



# iTEC

Designing the future  
classroom

## Changing Future Practices: Findings of the 4<sup>th</sup> iTEC evaluation

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# Outline

- ▶ Overview of implementation in Cycle 4
- ▶ Technical innovation in iTEC
- ▶ Impacts on students and teachers
- ▶ Sustainability and mainstreaming
- ▶ Enabling factors
- ▶ Implications for Cycle 5

# Cycle 4 Learning Stories

- ▶ **Tell a Story:** Narrating a topic using audio-visual tools (188 teachers) eg creating a video/cartoon about students' pets; creating a presentation about geometric solids
- ▶ **Create an Object:** Developing a tangible design (73 teachers) eg constructing 3D models of religious buildings; creating cake designs
- ▶ **Create a Game:** Constructing a playful activity (55 teachers) eg learning aids for the human body.

# Overview of student learning activities and teacher roles



**reflect**  
**assess**

**reflect**  
**assess**

**reflect**  
**assess**

**reflect**  
**assess**

**reflect**  
**assess**

**reflect**  
**assess**



- inspire** .....
- listen** .....
- coach** .....
- question** .....
- support** .....
- connect** .....

# Cycle 4 evaluation data

- ▶ 19 countries participated to different degrees
- ▶ 342 questionnaires received from individual teachers representing 424 of the 874 classrooms involved
- ▶ 13 teacher case studies (interviews and observation)
- ▶ 10 teacher focus groups

# Innovation in technology use

- Using new technologies (34%)

*The use of the iPads was new, as well as the use of some tools like Popplet, TeamUp... (Belgium, teacher)*

- Using technology for different learning activities (11%)

*Some tasks, such as reflection or showing the work produced by students, were carried out using ICT. Normally I do not use ICT for the accomplishment of these tasks. (Portugal, teacher)*

- Use by students (10%)

*I began handing the technology directly to the pupils instead of taking sole control of it myself (UK, teacher).*

# New uses for technology

- ▶ Creative outputs eg video, animation, 3D models
- ▶ Design
- ▶ Group work and communication eg tablets, Facebook
- ▶ Peer-to-peer teaching
- ▶ Mobile learning (around the school, at home and fieldwork)

