



Improving VET: the Practoraten movement in the Netherlands

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West-ROC van Amsterdam and ROC TOP



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**THERE ARE ONLY TWO TYPES OF
SPEAKERS IN THE WORLD.**

- 1. THE NERVOUS AND**
- 2. LIARS**

MARK TWAIN





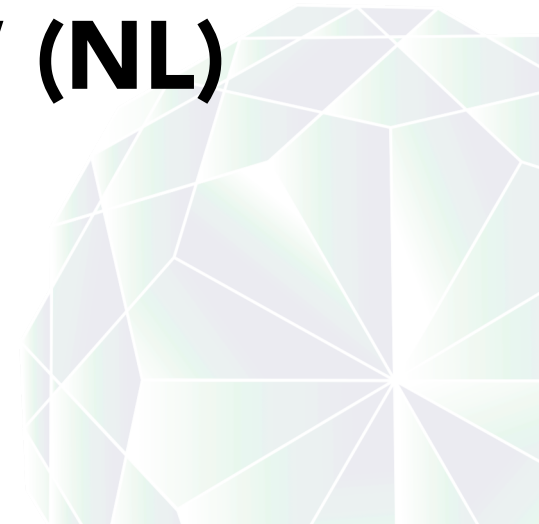


IN HIGHER VOCATIONAL EDUCATION

Lectureship (EN) = 'Lectoraat' (NL)

IN VOCATIONAL EDUCATION

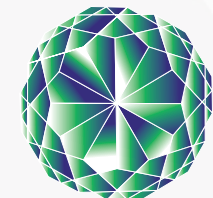
..... (EN) = 'Practoraat' (NL)



AN INTRODUCTION OF THE PRACTORATEN MOVEMENT

What is a 'Practoraat'?

- A 'Practoraat' is a platform of expertise with an applied research function included
- Two varieties:
 - focus on professionally oriented innovation
 - focus on educational innovation
- Teachers and students are actively involved and engaged
- Strong link between education (not only VET), research and (regional) businesses
- Spreading innovations and knowledge is a key factor



30+ Practoraten

October 2018

- | | | | |
|---|-----------------------------|--|--------------------------------|
| 1. Practoraat Mediawijsheid | Mediacollege Amsterdam e.a. | 18. Practoraat Logistiek Beroepsonderwijs | ROC Nijmegen |
| 2. Practoraat Burgerschap | ROC van Twente | 19. Practoraat Rekenen | Albeda |
| 3. Practoraat Zorg & Technologie | ROC van Twente | 20. Practoraat Onderwijs Online | Hoornbeeck |
| 4. Practoraat Versterken Leerproces (niv.2) | ROC van Twente | 21. Practoraat Tech@doptie | RijnIJssel / ROC Nijmegen |
| 5. Practoraat Hospitality Experience | ROC Mondriaan | 22. Practoraat Zorg en ondersteuning dichtbij | Noorderpoort |
| 6. Practoraat Automotive | Noorderpoort | 23. Practoraat Hybride Onderwijs | Scalda |
| 7. Practoraat Gepersonaliseerd Leren | ROC Leeuwenborgh | 24. Practoraat Ouderenzorg en wijkgericht werken | Nova College |
| 8. Practoraat Creatief Vakmanschap | ROC van Amsterdam | 25. Practoraat Verschillen Waarderen | Federatie Christelijk Mbo |
| 9. Practoraat Airport & Aviation | ROC van Amsterdam | 26. Practoraat Beroepsgericht leren in de regio | Arcus College / Leeuwenborgh |
| 10. Practoraat Het Nieuwe Kijken | Mediacollege Amsterdam | 27. Practoraat Internationalisering | ROC van Twente / ROC Mondriaan |
| 11. Practoraat Food, Innovation & Concepts | ROC Mondriaan | 28. Practoraat Brede Vorming | ROC Friese Poort |
| 12. Practoraat Technologie in Zorg en Welzijn | ROC Mondriaan | 29. Practoraat Biobased Innovation | Noorderpoort |
| 13. Practoraat Zorg & (Sensor)technologie | Drenthe College | 30. Practoraat Cybersecurity | ROC Mondriaan |
| 14. Practoraat Burgerschap | Noorderpoort | | |
| 15. Practoraat Activerende Didactiek | Summa College | | |
| 16. Practoraat Smart Technology Skills | Nova College | | |
| 17. Practoraat Samen Slim Zorgen Thuis | Summa College | | |

AN INTRODUCTION OF THE PRACTORATEN MOVEMENT

Why a 'Practoraat'?

