Managing the Use of QualiTools
in Institutions of Education and Training in ICT – and beyond

A Guideline
(O3 Manager Guideline, version 5)

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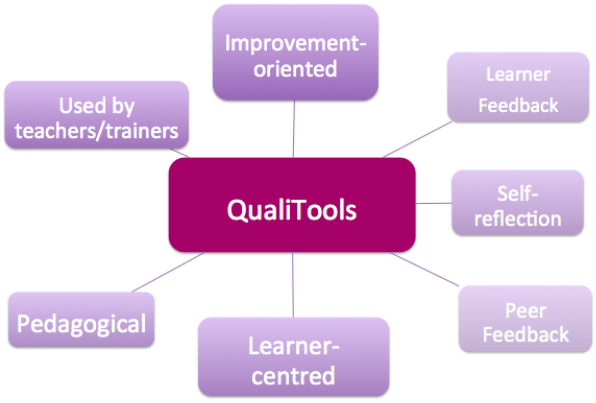
1 Introduction

1.1 What are QualiTools?

Bottom-up and learner-centred quality tools

Quality tools that are used by teachers/trainers themselves are decisive for improving students' learning experiences and learning outcomes. Other than the traditional feedback ("satisfaction") questionnaires at the end of a training course or programme, these tools have an immediate impact on the educational process since they are used directly during the teaching/training session.



QualiTools thus are classroom-based, bottom-up quality methods. They embrace a constructivist approach to teaching and learning: They put **learners as active and engaged individuals** at the centre of education and training and they promote a fruitful collaboration between teachers/trainers and students/learners.

QualiTools help to open up the black box of teaching and learning processes. They are intertwined with the educational process and in many cases may have an additional function as pedagogical interventions.[1] They are improvement-oriented and acknowledge that, for quality development of teaching/training, the teachers/trainers need to obtain feedback from learners, engage in self-reflection and solicit professional feedback from colleagues.

Terminology

In this text, the term "QualiTools" will be used interchangeably with similar expressions to denote the methods provided in the QualiTools methods database as well as any other, similar methods that fall into the category of directly applicable, classroom-based quality tools applied by teachers/trainers themselves.

1.2 QualiTools method collection

The collection of methods developed in the project "QualiTools for IT Trainers" serves as a starting point for developing the quality of teaching/training. Dimensions covered are first and foremost the teaching and learning processes, but also learning outcomes and learning transfer. The QualiTools encompass methods for e.g.

- gleaning learners' expectations,
- finding out about their prior knowledge,
- reflecting on learning processes,
- exchanging on training quality issues among colleagues and obtaining peer feedback
- ensuring learning transfer into everyday work practice
- giving interim and final feedback.

[1] cf. „multifunctional methods" https://eval-wiki.org/glossar/Multifunktions-Instrumente (22.06.2017)

The QualiTools methods can be found in a searchable database on the project webpage (www.qualitools.net/methods) or in the QualiTools handbook (which is also available online: www.qualitools.net/handbook).

1.3 How are QualiTools used?

QualiTools are methods geared to teachers/trainers

The QualiTools methods are first and foremost geared towards teachers and trainers. Since these kinds of methods are usually not the focus of (let alone integrated in) any kind of institutional quality management, it is up to the initiative of teachers/trainers to adopt them in their teaching/training practice.

Use of classroom-level quality methods is marginal

Use of these very powerful quality methods is thus not widespread in education and training – with some variance between different countries, educational sectors, branches and settings: In parts of adult education, for example, some of these tools are quite common and integrated in the overall pedagogical approach of teachers and trainers.

One the whole, however, quality management does not tackle what actually happens in classrooms/seminar rooms and teachers/trainers are neither supported nor prepared (e.g. through teacher training or professional development) to implement quality methods in their teaching/training. Given the high impact of this approach on the quality of teaching and learning processes and their outcomes, this situation does not seem satisfactory.

1.4 Why this guideline?

Integration in institutional quality efforts is pivotal

Embedding QualiTools methods in an organisation's quality policy and management thus can be considered crucial for moving their use from haphazard, occasional activities of individual teachers/trainers to an institution-wide practice – thus improving the learning of all students/participants.

This guideline seeks to support this goal: We will take a close look at how QualiTools as classroom-based, bottom-up quality methods can be introduced in order to help institutions support and promote this quality approach on a broader level. The guideline is a companion to the QualiTools methods (either database and/or handbook) – the two can and should be used together.

New, research-based approach

Interestingly, teacher-based pedagogical quality efforts and organisational quality management have so far not been linked. Only a few positive examples could be found – usually of (pilot) projects that endeavour to implement teacher/trainer-focused quality initiatives. Literature reviews and search of similar quality reports/manuals did not provide a model for the kind of guideline needed. We therefore had to base our work on own research in the field and develop this guideline "from scratch" – with a lot of inspiration from our case studies and interviews (see synthesis

report and national reports) and from the literature we did find on innovative quality and evaluation approaches. A list of (re)sources and literature used can be found in the annex.

1.5 What to expect from the guideline?

Given the nature of the task at hand, this guideline does not provide a step-by-step, "recipe"-like approach: The use of QualiTools is dependent on the institution's quality culture, on the motivation and resourcefulness of the teachers/trainers and on general conditions governing teaching and training, to name only a few. Besides, education and training institutions are very diverse, making it unlikely – or rather impossible – that "one way" of approaching this undertaking would "fit all". Everything that is presented in this guideline should, thus, be considered as "food for thought" and as suggestions: Institutions will need to adapt plans and activities to their specific situation and goals.

In this guideline we will therefore provide some general information on aspects that need to be considered if QualiTools methods are to be implemented in an institution. We will also furnish possible courses of action that readers can choose from to plan and organise their own approach.

1.6 For whom is this guideline?

The project "QualiTools for IT trainers" first and foremost targets the IT-training sector with its educational institutions and teachers/trainers. The main target group of this guideline therefore are professionals responsible for assuring and developing the quality of IT training/instruction, e.g.:

- (general) managers,
- quality managers,
- human resources managers/heads of professional development departments,
- managers of departments/branches within the institution (e.g. IT-training departments in larger educational institutions, coordinators of study programmes etc.),
- experts in quality assurance, evaluation and education/pedagogy,
- team leaders (e.g. for certain subjects, programmes)
- but also teachers/trainers who want to stimulate and support the uptake of the QualiTools approach in their institution.

