

**MENTEP**

MENTORING TECHNOLOGY-ENHANCED PEDAGOGY

# National Workshop report Estonia

Tallinn  
January 2018



# MENTEP National Workshop report Estonia Tallinn, 16 January 2018

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 Estonian national workshop took place on 16 January 2018 in Tallinn. 15 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 HITSA (4), eu-LISA (1), the Ministry of Education and Research (3), Pelgulinna Gymnasium (1), Tallinn University (2) and the University of Tartu (1).

Heli Aru-Chebilan, and Aivar Hiio, MENTEP national partner, HITSA, chaired the workshop.



## Presentations & Discussion

This national Discussion Workshop Report summarises the conclusions reached in the national workshop in Estonia. 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 Estonia 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 Estonia.

In the morning, Heli Aru-Chebilan, Chairwoman of HITSA, welcomed the workshop participants. She emphasised that the Ministry of Education was very interested in improving teachers' digital competence. In preparation of the new strategy for the next 3 years, HITSA prepared a statistical overview last year. 40% of teachers have participated in HITSA training at least once. However, not all of them use technology in their teaching. "We need to understand why that is the case, to have a clearer idea about what needs to be improved. We want to get the message across to teachers that technology can help them in their teaching", according to Heli Aru-Chebilan.

After this introduction, 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

Patricia Wastiau, 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. She emphasised that putting reliable evidence at the service of the participating Ministries of Education was an important goal of the project. European Schoolnet coordinates the project, with 15 partners from 13 countries.

Find out more [here](#); Presentation available [here](#)



## 2. Discussion: About the MENTEP project



### The research methodology

- Do you have an overview of what the research says about how self-assessment impacts on teachers' wish to self-develop? How can we use this information to get more teachers interested in using the tool (HITSA)? In reply, Patricia Wastiau (EUN) stressed that research suggests that teachers are not a homogenous group. This specific policy experimentation looked in the beginning at self- and peer assessment. The way to go will be a set of diversified approaches.
- Can we say that teachers who self-assess themselves do more in teaching (Ministry of Education and Research)? Davide Azzolini (IRVAPP) replied that within MENTEP, information on teachers' digital competence are collected via the Follow-Up Survey (FUS) using validated scales and the TET-SAT, for which coming up with a validation is more difficult. Defining digital competence is still at a preliminary stage, with several frameworks existing.

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

Katja Engelhardt, European Schoolnet, also introduced workshop participants to the new self-assessment tool [TET-SAT](#) 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 [TET-SAT](#) here; Presentation available [here](#)  
For further information: [MENTEP Brochure 2017](#)

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

After the presentation, workshop participants commented on the tool itself, as well as the Competence Evidence Template that teachers used to illustrate their competence level as part of the MENTEP MOOC "[Progressing Technology-Enhanced Teaching](#)".



### The tool itself

- It is useful that teachers can fill in the tool during several different sessions.
- Sometimes, teachers might be undecided e.g. between level 2 or 3. Possibly teachers might also underestimate their own competence (Ministry of Education and Research). Davide Azzolini (IRVAPP) commented that there is a degree of subjectivity in the selection of the most true answer option.
- It would be preferable to be able to receive feedback per area instead of only getting feedback after replying to all questions.
- A note to users could be added that before selecting one answer option they should think about which evidence they could provide for this competence level (Development Manager, Pelgulinna Gymnasium).
- There should be a notification that the the order of the answer options is mixed (University of Tallinn).

### Evidence Templates illustrating the levels

- The Evidence template used in the MENTEP MOOC to ask teachers to illustrate their level of competence with a concrete example was very useful, even more where a precise description and a link to an example was provided (University of Tallinn).
- One outcome of the work on the previous self-assessment model based on ISTE was that teachers are waiting for concrete examples that help them understand what is meant by the competence level descriptions (eu-LISA).

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

Davide Azzolini (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?** In Estonia, all teachers in encouraged schools were invited to use the TET-SAT.

More information about the research methodology [here](#); Presentation available [here](#)



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

- Davide Azzolini (IRVAPP) confirmed that the project tracked the same teacher for all surveys throughout the project.



