ATS2020
Assessment of Transversal Skills

ATS2020: An Insight into the Project Evaluation Findings

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ATS2020 Final Conference – Developing Transversal Skills for the 21st Century

Flemish Parliament, Brussels, Belgium

2 February 2018

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Research Question #1

- *Did the students involved in the intervention (ATS2020 pilot implementation) develop transversal skills to a greater extent than those not involved?*

- ✓*Belgium (BE)*
- ✓*Croatia (HR)*
- ✓*Cyprus (CY)*
- ✓*Estonia (EE)*
- ✓*Finland (FI)*
- ✓*Greece (GR)*
- ✓*Ireland (IE)*
- ✓*Lithuania (LT)*
- ✓*Slovenia (SI)*
- ✓*Spain (ES)*

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Methodology

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Research Instruments

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1. *Transversal skills (TS) test*
   - Pre- & Post-testing
   - 60 items (41 multiple-choice and 19 open-ended), in 4 distinct thematic item blocks, rotated across 6 testlets
     - Eyesight
     - Nuclear power
     - End of year party
     - School trip
2. *Teacher questionnaire*
   - Pre- & post-questionnaire
   - Background & Attitudes towards TS
3. *Student questionnaire*
   - Post-test
   - Background, Attitudes towards TS, Behavior in using TS

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Data collection

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- Ten countries
- Initial sample
  - 250 schools
  - 1,000 teachers
  - 10,000 students
- Final sample in the quantitative evaluation
  - 224 schools
  - Nearly 650 teachers
  - 8,000 students

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Results

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1. Significant **differences between control and experimental classes in post-test in almost half the countries** – BE, HR, LT, FI
   - Results must be interpreted while accounting for the context, for example, some countries, like IE, FI and ES, have policies towards TS
   - The school context and time of test administration have to be accounted for as well
2. Other interesting findings
   - In most cases (e.g. HR, EE, FI, IE, LT, SI) **girls outperformed boys**, both before and after the intervention
   - Similar to ICILS, PIRLS and PISA
     ►*Approaches to ensure that boys have the same potential and chance to develop TS as girls*
   - In most cases the **older students outperformed the younger** ones
     ►*Teaching and assessment of TS should take into consideration the age*

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Some improvements were captured via post/test

- Gaps between female and male students still exist, but in some cases decreased in the post-test
- In some cases the attitudes towards TS became more positive, both for teachers and students
- In many cases students answered they acquired specific skill by themselves or from peers and not in school or with their teachers' help

  ► *Teachers' role becomes even more important in identifying interests, overseeing, and guiding student learning and activities in the digital world*

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- In half countries (e.g. HR, CY, IE, SL, ES, GR) positive association between students' attitudes towards (importance of) TS and student performance for most of the skills
  - ► *Attention to students' attitudes/motivation/interest*

- In most countries, students whose teachers give higher importance to transversal skills have higher performance
  - ► *Attention to teacher training/professional development*

- Policy recommendation on EU level: experimentations should last for a longer period of time
  - Development of TS is a process for both teachers and students
  - Longer exposure to TS activities normally showed better results
  - Longer period between assessing student prior and achieved knowledge

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Research Question #2

- *How has the ATS2020 model on the development and assessment of the targeted transversal skills been implemented?*
  1. *How were the critical aspects of the model implemented in schools by those involved (teachers, students)?*
  2. *What did the participants think of the implementation of the ATS2020 model?*

- ✓*Cyprus (**CY**)*
- ✓*Spain (**ES**)*
- ✓*Greece (**GR**)*
- ✓*Lithuania (**LT**)*
- ✓*Ireland (**IE**)*
- ✓*Belgium (**BE**)*
- ✓*Finland (**FI**)*
- ✓*Croatia (**HR**)*
- ✓*Estonia (**EE**)*
- ✓*Slovenia (**SI**)*

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Methodology

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Case Studies

- We need **case studies** *'of good practice and bad, of the competent and the mediocre, not simply of the story-telling or picture-drawing kind, but theory-seeking/theory-testing studies which try to tease out why a situation is good, bad or mediocre. This is the contribution case study can make […], which surveys cannot touch' (Bassey, 2007, p. 154).*
- We adopt a **qualitative research approach (exploratory)** that '*derives from the authentic and case-specific detail than it can encompass. The information obtained is potentially richer and deeper than that described in numbers and statistics, and tan take advantage of the many subtle ways of using language to express opinions, experiences and feelings' (McMillan & Weyers, 2010, p. 125).*

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Research Instruments

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- In-class Observations
  - Critical for assessing and monitoring communication skills (Kogan, Holmboe & Hauer, 2009; Russell, 2009) and skill-focused rubrics (Popham, 1999; Tierney & Simon, 2004).
- Interviews with Teachers and Students
  - A powerful way to collect information, explore views, and provide insights and understandings (Bell, 2005; Morgan and Scannell, 1998; Wilson, 2009).
  - Semi-structured format provides the flexibility to adjust or add questions and allows in-depth discussions (Bell, 2005; Bernard and Ryan, 2010; Robson, 2002; Yin, 2003).
- Students' and Teachers' Artefacts
  - Those things that people develop, make and do (Goetz & LeCompte, 1984).

