

BIBB / DEQA-VET

# **Result Paper**

DEQA-VET exchange workshop on 27 March 2025 at the BIBB on the topic "Smart digital quality assurance in dual training"







In cooperation with:





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#### **Background:**

On the one hand, vocational education and training faces numerous challenges: a shortage of skilled workers in various occupations and sectors, and the need to address the meta-issues of digital and ecological transformation, demographic change and democracy education. On the other hand, there is still much to be done in the area of vocational training quality: for example, the latest vocational training report shows that one in ten apprentices is dissatisfied with the quality of their vocational training and one third of those surveyed say that they are being trained without a company training plan (cf. DGB-Bundesvorstand, Abtellung Jugend und Jugendpolitik 2024, 34 and 30). However, when it comes to increasing the attractiveness of dual training in the context of securing skilled labour, improving the quality of training plays a central role – so there are plenty of reasons to address and advance the issue of quality assurance in vocational education and training.

The mandatory training record (BIBB-HAUPTAUSSCHUSS 2020) — often referred to in practice as a report booklet — is a widely used instrument for quality assurance in dual training. This is the result of current research at the BIBB (cf. Schreiber u. a. 2023, p. 54)¹. It also shows that the training record is much more important in training practice than the company training plan, which only about 60% of the companies surveyed have in writing, with only 17% basing it on the training regulations (cf. Schreiber u. a. 2023, 106, 35). This finding led to the recommendation that the report booklet be strengthened through further development and made the starting point for comprehensive, training process-accompanying and digital quality assurance. Existing versions of the report booklet should be taken into account (cf. Schreiber et al. 2023, p. 106).

As part of the current national peer review conducted by DEQA-VET on the topic of "Quality assurance of the qualification of vocational training staff" in the EQAVET network, relevant feedback from European peers is available, which also points in this direction (cf. EQAVET NETWORK GERMANY FEEDBACK REPORT 2024). For example, when dealing with the report booklet, the peers noted a focus on reporting and pointed out that it remained unclear to what extent such documentation would be used to improve training (see EQAVET NETWORK GERMANY FEEDBACK REPORT 2024, p. 12). This implies a call to consider broader use of the report booklet for quality assurance purposes.

#### **DEQA-VET exchange workshop**

Against this background, the German Reference Agency for Quality Assurance in Vocational Education and Training (DEQA-VET), in cooperation with LEANDO, the BIBB portal for in-company training and examination personnel, held an exchange workshop on 27 March 2025 on the topic of "Smart digital quality assurance in dual training". The aim was to bring together representatives from practice, science and politics to highlight and discuss the conditions for success and development potentials for future-oriented digital quality assurance in training practice.

"How do companies use the training record/report booklet? How exactly do companies plan training? What other quality assurance tools are used in practice?" These were some of the questions addressed in this context.

After introductory presentations on the research project "Planning and designing training in the context of learning in the work process", insights from practice (EDEKA Zentrale Handels Stiftung, Landesamt für Geoinformation und Landentwicklung) and information from the EQAVET network, the exchange began in two workshop groups. In accordance with the Plan-Do-Check-Act cycle of the

<sup>&</sup>lt;sup>1</sup> DEQA-VET has translated chapter seven of the study (Quality Assurance Instruments in the In-Company Training Process) into English (see: <a href="https://www.bibb.de/dienst/publikationen/de/19227">https://www.bibb.de/dienst/publikationen/de/19227</a>).

EQAVET quality assurance framework (see EQAVET SECRETARIAT 2024), the following questions were discussed in one group on the planning and evaluation phases and in the second group on the implementation and review phases:

- Where are the phase-specific challenges and potentials during training? Which instruments, materials and aids are/would be helpful in each case?
- How should the Recommendation for Action "Digital linking and integration of relevant quality assurance instruments" be assessed?

A wealth of feedback, ideas and assessments were gathered from the approximately 20 participants, both in the plenary session and in the workshops. The most important points are summarised below.

