



# Desk Research Belgium

National digitalization strategies in HE

# Digital Competence Framework for Educators (Europe)

Belgium has been actively working on digitalization, aligning with the European Digital Education Action Plan. Europe shares a common vision of high-quality, inclusive and accessible digital education and supports the Member States in this digital transition.

The teaching profession face rapidly changing demands, which require a new, broader and more sophisticated set of competences than before. The omnipresence of digital devices and applications require educators to develop their digital competence.

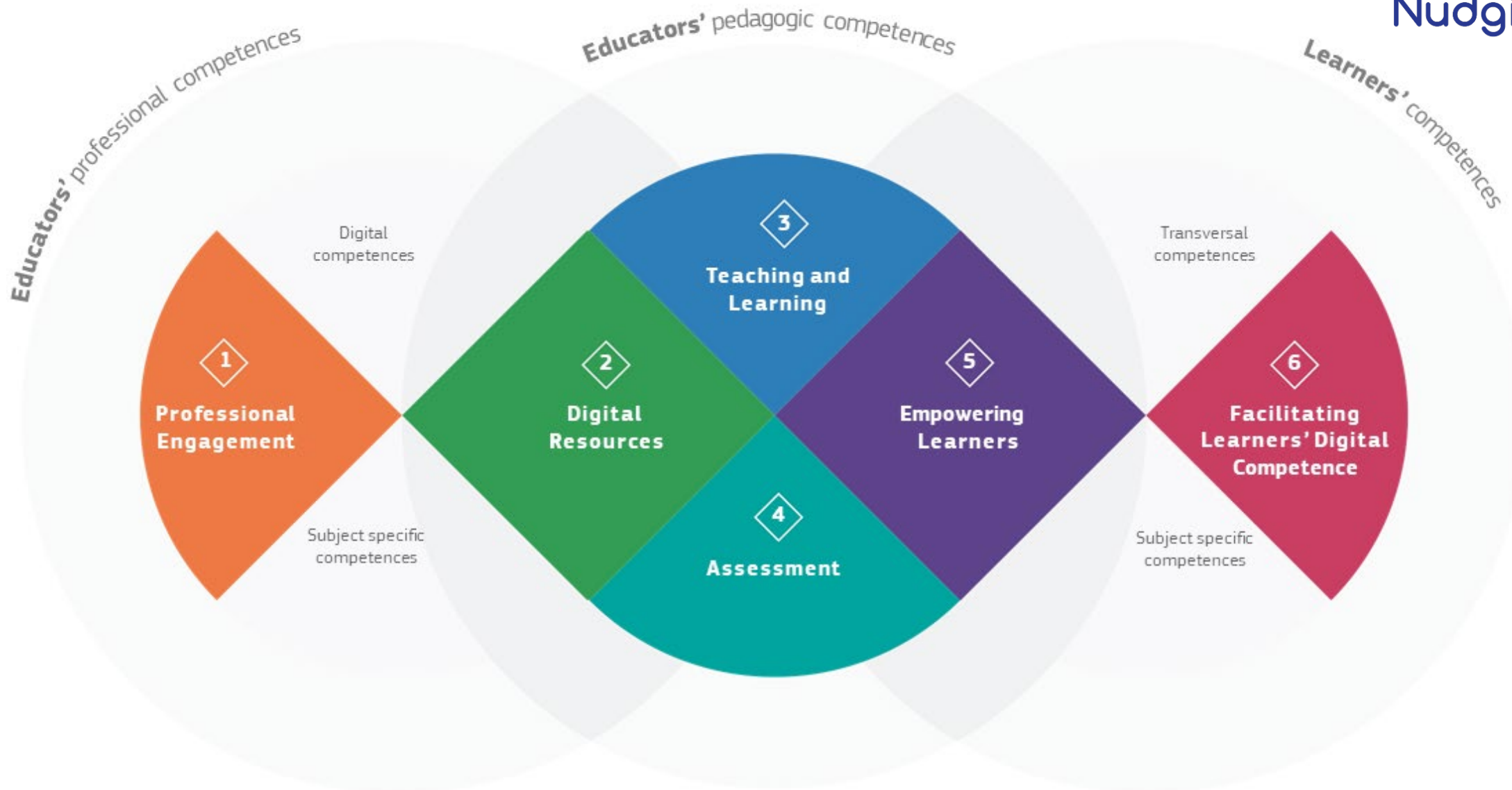
The focus is not on technical skills. Rather, the framework aims to detail how digital technologies can be used to enhance and innovate education and training.

