

# Changing technology – changing vocational education? Ongoing challenges for companies and vocational schools

Digitalization and TVET





Das Institut der deutschen Wirtschaft Köln e. V.  
The German Economic Institute in Cologne

# Agenda / Research Questions

1

What (digital) competencies do German professionals engaged in TVET focus on in their training?

2

What are important changing demands due to digitalization in Germany concerning TVET?

3

What challenges do professionals face and what could be done to further digitalization in TVET in Germany?

# Talking about change in the dual vocational training system



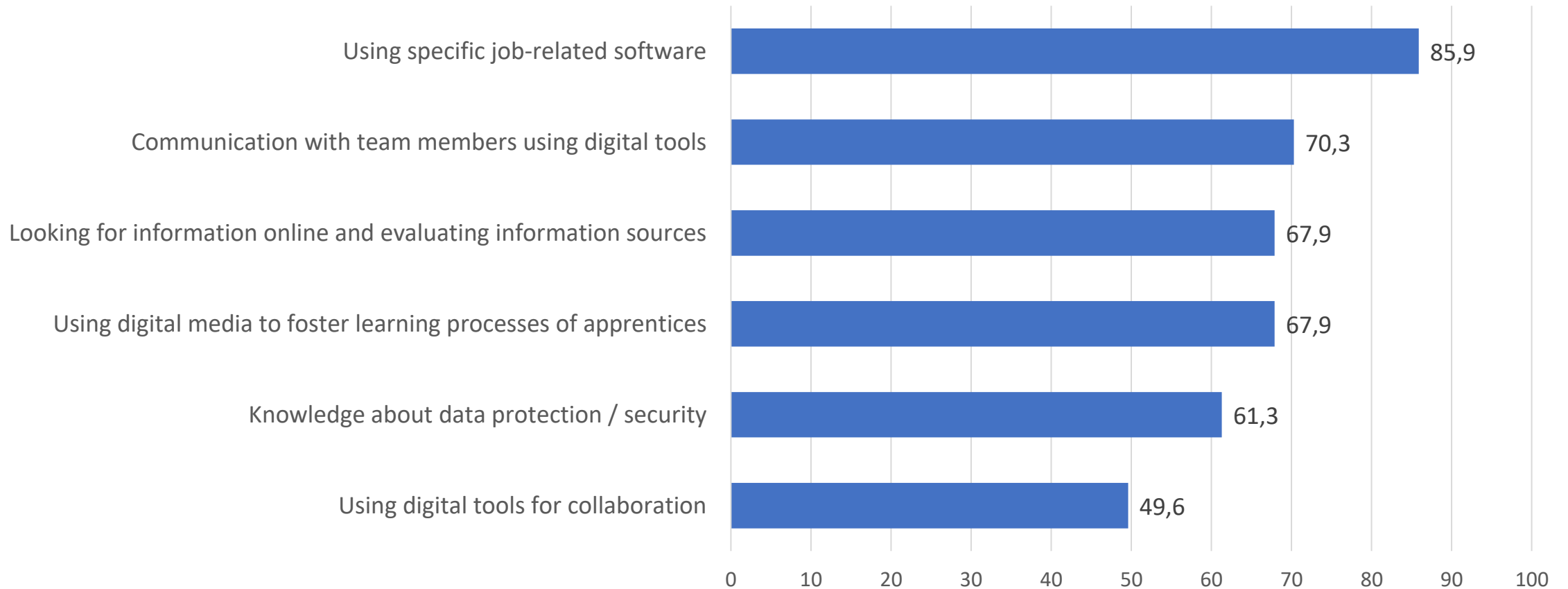