Within IT training, the different educational levels – from schools, initial vocational education and training, universities/polytechnics (tertiary sector) to continuing (vocational) training and adult education – are in principle covered. Yet, the actual approach taken will vary greatly due to the diversity of institutional settings; a "configuration" will always be necessary.

The same holds good for the use of this guideline (as well as the QualiTools methods it seeks to promote) in educational institutions outside of IT training, i.e. in any other branch of education and training: The QualiTools methods and the ways of designing and implementing organisational change proposed in this guideline are generally applicable to a large extent, but will always need to be transferred to the particular institutional conditions and circumstances.

2 Why is the QualiTools-approach so important?

International research clearly shows that what happens in classrooms is decisive for the learning of students/participants (cf. e.g. Hattie 2009). While well-planned, transparent and quality-assured administrative processes and adequate infrastructure are important, the teaching and learning processes are the litmus test for the quality and success of any educational institution.

Teaching and learning – the "black box"

These processes, however, still largely remain a black box – for the institution, but also to some extent to the teachers/trainers themselves, who are often – by necessity – "blind" to a larger part of what happens in the classroom (cf. Dudley 2014 and below).

More or less superficial "evaluation questionnaires" – asking about student/participant satisfaction, usually distributed after the training/education and hence with little or no direct effect on the actual teaching and learning experience – usually constitute the only educational feedback that is gathered. By the way: The use of written surveys and questionnaires itself can, of course, be greatly improved to better serve the information needs of those who can influence the quality of the educational provision, i.e. the teachers/trainers, but also coordinators and managers of training institutions. We will see some examples of this later on (see chapter 5.4).

Limitations of traditional quality management

Yet, the fact remains that traditional quality management with its focus on standardised processes will not suffice to adequately ensure and improve education and training. There is a need for a different approach that takes into account that the teaching and learning process itself can never be standardised like an industrial process; instead, we deal with a „co-production" of teachers/trainers and learners. Since learners and contexts vary, the teaching/training process itself is highly dependent on the actual situation and constantly needs to be adapted. Actively involving learners throughout the process thus is critical for the quality of teaching/training – something that is usually not taken into account in quality management.

Professionalism of teachers/trainers

Teachers play a crucial role in this. Sound teacher education and pedagogical training are a good basis and teaching experience will add to performance. Yet, as professionals, teachers/trainers will need to engage in continuing reflective practice (Schön 1983) in order to master the ever-changing challenges of their daily work. Moreover, as Dudley (2014) points out, successful teachers/trainers learn to manage the teaching situation by internalising and acting on the practice knowledge acquired, thus filtering out parts of the information in the actual classroom situation. Consequently, constant feedback from and engagement with learners and the training situation as well as professional exchange with peers are basic requirements for 1) detecting blind spots in one's own perception and 2) being able to align instructional design and activities with the needs and interests of learners. QualiTools methods provide support for doing just that.

3 What are the current conditions and challenges for implementing QualiTools?

The reasons why a classroom-focused quality approach has not been taken up widely lie in a range of conditions governing education and training. It helps to understand them in order to devise ways for change.

3.1 Teaching and training as a professional activity

As already highlighted above, teaching and training constitute a professional activity. While general quality goals, criteria and even processes (e.g. what are important/necessary elements of good training etc.) may be agreed upon on an institutional level, it does not make sense to prescribe certain training designs and methods which will work well for certain learners and learning situations, but fall short of others. Instead, the expertise and discretion of professionals – the teachers and trainers – is needed to plan, implement and reflect on the educational process. Promoting QualiTools on an institutional level thus will preferably be largely based on voluntary involvement and action by teachers/trainers.

3.2 Legal situation and contractual relations governing teaching

Telling teachers exactly what to do would not only ignore their role and identity as professionals and the complexities of teaching/training, it would also infringe the rights of teachers/trainers in most countries and most educational sectors. The professional autonomy of teachers or "freedom of teaching" is often guaranteed by law (or even constitutional law) in the formal education sector (schools, universities). In other parts of the educational system, e.g. (continuing) vocational education and training, that work with professionals and free-lancers from the branch – as is the case in IT training – it may also not be possible to impose specific requirements for conducting training since this would run counter to labour law. So apart from professional considerations and the acknowledgement of the complex nature of education/training provision, also legal restrictions may exist.

3.3 Culture and training of teachers/trainers

Yet, motivating teachers/trainers to engage in quality assurance and development on the classroom level is often not an easy task. While there exist sectors within education and training where professionals have already adopted self-evaluation, reflection and collaboration with peers as a "way of life" (see above), this is by far not the rule:

- Teachers in schools traditionally work alone (or "in isolation", cf. Lortie's still valid study of 1975). They are used to this situation and see the leeway to do as they like in "their classroom" as part of their professional identity. Moving from "me and my classroom" to a more open and cooperative attitude requires fundamental changes in professional culture.
- In other educational sectors like tertiary education or vocational/technical education and training (VET – this is also where we would find most of the IT instruction), teaching skills and pedagogical quality are often not given as much attention as the professional knowledge of trainers/teachers/lectures in their subject area. Sometimes teachers/trainers do not even have training as educators. This is gradually changing. Yet, in these sectors too, many teachers/trainers habitually work alone and without much feedback from learners or colleagues.

In addition, many teachers/trainers are not prepared for a learner-centred, outcome-oriented, activating, self-reflective, evidence-based approach to education and training: They simply have not acquired the necessary knowledge and competences during teacher training (or perhaps have not had, as described above, any teacher training to speak of at all).

3.4 Resources and working conditions

Another important factor are resources, esp. **time**: Aligning training to learners' needs and interests, gathering feedback, observing teaching/training sequences etc. is time-consuming and the extra effort may not always be covered by remuneration/pay of teachers/trainers, esp. where freelancers are involved. In addition, a major element of the QualiTools approach is to collaborate with other teachers/trainers. This might involve joint preparation, meeting with others, follow-up of classroom activities and, in general, engaging in activities also outside the classroom.

In many countries and educational sectors, there are also **infrastructural limitations** to this kind of cooperation among teachers/trainers: Most Institutions were built when not much importance was attached to teachers/trainers working together, so there is simply not (enough) room to have meetings within the institutions. Instead of being able to rely on existing space and resources, teachers/trainers who do want to collaborate need to find "creative solutions".

