation - national descriptors

Giovanni Abbiati (IRVAPP) then presented first results: in particular the context of the experimentation:

- a. The response rates to the Follow- UP Survey (FUS)
- b. The characteristics of the MENTEP teachers
- c. Teachers' use of the TET-SAT: Numbers, satisfaction & feedback score

Presentation available here

4.1.a Presentation: Response rates to the Follow-Up Survey (FUS)

In Italy, 50 schools participated in MENTEP. 1752 teachers from those schools were invited to fill in the Benchmark Survey. The 745 teachers that accepted this invitation are our sample. The response rates to the MENTEP Follow- Up survey are with 76.5% very close to the overall response rate of 75.6%.

4.1.b Discussion: Response rates to the Follow-Up Survey (FUS)

After the presentation, INDIRE emphasised that schools heads played a key role in encouraging teachers to fill in the BS and the FUS. School heads, however, did not encourage teachers to use the TET-SAT, as the use of the tool was completely voluntary. The National Coordinator also played a crucial role, as it was not easy to encourage teachers to fill in both surveys (INDIRE). In reply to Maria Ranieri (University of Florence), Giovanni Abbiati (IRVAPP) stated that possibly less encouraged than non-encouraged teachers replied to the FUS because they had enough of receiving emails (to invite them to fill in the BS, the TET-SAT and the FUS). In general, sending out emails is not the most efficient way to reach teachers. Gabriella Taddeo (INDIRE) added that some teachers got confused between the three invitations and replied to the national coordinator that they had already filled in the survey.







4.2.a Presentation: Characteristics of MENTEP teachers

General characteristics

In Italy, teachers are slightly older than the overall overage, with only 10% of Italian teachers being younger than 40 years old (25% overall), 34% between 40 and 50 (36% overall), and 56% over 50 years old (39% overall).

Teachers' self-assessed TET-ability, use of ICT and attitudes

The sampled teachers participating in the Benchmark Survey showed a good familiarity with ICT, self-assessed their TET ability as very high and had very positive views about ICT in teaching & learning.

Teachers' self-assessed TET-ability

Teachers' self-assessed ability in Italy is generally quite high, close or above the overall average for all items, e.g. 90% of Italian teachers (90% overall) state that they are able to stimulate students to use ICT in a critical manner. Further, 73% (71% overall) are able to "(re)design ICT applications in creating a learning environment."

Teachers' self-assessed TET-ability. Percentage of teachers that agree with the proposed statements

I am able to	Agreement	
	Overall	Italy
Stimulate students to use ICT in a critical manner	90%	90%
Support students in searching information by means of ICT	95%	92%
Support students to communicate with ICT in a safe, responsible and effective way	90%	85%
(Re)design ICT applications in view of a specific educational setting	71%	73%
Select ICT applications effectively in creating a learning environment	77%	76%

^{* &}quot;Agreement": percentage of teachers who slightly agree, agree, totally agree

Teachers' views on ICT in teaching

Teachers' views on the use of ICT in teaching are generally quite positive. 94% of Italian teachers (94% overall) agree that using ICT at school "enables students to access better sources of information". In Italy, 88% of teachers (76% overall) agree that using ICT at school "helps students to develop greater interest in learning". Further, 79% of Italian teachers (65% overall) agree that using ICT "helps students develop skills in planning and self-regulation of their work"; 76% of Italian teachers (60% overall) agree that using ICT at school improves students' academic performance.

