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2nd Survey of Schools: ICT in Education

SMART 2015/0071 – European Commission

ET2020 Working Group on Digital Skills and Competences

7 March 2017

Agenda

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Introduction

Overview of the study

Objective 1: Benchmark progress in ICT in schools

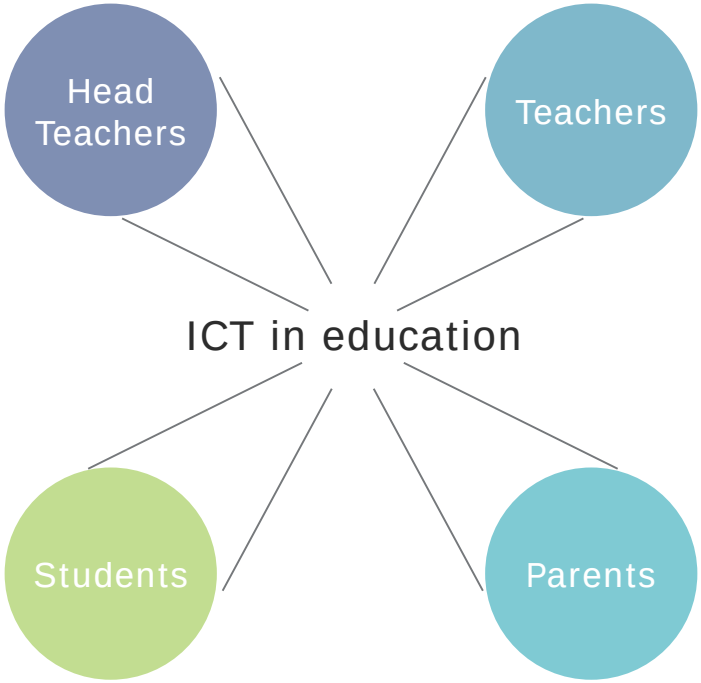
Overview

Goals

- **Benchmark** recent progress made in **ICT in education** compared to the SMART 2010/0039 Survey of Schools: ICT and Education (**EU 28, Iceland, Norway, Turkey**)
- Develop indicators on teacher and school level factors on attitudes and confidence in digital competence regarding ICT in education as regards their impact on students
- **Leverage on 2013 Study** by building on learnings from the 2013 survey responses

Four surveys

Collect information on schools and assess their e-maturity



Access, availability, e-competences and attitudes of teachers in relation to ICT for learning

Use of, access to and attitudes learning with ICT, in and outside school

Parent's use of ICT to support and follow the education of their children

Objective 1: Benchmark progress in ICT in School

Research questions

Main research axes	Scope
Conditions: availability of ICT	• Broadband capacity • Equipment • Devices and software (mobile apps, digital games, …)
Use: purpose, frequency, subject and competencies	• Creativity • Problem solving • Digital literacy • Coding • STEAM
Outcomes: impact of technology	• Learning and teaching processes • Achievements • Students and teachers opinions and attitudes

Requirements

- Preserve **comparability** with 2013 study (similar questionnaire, sampling approach and data collection methods)
- Consider the use of ICT by **parents** to support the education of their children
- Investigate the conditions and use of ICT **inside and outside school**

Objective 1: Benchmark progress in ICT in School

Highlights from the literature review

ICT use in classroom	‣ **Training for teachers** in all areas of ICT is a **clear requirement** for effective ICT adoption in schools ‣ The adoption of digital technologies in schools is most effective and sustainable when linked to **clear pedagogical objectives** ‣ **Assessment** of learning outcomes is crucial ‣ Relevance of school-level determinants for the use of ICT by teaching staff in schools **differs between education systems** ‣ **School leaders' support** and **inner-school teachers' cooperation** are crucial factors supporting ICT integration in teaching practices
Quality of ICT use in teaching and learning	‣ Several parameters, such as **school leaders' attitudes** and **teachers' attitudes and competence**, together with technology availability are key indicators that **considerably affect ICT use** in the school environment
students' digital competences in the context of schools	‣ Key components of **students' digital competence** encompass knowledge, skills and attitudes ‣ **Students' motivation** (i.e. self-efficacy and mastery orientation) and **family background** can predict their digital competence

Objective 2: Model for a “Connected Classroom”