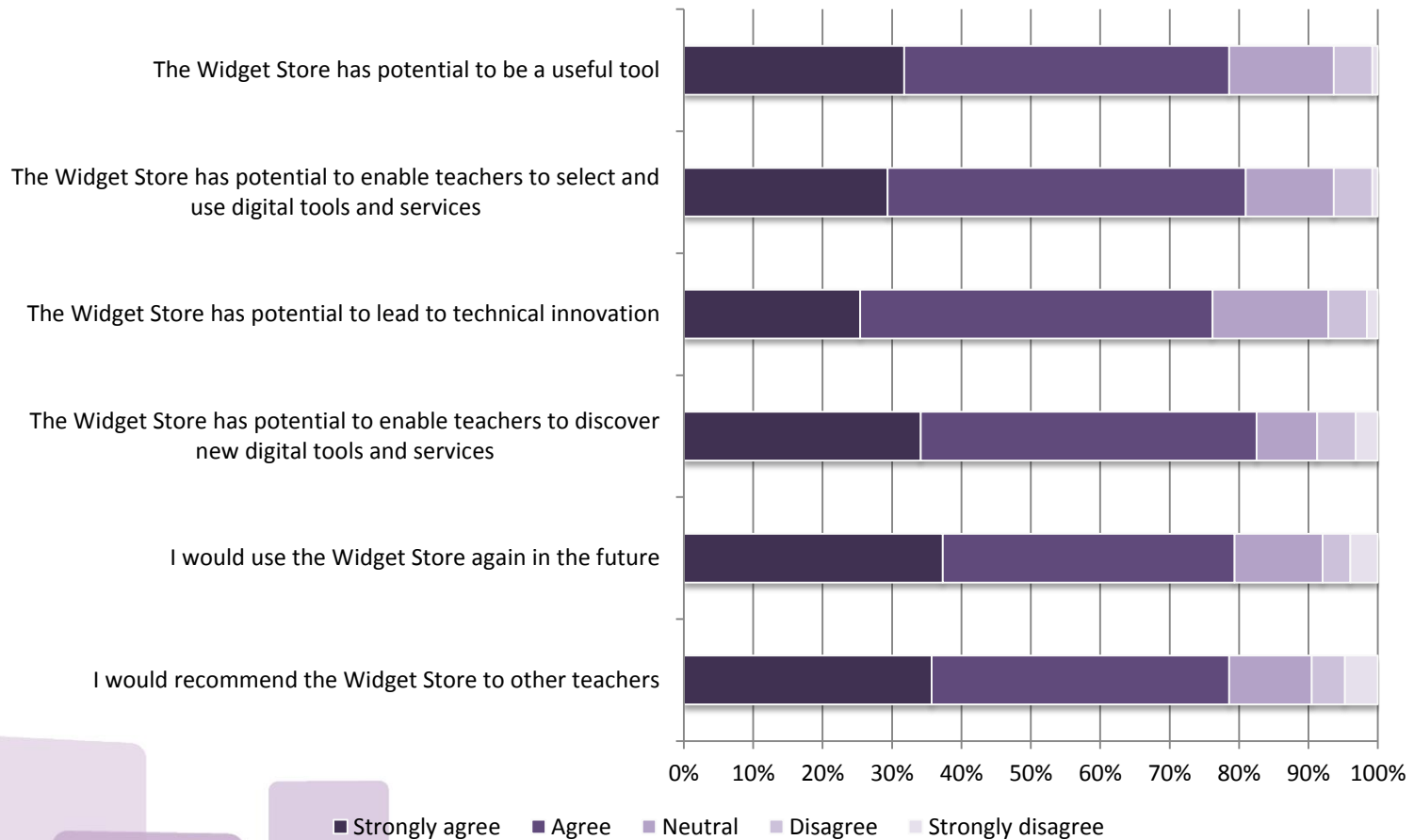
# TeamUp

*Forming groups with it is painless. Usually students start asking questions like “Why do I have to work with him/her?”, “Why this?”, “Why that?” etc., with TeamUp the Computer God made the decision.  
(Estonia, teacher interview)*

*In the classroom we use this thing called TeamUp a lot, which is actually kind of fun, because it creates new groups every time.  
(Austria, student focus group)*

*This was very innovative to them – the fact that they reflected through a digital tool and not only doing reflection with the regular teacher-student class upfront lessons. (Israel, lesson observation)*

# The Widget Store (1)



# The Widget Store (2)

- ▶ Accessibility of resources (but needs to be embedded in learning platforms)
- ▶ Structured approach (but needs to be easier to find suitable widgets)
- ▶ Variety of widgets (but need to improve moderation)
- ▶ Easy to use (but needs to be simplified further)
- ▶ Saves time
- ▶ Motivational

# Impact on students

Creativity

Motivation

Collaboration

Digital  
literacy

Problem  
solving

Independent  
learning

Critical  
thinking

Attainment

Confidence

Life skills

# Innovation in student roles (1)

## ▶ Greater autonomy

*Surely this way took me out of my comfort zone, I usually do not give students space and time to work collaboratively, plan their own activities and progress in their learning. (Slovakia, teacher interview)*

## ▶ Group work

*But, while in the 'normal' Maths lessons every student has their own computer (and every student does their own thing), today we worked in groups: we connected our computers for doing things together, working on the same figures. (Italy, student focus group)*

# Innovation in student roles (2)

## ▶ Co-designer of learning experiences

*Most of the challenges...have been solved easily working together with the students. That may be another game changer of iTEC! Students are welcomed in the process of designing the change in the classroom. (Austria, teacher focus group)*

## ▶ Peer assessor/adviser

*They enjoyed presenting their outcomes and giving feedback to others. (Estonia, lesson observation)*

# Innovation in student roles (3)

## ► Teacher trainer

*I flow with the kids' desire to use their iPads, and many of the kids have more advanced iPad versions than the version of the teacher. I have to be willing to their being even more updated than I am. (Israel, teacher focus group)*

## ► Peer tutor

*The role switch (students becomes a teacher and has to explain something) is also great. (Belgium, teacher interview)*

# Impact on teachers

Motivation

Digital competency

Collaboration

Teacher-student relationships

# Innovation in teacher roles

*Instead of teaching a subject, I **guided** them into learning and creating knowledge for themselves (Finland, teacher).*

*I worked totally differently with this project. It was a student-driven project where I went into a **mentor** role. (Norway, teacher)*

*Teachers became **side-by-side learners** with their students. (Turkey, headteacher)*

