ELTE | FACULTY OF EDUCATION AND PSYCHOLOGY

COMPETENCE AND SKILLS DEVELOPMENT IN VET

The Changing Skills Requirements of Teachers

from competence inflation to professional capacity

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A QUESTION TO START

Raise your hand if someone has given teachers a new competence framework in the last five years.



Keep it up if anyone took a task away.

We will come back to this at the end.

The argument in one slide

MY THESIS

We do not have a skills gap in teaching. We have a capacity gap dressed up as a skills gap.

Working concept: competence inflation — expectations grow faster than the time, status and support available to meet them.

1

The job is widening

Six forces — most of them not AI — add to what teachers and trainers must do

2

Beyond AI, and what AI reveals

Which competences have evidence behind them, and what the AI literature shows about expertise, workload and assessment

3

Capacity is built, not announced

What works in professional learning, what Hungary and others tried, and three asks

I · DRIVERS

Six forces are widening the teacher's job

Demography

40.4% of EU teachers are 50 or over; 8.0% are under 30 (2024).

Labour market and green transition

Employers expect 39% of workers' core skills to change by 2030.

Diverse learners and inclusion

VET teachers report more diverse needs, behaviour problems and bullying to handle.

Wellbeing

Wellbeing moved into VET policy with the 2025 Herning Declaration on attractive and inclusive VET.

Work-based and lifelong learning

Hungary: recent VET graduates with work-based learning rose from 29.7% (2021) to 43.1% (2024).

AI and digital

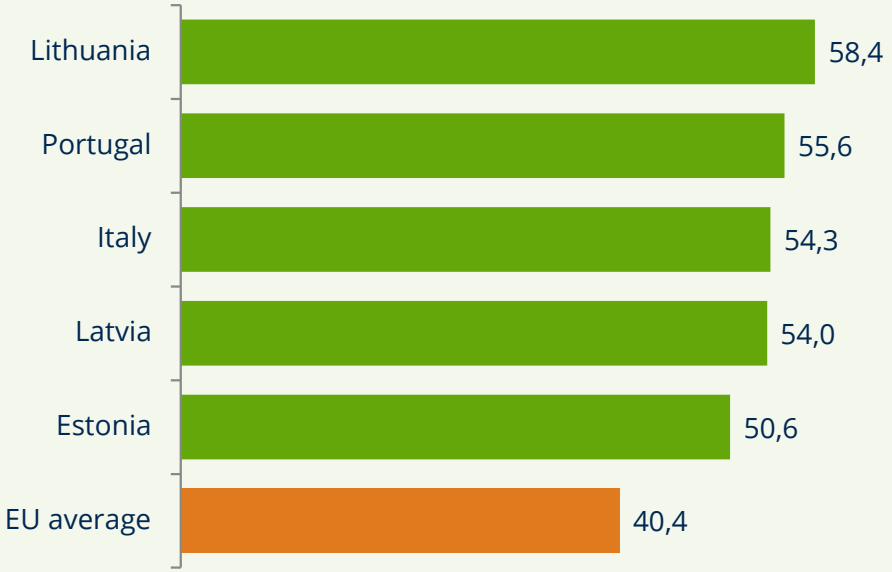
One force among six: 36% of lower-secondary teachers used AI in the past year (OECD average).

Sources: Eurostat (Oct 2026), 2024 data · WEF Future of Jobs 2025 · Cedefop EVTS pilot (2026) and ReferNet summary · Cedefop VET policy briefs (Hungary) / Education and Training Monitor 2025 · OECD TALIS 2024 country notes.

I · DRIVERS

The profession is greying

Share of primary and secondary teachers aged 50 or over, 2024 (%)



5.30 m

primary and secondary teachers in the EU (2024)

8.0%

of them are under 30

44 m

more teachers needed worldwide by 2030 (UNESCO)

4.8 m

of them in Europe and North America, mostly to replace leavers

Sources: Eurostat (Oct 2026) · UNESCO and International Task Force on Teachers for Education 2030 (2024), Global Report on Teachers. In Hungary more than half of teachers are 50+ (OECD, TALIS 2024 country note).