The same holds good for **regulations on working hours and teaching schedules**, which also do not support cooperation, be it that **coordination and collaboration** between teachers are regarded as "leisure activities" of the overly committed, be it that teaching/training schedules make it difficult to meet at all during normal working hours. This situation can be witnessed, for example, in schools, but also in education and training institutions that employ part-time staff and freelancers who only drop in to give their classes, which affords little opportunity to meet up with colleagues.

Lacking **financial resources** for paying teachers adequately for their efforts in quality development and cooperation is often not only a problem on the level of the individual but also for institutions who might not have access to the necessary finances:

- in the formal educational sector, e.g. because of salary/remuneration regulations that are "all-in" and/or do not include extra work or
- in the educational "market", where institutions may loose their competitive edge or (in the case of public funds) may also not be "allowed" to remunerate teacher activities outside the actual training situation (apart from some preparation time).

To sum it up, working conditions of teachers/trainers, their schedules, pay and access to resources have a decisive impact both on the motivation and the material possibilities of teachers/trainers to commit themselves to bottom-up quality assurance activities.

3.5 Accountability-oriented quality management

Quality management itself can also, ironically, become a major stumbling block if a primarily top-down and accountability/compliance-oriented system has been put in place. These kinds of QM systems favour easy-to-measure numerical indicators and institution-wide surveys, while other kinds of quality activities – like the QualiTools methods – do not fit in. They also foster a culture of control that usually discourages voluntary engagement of teachers/trainers and teaching innovation on the grass-roots level.

3.6 Challenges and chances in IT-training

Given these general conditions in education and training, what are the specific challenges and chances concerning the use of quality tools on the classroom level in IT training?

First of all, most of IT training is vocational/technical training with a primary focus on the subject matter; pedagogical aspects are often not as important. This also has to do with the "culture" in the IT sector, which clearly puts the "hard" facts (in our case: What to teach?) above "soft" aspects (How to teach?). The centrality of clearly defined outcomes, esp. for standardised industry certificates, also makes questions concerning the teaching and learning processes seem less important.

Also, teachers/trainers are often recruited from the IT branch; they are IT specialists but not necessarily trainers by profession. They do not usually come from a "pedagogical background" and have little (or even no) training as educators. In addition, IT-trainers often work as (part-time) freelancers with the main focus of work remaining in their primary occupation as IT-specialists. These part-time trainers are usually not so easy to convince of the benefits of pedagogical training, let alone training in instruction-focused quality tools. Additionally, turnover of trainers would call for constant training of trainers in educational skills.

Conditions thus are not particularly favourable for introducing classroom-based quality methods. Yet, the IT-training sector also faces a number of challenges that clearly show the demand for improved training skills (including quality methods) of IT trainers, like the heterogeneity of learners or the need to deliver training results in terms of learning outcomes.

4 How to approach the implementation of QualiTools?

4.1 Holistic approach with a focus on teaching and learning

If QualiTools are to be introduced on a larger scale in an educational institution, the understanding of educational "quality" and the ensuing policies and strategies must undergird them. A successful introduction of QualiTools depends on a number of organisational characteristics:

- The "key process" of teaching and learning must be the main focus of the entire organisation.
- Teaching and learning must be approached from a professional and pedagogical point of view and not only from a managerial perspective. This also entails that the institution acknowledges teaching and learning as a situative and adaptive process conducted by professionals – the teachers and trainers – and with the learners at the centre of all activities.
- Development of educational quality must be at least as important as compliance-focused quality control mechanisms.

How this translates into a quality management system that promotes an institutional quality culture is further investigated in chapter 4.2.

Implementing QualiTools calls for activities on different levels from

- self-reflection of teachers/trainers and activities in the training situation to
- exchange and feedback from colleagues to
- activities and offers on the institutional level.

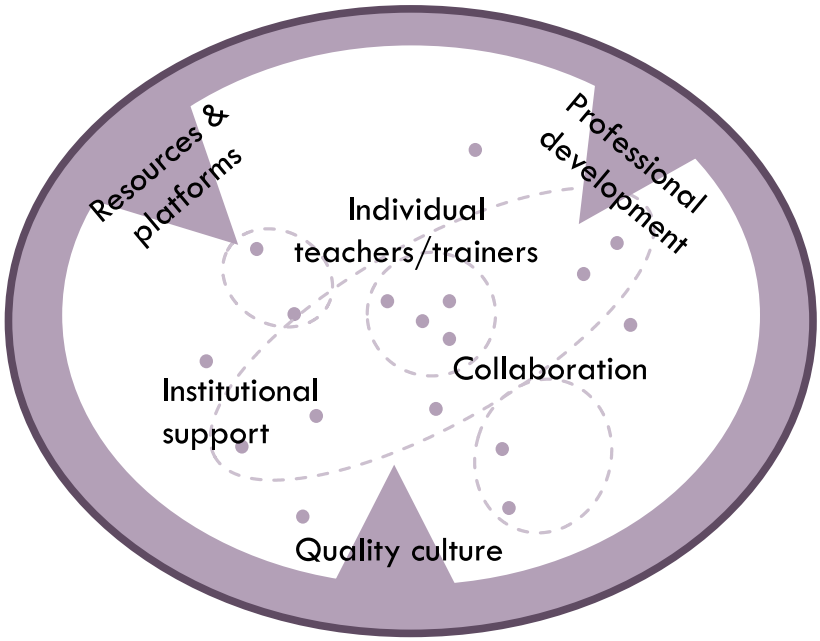


Figure: Holistic approach to implementing QualiTools

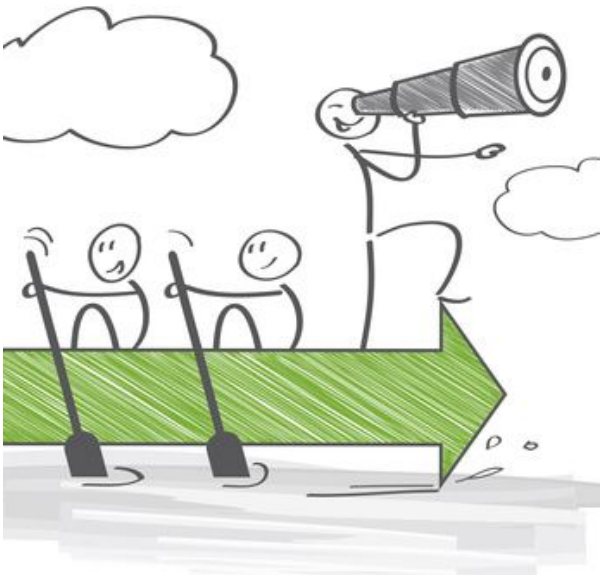
These elements must interact in a holistic way: The individual activities of teachers/trainers are supported by collaborative activities of groups of teachers/trainers, which in turn are embedded in

a wider organisational setting that also provides a common orientation and support for the training staff. The individual elements are dealt with in more detail in the next chapter.