Overview

Goals

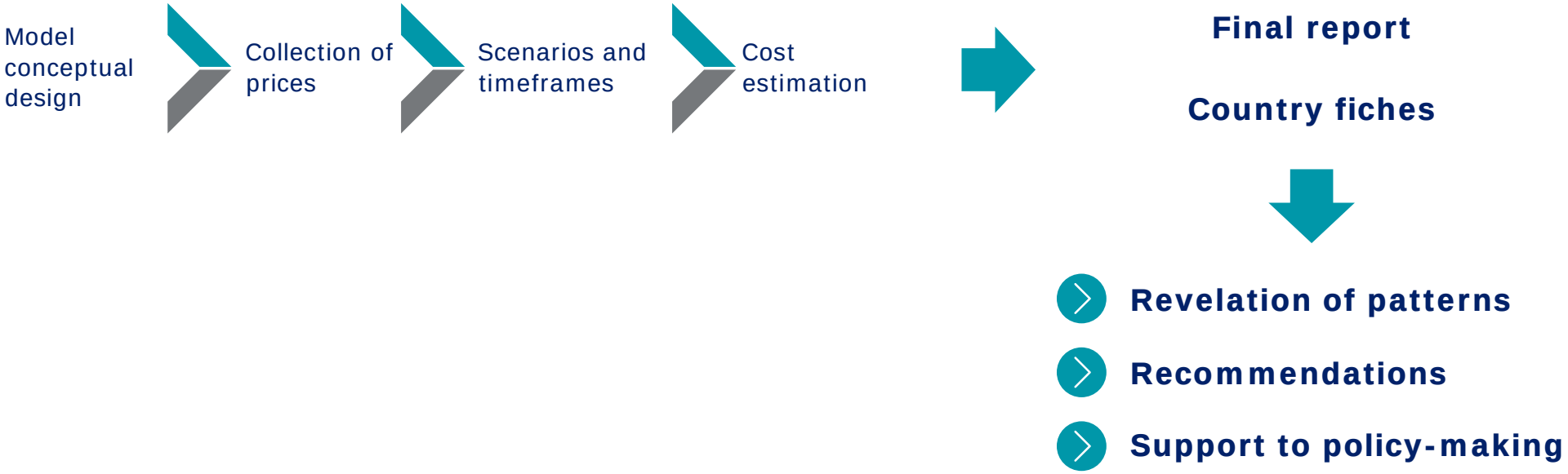
- Define the minimum conditions to determine what an effective **"highly equipped and connected classroom"** is, in primary and secondary education
  - Estimate **cost** to equip and connect EU primary and secondary classrooms
  - Develop **scenarios and timeframes** for ICT adoption in classrooms

Objectives 1 and 2

Overview of the methodology

Objective 1: Benchmark progress in ICT in Schools

Objective 2: Model for a "connected school"



Survey deployment

Methodology

Surveys deployment

Methodology

Approach

- Broadly replicate the methodology of the 2013 Study Survey
- Survey is very challenging - mostly because of potential sampling and implementation (logistical) issues
- Prioritize countries where targets were not met in 2013

Trade-off between robustness and costs

- **Online survey** as data collection mode for all four components
- Rely on **local partners** to a certain extent and on **schools** to a great extent

Surveys deployment

Criteria for participants recruitment and sampling

Target: 100 participating schools in each in each ISCED level in each country, where feasible

Schools

- 100 schools will be targeted in each of four ISCED school levels
- Not doable in small countries (e.g. Cyprus, Malta)
- Primary informant: **Head Teachers**

Classes

- Sample a single class from the applicable grade within each school/ISCED level
- All **students** within each selected class (ISCED levels 2-3 only)
- Class **teacher** (ISCED level 1) or randomly selected teacher (either country language of instruction, mathematics and science) who teach any student in the class (ISCED levels 2-3) will be eligible to complete a survey

Parents

- Parents whose children are attending selected schools
- Contacted through schools using online questionnaire
- Invitations to fill in the questionnaire will be sent to parents (ideally via email)

Sampling

- Criteria: high coverage of the population of schools in each country, currency and frequency of update, availability of stratification variables and a measure of school size (required for sampling) and availability of contact details
- Task not straightforward in many of the countries – support of the Commission is key
- Aim: improve response rate and increase sample size in certain countries, such as France, Germany, Spain, Sweden, the Netherlands and UK (e.g. in Germany, where permissions need to be obtained on state (Land) level. For the 2013 Study Survey only 6 out of 16 states gave permission)

Surveys deployment

Risks and risk mitigation

Risk of insufficient response

In spite of potential response improvements some countries are **still expected to fall below** the sample size/response targets

Difficulties expected in France, Germany, Spain, Sweden, the Netherlands and UK, as well as in some of the smaller countries where the number of schools in not large enough (Luxembourg, Malta, Cyprus, Estonia etc.)

Some additional actions to minimise risk

Invitation letters sent by mail only in these countries

Telephone follow-ups / reminders

Increase the motivation of Head Teachers by:

- Simplifying the Head Teachers questionnaire
- Simplifying the administration and management of the interviewing process occurring within the school
- Incentivising head teachers (e.g. sending them a feedback on how their school ranked)

Surveys deployment

Risks and risk mitigation

How you can help?

Involve Ministries of Education with the assistance of the Commission:

- Pre-notification by the Commission to the Ministries of Education of the importance of the research
- **Official statement** sent to all schools prior to surveys deployment (through official communication channels) – ideally at the end of August 2017
- Presence of the **signature / logo** of the Ministries of Education on the invitation letters

Study timeline

Overview

- **Set-up phase**: currently ongoing (questionnaire design, translations, scripting)
- **Data collection**: from September until the end of December 2017
- **Results delivery**: January 2018

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