

Digitalisation and the dual training system: can it prepare young apprentices for a digital world of work?

Many apprentices in companies belong to the generation of the so-called “digital natives”. They grew up with computers, smartphones and other digital devices and aren’t afraid of new digital technologies. Yet the fact that they are more digitally competent doesn’t mean they also have better math or reading skills than the previous generations of apprentices.

Some German companies have found a way to make use of the affinity of young apprentices for new digital technologies to improve the quality of their apprenticeship training. They do this by introducing E-learning tools that support their apprentices – often in a playful way – in subjects in which they need supplementary assistance. This helps guarantee that the apprentices can successfully follow training, both practical within companies as well as theoretical, within vocational schools. One prerequisite for this approach is that not only the apprentices, but also the in-company trainers are open to change and have the necessary competencies to make use of new digital tools.

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This is just one example that shows how digitalisation may lead to transformation processes within companies. It not only changes business models but also the way employees and apprentices work together and how initial and continuing vocational education and training can be organized. This is of particular relevance for the German dual-training system in which apprentices are trained closely via two learning venues: companies and vocational schools. But, is the dual training system ready to prepare young apprentices for a digital working world? And, can the potential of new digital technologies for apprenticeship training, as described in the example above, really

be used by companies?

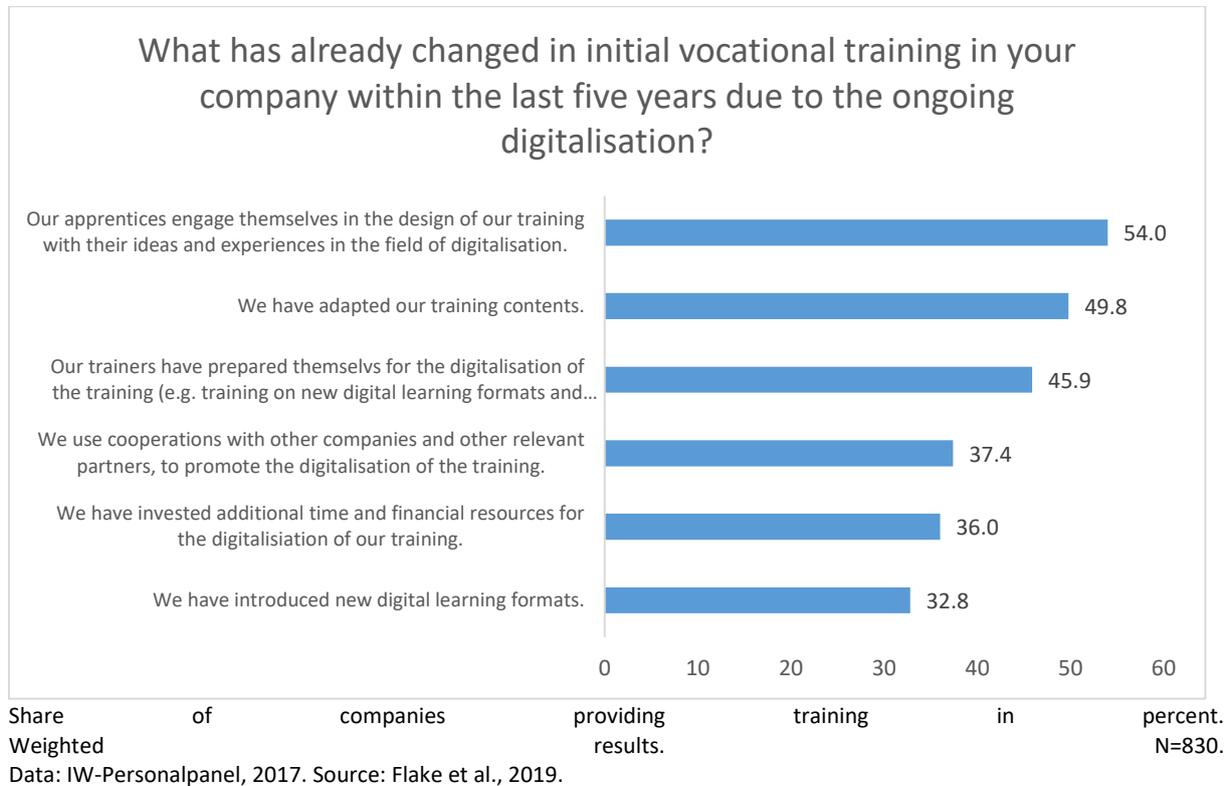
Many change processes are under way but it seems that the digitalisation of the apprenticeship system lags behind that of the economy as a whole. This imbalance has to be eliminated as soon as possible since skilled young persons are key actors in promoting digital change. Yet in reaching this goal, companies need support and role models in the choice of training contents as well as in the implementation of new digital learning approaches.

Digitalisation of work processes? Of course! Digitalisation of apprenticeships? Well...

According to the results of a representative survey conducted by the German Economic Institute and the IW Consult, nine out of 10 German companies use at least one form of digital technology (Flake et al., 2019). Yet only two out of three that are engaged in training state that they have dealt intensively with digitalisation in initial vocational training. Small companies in particular often lag behind when it comes to strategic personnel development.

The fact that companies don’t engage extensively in further digitalisation of their vocational training is a loss for both the companies and the apprentices, who are often very open and curious about new technologies and have new ideas and experiences for using them (e.g. social media). This becomes

obvious when we look at what has already changed in initial vocational training: most change processes have been initiated by apprentices.