DigCompEdu details 22 competences in 6 areas:

- 1) Professional engagement
- 2) Digital resources
- 3) Teaching and learning
- 4) Assessment
- 5) Empowering learners
- 6) Facilitating Learners' Digital Competence

Key aspects of HE in Belgium are:

- (1) E-learning Initiatives
- (2) Digital Learning Platforms
- (3) Open Educational Resources
- (4) Government Initiatives
- (5) ICT Infrastructure
- (6) International Collaboration



## Flanders has developed its own programme “Flemish Resilience”

Digisprong, co-funded by the European Recovery and Resilience Facility is part of it. This initiative in Flemish education focuses on reforming ICT teams in schools.

### Keypoints of Digisprong are:

- (1) Digital Infrastructure
- (2) Teacher Training
- (3) Digital Learning Resources
- (4) Equal Access
- (5) Collaboration with Industry Partners
- (6) Government Funding

Digisprong consists of distinct programs tailored to different educational levels, "Bij sprong" for school education, "Voorsprongfondsen" for higher education, and "Edusprong" for adult education. Each program is designed to address the unique needs of its educational level.

### **‘Voorsprongfondsen’ Funding higher education**

- 1) Goal: Strengthen higher education by enhancing its resilience, adaptability, digital capabilities and structural challenges.
- 2) Focus is on nurturing innovations that will enhance the relevance of higher education to society, encouraging a commitment to lifelong learning in a digital age.
- 3) Higher education institutions will be supported to review their current course offerings and draw up an action plan identifying their needs for renewal, rationalization and adaptation.
- 4) At the core are guiding principles of flexibility, innovation, and sustainability.