I · DRIVERS

VET carries the transition — and the shortages

49.4%

of EU upper-secondary pupils follow vocational programmes (2024)

24.7%

of those are in combined school-and-work programmes

6 of 7

shortage occupations in the EU are vocational or technical (Commission, March 2026)

≈ 4%

projected EU employment growth 2023–2035; most openings come from replacement demand

So what for teachers

The volume challenge is replacing skilled workers — many of them trained by VET teachers and in-company trainers who are themselves approaching retirement.

Sources: Eurostat, Vocational education statistics (2024) · European Commission, Union of Skills one-year review (March 2026) · Cedefop Skills Forecast 2035 (2025 edition).

Every framework adds an expectation

Expectations accumulate →

2016 EntreComp	2017 DigCompEdu	2018 Key competences	2020 LifeComp	2022 GreenComp	2024 UNESCO AI competency framework	2025 OECD Teaching Compass	2026 EU Teachers and Trainers Agenda
enterprise and innovation	digital teaching	eight competences for all	personal and social skills	sustainability	AI for teachers	agency, co-design	announced; due

Sources: European Commission and Council documents; Cedefop (2022, 2024–25); UNESCO (2024); OECD (2025), Teaching Compass. Agenda announced in COM(2025) 88; adoption not confirmed. Each framework implies new teacher competences; none considered teachers' total load (author's reading).

II · COMPETENCE INFLATION

Competence inflation: a working definition

WORKING CONCEPT

Expectations placed on teachers grow faster than the time, status and support available to meet them.

The author's concept, not an established term. Three signals suggest it is real:

1

Frameworks add; none subtracts

Seven frameworks since 2016, an eighth announced (previous slide).

2

Workload, not missing skills, drives stress

TALIS 2024: administrative work is a source of stress for 52% of teachers; maintaining discipline for 45%.

3

Change fatigue predicts leaving

New Zealand (TALIS 2024): 70% of secondary teachers were stressed by keeping up with changing requirements; higher change fatigue went with wanting to leave within five years.

Sources: OECD (2025), Results from TALIS 2024, DOI 10.1787/90df6235-en · New Zealand Ministry of Education, TALIS 2024 first report (Education Counts).

II · COMPETENCE INFLATION

The VET teacher carries a double load

Passport 1 · Pedagogy

- Teaching and assessment
- Inclusion and wellbeing
- Classroom management

Dual professionalism

Passport 2 · Occupation

- Current practice in a changing trade
- Green and digital shifts at work
- Industry links and placements

≈ 1 in 3

VET teachers did not choose teaching as a first career (67% did) — many arrive from industry.

Hybrid

Cedefop (2022) recommends dual-career or hybrid teacher–trainer profiles.

60 h / 4 yrs

Hungary: CPD focused on vocational knowledge, preferably in companies; teaching vocational theory needs no teaching qualification.

Sources: Cedefop EVTS launch press release (Sept 2025) and pilot working paper (2026) · Cedefop (2022), Teachers and trainers in a changing world · Cedefop (2024), VET in Hungary: short description, DOI 10.2801/5021868; VET policy briefs 2024 – Hungary.

Cedefop's pilot: a profession under strain

9%
of VET teachers feel society values their work

13%
consider their pay adequate

60%
report physical exhaustion and sleep disturbances

42%
feel emotionally drained

49%
take on additional responsibilities because of staff shortages

−10.5%
average pay gap versus other tertiary-educated professionals

Source: Cedefop (2026), VET teachers at a turning point (Psifidou, Papazoglou & Pouliakas), Working Paper 29, DOI 10.2801/1254726; Cedefop, Europe's first survey for VET teachers. Pilot of 735 IVET teachers in 23 Member States: not representative; associations, not causes. Full survey (about 14,000 teachers) reports in 2027.