Teachers in  
vocational  
schools

Vocational  
trainers  
In companies

Apprentices

# Competencies companies are expecting of their skilled labor workforce with a vocational degree

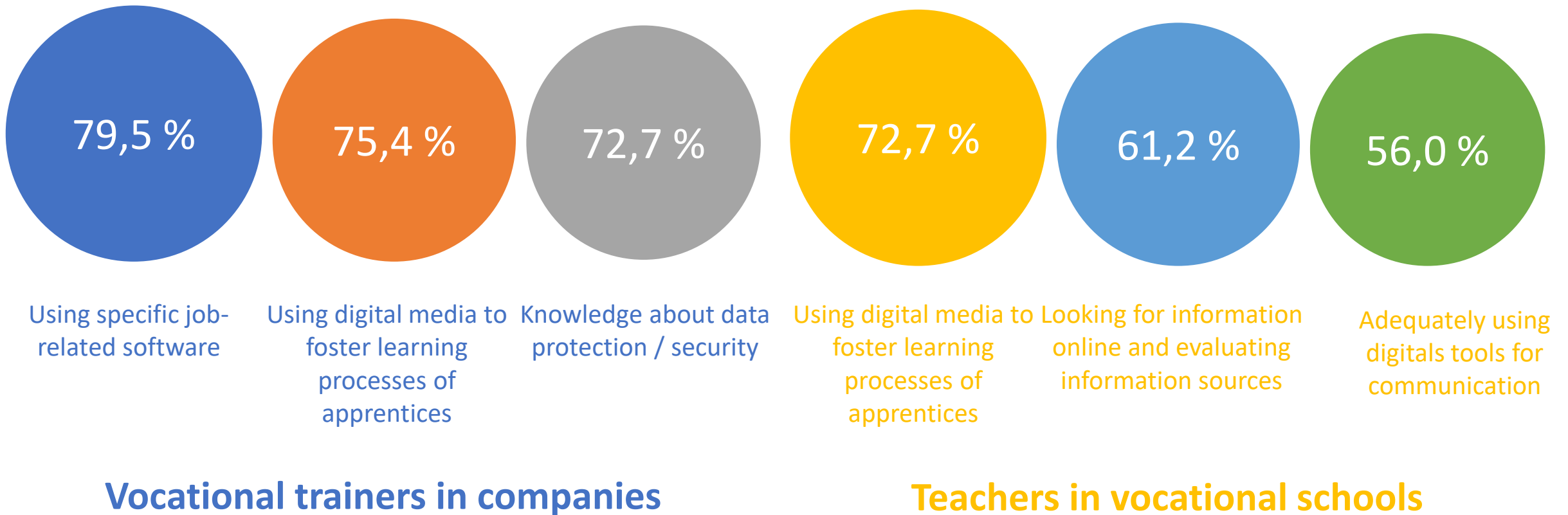
In percent of all companies active in the dual vocational training system



• Source: IW-Personalpanel, 2020, N=1098-1100, selected items

# Different roles of the partners of the German dual vocational training system to promote digitalization

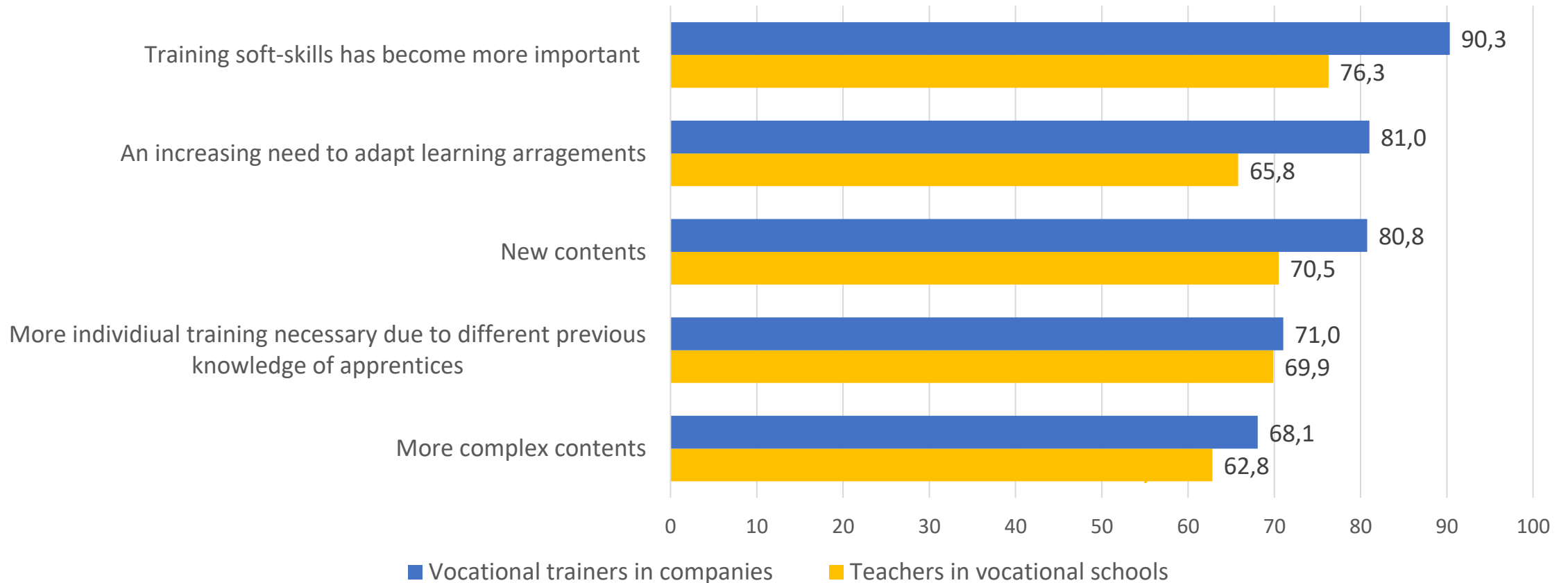
Three most trained digital competencies in each institution