## “Digital Wallonie” is Wallonia's digital strategy

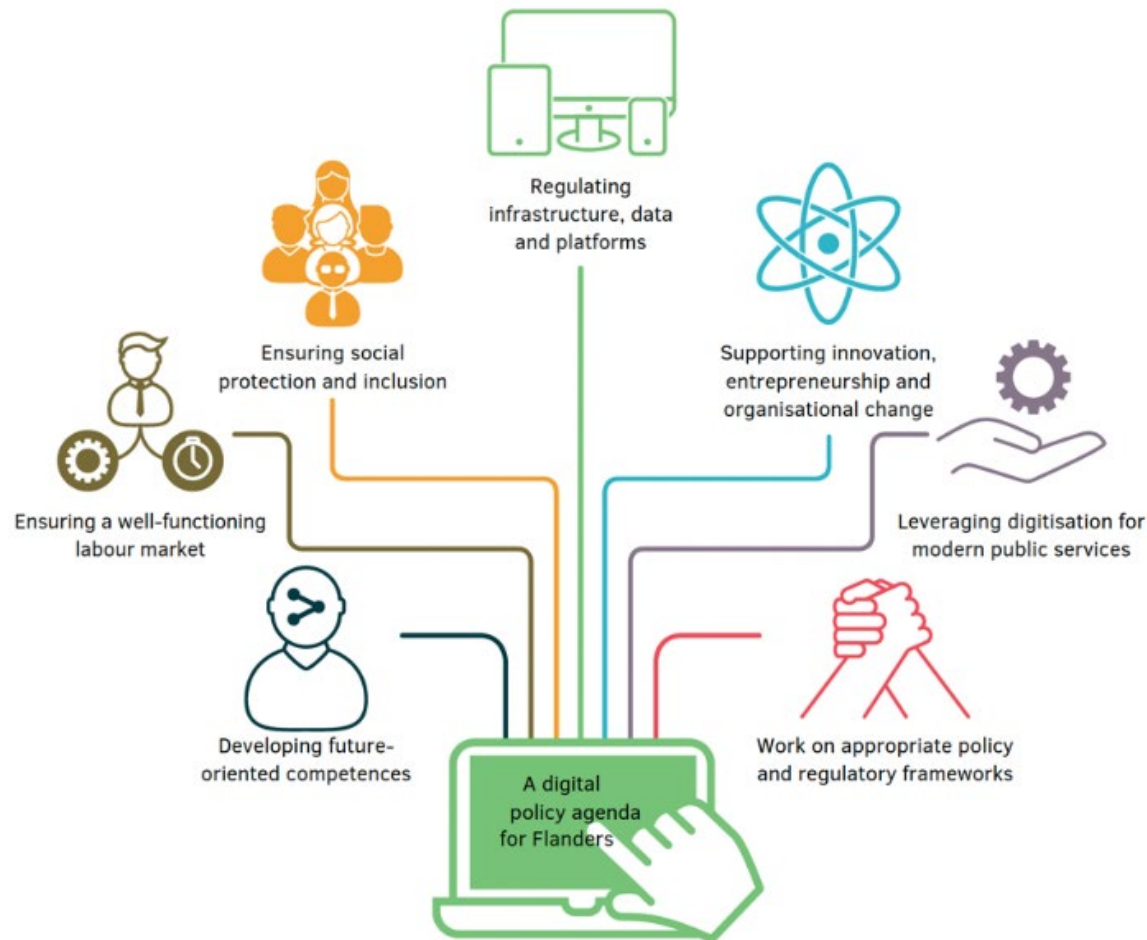
Acting as a structuring regional framework, it ensures the coherence and sustainability of digital policies. It is integrated into the General Policy Declaration of the Walloon Government. Several of its structuring programs will benefit from significant resources within the framework of the Wallonia Recovery Plan drawn up following the health crisis.

Thanks to Digital Wallonia, ‘the Digital School project’ provides schools with high-quality equipment and connections to promote the use of digital technology, acquire specific digital skills and support all other learning activities.

The challenges in developing digital skills include involving all citizens in digital culture, teaching with and about digital technology, encouraging IT-related vocations, improving training, boosting employment through digital skills, combating the digital divide, and adhering to **the European framework DigComp**.

# Flanders Advisory board SERV

The Social and Economic Council of Flanders (SERV) provides recommendations for navigating digitization:



## Recommendations in higher education:

The council points out the importance of fostering a learning culture in Flanders, particularly in response to the challenges brought about by digitalization. In a rapidly evolving digital landscape, education and training institutions play a crucial role. Anticipating significant changes in learning approaches, these institutions must proactively lead in (re-)education, (re-)training, and lifelong learning, adapting to emerging skill requirements.