Main objective: **Promote teacher quality**

- Research attitude is encouraged
- It creates space for innovation
- Connection between education, research and businesses is strengthened (with regional accents)
- Knowledge sharing between schools is being increased
- Reputation of VET and VET-institutions concerned is being improved



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AN INTRODUCTION OF THE PRACTORATEN MOVEMENT

What is a 'Practor'?

Leader of a 'practoraat': a Figurehead and Inspirator

Responsible for:

- Knowledge development, dissemination (internal and external)
- Practice-oriented research
- Professionalization of teachers

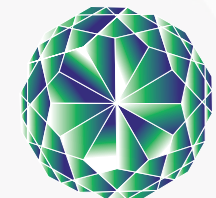


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AN INTRODUCTION OF THE PRACTORATEN MOVEMENT

How is a 'Practoraat' organized?

- VET-institution is 'owner'
- Commitment from the board of the institution is necessary
- The 'Practor' is the leader
- Knowledge circle of teachers and (external) employees
- Students involved, for example in a 'living lab'



AN INTRODUCTION OF THE PRACTORATEN MOVEMENT

Research within 'Practoraten'

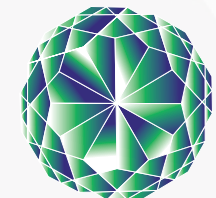
- How research fits in the context of VET
- Reinforce the reflection capacity of teachers and institutions
- Not aimed at theory development
- Participating or in co-creation with professional practice



AN INTRODUCTION OF THE PRACTORATEN MOVEMENT

Activities

- Masterclasses for professionals involved in 'practoraten'
- Meet-ups for professionals who want to start a 'practoraat'
- An annual event for all 'Practoraten' called 'Practoratendag'
- Monitoring of 'practoraten' by a Quality Commission
- Reinforce the network as much as possible





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More information or questions?

www.practoraten.nl or email to info@practoraten.nl

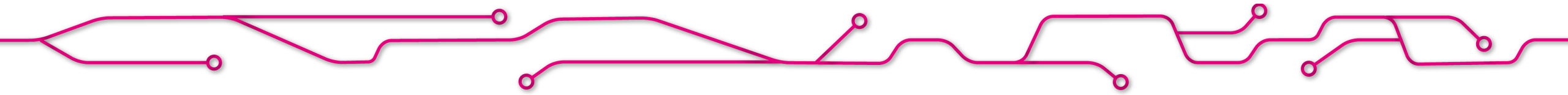
Medialiteracy

#wiebenjijonline



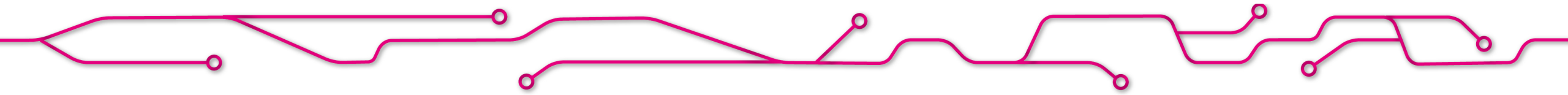
Content

- Purpose
- Position
- Practice



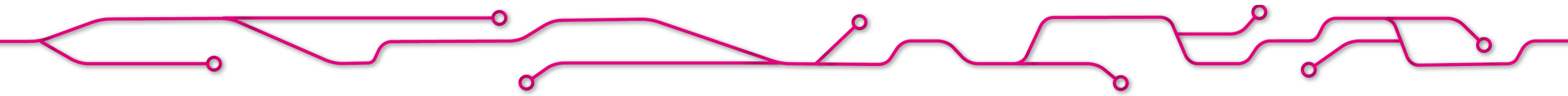
PURPOSE

- IMPACT LITERACY
- ALIGNMENT OF OBJECTIVES
- COMPLEMENTARY COMPETENCES



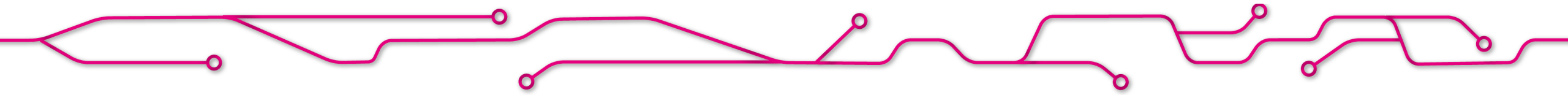
Impact literacy

- the identification, assessment, evidencing and articulation of impact endpoints (“what”);
- the practices that create impact (“how”);
- the successful integration of these practices by research impact practitioners (“who”).
(Bayley & Phipps, 2018)