4.2 Establishing an institutional quality culture

4.2.1 Aligning the quality management system

In order to orient individual and group activities toward the common goal of improving teaching and learning, they need to be integrated in institutional policies and management. It is therefore important to align the quality management system accordingly; otherwise grass-roots activities and quality development among teachers/trainers may not be supported by the institution – or even be counteracted.



This starts at the top, where **quality policies** must be put in place that give priority to pedagogical quality and make use of suitable quality goals and criteria. The teachers/trainers who will be responsible for implementing these policies should have a say in their development. Ideally, they would be included in a joint effort to devise them from the start.

The **quality management** should then support these policies through appropriate processes and structures, in particular professional development offers and opportunities for collaboration in the institution.

4.2.2 State-of-the art approach to data collection and evaluation

From a "technical" point of view, an appropriate quality system needs to "mix methods", i.e. to include "soft" qualitative and situative instruments like QualiTools alongside the (supposedly) "hard" quantitative approaches (surveys, statistics).

Reliable and valid qualitative data must be gleaned and valued as much as quantitative data, since it complements quantitative data and often offers more explanatory and directly actionable information than mere figures.

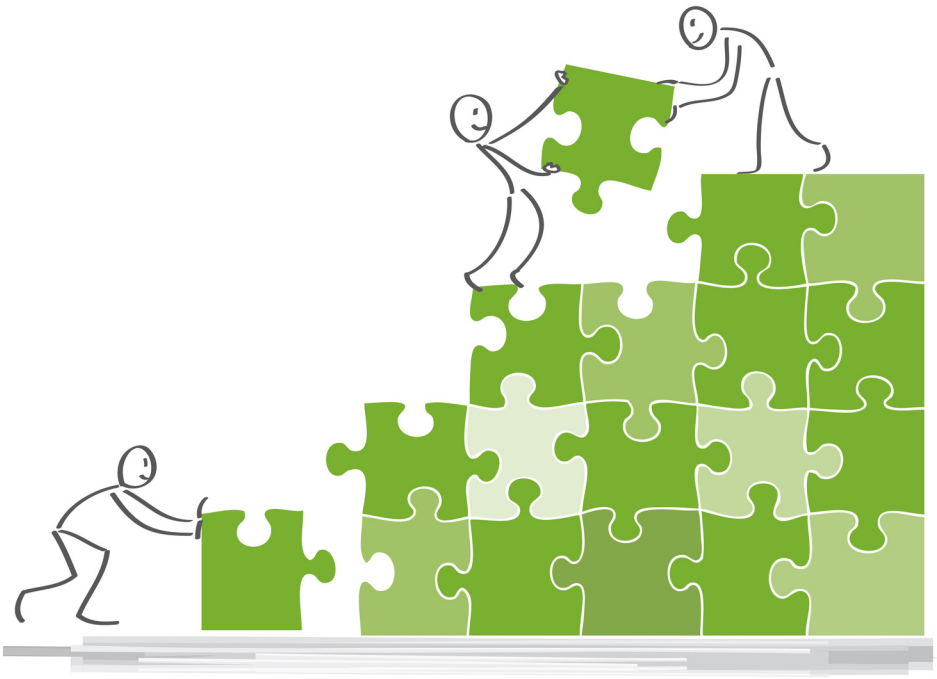
Interpretation and assessment of data must take place – without it data collection is meaningless. Quantitative and qualitative data should be brought together in analysis. Most importantly, assessments and findings must be acted upon. This holds good for quality management on the institutional level, but also for the use of QualiTools on the classroom level. Following the quality cycle (PDCA[2]-Cycle) to the end to include phase 4 "Act" will give guidance for this.

[2] PDCA: Plan Do Check Act

4.2.3 Living a quality culture

Quality management, if seen as an administrative process, will not create a **quality culture**. It is important to have a close look at what people – management, staff, teachers/trainers, etc. – actually do, and not only at what the quality management handbook stipulates. Features of a quality culture that focuses on teaching and learning are, e.g.:

- Managers are role models for putting teaching and learning at the centre of the institution's mission and goals.
- Strategies, processes and structures are in line with this goal.
- Grass-roots quality initiatives are encouraged.
- Trying out new approaches, data collection and reflection is promoted.
- Teachers/trainers who engage in such activities receive positive feedback and become visible in the institution as models.
- Internal communication in the institution is open and encourages feedback on all levels.
- Feedback is used not for finding fault but for developing professional practice.



5 What are elements and methods for implementing QualiTools?

5.1 Individual activities of teachers/trainers

Since the main aim is aligning and improving teaching and learning, the individual trainers are the main target group of all policies and actions.

Activities that can be carried out by teachers/trainers cover all parts of instruction: the preparatory phase, the beginning of a sequence/lesson/course, feedback and assessments during and at the end to follow-up and transfer of the lesson/training. At the centre of these activities is the endeavour to obtain answers to the following questions:

- What do learners already know beforehand? What competences do they already have?
- What are their needs and interests?
- How do learners learn?
- What do they learn?
- What kind of support do they need?

So while aligning content of training (subject content, curricula, course syllabi etc.) may also be concerned, the major emphasis is on teaching and learning processes (and how the two interact) and on learning outcomes. Feedback from learners and from peers is pivotal.

The QualiTools methods encompass multiple ways of interacting with learners and obtaining feedback beyond the usual generic written questionnaires, with a mix of quantitative and qualitative feedback and creative methods. Most importantly, they are just-in-time, i.e. put to use while the training is still ongoing. This makes it possible for teachers/trainers to react directly to what happens in the classroom/seminar.