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Data collection

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Country	Class	Education Level	Age	Location	School size	Class size
CY	A	Primary	10	Rural	200	17
	B	Secondary	13	Rural	369	15
ES	A	Secondary	12-13	Urban	1112	31
	B	Secondary	12-13	Semi-urban	381	21
GR	A	Secondary	13	Urban	252	22
LT	A	Secondary	15	Rural	526	23
	B	Secondary	12	Urban	1606	29
IE	A	Secondary	12,5	Rural	500+	23
	B	Secondary	13,5	Urban	400+	29
BE	A	Secondary	13	Urban	345	14
FI	A	Primary	11-12	Urban	620	25
	B	Secondary	13-14	Urban	363	18
HR	A	Secondary	13	Rural	1117	25
	B	Secondary	12	Urban	524	21
EE	A	Secondary	14	Urban	715	22
	B	Secondary	14	Urban	610	25
SI	A	Secondary	12-13	Rural	500	21
	B	Secondary	15-16	Urban	1000	29

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***18* case studies from *10* countries**

Results

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Involved by all countries in their LCs despite challenges

Digital tools

- Most countries used Mahara (e.g. **CY. ES. GR. BE. EE. SL**). or Office365 (e.g. **CY.**

Stages followed by most countries

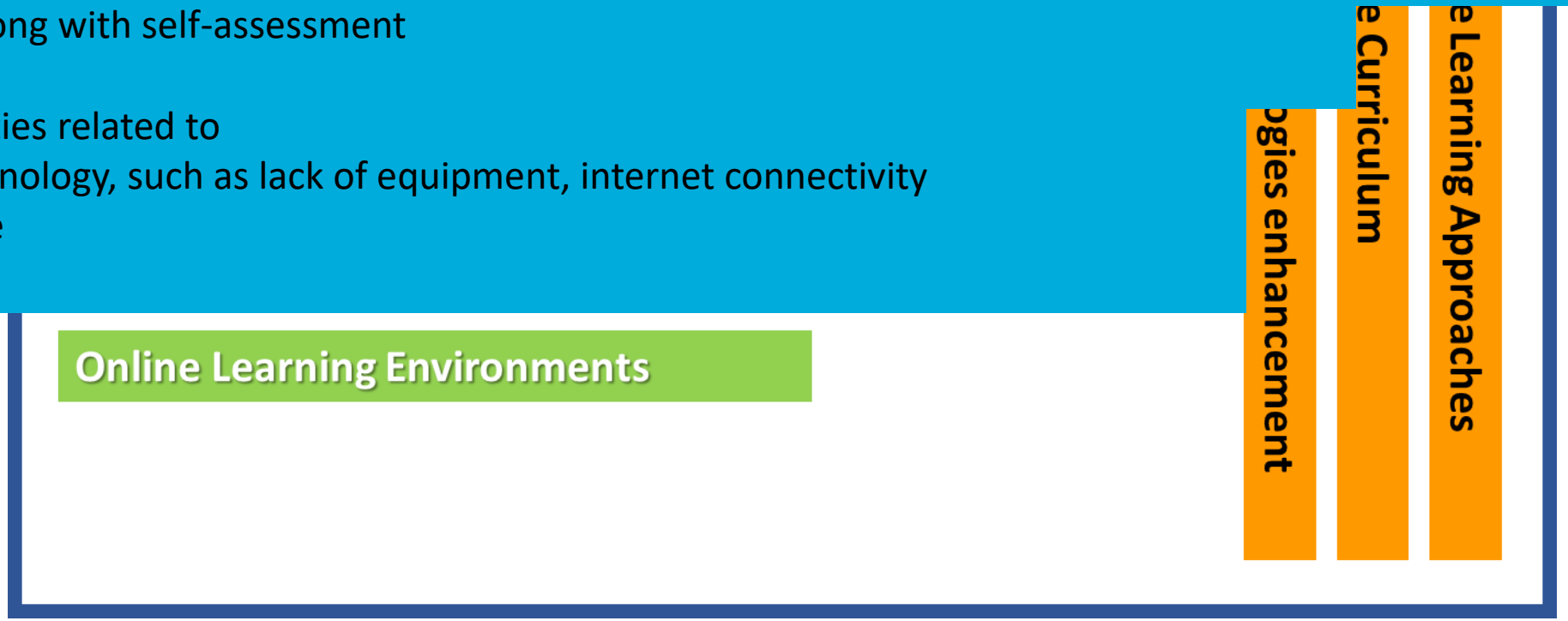
ents' progress and learning

Difficulties either with understanding what was required or the wording of the questions.

Stages implemented more often: setting prior knowledge and planning and reflecting on learning along with self-assessment

Difficulties related to

- Technology, such as lack of equipment, internet connectivity
- Time



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How has the ATS2020 model on the development and assessment of the targeted transversal skills been implemented?