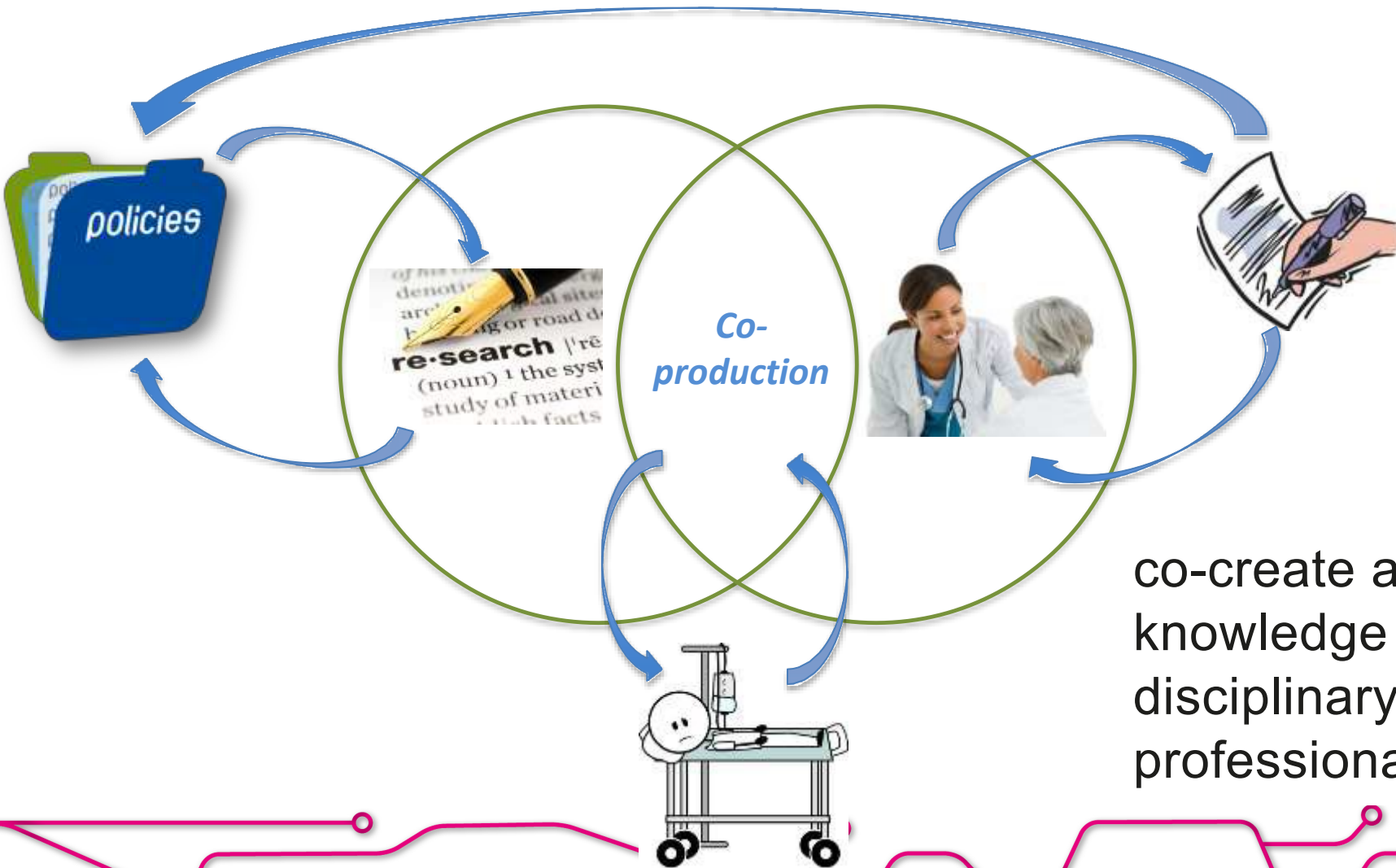


IMPACT LITERACY

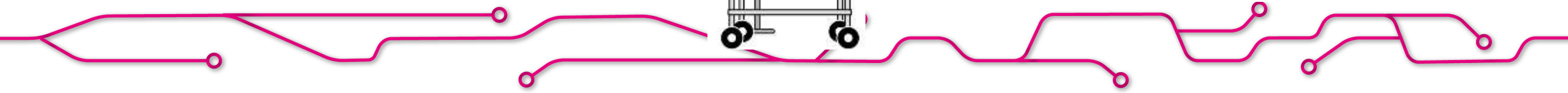
Shifting from simplistic knowledge
transfer / exchange...



Actionable knowledge



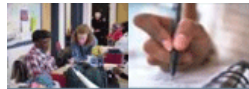
co-create actionable knowledge across disciplinary and professional boundaries.