# Desk Research Belgium

Use and implementation of digital tools & nudging



# Use of online tools in Belgium

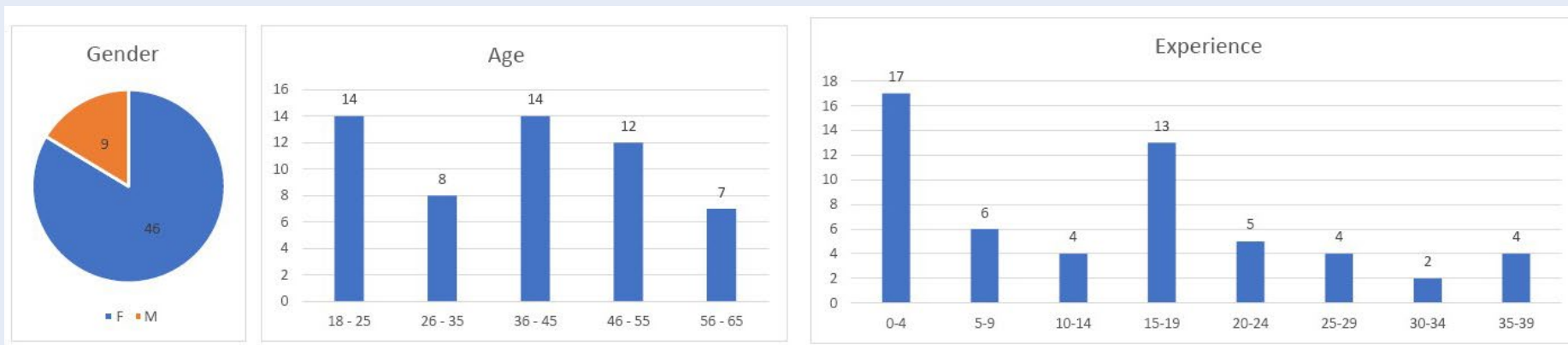
A study of online tools that help teachers get started in delivering curriculum

A master's thesis written as part of the Educational Master's programme in Economics at Ghent University.

*Author: Flore Dequeker, student at Ugent*

This study resulted in an overview of online tools used by teachers and the advantages and disadvantages, and a [website](https://floredequeker.wixsite.com/onlinetoolsonderwijs) introducing nine online tools, showing general information, interesting links and some pros and cons.

<https://floredequeker.wixsite.com/onlinetoolsonderwijs>



What online tools do teachers know?		What do teachers think about the online tools they use?				
Kahoot	95%		Recommended	Future use	Not satisfied	Reject
Bookwidgets	82%	Bookwidget	17	23	2	3
Google forms	76%	Powerpoint	6	2	0	1
Prezi	69%	Kahoot	5	3	8	1
Mentimeter	55%	MS Teams	5	3	1	0
Screencast-o-matic	49%	Loom	2	3	0	0
Socratic	44%	Screencast-O-Matic	2	2	2	0
Padlet	42%	Socrative	2	2	2	0
Powtoon	38%	Google Classroom	2	2	0	0
Educaplay	27%	Mentimeter	1	3	2	2
Powerpoint	22%	Powtoon	0	1	3	1
MS Teams	22%	Prezi	0	0	4	1
EdPuzzle	22%	Advantages of online tools	Game element			
Nearpod	20%		Interaction			
Flipgrid	16%		Automatic correction			
Loom	13%		Easy feedback			
Wizer.me	11%		Differentiation			
Smartschool	9%		User-friendly			
Smartschool live	9%		Many different possibilities within 1 tool			
Quizlet	7%		Possible for both distance and face-to-face learning			
Youtube	7%		Beautiful layout			
MS Forms	4%		Visual			
Wezooz	4%		Integrated with smartschool			
Zoom	4%	Disadvantages online tools	Limited functions if free			
Plickers	4%		Practical: problems with wifi			
Klascement	4%		Time-consuming			