II · COMPETENCE INFLATION

TALIS 2024: training is not the same as impact

52%

cite administrative work as a source of stress

45%

cite maintaining discipline (55% of novices; 41% of experienced teachers)

73%

took part in training (63% in other professions) — but only about 1 in 2 found it impactful

29%

name AI as their top learning need

READING THE DATA (INTERPRETATION)

Teachers do not lack courses. They lack time, support and relief from administration — and the new training need arrives on top of the old stress.

Source: OECD (2025), Results from TALIS 2024, DOI 10.1787/90df6235-en, and country notes; Education International summary of TALIS 2024. 55 education systems. Percentages are OECD averages; stress and training items are different survey questions.

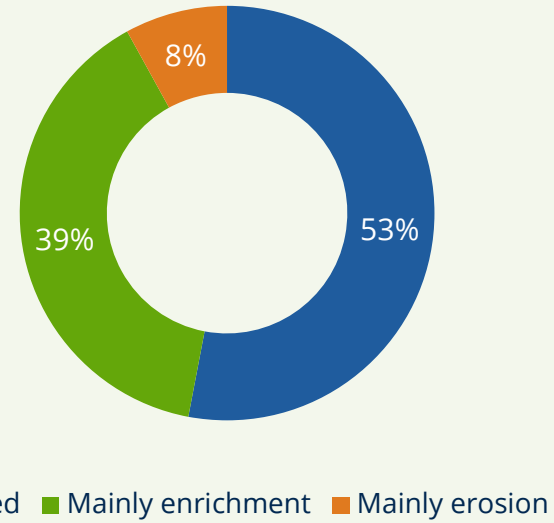
Beyond AI: where the evidence is strong

Strong	Moderate to strong	Moderate	Thin or contested
Classroom management and self-efficacy	Adaptive teaching	Agency, identity, autonomy	Green and sustainability teaching (gaps are well documented, effects are not)
Feedback and assessment literacy	Collaboration and learning communities	Social-emotional and wellbeing	Entrepreneurship education
Mentoring and coaching		Inclusive teaching	Transversal '21st-century' skills (contested)
		Occupational currency	
		Research literacy	
		Leadership and change	
		Intercultural and language	
		Career guidance	

Author's synthesis of OECD TALIS 2024; Cedefop (2022, 2026); Kraft, Blazar & Hogan (2018); Sims et al. (2025); EU and OECD framework documents. "Strong" = several causal or meta-analytic studies; "moderate" = consistent survey or correlational evidence; "thin" = mainly normative.

AI as stress test: relocation, not replacement

Direction of change in teacher identity, 413 studies that take a direction



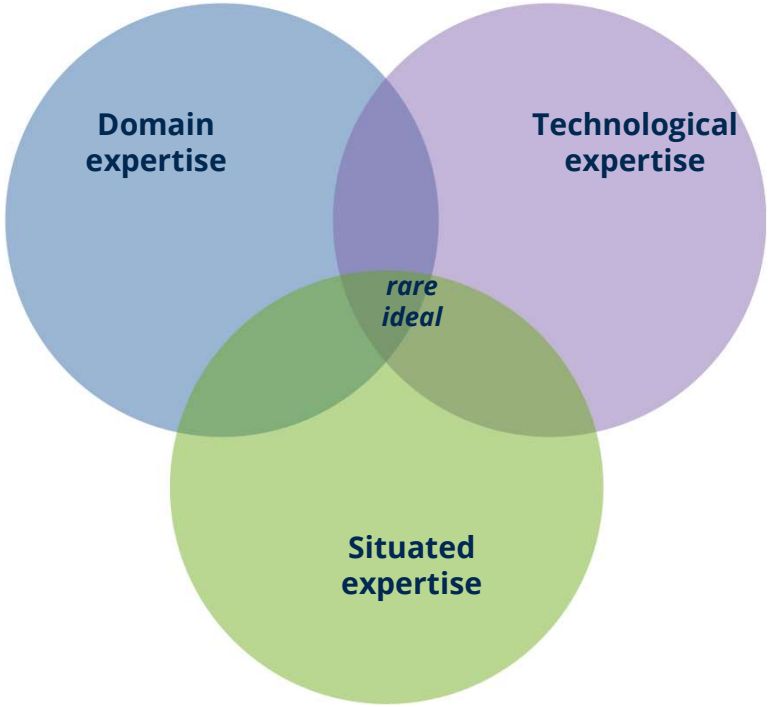
1. Teachers' expertise moves from producing and transmitting knowledge to judging, curating and ethically mediating machine output.