#### 4.1 Presentation: Results of the experimentation - national descriptors

Davide Azzolini (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)

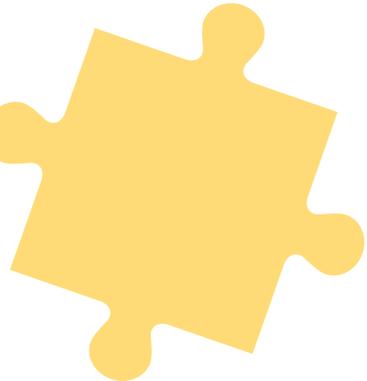
In Estonia, 32 schools participated in MENTEP. 705 teachers from those schools were invited to fill in the Benchmark Survey. The 314 teachers that accepted this invitation are the MENTEP sample. The response rates to the MENTEP Follow- Up survey are with 36.3% (compared to 76.7% overall) rather low). Hence, the numbers of MENTEP teachers in Estonia is rather small, which is important to keep in mind, when discussing their general characteristics.



#### 4.2.a Presentation: Characteristics of MENTEP teachers

##### General characteristics

In Estonia, the percentage of female teachers is with 89% higher than the cross-country average of 75%. Estonian teachers are slightly older than the overall average, with 45% of Estonian teachers being older than 50 years (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 Estonia is generally quite high, and close to the overall average for several items, e.g. 88% of teachers in Estonia agree that they are "able to stimulate students to use ICT in a critical manner" (compared to 90% overall). 93% of Estonian teachers agree that they are able to "support students to communicate with ICT in a safe, responsible and effective manner" (compared to 90% overall). With 59% (compared to 71% overall), less teachers in Estonia agree that they are able to "(re)design ICT applications in view of a specific educational setting",

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

I am able to...	Agreement	
	Overall	Estonia
Stimulate students to use ICT in a critical manner	90%	88%
Support students in searching information by means of ICT	95%	96%
Support students to communicate with ICT in a safe, responsible and effective way	90%	93%
(Re)design ICT applications in view of a specific educational setting	71%	59%
Select ICT applications effectively in creating a learning environment	77%	71%

\* "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. 99% of Estonian teachers (compared to 94% overall) agree that using ICT at school "enables students to access better sources of information". However, only 39% of Estonian teachers agree that using ICT at school "improves the academic performance of students" (compared to 60% overall).

### Teachers attitudes towards ICT in teaching and learning. Percentage of teachers that agree with the proposed statements

Using ICT at school	Agreement	
	Overall	Estonia
Enables students to access better sources of information	94%	99%
Helps students to consolidate and process information more effectively	84%	82%
Helps students learn to collaborate with other students	75%	84%
Enables students to communicate more effectively with others	64%	74%
Helps students develop greater interest in learning	76%	72%
Helps students work at a level appropriate to their learning skills	76%	70%
Helps students develop skills in planning and self-regulation of their work	65%	71%
Improves academic performance of students	60%	39%

\* "Agreement": percentage of teachers who agree and strongly agree"



## Teachers' actual use of ICT

On the actual use of ICT, e.g. 95% of teachers in Estonia (also 95% overall) used ICT “to present information through direct class instruction”. 82% of Estonian teachers (compared to 61% overall) used ICT “to communicate with students outside 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	Estonia
<b>Presenting information through direct class instruction</b>	<b>95%</b>	<b>95%</b>
Providing remedial or enrichment support to individual students or small groups of student	77%	81%
<b>Enabling student-led whole-class discussions and presentations</b>	<b>74%</b>	<b>81%</b>
Assessing students' learning through written tests	56%	75%
<b>Providing feedback to students</b>	<b>76%</b>	<b>86%</b>
<b>Reinforcing learning of skills through repetition of examples</b>	<b>85%</b>	<b>89%</b>
<b>Supporting collaboration among students</b>	<b>75%</b>	<b>81%</b>
<b>Mediating communication between students and experts or external mentors</b>	<b>31%</b>	<b>27%</b>
Enabling students to collaborate with other students (within or outside school)	56%	68%
Collaborating with parents or guardians in supporting students' learning	56%	82%
<b>Supporting inquiry learning</b>	<b>76%</b>	<b>87%</b>
Assigning written task/ exercises / homework to students	77%	96%
Facilitating / supporting individual or collaborative oral presentation by students	82%	84%
<b>Communicating with students out of the classroom</b>	<b>61%</b>	<b>82%</b>