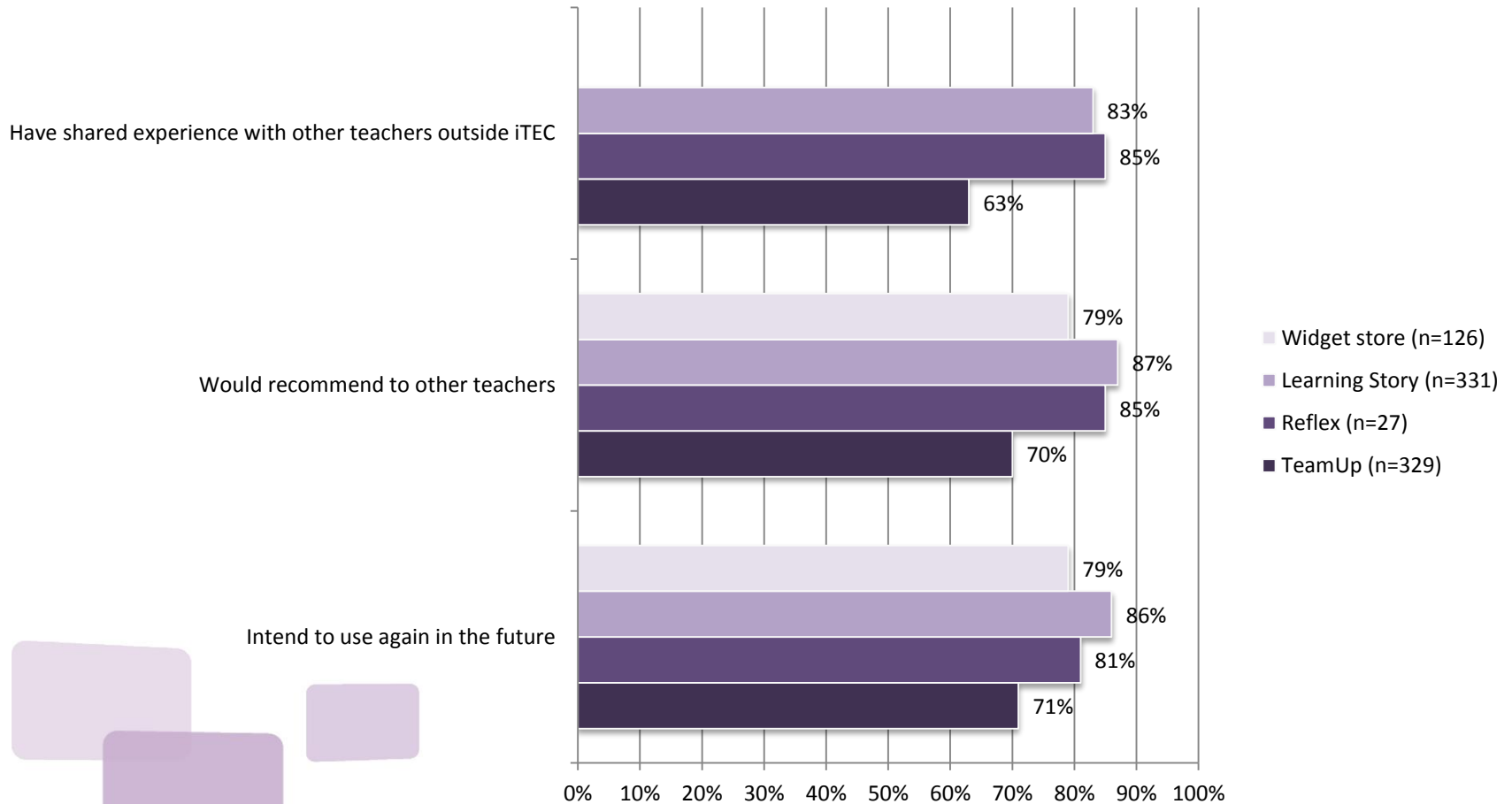
*The pilot teacher in charge, invited three of her colleagues to **collaborate** with her, the English teacher, Geography and Arts. (Austria, lesson observation)*

# Innovation in assessment

*I did not know Popplet. The innovation for me in my lesson was the fact the pupils could brainstorm and that I could see their work anytime, without having to sit with them I had an idea of what they did. (Belgium, teacher interview)*

*To evaluate their experience, I made using a IWB Flipchart with the use of interactive boxes in the form of multiple choice...at the end of the session, each student responds anonymously [using a learner response system]...we see immediately whether the concept has been understood or not, and then later we can have a more precise analysis of individual students who failed on a particular topic. It is possible to return to this topic with a small group of students... (France, teacher interview)*

# Sustainability and transferability (1)



# Sustainability and transferability (2)

*...some of the widgets that they have been using in the last pilot has become a permanent tool in their practice. (Italy, teacher focus group)*

*Other colleagues have asked me, they have seen and are interested in the scenario (France, teacher interview)*

*To share my experience inside my school is a bit more difficult: most of the teachers are not tech-comfy, and I think that iTEC activities are not for all, at least for now... (Italy, teacher interview)*

# Mainstreaming

*I have not done any mainstreaming of iTEC beyond my school since we are in competition with other schools as far as getting students is concerned. (Austria, head teacher interview)*

*I believe that the research and knowledge-based communities in and around City T's schools are very interested in being part of something bigger and in disseminating this to a wider audience. (Norway, head teacher interview)*

*I am not sure about sharing experiences beyond my school at the moment. (Estonia, teacher interview)*

# Enablers

## Attitudes

- Students
- Teachers
- Parents

## Technical

- Technical support
- Resources & infrastructure
- Use of students' devices

## Cultural

- Curriculum fit
- School plans and ethos

## Skills

- Students
- Teachers

# Looking forward

- ▶ Evaluation has demonstrated the positive impact of iTEC in the classroom
- ▶ Evaluation of iTEC processes (Eduvista and Edukata)
- ▶ Evaluation of remaining iTEC technologies
- ▶ Evaluation to inform sustainability and mainstreaming

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