Using ICT at school	Agreement	
	Overall	Italy
Enables students to access better sources of information	94%	94%
Helps students to consolidate and process information more effectively	84%	89%
Helps students learn to collaborate with other students	75%	80%
Enables students to communicate more effectively with others	64%	73%
Helps students develop greater interest in learning	76%	88%
Helps students work at a level appropriate to their learning skills	76%	81%
Helps students develop skills in planning and self-regulation of their work	65%	79%
Improves academic performance of students	60%	76%

^{* &}quot;Agreement": percentage of teachers who agree and strongly agree

Teachers' actual use of ICT

On the actual use of ICT, e.g. 92% of teachers in Italy (92% overall) used ICT "to present information through direct class instruction". Further, 90% of Italian teachers (77% overall) used ICT to provide "remedial or enrichment support to individual students or small groups or students" and 94% of Italian teachers (76% overall) used ICT to support inquiry learning. However, only 45% of teachers in Italy (61% overall) used ICT to communicate with students out of the classroom.

Teachers' actual use of ICT in teaching and learning. Percentage of teachers that agree with the proposed statements

I used ICT to support this activity	At least in some lessons	
	Overall	Italy
Presenting information through direct class instruction	95%	92%
Providing remedial or enrichment support to individual students or small groups of student	77%	90%
Enabling student-led whole-class discussions and presentations	74%	75%
Assessing students' learning through written tests	56%	55%
Providing feedback to students	76%	70%
Reinforcing learning of skills through repetition of examples	85%	92%
Supporting collaboration among students	75%	80%
Mediating communication between students and experts or external mentors	31%	38%
Enabling students to colla borate with other students (within or outside school)	56%	54%
Collaborating with parents or guardians in supporting students' learning	56%	40%
Supporting inquiry learning	76%	94%
Assigning written task/ exercises / homework to students	77%	76%
Facilitating / supporting individual or collaborative oral presentation by students	82%	82%
Communicating with students out of the classroom	61%	45%

Teacher collaboration on the use of ICT

Overall, teachers' collaboration on the use of ICT is moderate. For instance, 42% of Italian teachers (56% overall) "work together with other teachers on improving the

use of ICT in classroom teaching". Further, 45% of Italian teachers (38% overall) "work with other teachers on cross-curricula projects involving ICT".

Teacher collaboration on the use of ICT in teaching

		yes	
	Overall	Italy	
I work together with other teachers on improving the use of ICT in classroom teaching	56%	42%	
I collaborate with colleagues to develop ICT based lessons based on the curriculum	42%	35%	
I observe how other teachers use ICT in teaching	48%	36%	
I work with other teachers on cross-curricula projects involving ICT	38%	45%	

4.3.a Presentation: Teachers' use of the TET-SAT: Numbers, satisfaction & feedback score

Number of teachers using the TET-SAT

Overall, 24.2% of encouraged teachers in Italy used the TET-SAT, compared 33.8% of teachers overall. Most teachers that started using the TET-SAT also completed it (45 out of 62 Italian teachers, 734 out of 930 teachers overall). Encouraged teachers that did not use the TET-SAT were asked for their reasons at the FUS: Overall, 32% (33% in Italy) stated that they were unaware of it, followed by time constraints (30% overall, 30% in Italy).

Teachers' satisfaction with the TET-SAT

On average, Italian teachers have graded the TET-SAT 7.8 (7.5 overall) on a scale from 1 (low) to 10 (high). A large share of teachers finds the TET-SAT useful, e.g. 74% of Italian teachers agree that the "TET-SAT helped me to assess my competence" (64.4% overall). In Italy, 69% of those teachers that used TET-SAT agreed that it helped them to re-think the use of ICT in their teaching (61.6% overall).

Teachers' feedback score

Observed score ranges between 25% and 95%

Score	Overall	Italy
Overall score TET-SAT	53.2	53.2
Score by area		
Digital pedagogy	53.8	52.6
Digital content use and production	50.5	50.0
Digital communication and collaboration	47.8	47.4
Digital citizenship	55.3	58.0

5.a Presentation: Results of the experimentation - The impact of the TET-SAT

The effects of the TET-SAT are reported on the overall sample. It was not possible to estimate the impact of the tool at the country level but only at the aggregate level. The impact evaluation results show that using the TET-SAT leads teachers to develop more informed and critical assessments of their TET competence. After using the TET-SAT, teachers tend to have a more critical perception of their level of TET competences. Their self-assessed ICT ability decreases (especially among older teachers and women). Moreover, teachers who used the TET-SAT showed slightly more critical views on ICT in teaching and learning, especially those who started with a very high self-assessed TET competence. The data suggests that the feedback score is really crucial. The feedback score only partly explains why teachers revise their views on ICT after using the TET-SAT. Another possible explanation is that the use of the TET-SAT made teachers more critical and aware of the role of ICT in teaching and learning; their revised view could be a more informed one. This was the first randomised control trial in education with 11 countries and thus quite complex.

