

Digital transformation and support requirements from the perspective of company-based training personnel

Lessons learned from the BMBF programme JOBSTARTER plus

STEPHAN DIETRICH

Research Associate in the “Strengthening VET/
Educational Chains Initiative” Division at BIBB

The aim of JOBSTARTER plus projects concerning “Initial and continuing VET in economy 4.0” is to support small and medium-sized enterprises in adapting their training and continuing education to the challenges of advancing digitalisation. At the start of their work, the projects asked companies about the specific support requirements. This article puts together the assessments resulting from this. They provide an insight into the perspectives of training personnel, and the support required.

Digital training still in its infancy in the training system

No sector of the economy and virtually no company remains unaffected by digitalisation. However, according to the findings of the Bertelsmann Foundation’s “Digital training monitor” (cf. SCHMID/GOERTZ/BEHRENS 2016) digital training in the dual training system is still in its infancy. A current investigation by the RKW centre of excellence supports this assessment (cf. HOFFMANN 2018). It shows that, in general, internal processes are initially impacted by digitalisation with the aim of optimising procedures and controllability. Next come schemes relating to customer communication. Digitalisation plans finally target the development of new, or enhancement of exist-

ing, products and offers. The consequence of these digitalisation activities in most, but not all, companies is also a range of personal measures, the vast majority of which are in the continuing training sector. In the view of JOBSTARTER plus experts, there is normally a time lag involved before digitalisation impacts on issues relating to the design of company-based training. In those areas where digitalisation has advanced, it has become established in most cases within training and is addressed in a structured way. This applies in particular to major enterprises and larger scale medium-sized enterprises, and sometimes also to small businesses. Some of these even assume the status of pioneers with regard to digitalised company processes. However, in the vast majority of businesses, discussion has only just begun regarding how company-based training can be adapted to digitalisation. The reasons for this in smaller businesses in particular often include a lack of time, insufficient personnel resources and a lack of technical infrastructure (e.g. broadband connection). In some cases strategic reorientation is often postponed due to full order books. Despite this, feedback shows that companies are certainly anticipating changed training requirements for employees and are assuming that forms of self-directed and digital supported learning will increasingly become essential.

Impact of digitalisation on initial and continuing vocational education and training

The consequences for initial and continuing VET can be considered from two perspectives. From a content perspective, the question arises as to how requirements are changing as a result of the digital transformation in vocational areas of activity and which competence profiles will be necessary in future. From a methodological and didactic perspective, it is interesting to consider how learning processes might be enriched using digital media in order to ex-

Data base – Feedback from JOBSTARTER projects

The article from the JOBSTARTER programme office is based on expert assessments of 34 projects which reflect the views of approximately 1,700 businesses. These are based, for example, on company surveys and assessment of needs of SMEs which were conducted by the projects at the start in the regions as part of the current funding round “Initial and continuing VET in Economy 4.0”.

tend the information and media competency of learners or to improve the learning process (cf. GERHOLZ/DORMANN 2017).

According to the findings of JOBSTARTER experts, it will be easier in SMEs to implement changes relating to content than methods because SMEs are commercially driven – for instance if new technologies need to be used.

SMEs find it more difficult to implement innovation in the organisation of teaching and learning or to apply new methods and media. It is certainly the case that new forms of learning are being considered to enable new content and qualifications for Economy 4.0 to be delivered more quickly and in a more targeted manner to learners. However, there is still too little evidence of implementation.

Larger companies and companies which are actively addressing digitalisation are increasingly developing individualised digital solutions for their trainees. In this case, for example, trainees control practice facilities using a tablet and at the same time use it to obtain information and to learn independently. Similarly, project-based work using digital media is gaining in significance in training. Training personnel are also creating digital learning materials themselves for trainees (e.g. so-called “learning nuggets”, i.e. small learning units for micro learning) which are tailored to the individual qualification requirements of the company. They are therefore not only communicators of specialist knowledge and skills, but also authors and learning process mentors. As a result of the more intensive exchange between trainer and trainee, new possibilities are opening up for controlling the learning process, coaching learners and in particular when using learning management systems. Informal learning can also be encouraged in this way.

Change to the everyday training routine

In most cases, it is in smaller businesses in particular where virtually no changes to the everyday training routine are identifiable. With regards to self-directed learning, the use of digital media and learning using mobile end devices, a change of the learning culture is only apparent in individual cases. In some instances, security regulations present an obstacle to this in businesses (data protection), however in some cases trainers are also unwilling to use media which trainees are more skilled in using than they are themselves. There are also cases in which training personnel show an interest in innovation, however the company does not invest in the necessary infrastructure. Examples of the opposite are reported as well. In these cases appropriate hardware or software is purchased but not used because training personnel lack the necessary conceptual understanding as to how, for instance, tablets are to be integrated in terms of methodology and didactics in the everyday training.