2. Conditions decide the direction — leadership, policy clarity, pedagogy-focused learning — more than the technology does.

3. The evidence is young and thin: 99% of 462 records date from 2023–2026; only about 17 concern VET or adult education; none come from Hungary.

Source: Horváth (2026, 30 Sept), GenAI and the Teaching Profession: Evidence Synthesis — 462 unique records, coded from Elicit extractions rather than full texts; counts approximate; findings are mostly self-reported and cross-sectional.

Judgement needs expertise to stand on



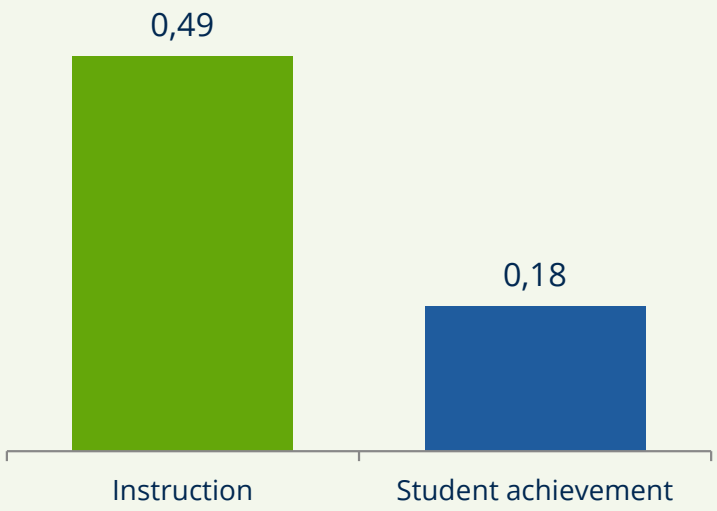
1. Output can only be recognised as confidently wrong by someone who knows the domain.
2. New competences strengthen the profession only if built on expertise, not instead of it.
3. VET teachers already embody the model: occupational (domain) expertise plus situated pedagogy — now add the technology.

"Situated expertise is deeply human and connected, understanding that both the gaining and the sharing of knowledge is relational." — Furze (2025)

Sources: Furze (2025, 13 June), Three Dimensions of Expertise for AI (blog) · Horváth (2026), Evidence Synthesis, discussion read through Vámos et al. (2020) · Siemens et al. (2022), Computers & Education: AI, 3.

Coaching beats courses

Effect of teacher coaching, standard deviations (60 causal studies)



Mechanisms, not menus

104 randomised trials: professional development containing more of 14 identified mechanisms had larger effects on pupil outcomes (Sims et al., 2025).

Goal-setting **Modelling** **Feedback** **Rehearsal**

Action planning **Managing cognitive load**

Revisiting prior learning **Reinforcement**

The coaching effect on instruction (0.49 SD) exceeds the gap between novice and veteran teachers (0.2–0.4 SD). “The quality and focus of the coaching may be more important than the actual number of contact hours.”

Sources: Kraft, Blazar & Hogan (2018), Review of Educational Research, 88(4), 547–588, DOI 10.3102/0034654318759268 · Sims et al. (2025), Review of Educational Research, DOI 10.3102/00346543231217480. Caveat: mostly US early-literacy coaching; transfer to VET and in-company training is untested.