#### **Overall results:**

There is general agreement that the digitisation of quality assurance in vocational training is beneficial for both companies and apprentices and should therefore be promoted. This also includes recommendation 2, "Digital linking and integration of relevant quality assurance instruments," which was published as part of the research project on the planning and design of training (see above). Accordingly, it is recommended that a broad-based, training-accompanying and multifunctional monitoring and control instrument be developed to provide support throughout all stages of training (recruitment, start, implementation, final examination, transfer). Accordingly, both existing tools and those yet to be developed could be technically integrated, as could basic legal texts, information materials and practical aids such as checklists, implementation guides and planning templates. In principle, such a digital quality assurance tool should make things easier for everyone involved in training – guiding them through the entire training process and simplifying adjustments due to updates or redesigns of organisational tools, especially for training companies. The overall aim is to make training more attractive through continuous quality development.

Based on this consensus, however, many point to the different starting and implementation conditions: While large corporations such as EDEKA can invest in developing their own technical solutions, this is generally not the case for SMEs. It also affects industry and professional associations, some of which have been offering digital report booklet for years but cannot afford the costs of more extensive further development. Representatives of the public sector in particular make it clear that they have very limited scope due to a lack of funds and are dependent on externally developed products.

During the discussion, it was pointed out that these circumstances should be taken into account when considering the extent to which publicly funded development initiatives could usefully address identified needs in the area of digital quality assurance. The prevailing opinion is that such tools should be offered either free of charge or at low cost.

There is also a desire for the development of such tools to be designed in such a way that instruments already in use in practice, such as digital report booklets from various industries and professions, can be integrated via interfaces. To enable flexible/location-independent work with the tool, it would be helpful if apps were suitable for use on mobile devices and could be linked to webbased portals if necessary. In this context, features that allow voice input have proven useful. A translation function could also be offered for new immigrants.

In order to attract new user groups, the development of a tool that can be adapted and scaled to the respective operational requirements is recommended. This would allow companies with little or no experience of new digital practices in the field of quality assurance to be introduced to them step by

step, starting with low-threshold solutions and, depending on their needs, learning to use more sophisticated features and functions in the tool over time.

A complex quality assurance tool that integrates all stages of the training process would enable more comprehensive use by all those involved in training. The term "cloverleaf access" is being used to discuss the extent to which other stakeholders could be digitally integrated in addition to apprentices and company training staff. In addition to representatives from inter-company vocational training centres and vocational schools, members of examination boards are also mentioned, for whom it would also be useful to provide information, help and chat functions. At the same time, however, there are warnings against "overloading" a tool. The primary goal should be to make the tool intuitive and user-friendly, while ensuring scalability and technical modernity.

# What are the phase-specific requirements in the training process?

The points discussed in the two workshops, which were divided into training phases (planning and evaluation, and implementation and review/adjustment), are presented below:

# **Training planning:**

- → Acquisition and pre-boarding even before "planning": It seems sensible to offer training companies assistance with the question of how to search for and successfully recruit new apprentices in a standardised manner. Proven steps and measures can be integrated into a tool that can be accessed before the "planning" phase. Here, it is helpful to offer procedures that make it less likely that apprentices will fail to show up on their first day of training ("ghosting"). Participants also see potential here for attracting new training companies.
- → Awareness of planning/inclusion in the AEVO<sup>2</sup>: The findings from the research project on planning (see above) correspond to practical experience: particularly in smaller craft businesses or in relation to skilled workers providing training, it is often not "common practice" to provide training based on a company training plan that is aligned with the training regulations. There is a lack of awareness of the importance of planning as a key element of training quality. It is therefore proposed to start with the qualification of incompany training personnel in order to raise awareness of this issue. Trade unions have suggested that this point be included in the AEVO as a future prospect.
- → Use of implementation guides: The implementation guides, which are regularly updated or newly created by the BIBB following reorganization procedures, could be used for the design of digital quality assurance.
- → Al-supported aids: It is recommended that relevant laws, regulations and main committee recommendations, especially for the "planning" phase, be integrated into digital quality assurance in the form of PDF documents, but also as a specially trained Al application. This reduces error-prone searches via unsecured sources.