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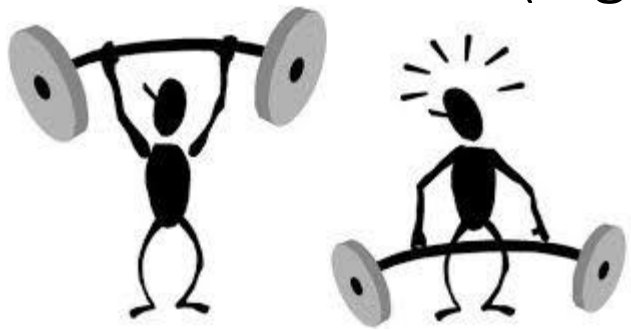
1. Levels of Satisfaction

- High - Participants overall satisfied with the implementation of the ATS2020 model
- Students enjoyed a more active and creative role and support from the teacher

2. Challenges

- High requirements in student involvement (e.g. **ES, BE**)
- Limited flexibility to use other tools and platforms (e.g. **ES**)
- Teachers: Extra workload required (e.g. **SI**) and change of role (e.g. **GR**)



(2) What did the participants think of the implementation of the ATS2020 model?

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	Satisfaction	Difficulties
Transversal Skills	• Information Literacy (e.g. **CY**, **HR**, **EE**, **SI**) • Collaboration/Communication (e.g. **CY**, **HR**, **EE**, **SI**, **GR**, **IE**) • Autonomous Learning (e.g. **IE**, **BE**, **SI**) • Creativity/Innovation (e.g.**BE**)	• Information Literacy (e.g.**ES**, **GR**, **EE**) • Collaboration/Communication (e.g.**ES**, **GR**, **EE**) • Autonomous Learning (e.g.**HR**)
ePortfolio	• Satisfied with the outcome (e.g. **LT**)	• Time consuming (e.g. **CY**, **ES**, **GR**, **IE**) • Confusing and difficult fields (e.g. **CY**, **ES**, **GR**, **IE**, **LT**, **HR**) • Questioning ePortfolio (e.g.**EE**)
MyLearning Journal	• Satisfaction (e.g.**LT**) • Useful for students' self-assessment and self-reflection (e.g.**CY**) • Student-centred approach (e.g.**IE**)	• Time consuming (e.g. **CY**, **GR**, **LT**, **HR**) • Understand the fields: Setting goals and strategies (e.g. **CY**, **LT**, **IE**, **HR**)
Assessment	• Satisfaction (e.g.**ES**, **GR**)	• Unfamiliar participants (e.g. **ES**, **HR**, **EE**) • Self-assessment and wording (e.g.**CY**, **LT**) • Monotonous procedure (e.g. **BE**)
Innovative learning approaches using online environments	• Great satisfaction from all countries • Mahara (e.g. **ES**) • Virtual environments (e.g.**GR**) • Students' satisfaction (e.g.**CY**, **HR**, **EE**) • Opportunities offered (e.g.**IE**)	• Technical issues (e.g.**CY**, **HR**, **EE**) • Schools' infrastructure (e.g.**CY**, **HR**, **EE**) • Teachers familiarity with technology (e.g.**HR**) • Difficulties with platforms (e.g.**ES**, **GR**, **EE**, **LT**, **HR**)

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3. Suggestions for future implementation

- The ATS2020 model
  - Development of new assessment scaffolding tools (**LT**, **BE**)
- The conditions
  - Technology:
    - Better infrastructure (**CY**, **ES**, **LT**, **BE**, **EE**)
  - Curriculum:
    - Employment of the ATS2020 model across more subjects (**CY**, **ES**, **LT**, **IE**)
    - Consideration of time limitations (**HR**, **EE**)
  - Teachers/Support:
    - Dependence on teachers' abilities to teach TS, rather than the use of technology (**IE**, **FI**)
    - Training and support teachers (**CY**, **ES**, **IE**, **FI**, **EE**) and students (**ES**)

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Conclusions

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A mixed-methods design

'different methods were meant to inform and supplement each other […] (different layers of the phenomenon)' (Teddlie and Tashakkori 2009: 151)

'better understanding of the multifaceted and complex character of social phenomena' (Greene 2008: 20).

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- *The context has an impact on the implementation of the ATS2020 model*
  - Different educational systems led to modifications in implementation *across countries*.
  - The great variety of different factors as student and school level affected the implementation of the ATS2020 model *within each country.*

Personal:	Implementation:
Age groups Previous experience with transversal skills and ICT skills	Subjects Duration of the implementation Online platforms Digital tools Learning Cycles

  - *Allowing flexibility for adjustments and modifications*
    - To be considered for implementation of the ATS2020 model, in-line with context

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- *Implementation depends on a combination of factors that reinforce or undercut each other as an interrelated system (Fullan, 1992).*
- Single-factor theories of change are doomed to failure.
- The character of the innovation (the model), the make-up of the (educational) system, the characteristics of stakeholders [individual schools, teachers (actors) and students] and the existence of relationships (process) interact to produce conditions for change.
- Location of specific factors, to observe and explain how they function, e.g.
  - Teachers' digital skills and familiarity with ICT – Training and support?
  - Technical infrastructure
  - Time considerations-Curriculum Integration

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