• Source: Study of professionals engaged in TVET, 2021, N (Teachers at vocational schools) =156-157, N (Vocational trainers at companies) = 257-260, selected items, in percent

# Digitalization changes the demands in the daily work of German professionals engaged in TVET

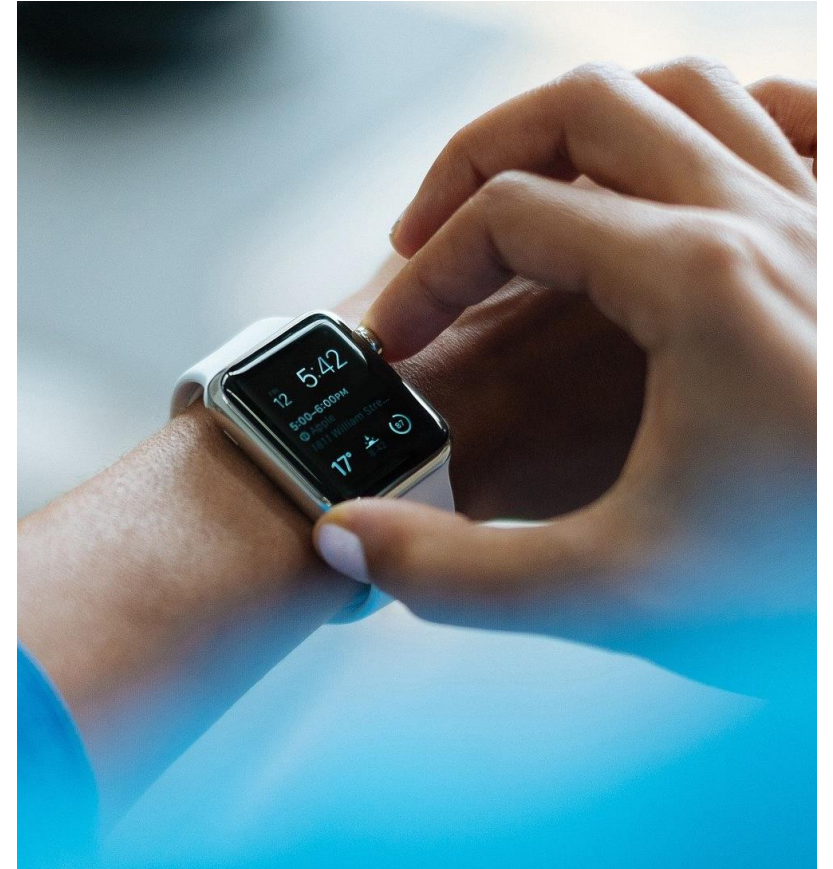
Changes within the last three years, sum of the categories „does apply“ and „does not apply“



- Source: Study of professionals engaged in TVET, 2021, N (Teachers at vocational schools) =156, N (Vocational trainers at companies) = 258-260, answers not displayed: „rather does not apply“, „does not apply“, „I cannot judge“, selected items, in percent