V · BUILDING CAPACITY

Participation is not learning

r = .12

link between faculty development and curriculum integration across 125 higher-education studies — training focused on tools

18%

of Chinese faculty integrated tools into daily teaching despite heavy investment

RCT

n = 57 pre-service teachers: mindset-inclusive training produced more ethical and pedagogical reflection than tools-only training

What effective designs share

- Pedagogy before tools; ethics and peer discussion included
- Hands-on experimentation tied to daily work
- Duration, collective participation, active learning, a qualified trainer

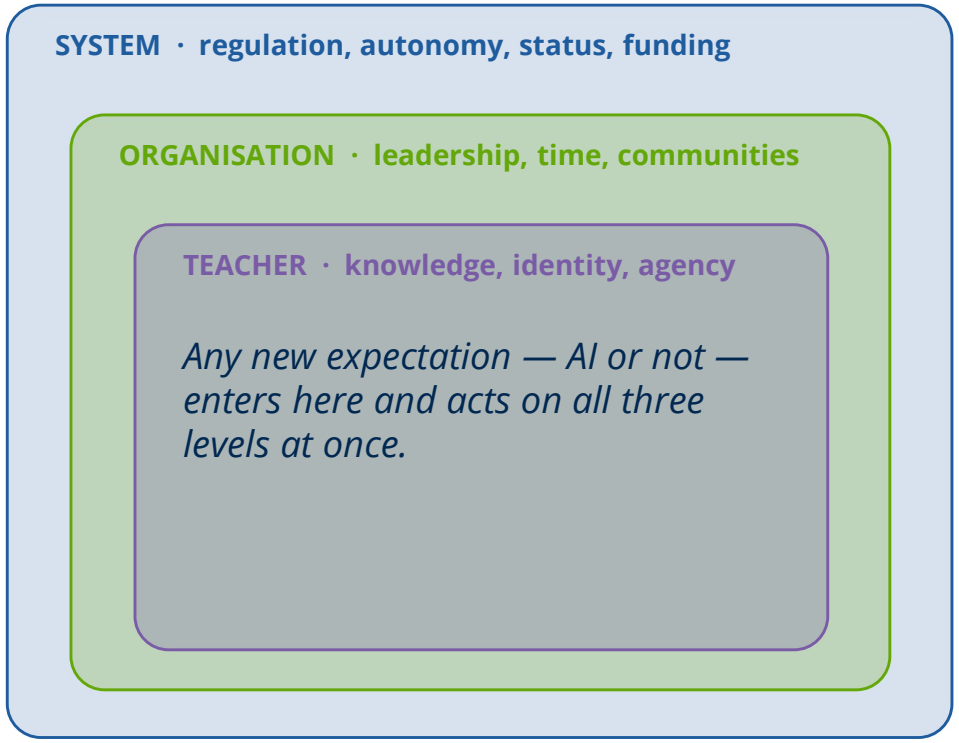
"Institutional development", not more professional development.

What EAP lecturers asked for (Bannister & Carver, 2024). Mandated, top-down training undermined agency (Rice et al., 2024).

Sources: Horváth (2026), Evidence Synthesis (Altamirano et al., 2026; Zhu et al., 2025; Huynh et al., 2025; Rice et al., 2024; Bannister & Carver, 2024), read with Czető (2020) and Rapos et al. (2020), Neveléstudomány (MoTeL issue). Findings are cross-sectional or small-sample; counts from Elicit extractions.

V · BUILDING CAPACITY

Capacity is built at three levels



Organisation

Perceived organisational support strengthened the link between AI use and self-efficacy and wellbeing; psychological-contract breach increased anxiety and withdrawal.

System

A policy vacuum produced "forced autonomy", professional loneliness and concealed use. Autonomy becomes agency only with capacity and opportunity to decide.

Status

Gains and losses are stratified: precarious staff absorbed pressure, secure staff could refuse or reflect.

Sources: Lénárd et al., Kopp, Rapos et al., Vámos et al., Czető (2020), Neveléstudomány thematic issue (MoTeL: Models of Teacher Learning) · Horváth (2026), Evidence Synthesis (Ding et al., 2026; Valenzuela & Ibarra, 2026; Watermeyer et al., 2024). Links between the pre-GenAI MoTeL articles and the AI evidence are interpretive.