Presentation available <u>here</u>; More information available <u>here</u>

5.b Discussion: Results of the experimentation - The impact of TET-SAT

After the presentation, Giovanni Abbiati (IRVAPP) replied to workshop participants' questions on the research design and possible explanations of the research results.

- The TET-SAT is a metacognitive tool that is contextualised with scenarios. After using the TET-SAT, teachers are more critical, because teachers realised what they are able to do and what they cannot do. The TET-SAT also helps teachers to realise how they can improve their TET ability. It is different from other frameworks (teacher). Giovanni Abbiati (IRVAPP) agreed. Teachers discovered their "true level" and how many things they did not know. After using the TET-SAT, teachers have a less naïve opinion on the use of ICT in teaching.
- How can teachers make use of their critical self-reflection to progress further and develop their competences? Perhaps, more guidance and support is necessary.
- Do you have an idea on how teachers improved their digital competences and what was their learning process? How did teachers select resources? (teacher). It was only possible to track whether teachers clicked on the ecosystems with training resources, which not many teachers did, Giovanni Abbiati (IRVAPP) replied.

- The "information shock" is something that we inferred from the comparison between the self-assessed starting level at the BS and the TET-SAT score. Teachers were not asked directly what they felt, according to Giovanni Abbiati (IRVAPP).
- It would have been good to ask teachers as part of the FUS what actions they are planning to take, e.g. peer education, face-to-face training (Maria Ranieri, University of Florence). Giovanni Abbiati (IRVAPP) agreed. The idea was to get information through other items such as collaboration with other teachers, which did not happen. However, we cannot stop with the impact evaluation at teachers' downward revision of their TET ability and belief, as there was not enough time for teachers to go further.

6. National and international developments in relation to the TET-SAT, competence assessment and certification

Anja Balanskat, European Schoolnet, gave an overview of international and European initiatives related to the development of competence frameworks and tools for teachers including an update of the work by UNESCO, JRC and ISTE.

Andrea Benassi presented the Edmodo environment for teachers. Edmodo is an open source software hosted on the server of INDIRE. In this online environment, teachers learn how to write a script during class hours, where they get feedback from their tutor and can interact with other teachers. Teachers can follow a course of several weeks where they learn how to code and create a virtual exhibition at the end. Teachers can also use the Edmodo environment to engage their students in the creation of content. As part of the MENTEP project, INDIRE looked into the possibilities of using virtual environments such as Edmodo to challenge and test teachers' digital competences.



7. Discussion: Conclusions & next steps in Italy

- The use of the TET-SAT could be very interesting, if it was linked more closely to other frameworks and tools, e.g. the school improvement plan that schools in Italy have to prepare. Schools first self-evaluate themselves and then prepare their improvement plan on that basis. As digital competence is a crucial part, it may be relevant for teachers to use the TET-SAT as part of this exercise in order to identify possible training needs and to re-do it after 3 years (INDIRE).
- Giovanni Abbiati (IRVAPP) welcomed this idea on the further use of the TET-SAT. Linking the TET-SAT to the school implementation plan could be very interesting. In Italy, quite a few schools were not eligible to participate in the experimentation, as they did not have sufficient ICT infrastructure. Hence, it is also important to ensure that the technical infrastructure is in place.
- INDIRE will make a proposal to the Ministry on how to integrate the TET-SAT.







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