<sup>&</sup>lt;sup>2</sup> Ordinance of Trainer Aptitude: The **Ordinance on trainer Aptitude (AEVO)** sets out minimum standards for the qualification of in-company trainers. The AEVO is in turn supplemented by a **framework plan** that sets out the content to be examined.

### Implementation of training:

- → **Joint design of the training process:** The aim of a comprehensive digital tool for quality assurance is to create transparency and traceability for all those involved in training. On this basis, apprentices could be enabled to participate in the design of their own training process in cooperation with the training staff and in accordance with their respective levels of development and knowledge. This would place the acquisition of skills by apprentices on a broader basis (independence, assumption of responsibility, ability to reflect, etc.).
- → Possibility of assignment to the training framework plan (ARP): Some, but not all, of the digital report booklets on the market provide a digital option for assigning training content to the occupational profile positions of the training framework plan (ARP). Such a link is considered beneficial and is in line with the main committee's recommendation on keeping training records from 2020. Digital access to the applicable training regulations would also make it easier for everyone involved in training to familiarise themselves with this key quality assurance standards.
- → Clarification of roles and responsibilities: At the latest during the training process, all those involved in training at the various learning locations should be aware of who has which role and responsibility in which institutions. Within the company, these are the skilled workers providing training in the departments; externally, they are primarily the teachers in the vocational schools and the training staff in the inter-company training centres. In this context, it is also suggested that the contact persons at the responsible competent bodies be taken into account. As a first step, a digital quality assurance tool could remind users to clarify this by means of appropriate queries and also invite them to define roles and responsibilities by requesting the relevant contact details, for example.
- → Internal and external complaint management: In the event of problems during training, all those involved in training should know who to contact within and outside the company (contact persons at the relevant competent bodies; youth and trainee representatives JAV).
- → Regular feedback meetings during the training process: See the section on "Systematic, indepth communication" under "Evaluation of training".

#### **Evaluation of training:**

- → Systematic, in-depth communication: The question of training attainment concerns all those involved in training. The level of knowledge and development of apprentices can be transparently reflected through regular feedback meetings. Both bilateral exchanges and exchanges involving management, other training participants from the vocational school or inter-company vocational training centres are conceivable, but these should be scheduled less frequently. Digital reminder functions, supporting information and practical aids could be helpful as part of a digital tool for quality assurance.
- → Use of qualitative and/or quantitative survey methods: Prepared and digitally integrated evaluation forms could be used to survey training participants using qualitative and quantitative methods, e.g. on their satisfaction with the training conditions and other aspects.
- → **Review:** Currently, at the end of the training, transfer discussions are often held with the apprentices, focusing on issues such as future cooperation. Less common is a review that provides insights into what might need to be adjusted and improved in future training cycles. However, comprehensive quality assurance should include such a review, which could be encouraged through appropriate reminders and offers within a digital tool.

Review/adjustment of training (examination phase and lessons learned for the further course of training and future training cycles):

- → Combining analogue and digital solutions: In the area of exam admissions, there are currently different procedures for submitting the report booklet. Some authorities still require a paper version. A digital solution should therefore also include a print function.
- → Alert functions (e.g. for too many days of absence): To prevent situations where it is only discovered when registering for the exam that too many days of absence by an apprentice make it impossible for them to be admitted to the exam, digital alert functions should be implemented to draw attention to the problem at an early stage.
- → **Support for exam preparation:** The digital integration of exam preparation materials, such as sample questions with feedback from in-company training personnel, could provide additional support during the exam preparation phase.
- → Improvement measures for current and future training courses: Based on the evaluation of the findings from the feedback discussions during the training and the review, measures and possible adjustments that promise improvements for the current and future training courses could be considered during and at the end of a training course (development of conditions for success). It would be possible to invite participants to take these steps by incorporating practical aids and reminder functions into a digital tool.

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