The QualiTools methods can be found at: www.qualitools.net/methods

While teachers/trainers can go ahead and implement QualiTools on their own accord, in most instances it will be more conducive to do it together with colleagues – to find support, to maintain motivation, to exchange experiences and to learn from each other.

5.2 Cooperation between teachers/trainers

Cooperation between teachers/trainers is often not easy to establish, since many educational institutions are not structured and organised in a way to facilitate exchange and collaboration among the teaching staff (cf. chapter 3). Why is it nevertheless so important to support and promote cooperation between teachers/trainers?

- First of all, there may be aspects of study programmes, lessons/courses etc. that actually require collaboration – be it that subject matters are interlinked and there must thus be a common view of what and how to teach, be it that working with learners requires coordination (alignment of requirements, support, communication etc.).
- Working with colleagues also helps to learn from each other, exchange practices, obtain new ideas, receive professional feedback and to detect blind spots. It is a powerful means of de-

veloping professionally as teachers/trainers. Getting to the core of matters works best in analytic discussion with other professionals.

- Teams also create better solutions. It is therefore good practice to collaborate in developing new approaches – be it curricula/content, teaching and learning methods, exercises, assessment standards, feedback to learners etc. If teams are involved, acceptance of solutions will also be higher in the institution and the efforts to disseminate new practices reduced.
- Last but not least, embedding the focus on teaching and learning in the whole institution requires a joint commitment that will need some form of coordination and collaboration.

We will now have a look at the wide range of possibilities for collaborative activities of teachers/trainers. Institutions can then choose the approach that seems most appropriate in their context.

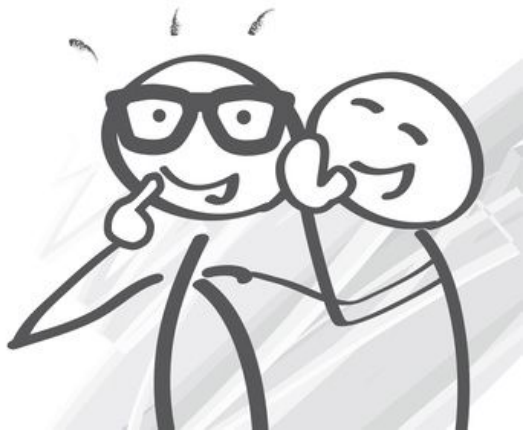
5.2.1 Cooperative activities

Cooperation can include different kinds of activities:

More or less structured **exchange between teachers/trainers** on their teaching/training experiences is a very basic form of cooperation that usually does not evoke anxiety. Because of this it makes for a good starting activity.

The next stage may be a focus on **feedback from colleagues** (peer evaluation), often connected with **classroom observation** (→ QualiTool *"Peer Observation"*). These can be appreciative – concentrating on what works well and looking for examples of good practice – or more critical with a structured procedure that looks at strengths as well as areas of improvement. Again, it may be conducive to start with the less threatening approach and proceed to full feedback once teachers/trainers have become accustomed to having colleagues sit in on their lessons/trainings. A very thorough method for analysing what is happening during instruction are **lesson studies**, which concentrate on the effects of methodological choices on student/participant learning (Dudley 2014).

Teachers/trainers may also support each other through **collegial supervision** or **intervision**, especially with regard to practical problems or "cases", as they are called within the intervision framework (→ QualiTool *"Peer Guidance: Two Options for Intervision"*).



Related to supervision are **mentoring** schemes, which are usually conducted between experienced and "new" teachers. They may play an important role during the induction phase, but can also be used when teachers/trainers experience problems or simply want to develop further professionally.

Team teaching is the most intensive form of collaboration between teachers/trainers. There is a variety of possibilities for team teaching – from low key schemes, i.e. alternating teaching of the same course/group of students, to fully-fledged team teaching with joint planning of lessons/courses, joint teaching and joint reflection. In these kinds of settings teachers usually also engage in mutual feedback.

5.2.2 Foci of cooperation

Particularly helpful are activities that actually focus on the teaching and learning processes and their outcomes. If the topics tackled are narrowed down and clearly defined, collaborative efforts (like peer feedback) usually lead to more useful results giving an indication of how exactly to develop teaching/training and one's own strategies and actions as a professional. In some instances, a more superficial feedback, i.e. on the most salient aspects of a specific lesson/seminar, may also be useful.

Within this broad topic of what happens in a classroom/seminar/lecture, peer evaluation should centre primarily on learners, e.g. the way they participate (or not), how fast and what they learn, where they experience problems etc. An important aspect is also the interaction between teachers/trainers and learners or among learners.

Learner activities must always be viewed in relation to teacher activities: Teaching designs/plans and their implementation need to be paid attention to, as well as teacher roles, their skills and competences and their further development needs.

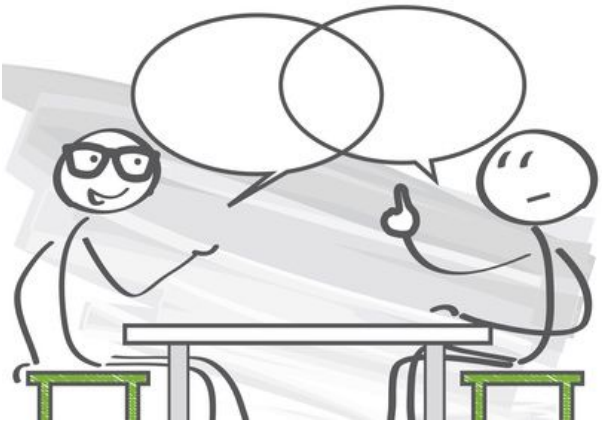
5.2.3 Group formats

There are different kinds of cooperative formats: Teachers/trainers can collaborate in **tandems** (two people), **small groups** (up to 6 people app.) or larger groups. **Large-scale events** (conferences, open space events etc.) bring together teachers/trainers from different parts of the institution allowing for institutional "cross-fertilisation".

Cooperation can be continuous or happen in one-off-events. They are mostly carried out in face-to-face settings, but also through electronic platforms. The latter is a useful approach if personal meetings are difficult to organise. **Professional learning communities** for teachers/trainers provide a regular exchange and joint work on common topics. This is particularly helpful for issues that need continuous attention or take longer to improve.