V · BUILDING CAPACITY

Hungary: a natural experiment

TALIS 2024: the esteem gap

8%

of teachers feel valued by society (OECD average 22%)

23 pts

job-satisfaction gap vs similarly educated adults — the largest in TALIS

94%

say teachers can rely on each other (OECD 86%)

> 50%

of teachers are aged 50 or over

VET reform since 2020

Jul 2020	VET teachers leave civil-servant status; employed under the Labour Code (Act LXXX of 2019)
2020–26	Pay rises: +30% (2020), about +32% (2024), +21.1% (2025), +10% (2026), government figures
2023/24	41 vocational training centres with 358 schools; 60 h of CPD every 4 years
2024	84.2% of recent VET graduates employed (EU 80.0%)

Open question: does leaving civil-service status raise or lower professional agency?

Sources: OECD (2025), TALIS 2024 Hungary country note · Cedefop (2024), VET in Hungary; VET policy briefs 2024 – Hungary (2025), DOI 10.2801/2326674 · Education and Training Monitor 2025 · government pay announcements (kormany.hu), partly press releases. Reported figures differ slightly across sources.

VI · SO WHAT

Warranted resistance, and subtraction

THE PROVOCATION

What will we stop asking teachers to do?

A subtraction rule: for every new framework, name what falls away.

Adaptation is not a virtue in itself

Defining effectiveness as the capacity to adapt "implies that every change is positive and indispensable" (Czető, 2020) — and can hinder warranted resistance.

Non-use can be professional

Principled non-use is not a deficit. "Critical acceptance" includes teaching when not to use AI (Ishangulyyev & Kara, 2026).

Frameworks can feel like control

Knowledge frameworks stated only as expectations are experienced as control (Rapos et al., 2020): checklist or agency depends on how they are used.

Sources: Czető (2020) and Rapos et al. (2020), Neveléstudomány (MoTeL issue) · Ishangulyyev & Kara (2026), via Horváth (2026), Evidence Synthesis. The subtraction rule is the author's proposal.

VI · SO WHAT

From inflation to capacity

COMPETENCE INFLATION		PROFESSIONAL CAPACITY
Another framework	→	**A subtraction rule**
One-off courses	→	**Coaching, rehearsal and feedback**
Individual upskilling	→	**Institutional development, protected time**
Checklist compliance	→	**Agency: capacity and opportunity to decide**
Generic skills lists	→	**Judgement anchored in occupational and pedagogical expertise**
A status deficit	→	**Esteem, secure contracts, pay: a conditions agenda**

Author's synthesis of the evidence presented in parts II–V.

VI · SO WHAT

Three asks for three audiences

Policymakers

- Make the 2026 EU Teachers and Trainers Agenda a conditions agenda: workload, contracts, pay, status, CPD in working hours
- Adopt a subtraction rule for new frameworks
- Give in-company trainers a CPD entitlement
- Benchmark with EVTS 2027

Institutions

- Build learning communities around real problems: assessment redesign, inclusion
- Structure boundary-crossing: placements, co-teaching with industry
- Protect time
- Treat AI adoption as organisational learning

Teacher educators

- Design PD around mechanisms: goals, modelling, feedback, rehearsal, action planning
- Integrate occupational and pedagogical expertise
- Make assessment literacy a core strand, including AI-resilient and workplace assessment
- Fast, high-quality induction for second-career teachers

Author's recommendations, based on TALIS 2024, Cedefop EVTS pilot (2026), Kraft et al. (2018), Sims et al. (2025) and the Evidence Synthesis. EU Agenda: announced in COM(2025) 88; adoption not confirmed at time of writing.

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WE DO NOT HAVE A SKILLS GAP IN TEACHING.

We have a capacity gap dressed up as a skills gap.

Back to the first question — what will you take off teachers' plates this year?

Thank you!

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