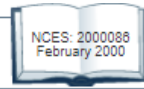
1994-1999

IMPACT (of technology)

2017-2019



Internet Access in U.S. Public Schools and Classrooms: 1994-1999



Internet Access in U.S. Public Schools and Classrooms: 1994-99

How much progress have public schools made connecting to the Internet?

How much progress have public schools made in connecting classrooms?

What is the ratio of students per computer?

How are public schools connecting to the Internet?

How are public schools funding advanced telecommunications?

Related Information

References

PDF & Related Info

Return to FRSS

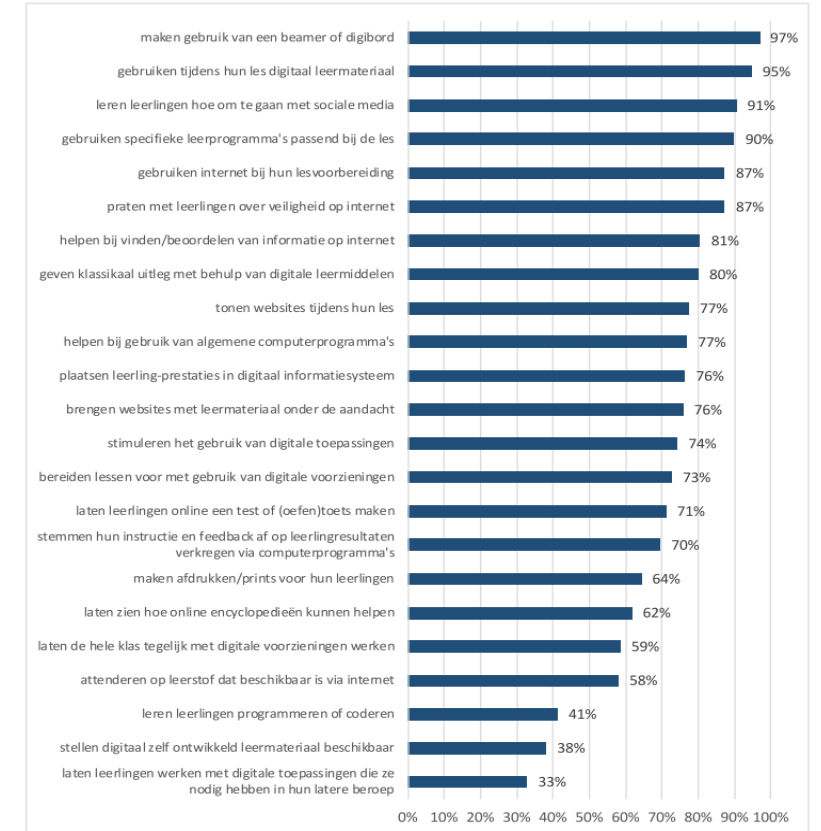
What is the ratio of students per computer?

According to the President's Committee of Advisors on Science and Technology (1997, 21), 4 to 5 students per computer is the ratio "that many experts consider to represent a reasonable level for the effective use of computers within the schools." In 1999, the ratio of students per instructional computer in public schools was approximately 6, the same as 1998 (not shown). Overall, within types of schools, ratios of students to instructional computer stayed the same or decreased slightly between 1998 and 1999.

The ratio of students per instructional computer *with Internet access* decreased from 12 to 9 from 1998 to 1999, although differences remain across schools with different characteristics (Table 1). For example, medium-sized and large schools had more students per computer with Internet access than small schools, 9 and 10 students compared to 6 students. Schools located in cities had more students per computer with Internet access (11) than schools in rural areas (7). The largest differences occurred in schools with varying concentrations of poverty. Schools with the highest concentration of poverty had 16 students per instructional computer with Internet access, compared to 7 among schools with the lowest concentration of poverty.

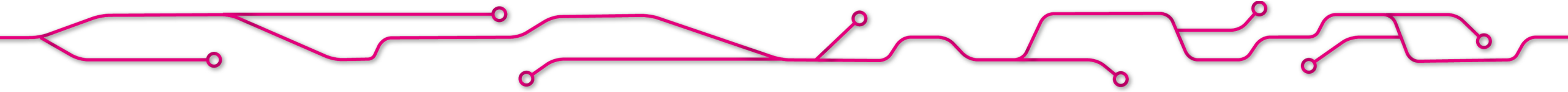
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Figuur 2.6 – Gewenst ict-gebruik door leerkrachten, over twee jaar, in meer dan de helft van de lessen, naar de mening van de schoolleider (n=191)