Teams can be recruited according to **subjects** – esp. when teaching and learning in special subject matters is to be tackled – or come from different subjects – thus promoting exchange between different fields of study.

Team members can also **remain the same** or **change**, either through some rotation principle or according to topics. Continuity enhances trust and getting to the core of matters, changing group members brings in fresh ideas.



Cooperation often is also **project-based** and concentrates on specific issues – e.g. developing new approaches/methods/content etc. In these cases teams are particularly apt, because they tend to conceive better solutions and enhance acceptability (see above). Collaboration in projects can be organised in a way to spread working together through the institution and to support working relationships between teachers/trainers from different parts of the organisation.

External cooperation is also possible, but in most cases even more difficult to organise. It is usually implemented around specific topics/needs in order to benefit from the special expertise of external partners.

5.3 Institutional support

5.3.1 Conferences/Workshops/Meetings/Exchange

An important factor are adequate structures and processes that allow for or – better still – support quality activities at the classroom level and collaboration between teachers/trainers. The most important are:

- time and
- opportunity to cooperate.

Coordination is crucial: on a day-to-day basis where continuing quality development is concerned; but also through workshops or conferences when overarching topics are tackled or expertise and innovative approaches in the institution are to be shared.

Examples of good practices in this respect are teaching/training schedules that allow for meeting up with colleagues, i.e. through (weekly/bi-weekly/monthly) fixed times that are reserved for these activities. "Jours fixes" are also helpful for general staff meetings, project meetings or meetings of development groups.

For teachers/trainers who are not present at the institution on a regular basis or for topics that do not need to be worked on continually, larger, but less frequent meetings can serve the purpose of supporting exchange and collaboration (e.g. institutional symposia/conferences once or twice a year).

5.3.2 Personnel development/(further) pedagogical training

Personnel development and further training of teachers/trainers is pivotal for implementing the QualiTools approach. They will need to cover (not only updates on subject matters but also) the development of teacher/trainer competences in

- didactical matters and
- quality methods.

Since QualiTools are intricately intertwined with pedagogical strategies and activities, the two should preferably be dealt with jointly.

Target groups

Primary target groups of personnel development are, of course, the **teachers and trainers**.

Yet, to implement new pedagogical quality approaches it will also be important that **managers** (directors, department heads, human resources and quality managers) have a comprehensive knowledge of QualiTools. In one of our case studies, the implementation of quality management started with comprehensive training for the entire management – and this proved to be beneficial (if not indispensable) for the successful implementation of a truly pedagogical approach to quality in the institution.

Formats

Formats of these professional development offers can be (traditional) trainings/courses, workshops, but also coaching, supervision/intervision, mentoring, peer feedback, and also – if practiced – feedback from superiors after assessments. Personnel development hence overlaps with peer activities and collaborative activities (see above), which can and should also serve this purpose.

Whatever format is used, it is always paramount to make sure that theoretical inputs are linked to practical competences of teachers/trainers. This means that the problems, questions, and practical "cases" of teachers/trainers should be tackled (problem-based learning) and concrete teaching/training methods should be tried out and practised.

Formats like professional supervision, coaching, feedback from colleagues/experts etc. that centre on actual teaching practice are particularly effective. They are state-of-the-art in other, similar professions, offer continuous support and should be given high priority.

An interesting example from our research is the offer of special didactical training "retreats" (of about 2 days) for the teachers/trainers of the institution. They encompass practical training by pedagogical experts as well a discussion about and sharing of a common vision of what constitutes training quality in the classroom.

Phases

An emphasis on professional development usually marks the **induction phase**, when "new" teachers start working in an institution.

- In the formal education system, structured processes are in place, e.g. there is a practice phase for teachers/trainers who have just finished their teacher training and are new to the profession. This induction phase usually involves some kind of supervision/mentoring by an experienced teacher/trainer in the field. In other educational sectors, induction is less formal and often consists only of a talk with the coordinator of the study programme on what is expected of teachers/trainers. Some institutions also have information brochures (sometimes as annexes to labour contracts) on teachers'/trainers' duties that also include pedagogical aspects.
- New teachers/trainers can also be not "new" to the profession itself, but to the institution. In this case, they may have experienced different educational approaches to teaching and learning. Institutions that attach a strong value to what happens in classrooms also provide induction for these newcomers – through induction workshops, talks with the responsible manager, mentoring and peer assistance, classroom observation, feedback and "development talks". The induction phase is also accompanied by further professional development offers.

In-service-training over the course of professionals' careers has increased in significance, esp. when it comes to keeping pace with current developments. There is widespread agreement that updating one's knowledge and skills in the subject matter is a must (although perhaps not always put into practice in the way one would wish for). Continuing further education and training in pedagogical matters, however, is not very strongly pursued: either teacher training and induction are considered sufficient or pedagogical training is not accorded much importance overall. This attitude towards further training and professional development in educational/didactical matters is problematic for several reasons:

- First of all, depending on the educational sector and the country, initial teacher training may not necessarily cover all important aspects – both theoretically, but more importantly also in terms of practical application. Thus teaching competences and practical experience (also) need to be required through personnel development on the job.
- In addition, pedagogical approaches have further developed over the years (active teachers may have graduated some 10, 20, 30 or more years ago) and innovative educational approaches (some of which have actually been around for a long time) are starting to spread through the education and training systems.

- Furthermore, many teachers/trainers experience increasingly challenging teaching/training situations and participant constellations (e.g. heterogeneity of participants, lack of basic skills, high and contradictory demands, diversity of customs and behaviours) demanding appropriate didactical answers. Last but not least, experienced teachers have also developed "lenses" in perceiving what happens in their classrooms (see above), so there is a need for continuing "reality checks" and reflection.
- Add to this that many of those currently working as teachers/trainers have never had an introduction to quality methods, so they will need to acquire them through further training or other forms of personnel development.

Importance of professional development support

As a corollary, the implementation of QualiTools will require continuous professional development offers that should not only focus on subject matters but also on educational/didactical issues and on quality methods. Personnel development methods that provide continuous support for everyday practice are the most valuable.

While voluntary participation is the goal, institutions will also need to establish an obligation for teachers/trainers to acquire certain pedagogical competences (or show proof of their prior acquisition, e.g. through validation), and to stay up-to-date not only in one's subject but also in teaching/training expertise.