In the view of JOBSTARTER plus experts, forms of learning should be prioritised which involve learners more actively and enable varied support with a focus on competency. Project managers recommend in particular initiating shared learning involving the trainees together with training personnel. For both parties, this includes approaching their own “lack of digital understanding” with confidence.

Support requirements for trainers

Feedback from trainers indicates very varied further training requirements. This extends from very basic to specific issues, e.g.:

- General IT competencies and competencies when dealing with a range of digital devices, with virtual reality glasses or similar
- Use of specific software
- Ideas for how to approach future trainees in a modern way, digital marketing of training
- Designing communication using apps, clouds, wikis and blogs
- Use of digital training evidence booklets, integration of hand-held devices
- Knowledge of data protection, data security and IT security for trainers and trainees
- Didactic concepts for creating innovative learning arrangements involving learning platforms, summary of good practice examples
- The basics when creating digital learning materials and the use of authoring systems
- Coaching and learning support, changing role of trainers.

However, two problems in particular often prevent these requirements from being addressed more seriously.

On the one hand, from the company perspective the main key issue currently is searching for suitable and motivated applicants for company training positions – as according to feedback from all projects, regardless of which industry and in which region. The low number of applicants, applicants’ limited capacity for training – in the view of the companies – and the dropout rate are currently posing significantly greater problems for many companies than the question of how digitalisation might influence training. On the other hand, the second key issue cited is that training personnel generally lack the time for individual continuing training. First many feel that their current issues leave them no time for anything else. Operating the business day-to-day leaves too little time to get involved with digital content. In most cases, the preparation needed for training purposes cannot be achieved. Second all too often, responsibility for this is delegated solely to the trainers, instead of involving this theme in strategic considerations relating to personal

Figure

Areas of activity relating to the support of the company and of training personnel



and organisational development. The consequence of this is that while the majority of trainers certainly recognise the necessity for changes in VET in terms of didactics and methods, implementation only occurs in isolated instances.

Solutions

The requirement assessments conducted by the JOBSTARTER plus projects indicate a need for support in four areas in particular (cf. Figure).

In addition to the broad-based further training requirement for trainers, companies require in particular advice on change management and on the design of organisational development processes. Transferring traditional forms of teaching and learning into a digital setting is not sufficient, instead an awareness of a change in a learning culture must be created; a learning culture in which all participants learn together. It also requires the development of a digitalisation strategy which incorporates viable concepts for initial and continuing VET and the procurement of the necessary infrastructure and hardware. Here, it must be borne in mind that individual persons in the company will always be heavily involved in driving these developments. Levels of interest at decision-maker level are critical to this in particular. JOBSTARTER plus projects report that if, for example, the managing director supports the issue, then the trainers are likely to be far more open to also exploiting the opportunities of digitalisation for training. In order to embed digitalisation as a firm component of training and to be able to use appropriate resources for the digital transformation process the support of individuals in positions of responsibility must be obtained. In this respect, support always also involves a lot of persuading.

In order to succeed at this, a range of different methods are used. Trainees are deployed as ambassadors for digitalisation, trainers receive specific advice, mentoring programs are introduced, the transfer of knowledge between young and old and “creative rooms” are established, company management is made aware, leading businesses are presented as practical examples, networking and exchange with other companies is intensified. “Economy 4.0 is definitely not a change process which can be implemented with a scattergun approach”, is how one project summarises what is needed. Solutions must be found which are tailored entirely to the company concerned. ◀

*(Translation from the German original in BWP 3/2018:
M. Lee, GlobalSprachTeam, Berlin)*

Literature

- GERHOLZ, K.-H.; DORMANN, M.: Ausbildung 4.0: Didaktische Gestaltung der betrieblich-beruflichen Ausbildung in Zeiten der digitalen Transformation. In: bwp@ (2017) 32
- HOFFMANN, T.: Die Digitalisierung im Mittelstand – Auswirkungen auf Personal und Personalarbeit. Eschborn 2018
- SCHMID, U.; GOERTZ, L.; BEHRENS, J.: Monitor Digitale Bildung – Berufliche Ausbildung im digitalen Zeitalter. Gütersloh 2016