ACCESS

AFFORDANCES



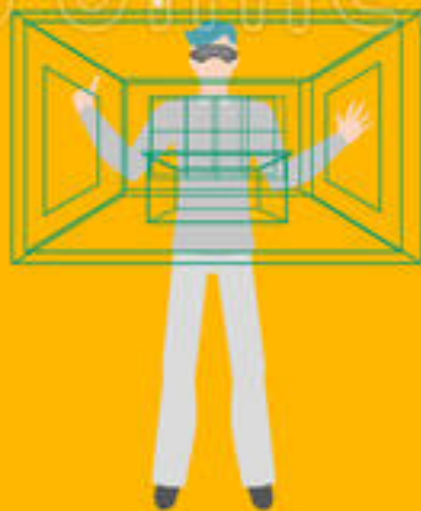
**unmanned aircraft
interface designer**



molecular nutritionist



**unmanned aircraft
control system developer**



it medic



genetic counselor



designer 3d printing



smart home designer



**personal coach of
aesthetic development**



eco-analyst

online doctor

digital linguist

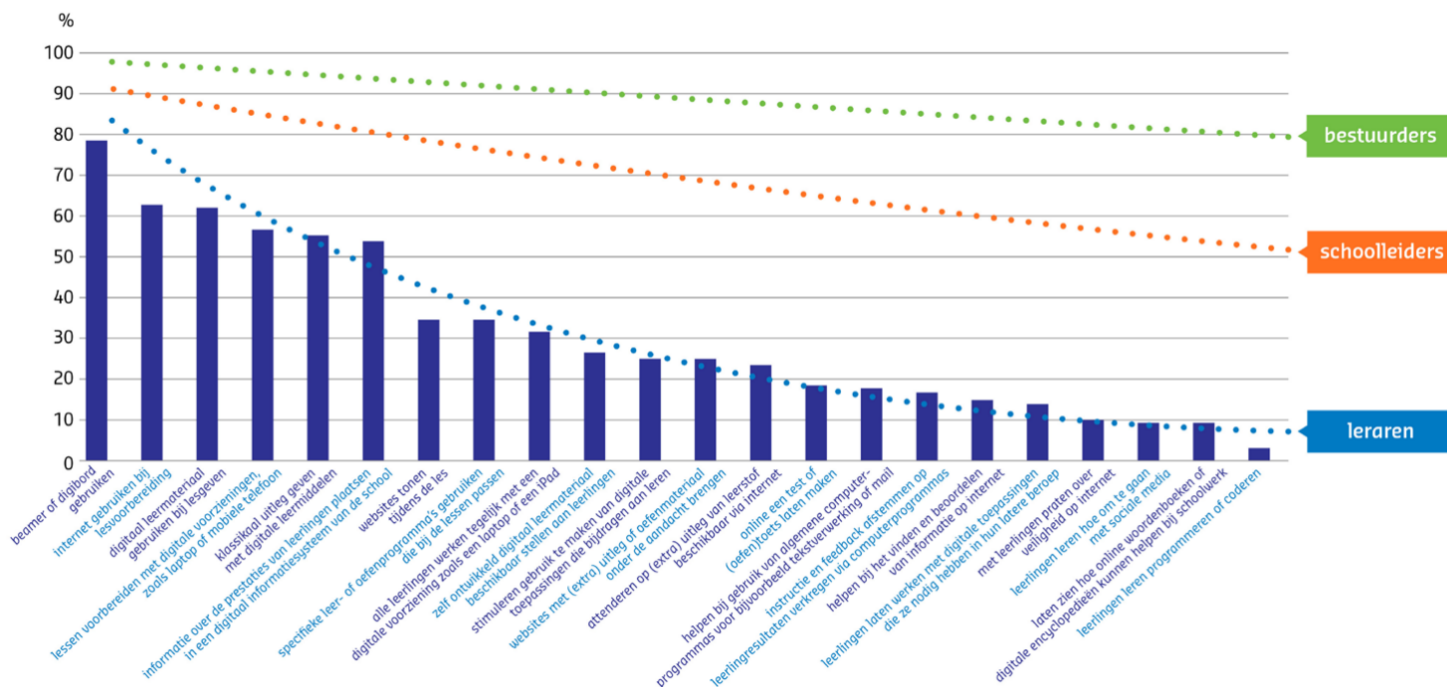
cyber prosthesis designer

ALIGNMENT OF OBJECTIVES (on technology use)

“a coherent and integrated set of conditions to support the adoption of the innovative teaching ... lacking in most of the schools and all of the systems in our sample”
(Fullan, 2013)