## List of worldwide studies about added value of using online tools in teaching

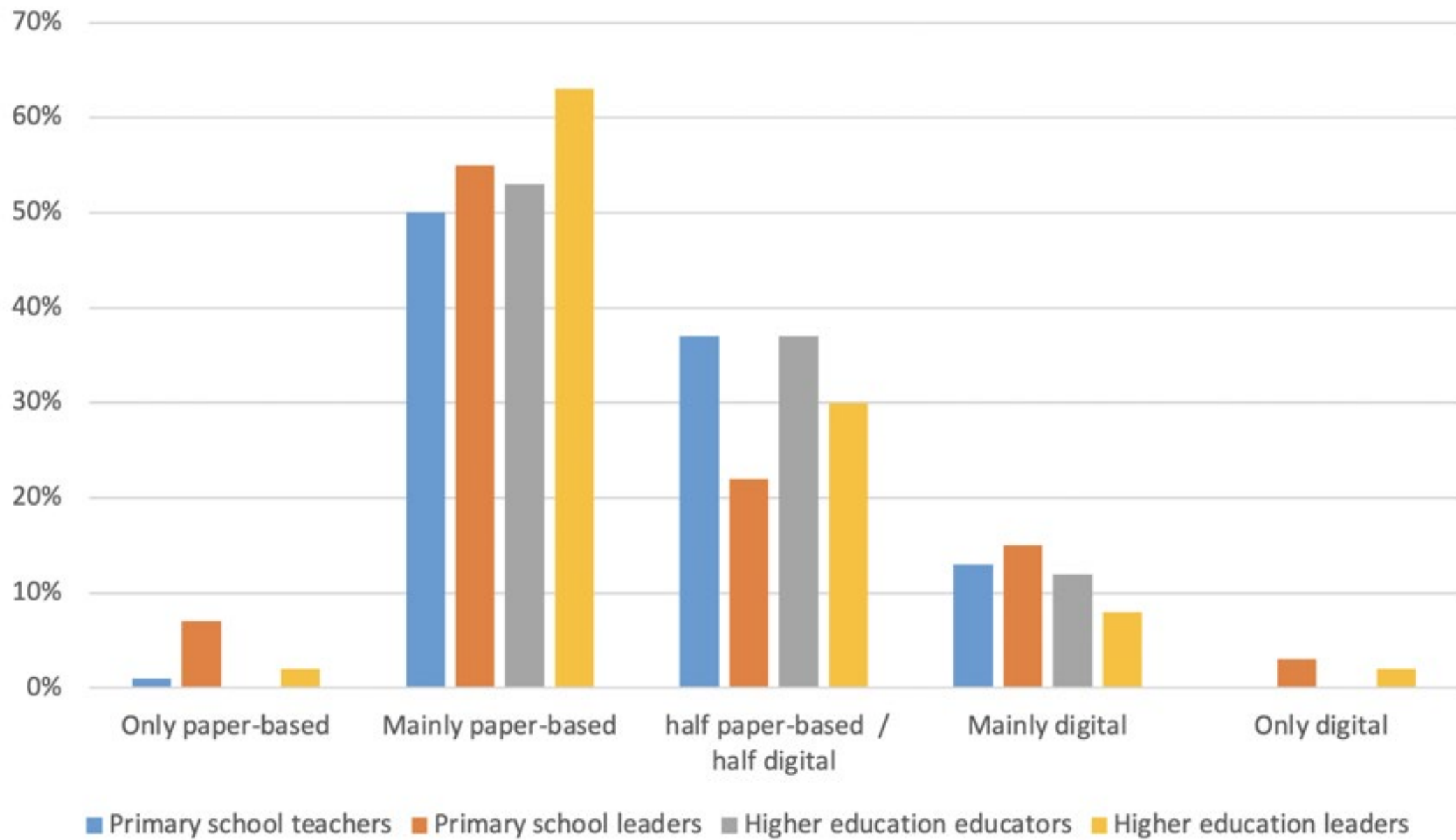
Online tools have an indirect effect on study results in the positive results. Negative results show us otherwise. Technology is used as a means to good teaching and not as an end in itself.