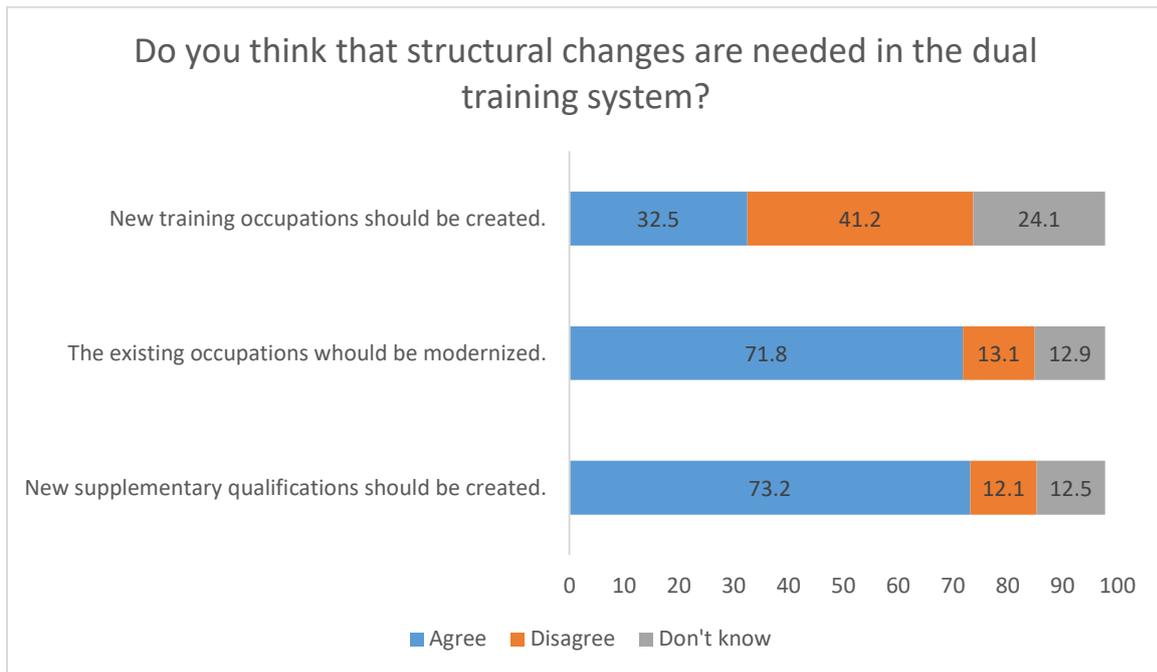


More than half of all companies (54 per cent) that are engaged in dual training have adapted the design of their training based on ideas and experiences of apprentices. Businesses could use this in a more strategic way to improve the quality of their training. Some good practices show that, for example, age-diverse teams allow companies to bring together the digital know-how of apprentices with the professional experience of older workers. This idea of reverse mentoring should be implemented much more frequently by companies. Companies that have successfully implemented age-diverse teams for the digitalisation of their business models report, for example, that one success factor is to encourage young employees as well as apprentices to bring in their ideas right from the start. At the same time, older employees are encouraged to share their experience and knowledge with younger colleagues and be open to their new ideas.

While a significant number of companies have already adapted their training contents or introduced new digital learning formats, this number remains below expectations. Many companies state that they require more support – be it in the introduction of new digital learning formats or in the choice of training contents.

Short-term and flexible digitalisation of dual training is needed

A crucial question is whether the need of companies for orientation is a signal that the dual training system and its structure doesn't fit the needs of an ever-increasing digitalisation of the labour market. *Do training occupations, regulations, curricula of vocational schools etc. correspond to the needs of the companies?*



Share of companies providing training in percent. Weighted results. N=830.
 Data: IW-Personalpanel, 2017. Source: Flake et al., 2019.

Survey results reveal that companies are aware of the need for modernisation in their training systems. However, the need for new supplementary qualifications as well as for modernisation of existing training occupations is much more pronounced than the need for new occupations. This indicates that adaptations that can be implemented at short notice and in a flexible way are wanted, rather than an overall reform of training systems.

Small steps make a big difference

Digitalisation of dual training is an ongoing process. There is, however, still a lot of potential for companies to promote it further. While businesses know best which skills will be needed in the labour market of the future, they need support in order to fulfil their leading role. In particular, small companies often don't have the time to develop a strategic approach to digitalisation in dual training on their own.

Dissemination of good practice examples is a very promising approach to motivating more companies to engage in the digitalisation of dual training. Often these examples show that the digitalisation of dual training doesn't equal a reinvention of the wheel but rather small steps like the introduction of new E-learning tools, promotion of more age-diverse teams, intensified co-operation with other companies and educational institutions or the use of (voluntary) supplementary qualifications that can make a difference.

More information:

- Homepage of the German Economic Institute: <https://www.iwkoeln.de/en.html>
- Flake, R., Meinhard, D.B., Werner, D., Digitalisation in Dual Vocational Training – Progress to Date and Companies’ Ongoing Need for Modernisation and Support, <https://www.iwkoeln.de/en/studies/iw-trends/beitrag/regina-flake-david-b-meinhard-dirk-werner-progress-to-date-and-companies-ongoing-need-for-modernisation-and-support-424075.html>
- Study on Promoting Social Partnership in Employee Training: <https://www.iwkoeln.de/en/studies/expertises/beitrag/regina-flake-susanne-seyda-promoting-social-partnership-in-employee-training.html>
- Competence Centre for Securing a Skilled Workforce in Small and Medium Enterprises: www.kofa.de (only in German)
- Meinhard, D.B. & Flake, R. (2018). Digital Transformation and E-Learning in Initial and Continuing VET of German Companies. In *Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 1057-1062). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE). Retrieved April 24, 2019 from <https://www.learntechlib.org/primary/p/185064/>.

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