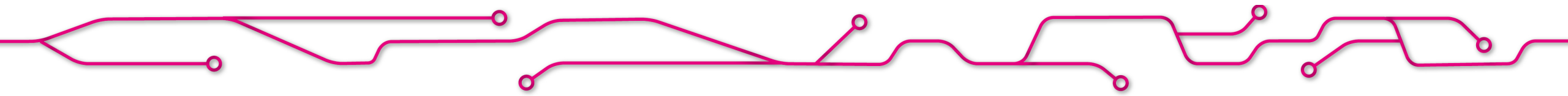


Figuur 4. Huidig gebruik van ict-toepassingen bij meer dan de helft van de lessen in po, vo en mbo met ambities van schoolleiders en bestuurders voor komende twee jaar



COMPETENCES (on technology use)

Introducing a new technology requires students to learn new routines and behavior. But it also requires that teachers and coaches receive training and review their instruction and learning concept. Both students and teachers often hold conservative opinions. They stick to what is known to them. In order to make optimum use of technology, one must not only add that technology to the existing teaching and learning methods (Lowyck, 2014)



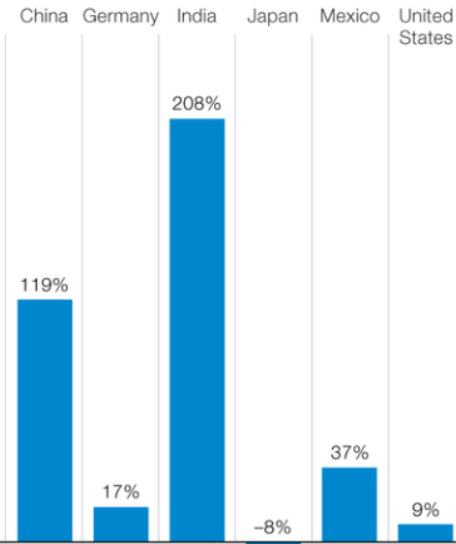
TEACHER'S COMPLEMENTARY COMPETENCES

Employment growth and decline by occupation, % change labor demand, midpoint automation



Teachers

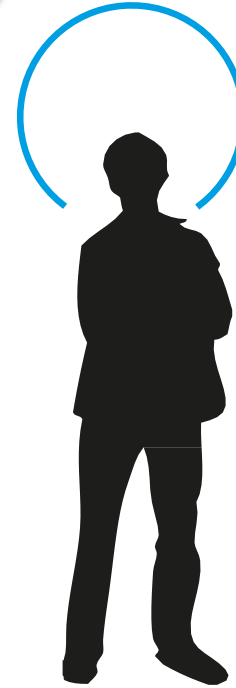
Includes: Schoolteachers, postsecondary teachers, other education professionals, education support workers



designing

doing an intervention that transforms the external (world, context)

learning

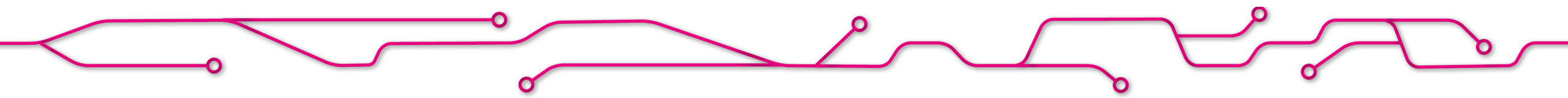


taking a reflective attitude which transforms the internal (knowledge, beliefs)

exploring

systematic and intentional behavior to collect and analyze data on specific practices that results in a better understanding of practices

Teacher agency. Teachers should be empowered to use their professional knowledge, skills and expertise to deliver the curriculum effectively.



POSITION

Support teachers

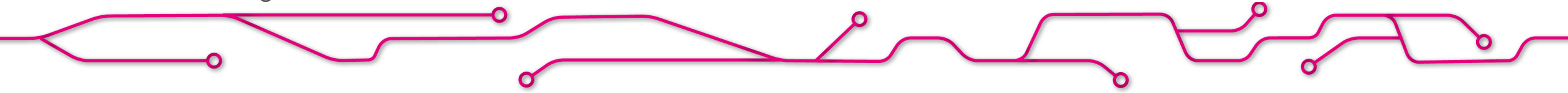


Professional development needs to be actively championed by SLT. High quality PD is mostly in-house, iterative over several terms, designed around student learning, mostly subject-focused, collegiate, and reflective. And its impact is assessed.

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Schools need the outside to get the job done.

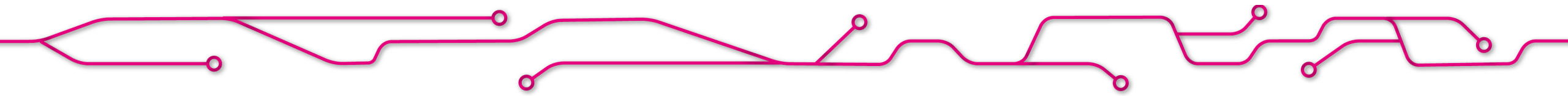
These external forces, however, do not come in helpful packages; they are an amalgam of complex and uncoordinated phenomena (Fullan, 2000).