Positive results		Negative results	
Lass et al (2007)	Significant positive effect of online quizzes on final exam results.	Thorn et al. (2010)	Positive effect of mandatory homework no difference between online or paper
Emerson and Mencken (2009)	Online homework has a positive effect on final outcomes.	Lee et al. (2010)	Positive effect using online homework, not because of online methods.
Dahlgran (2008)	Online homework increases results thanks to an increase in study time.	Byron and Liedholm (2002) Russel (2006) Carter and Emerson (2012)	Comparing three different teaching methods (traditional, online video and a combination of the two), no significant difference was found.
Johnston (2004)	Students appreciate the convenience, flexibility and feedback online homework.		
Dillard-Eggers et al (2008)	Feedback on online homework increases study results.	Harter and Harter (2004)	Results compared over 4 semesters. Online quizzes had no positive impact.
Lindquist and Olson (2007)	Feedback on online homework increases satisfaction, positive experience student	Gratton-Lavoie and Stanley (2009)	Online teaching had a slight negative effect on study results.
Argawal and Day (1998)	Communication student teacher improves Theory is better conveyed / understood  Active teaching format / Increase results Attitude of master student increases	Argawal and Day (1998)	No positive effect in student attitude of undergraduate students.
Self (2013)	Students who use software to practice voluntarily do better / Weaker students benefit from additional voluntary work.	Self (2013)	Low impact of online homework on exam results / Are the positive results due to the digital aspect?

## Learning Resources Monitor report of Dutch schools by Woldhuis et al. (2018)

What is the teacher's own preference? We see that teachers mainly prefer paper versus digital learning tools because they take less time to create, the distraction for students is lower, it is cheaper and more accessible.

Added value of paper-based learning		Added value of digital learning		Resources	Paper	Digital
Paper learning resources always do the job	69%	Digital offer more variety in learning activities	52%	Time to make	little	much
Less easily distraction with paper-based learning tools	35%	With digital learning tools I can differentiate better	51%	Learner independence	low	high
Paper-based learning resources are more pleasant to work with because they are more tangible	32%	With digital learning tools I can let pupils work more independently	44%	Distraction	low	high
Paper does not require expensive infrastructure	21%	Digital resources are more attractive to pupils	41%	Infrastructure	cheap	expensive
Paper learning materials are easier to make yourself	21%	Digital learning tools save me revision work	17%	Checking work	much	little
Not all students can use digital resources at home	18%	Digital learning tools can convey learning content better	10%	Differentiation	little	much
Other	12%	I see no added value compared to paper-based learning tools	8%	Variety	little	much
You have to learn to use every digital learning tool	10%	Other	8%	Accessibility	high	low



# Interesting initiatives in HE Belgium

- 1) **Toolkit for digital inclusion:** Multimedia & Creative Technology students from the Erasmus College Brussels have designed a digital toolkit named MobiDig for social organizations. This easily transportable trolley includes hardware, internet connectivity, and charging options, providing a solution to enhance digital literacy.
- 2) **Action Program – Transition to a digital school:** Commissioned by VLAIO, an action program has been devised to professionalize teachers for the digital school, addressing the growing integration of digital applications into daily life.
- 3) **Postgraduate in digital didactics:** VIVES Zuid and KU Leuven KULAK Kortrijk, offer a **postgraduate program** in digital didactics in collaboration with Eekhout Academy.
- 4) **Colleges as partners in innovation:** colleges have become vital collaborators, e.g. Blikopener addresses the challenge of connecting small and medium-sized enterprises and social profit organizations with the knowledge and expertise available at universities of applied sciences.
- 5) **Artevelde University of Applied Sciences** supports the ideas of its driven students and places sustainability and inclusion at the forefront of educational programs and research initiatives.
- 6) **KDG University of Applied Sciences and Arts (Antwerp) organises 'Business 4 Exchange'.** An international programme specially developed for 'Business' students. They were looking for new lecturers specifically on the theme 'Smart sustainable City' (SSC) with a strong social angle.

## 1. Digital nudging

"The Persuasive Power of the Digital Nudge" delves into how nudges, a concept from behavioral economics, are now applied in the digital landscape.

By using tools like SMS, email, apps, and gamification, these digital nudges encourage specific actions. The article highlights that, for these digital nudges to be effective, they should consider individuals' automatic behaviors, target opportune moments for change, and connect with easily achievable steps. Simple, low-cost gestures, such as a personalized email or a positive emoji, can have a significant impact, emphasizing the accessibility and effectiveness of tech-based nudges.