Having **educational/didactical matters structurally embedded** in the institution, i.e. through designated experts and/or a specialised department, helps to strengthen the significance of this issue both in terms of availability of in-house expertise for teachers/trainers who seek support and on the "symbolic" level – esp. when didactics are also interlinked with quality management).

5.3.3 E-Learning and electronic platforms

Electronic platforms and e-learning/blended learning have become a way of life in many educational institutions. Fields like IT training are particularly open to such solutions, but also other educational sectors and fields are nowadays used to working with electronic support.

Even though often perceived as "impersonal", platforms and e-learning may actually help to advance teacher/trainer cooperation and the sharing of good teaching practices. They also facilitate just-in-time feedback. They can and should be used strategically to advance the development of teaching and learning. We have found the following possible avenues:

A **common electronic platform** for teachers/trainers that provides material and supports electronic exchange (chat, video conferencing) makes team work easier. Professional learning communities or other teacher teams may work together also when they are locally separated (or even from another institution, cf. external cooperation). Material and results developed by teams can also be made available to other teachers/trainers in the organisation without further effort.

If **e-learning** is provided through a joint platform and teachers/trainers have access to each other's material (study/lesson plans, presentation, informational material, exercises, assessments etc.), exchange of experiences, feedback from others, discussion and sharing of good practices is facilitated: Teachers/trainers can see first-hand how others approach specific problems or situations

and engage in reflection with them, which by itself [already] helps to develop the quality of teaching. Sharing of training material also lessens the efforts of preparation for individual teachers/trainers and frees them (and their time and resources) to focus on special pedagogical issues.

Web-based didactical forum: In one institution, the centre of didactics provides an electronic forum for teachers/lecturers that supplies them with 1) real-life examples of training/teaching concepts for whole courses or individual units, 2) a broad selection of didactical methods and 3) a bibliography of pedagogical literature for further reading. The didactical forum can also be used and contributed to by teachers/trainers from outside the institution after registration on the platform.

5.4 Special topic: Making (more) use of traditional "evaluation questionnaires"

5.4.1 Acting upon results

Making more use of traditional participant/learner surveys aka "evaluation questionnaires" first and foremost means that they are actually consulted in order to understand what happens in the classroom/training and to draw conclusions that are then acted upon (see also 4.2.2). An institutional process must be in place to ensure that this happens.

- It must involve primarily the teachers/trainers concerned – this seems self-evident but so far is not common practice in all educational institutions. Teachers/trainers must always receive feedback. They should also not be left alone with the results, but given the possibility to draw on support, if necessary. This may be helpful in interpreting data or in further exploring problems, opportunities for in-service-training, supervision etc.
- Usually direct superiors are also engaged, especially if the results are not satisfactory. There will be some joint discussion of results with the teacher/trainer and decisions on how to proceed (e.g. whether and what kind of support is needed).
- In addition, results from learner feedback can also be part of peer activities, e.g. discussing and interpreting them with the help of colleagues or enlisting peers for structured intervision.

5.4.2 High-quality questionnaires

The development of good quantitative questionnaires for participant feedback is no minor feat. In some institutions it is done by administrative personnel with no knowledge of questionnaire construction – this is why questionnaires often display basic "technical" faults. Scientifically trained staff on the other hand tend to develop lengthy and complicated questionnaires with lots of questions that are interesting from a research point of view but not really important for practice. Both should be avoided.

As a rule, questionnaires need to be understandable and meaningful for everybody involved: the learners who fill them out, the teachers/trainers who must be able to make sense of them and the (quality) managers who use them for general quality control and/or improvement measures. Questionnaires must also be "actionable" – it should be possible to take action based on the findings.

So don't ask questions that people

- will not understand (because they are confusing or ambiguous),
- will find irrelevant or superfluous (because the information will not contribute to training quality) or
- will not be able to answer (because the questions don't apply or answer choices do not fit experience).

Again, this must be checked for all stakeholders involved. In addition, questionnaires should be as short as possible in order to limit the burden on feedback-givers, but also on everyone else who will be obliged to work with the results.

5.4.3 Intelligent administration

The way surveys are administrated also makes a difference for quality of results and further utilisation. This has to do with the general time scheme used: It neither makes sense to constantly bombard learners with questionnaires nor to conduct surveys so seldom so as not to obtain any timely and meaningful feedback on the educational provision. Intelligent solutions are called for.

How to gather feedback

Participants in adult education/continuing VET will be willing to fill out a (short) questionnaire after a seminar or a course and students in formal education will give feedback once a year or semester. But repeated and very general surveys – perhaps even on the same educational offer and teacher/trainer – will greatly reduce the motivation to answer questionnaires because it seems pointless (I have already told them what I think) and inconsiderate (Why do they ask me this again?).

In some study programmes learners receive feedback questionnaires on every course/subject taken at the same time (usually at the end of the semester/year). This, too, negatively affects comprehensiveness and seriousness of feedback: Learners don't complete questionnaires, don't think about the answers they give or fill them out at random.

Thus, not only the length of surveys and their content but also thoughtless organisation can cause attrition as well as unreliable and invalid results. This is why many institutions have some kind of survey administration scheme that ensures that feedback is gleaned at regular intervals in a rotating system (so every course would receive feedback e.g. once in three semesters, while during the other two semesters other courses are in for it), but not as often as to become a burden or a source of irritation.

When to gather feedback

Another issue is the point in time when feedback is gathered: This usually happens after the course or training, which is in fact too late for adjusting the ongoing educational offer. If paper and pencil questionnaires are used, questionnaire logistics and data entry will take some time. All of this means that results – if they are shared with the teacher/trainer – may arrive with a considerable delay, and can only be acted upon in the next course or even the one after that when the previous one is almost forgotten. This does not promote the use of feedback.

Organising timely feedback is the solution. This means that short (!) feedback can be asked for during training, when it can still be acted upon, and not only afterwards. Online survey programmes provide easy handling of questionnaires, fast analysis and ready results. During our research, we saw examples where feedback was provided just-in-time and the immediately available results (projected on the screen of the lecture hall) were discussed with learners during class.

It is also possible to complement or replace (some) of the quantitative questionnaires by qualitative feedback gathered in class, which was also good practice in one of our case studies. Even short quantitative feedback may be collected in an integrative and activating manner during the course of the training/lesson. Ideas on how to do this can be found in the QualiTools methods collection.