INSTITUTIONAL LAYERS

As teachers gain practical experience, they develop best practices, often exploring and refining personal innovations as part of their pedagogy. However, many of these good ideas are practiced in isolation - there is little infrastructure for sharing and knowledge management in schools (Rosson et al., 2007)

- Multilevel approach of learning (Shulman & Shulman, 2004; Lowyck, 2008)
- Micro-meso consistency in design (Vijfeijken, Neut, Uerz, & Kral, 2015)



ALIGNMENT OF OBJECTIVES

Investigate and align the relationship between the use of digital learning materials and teachers' learning at three levels: the individual, the group and the organizational level (Rikkerink, Verbeeten, Simons, & Ritzen, 2016).

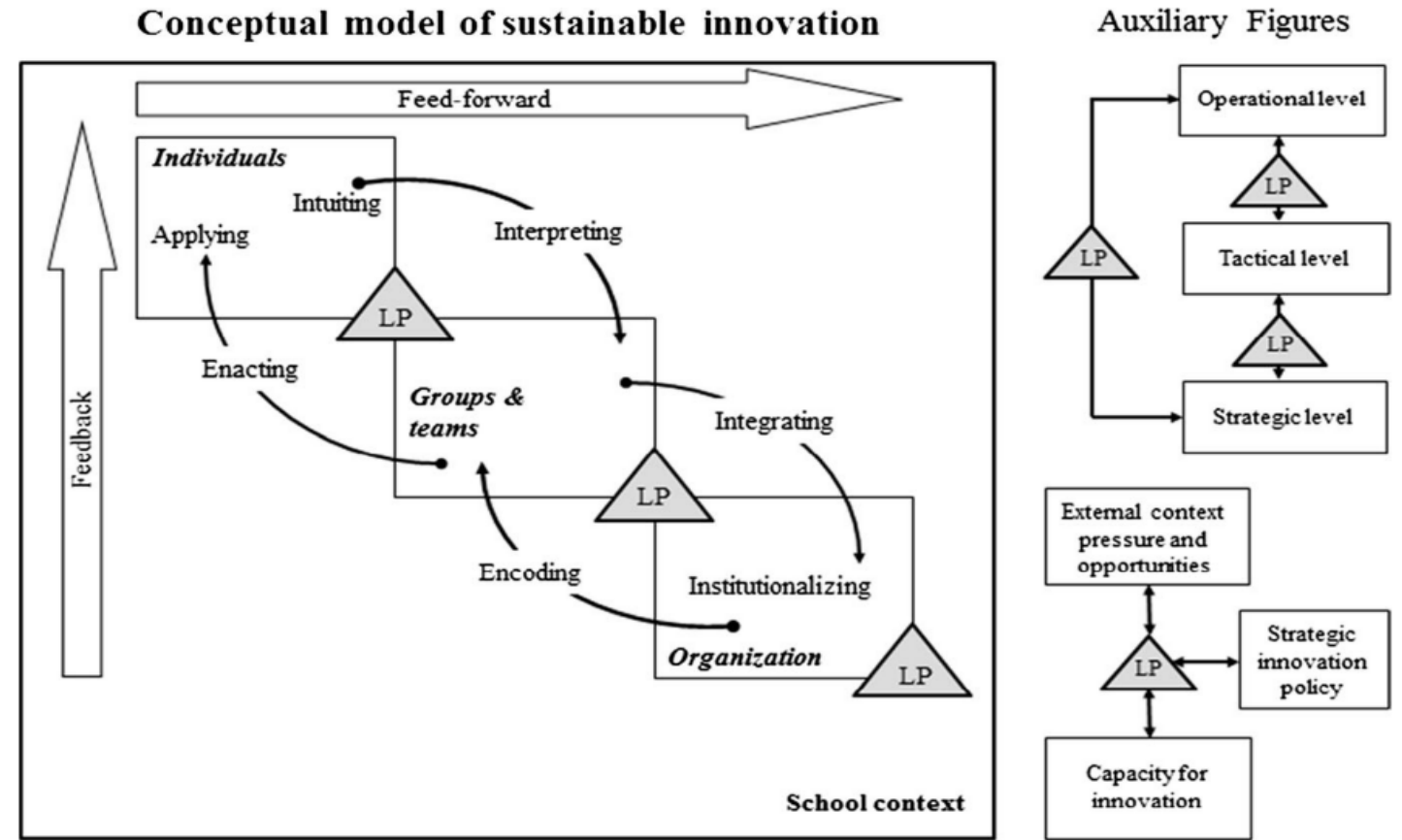


Fig. 7 The impact of distributed leadership on organizational learning: an integrated conceptual model with two auxiliary figures