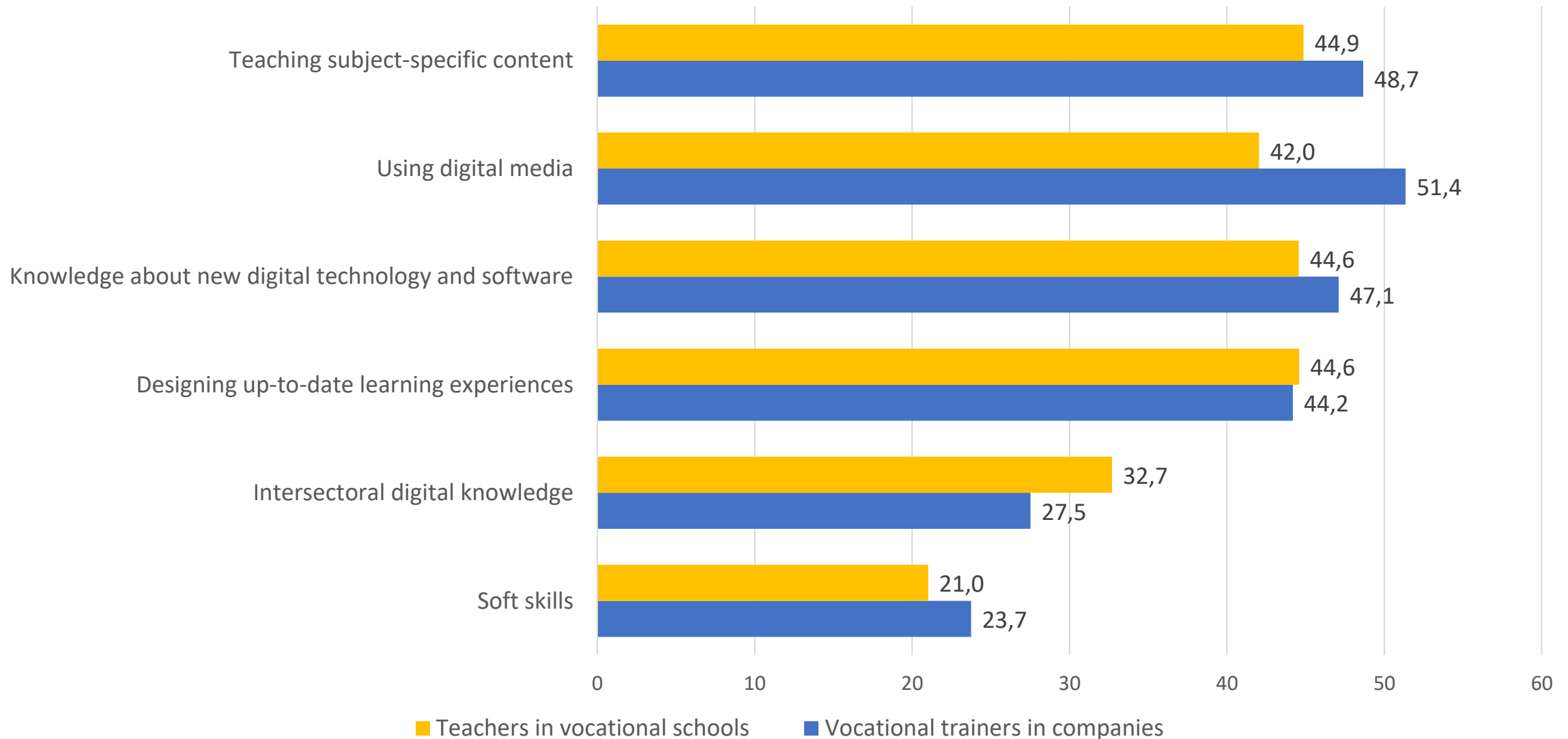
# The times might be changing, but there is also less time available

- Nine out of ten teachers in vocational schools and eight out of ten vocational trainers in companies report an increasing time burden to fulfil their duties due to digitalization
- Connection to an increasing demand of further learning and to the intensity of cooperation of companies and schools.
- Potential causes ( based on regression analysis):
  - More complex learning contents
  - Difficulties to adapt the curriculum to actual learning units
  - Need to build more individual learning arrangements





# In these areas, German professionals in TVET report a high need for further training



• Source: Study of professionals engaged in TVET, 2021, N (Teachers at vocational schools) =117-157, N (Vocational trainers within companies) = 182-259, selected items, in percent

# These support measures are seen as helpful by German professionals in TVET



# Some pending questions for further discussion / research

1. What is best mix / the best method of cooperation to teach different digital competencies at companies and vocational schools?
2. What is the best way for German teachers and trainers to (re)gain digital knowledge? How can incentives be established to support their further education?
3. What can other countries learn from the German experience / the German context?





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