## Collaboration with other teachers

The collaboration between Estonian teachers differs from the cross-country average, e.g. 73% of Estonian teachers (compared to 56% overall) “work together with other teachers on improving the use of ICT in classroom teaching” and 71% of Estonian teachers (compared to 48% overall) “observe how other teachers use ICT in teaching. However, with 31%, less Estonian teachers (compared to 42% overall) “collaborate with colleagues to develop ICT based lessons based on the curriculum.”

	yes	
	Overall	Estonia
I work together with other teachers on improving the use of ICT in classroom teaching	56%	73%
I collaborate with colleagues to develop ICT based lessons based on the curriculum	42%	31%
I observe how other teachers use ICT in teaching	48%	71%
I work with other teachers on cross-curricula projects involving ICT	38%	46%

## 4.2.b Discussion: Characteristics of MENTEP teachers

### Teachers' views on ICT in teaching

- A substantial number of teachers in Estonia does not see the value of using ICT in their teaching (HITSA).
- Estonian teachers are not very enthusiastic about introducing ICT in their classrooms. For instance, they are quite sceptical regarding the claim that using ICT improves students' academic achievement.
- Teachers' quality is decisive for their students' academic performance, not their use of ICT (HITSA).

### Teachers' actual use of ICT

- The data presented in comparative reports based on self-assessment does not seem to correspond to the reality of what is happening in schools. Self-assessment results seem to provide overly optimistic results (HITSA).
- In Estonia, dedicated platforms are available for the communication with students outside the classroom (Ministry of Education and Research).

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

### Number of teachers using the TET-SAT

Overall, 1 out of 3 (33.8%) encouraged teachers used the TET-SAT (930 out of 2750 teachers in total). In Estonia, 26.7% of encouraged teachers used the TET-SAT (36 out of 135 teachers) In Estonia, 69.4% (25 teachers) of the teachers that started the TET-SAT also completed it, compared to 78.9% overall (734 teachers). Encouraged teachers that did not use the TET-SAT were asked for their reasons at the FUS: Overall, 32% (50% in Estonia) stated that they were unaware of it, followed by time constraints (30% overall, 27% in Estonia).

### Teachers' satisfaction with the TET-SAT

On average, Estonian teachers have graded the TET-SAT 7.3 (7.5 overall) on a scale from 1 (low) to 10 (high). A large share of teachers finds the TET-SAT useful, e.g. 73% of Estonian teachers agree that the "TET-SAT helped me to assess my competence" (64.4% overall). In Estonia, 55% of those teachers that used the TET-SAT agreed that it helped them to re-think the use of ICT in their teaching (compared to 64.4% overall).

## Teachers' feedback score

Observed score ranges between 25% and 95%

Score	Overall	Estonia
Overall score TET-SAT	53.2	60.0
Score by area		
Digital pedagogy	53.8	62.2
Digital content use and production	50.5	55.5
Digital communication and collaboration	47.8	58.2
Digital citizenship	55.3	59.9

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

#### Teachers' use of the TET-SAT

- In reply to HITSA, Davide Azzolini (IRVAPP) clarified that the encouragement to use the TET-SAT was the same in each country.
- Teachers already receive a lot of information. This might also be a reason why some teachers did not take up the invitation to use the TET-SAT (HITSA).
- Students get better results, if their teachers believe in them (Development Manager, Pelgulinna Gymnasium). One of the key assets of teachers is confidence, Davide Azzolini (IRVAPP) added.

### 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. Because of the small number of teachers taking up the tool in Estonia, as well as in the other participating countries, 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.

Presentation available [here](#); More information available [here](#)

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

After the presentation, workshop participants discussed possible explanations for the presented research results.

### Impact of the TET-SAT

- In reply to HITSA, Davide Azzolini (IRVAPP) clarified that no information are available on how the TET-SAT impacts on teachers' motivation.
- If the assumption is that teachers overestimated their digital competence, then the TET-SAT is helpful. It would be interesting to know more about in how far the sub-group of teachers that under-estimated their digital competence is different from the rest. There may be a correlation between teachers' self-assessed TET ability and their interest in the use of ICT in teaching (Ministry of Education and Research).
- Patricia Wastiau (EUN) stated that some teachers still think of ICT as a magical solution. The TET-SAT might help them realise that using ICT is not about magic but quite basic processes, which could be a very positive critical reaction. It might be interesting to link digital competence even more closely to thinking processes, e.g. via programming that focuses on problem solving and logical reflection.