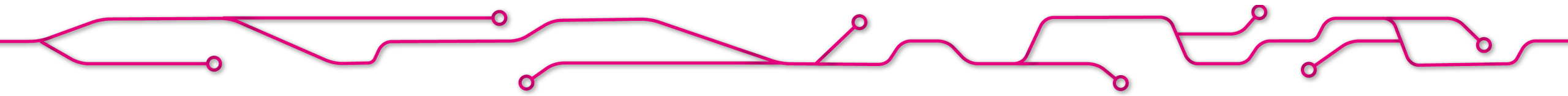
PRACTICE - core components #1

- **Design principles:**

1. Not technology is central, but education development (concept-driven);
2. The starting point is a teacher's practical, (educational) question, which must fit within the vision of the school;
3. We develop in and with practice;

- **Disrupt linearity:**

- connect research with wisdom of practice;
- co-create actionable knowledge.



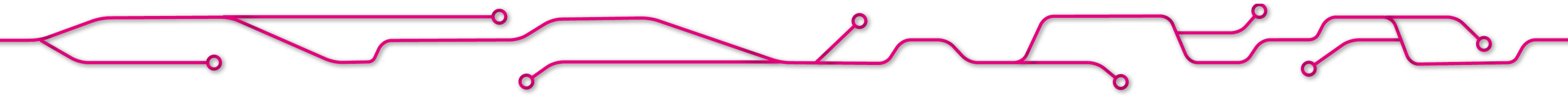
PRACTICE - core components #2

- Reflective/critical attitude (\neq research)

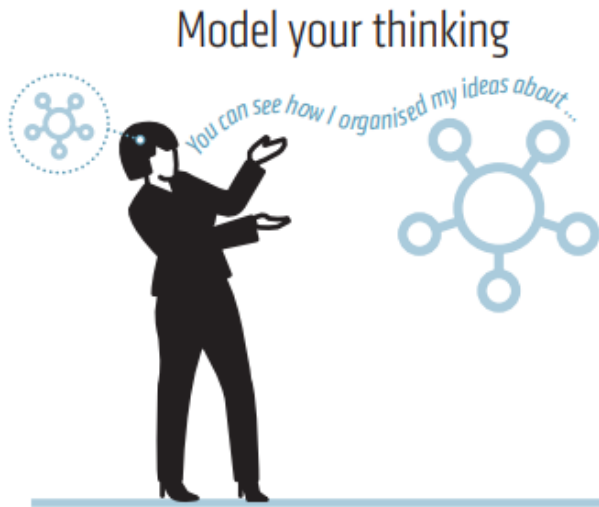
Change/reform has to

- be meaningful;
 - add value;
 - be effective.
- Professional learning communities
 - “a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way (...) operating as a collective enterprise”

(Stoll, Bolam, McMahon, Wallace, & Thomas, 2006; p. 223)



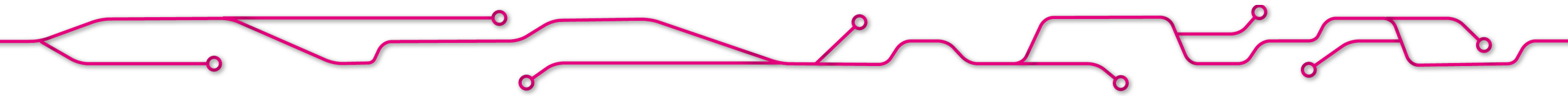
Professional learning communities



- weekly meetings;
- frame questions and issues;
- experiment;
- cyclical iterations;
- reflect;
- exchange knowledge and practices.

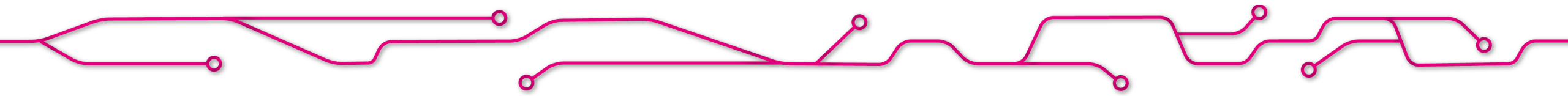
Teachers need to move beyond their unconscious competence and make explicit their implicit and natural expertise. With the aim of future independent learning clearly in mind, there will need to be a gradual reduction of this scaffolding.

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QUESTIONS

- What degrees of freedom are needed for teachers in the workplace in order to translate policy objectives into realistic work goals?
- What exactly does alignment suppose when the process of learning at individual and team level is a continuous process involving more or less autonomous teams?



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