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MEDIA, COGNITION AND LEARNING  
RESEARCH GROUP

# Digital Media & Information Literacy in Pre-service Teacher Education Programmes

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## 01. Basic skills

# Initial Teacher Education (ITE) linked to students' competencies

Based on the 2018 OECD PISA results, more than one fifth of 15-year-olds in Europe are categorized as low-achievers in basic skills in reading, mathematics and science.

- Only four countries meet the EU <15% goal.
- Underachievement in some countries exceeds 30% (Romania, Bulgaria, Cyprus, Greece, Malta).

# EU level targets

## 2021 Education and Training Monitor

Low achievement in basic skills (age 15 years-old)

Education and Training  
Monitor 2021

**TARGET**  
**< 15%**



Reading

**2018: 22.5%**  
**2009: 19.7%**



Maths

**2018: 22.9%**  
**2009: 22.7%**



Science

**2018: 22.3%**  
**2009: 17.8%**



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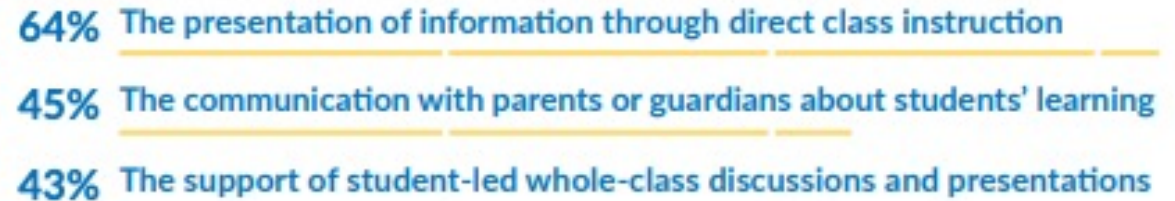
# Teachers are most confident in basic **ICT skills**

- ✓ Finding teaching resources online (95%)
- ✓ Creating presentations (84%)
- ✓ Less in other important digital skills such as collaborating online (59%), participating in online discussions (58%), using LMS (59%)
- ✓ Overwhelmingly teachers agree that ICT can benefit learning, recognize that there are dangers in inappropriate use of ICT.

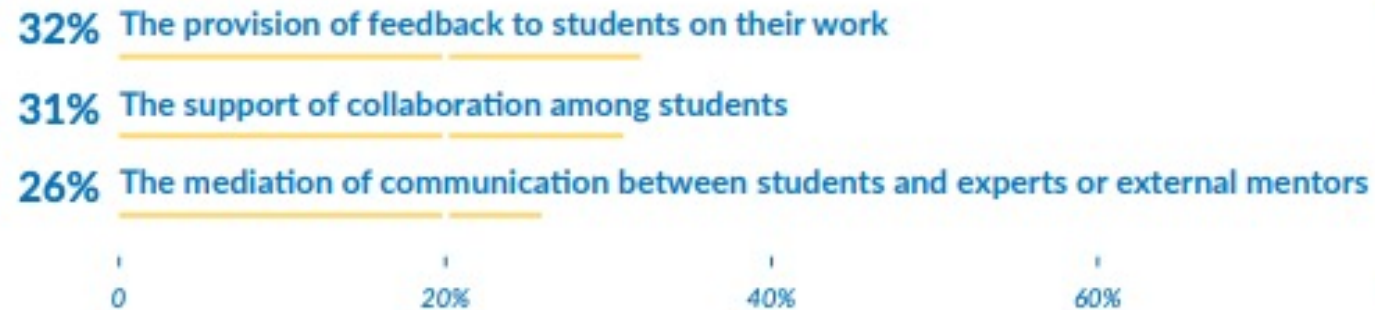


Percentages of teachers reporting use of Information and Communications Technology (ICT) in most lessons for:

Most frequent use of ICT:



Least frequent use of ICT:





# Initial Teacher Education models vary across countries

## Tensions in ITE

There are multiple paths to becoming a teacher, several of which reflect multiple tensions: i.e.,

- Emphasizing content vs. pedagogical preparation or
- Viewing ITE as training, rather than as education
- Addressing ITE using deficit models rather than building blocks of an empowered professional identity

(Mayer & Mills, 2020)

Missed opportunities!

# What do we know?

## ITE and digital competences

- Professional digital competence (DG) can be broken down to (a) generic; (b) subject-specific, and (c) profession-related DC (Gudmundsdottir & Hatlevik, 2018)
- A fourth dimension refers to “transformative agency” (Brevik et al., 2019)
- ITE programmes might not be preparing for what teachers need in practice (i.e., Gudmundsdottir & Hatlevik, 2018), especially in areas of “responsible” use of technology & online risks.





# What do we know?

## ITE and media literacy education

- The evidence basis is not yet strong.
- However, research reports from different national contexts (*i.e., Australia, England, Norway, U.S., Sweden, Switzerland, Ireland, etc.*) appear to be converging.
- Reports suggest that ITE programmes do not adequately prepare student teachers to teach media literacy.







# What do we know?

## ITE and digital & media literacy

- A study examining teacher education courses at 316 in the US found inconsistent integration of media literacy education in teacher preparation (Tiede et al., 2015)
- Similar results are reported in Europe (i.e., Hartai, 2014; Frau-Meigs et al., 2017)
- This might be due to:
  - mistaken perceptions that student teachers already possess digital competencies
  - lack of training to help teachers understand how media literacy can be integrated with their practice (Gretter & Yadav, 2018).



# What do we know?

## ITE and digital & media literacy

- Reports suggest that student teachers have positive attitudes towards digital and media literacy, but that ITE does not adequately prepare student teachers to teach it.
- The lack of the critical dimension in ITE is especially emphasized.
- Even in countries such as Canada, where media literacy programs are compulsory in K-12, it is reported that ITE does not include critical media literacy courses (Share, Mamikonyan, and Lopez, 2019).



A woman with dark hair tied back, wearing a bright yellow sweater, is looking down at a tablet computer she is holding with both hands. The background is dark and out of focus, suggesting an indoor setting with blinds. The image is partially obscured by a white and blue geometric shape on the left side of the slide.

# Next steps

- The four dimensions of professional digital competence are important: ITE programmes should be systematically updated to reflect the evolving digital ecosystem.
- Updates should address the competencies that teachers should have to be able to function as professionals in order to support the digital competencies of their students (Renés-Arellano, Aguaded & Hernández-Serrano, 2021).
- They should also attend to different types of media literacy (i.e., functional, critical, civic).
- It is also important to have assessments that enable evidence-based decision-making.



# Thank You

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