<https://www.bcg.com/publications/2017/people-organization-operations-persuasive-power-digital-nudge>

## 2. Acceptance of nudging

### Quantitative research on the acceptance of nudging and the difference between pro-social and pro-self-nudges

Master's thesis submitted for the degree of master in the direction of Communication Sciences

*Author: Manon Lambert, student at UGent*

[https://libstore.ugent.be/fulltxt/RUG01/003/013/513/RUG01-003013513\\_2021\\_0001\\_AC.pdf](https://libstore.ugent.be/fulltxt/RUG01/003/013/513/RUG01-003013513_2021_0001_AC.pdf)

Governments add nudging to their toolbox, because of the subtle way it works on behaviour change. This is also the biggest criticism of nudging, taking away autonomy and freedom of choice. Whether a government will use nudges, as well as effectiveness depends on the acceptance of the general public.

### **Do Flemish people stand positively towards nudges?**

Pro-self nudges are, as in other countries, in Flanders more likely to be accepted than pro-social nudges. This insight is very relevant if people in Flanders want to further engage in nudging. Flanders is in a situation where the government can certainly feel supported by the opinion of its citizens.



## Respondents' attitudes towards policy proposals containing nudges

	Respondents who find the policy acceptable	Respondents who find the policy an infringement of freedom of choice
<b>CO2 offsetting</b>	68%	38%
<b>Tax avoidance</b>	87%	10%
<b>Organ donation</b>	82%	49%
<b>Energy consumption</b>	73%	22%
<b>Cafeteria refurbishment</b>	97%	36%
<b>Food labelling</b>	93%	12%
<b>Discouragement of smoking</b>	94%	12%
<b>Quitting smoking</b>	77%	46%

### 3. Masterclass nudging and framing for HR

In this master class, you will learn how you can subtly - subconsciously - influence employees' behaviour positively. How to give employees a push in the desired direction.

<https://www.hracademy.nl/opleiding/nudging-en-framing-voor-hr>

- 1) You learn, devise and design the right nudges to influence employee behaviour.
- 2) You know how to 'entice' employees to make certain choices and change their behaviour.
- 3) You can use framing to make your instructions easier to follow.
- 4) You can work on improving and applying nudges yourself.
- 5) You will have a concrete plan of action for a practical situation of your choice.

## 4. Research on use digital tools Sweden

Teacher Educators' Use of Digital Tools and Needs for Digital Competence in Higher Education

*Authors: Lisbeth Amhag, Lisa Hellström & Martin Stigmar*

This article investigates the utilization of digital tools and the corresponding demand for digital competence among teacher educators in higher education, focusing on research conducted in Sweden. Such research material can be used to persuade educators to use more digital tools.

**The idea is to empower educators to use digital tools purposefully and in a way that enhances both motivation and the overall effectiveness of their teaching methods.**

5.

## THE LITTLE BOOK OF GREEN NUDGES



UNEP is collaborating with universities to encourage the use of **green nudges**. The Little Book of Green Nudges is a quick guide to reducing your campus' environmental impact through behavioural change in the form of a concise and user-friendly publication. *Source: United Nations Environment Programme and GRIDArendal, 2020*

<https://www.unep.org/explore-topics/education-environment/what-we-do/little-book-green-nudges>

The UN Environment Programme (UNEP) is now embracing nudging as a strategy to help meet the Sustainable Development Goals (SDGs) and protect the global environment.

If you want to encourage a behaviour, make it Easy, Attractive, Social and Timely.

- 1) Use defaults
- 2) Remove or add barriers
- 3) Change the choice environment
- 4) Draw attention
- 5) Frame messages and highlight co-benefits
- 6) Use smart incentives
- 7) Highlight others' sustainable behaviour
- 8) Harness identity and the right messages
- 9) Use social connections and peer pressure
- 10) Encourage pre-commitments and emphasize present benefits
- 11) Harness or create timely moments
- 12) Help people plan and follow through