### Anonymity of teachers' personal information

- What is most important with such a tool is that the teacher does not feel judged/graded, e.g. that the teacher does not need to fear that his school head finds out that his knowledge is not up to date. Some teachers do not want to share what they have done. However, for those that would like to showcase their results, there should be an option to share them with their school head (Development Manager, Pelgulinna Gymnasium).
- The TET-SAT feedback needs to be treated anonymously (HITSA).
- Teachers need to know who is using their data. Is a data flow between several tools compatible with this requirement (Development Manager, Pelgulinna Gymnasium)?

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

Patricia Wastiau, 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.

## 7. Discussion: Conclusions & next steps in Estonia

“The strong point of the TET-SAT is that it provides policy makers with relevant anonymous data, while also providing relevant feedback to teachers, since teachers do not have any benefit from filling in conventional surveys. It is an advantage to have several tools available, as it provides us with strong alternatives to choose from.” Aivar Hiio, HITSA

### Link to relevant training offers

- Several tools have been developed. However, the goal was always that such a tool can provide a link to relevant training offers. However, this only works, when available training offers are up to date (Development Manager, Pelgulinna Gymnasium).
- Linda Helene Sillat (Phd student, Tallinn university) had used the TET-SAT with 100 student teachers, both BA and MA students. She also asked students to give evidence for their self-assessed TET ability, which was the most interesting part, according to her. Some students gave diplomas, others work schedules - the evidence provided varied widely. Many students gave the feedback that the TET-SAT is a great basis for a personal development plan. However, they also wanted to know how to move forward, according to Sillat.
- Self-evaluation has a good practical value for the implementation of courses (Tartu University).
- In reply to the question how the ecosystems will be further developed (HITSA), Patricia Wastiau (EUN) stated that what is done within the project is a common process for 13 countries. Some countries already have a quite articulated list of resources. Once the tool will be available as an OER, each country can develop the ecosystems further according to their own needs.
- The possibility of linking the self-assessment tool with a training data base was discussed. However, to that end, the training system would have to be changed, and trainings mapped according to the TET-SAT competence levels (HITSA).

## Link to other tools & frameworks

- The most interesting feature of the tool is the possibility to compare yourself with other teachers. However, how flexible is the tool, and how compatible with other systems (Development Manager, Pelgulinna Gymnasium)?
- The interface of the tool is very nice and it is easy to use. However, the challenge in Estonia is how this could link to the ISTE model currently used in Estonia (HITSA).
- This year, the standards used will be discussed and updated. It might be reasonable to join the several already existing self-assessment tools via one common entry point. Teacher in service training is also based on professional standards. What professional standard and what competence should be covered by the training (Ministry of Education and Research)?
- We do not want to confuse teachers by presenting many options without providing the context. If we base our teacher training offer on the ISTE framework, then the tools that we will promote will also have to be based on the ISTE framework. It would also be possible to use another framework, as long as everyone agrees. From a policy point of view, we need alignment in the model we use for training and the model we use for assessment. From a teachers' perspective however it matters less which model is being used as long as there they have an opportunity to have a critical overview of their ICT skills (HITSA).
- Linda Helene Sillat (PhD student, University of Tallinn) replied that she has carried out an analysis of the different models and that there are considerable overlaps between them. It would be interesting to see how the TET-SAT actually increase teachers' TET ability at primary school and higher education level. Further investigation on what different teachers expect from a self-assessment tool and how to provide more in-depth instruction could be useful, according to Sillat.
- Why do we need to decide on one framework? It would be possible to use several frameworks and tools. "When I run trainings, I always present the different frameworks" (eu-LISA).

# Follow MENTEP



<http://mentep.eun.org>



#MENTEP



Erasmus+

The MENTEP project is a European Policy Experimentation funded by the European Commission via the Erasmus+ programme. This publication reflects the views only of the authors and it does not represent the opinion of the European Commission, and the European Commission is not responsible or liable for any use that may be made of the information contained therein.