→ QualiTools, section: **Feedback methods**

for **quantitative feedback** see e.g. the methods

- *"'Field'-Feedback"*: participants enact degree of agreement to predefined statements
- *"Living Questionnaire"*: participants enact degree of agreement to predefined statements

But also other methods like "*traffic light feedback*" or "*1, 2 or 3*" can be used to get a "countable" feedback (how many people agree to which statement) very fast.

Methods for **qualitative feedback** can be found in all sections of QualiTools.

6 How to move forward?

6.1 Getting started and preparing the ground

There is no "one best way" for embarking on a journey towards educational excellence in terms of improving the teaching and learning processes and outcomes. As we have seen above, (bureaucratic) quality management procedures will only go so far, or rather will need to be "kept in check" in order not to stifle developments in the classrooms/lecture halls/laboratories/workshops.

As has been argued above, it will make sense to work on the different elements that constitute and promote a QualiTools approach in a holistic way so that the different aspects reinforce each other. In reality, however, some priorities within a general timeline are usually necessary; energy and resources must be directed towards tangible goals and activities. In a longer-term perspective, stages of change can be envisioned to make sure that the overall process will not stop after the first activities.

- Starting a pilot implementation with "early adopters", i.e. teachers/trainers who are ready for this kind of pedagogical and collaborative quality development, is always a promising strategy (organisationally, but also from a psychological-social point of view – see below).
- At the same time, pilots should not run counter to institutional policies – this would smother them or greatly impede their success. This is why it is also important to lay the groundwork for change at an early stage, i.e. through establishing appropriate quality goals/systems and/or through professional development schemes. Preparing managers for the new approach and getting them "on board" is important; providing training in QualiTools for the management level (alongside the teachers/trainers) can be a clever way to start.

The pivot of all activities should be the professional and voluntary commitment of teachers/trainers.

6.2 Fostering commitment and overcoming resistance

Given that teaching/training is a profession and complex by nature, obligatory measures to improve what happens in classrooms will have limited efficacy. It is therefore recommendable to favour an approach of voluntary commitment, to engage and motivate teachers/trainers to further develop their teaching practices and to create common ground and collaboration among teaching staff.

Fostering commitment is, of course, a paradoxical undertaking since intrinsic motivation cannot be instilled from the outside. Yet, there are several approaches of professional change management that have proved helpful in practice:

- Clear and comprehensive information in the introduction phase (but not only then) is paramount. Resistance to a large extent stems from ignorance and the (often unfounded) fears it causes.
- For many teachers and trainers, implementing QualiTools will not only mean aligning their daily practice but also taking a new approach to the way they see themselves as professionals. All of this means a considerable change for the professionals involved. The management of implementation processes

should take this into account by allowing for enough time for everybody involved to get acquainted with the changes. The new approach must be instilled into the professional identity and ethos of teachers/trainers.

- Starting small and giving the opportunity to make first experiences often is a promising way forward that does not overwhelm people, even more so if the pilots are successful and benefits become apparent and are shared with colleagues. One should also not forget that human curiosity can be instrumental in overcoming fear of change.
- Peer collaboration is a means and an end for quality development. If a critical mass of adopters is reached, using QualiTools becomes a way of life in the organisation. It should therefore be supported in any way possible.
- Even though the teaching/training process remains within the discretion of the teachers/trainers and use of QualiTools is voluntary, supporting activities like e.g. participation in further training and professional development schemes can be made obligatory, giving a clear signal that they are a serious issue for the institution.
- Implementation schemes should be structured and realistically planned, which also means that they need to show progress and achievements – even if leeway is given to teachers/trainers to advance at their own pace.
- Last but not least, it is always conducive if favourable conditions are ensured and the right support is given at the right time.

7 Implementing QualiTools – a Checklist

7.1 How to start

→ Start small and take your time: If the QualiTools approach is completely novel to you, some experimentation on a smaller scale might be a good way to start – as long as you don't lose sight of your wider goals and the longer-term perspective. Encourage and enable enthusiastic teacher/trainers (early adopters) to pilot QualiTools.

→ Resistance to and boycott of changes usually stem from lack of information. Clear communication of new approaches and what they entail – including the benefits for teachers/trainers – is crucial.

→ Provide training for all involved. It is important that both management and the teachers/trainers who are piloting QualiTools have the necessary knowledge and competences to implement this new approach.

→ Trust in and support bottom-up activities. Show interest and encourage reflection and learning from experiences.

→ Make sure that resources are available. The most important resources are time and opportunity for collaboration.

7.2 Along the way

→ Afford continuing attention to the implementation of QualiTools: While pilots are a good way to start, there is always the danger that activities will remain isolated or "die" again.

→ Help to overcome the "splendid isolation" of teachers/trainers step-by-step and evaluate what happens as collaboration evolves. Take stumbling blocks and unintended effects seriously and work on remedies.

→ Develop structures and processes that will make it more likely that the QualiTools approach spreads through the institution and pilots are transformed into sustainable practice: use training, workshops, conferences to share (first) results, encourage different forms of collaboration and first-hand experience.

→ Create an institutional "quality culture": highlight advantages, create opportunities, appreciate initiative and reward commitment. Make sure that communication and decision on the institutional level are consistent with the goals of improving teaching and learning at the classroom level.

7.3 How to end (?)

→ If you have created enough momentum and transformed your quality management in a way to fully encompass classroom-based quality activities, you have reached a high level of achievement.

→ Still there will be new challenges, new staff and new learners coming in – asking for constant adaptation and development.

So: Is there ever an end to this kind of quality approach? Let us know if and under what circumstances you think that your institution can "close" the process.

8 Literature and (re)sources

8.1 QualiTools Research reports

Report Austria

Report Poland

Report Portugal

Report Bulgaria

Report United Kingdom

QualiTools Research Synthesis Report for O3

8.2 Examples of good practices and methods

DICFO Forum Hochschuldidaktik, Fachhochschule Technikum Wien, www.dicfo.at, 23.3.2017.

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Here your examples could be presented: Please contact the author for inclusion in this guideline.

8.3 Literature

Arnold, Rolf; Philipp Gonon; Hans-Joachim Müller; Arnold, Rolf (2016): Einführung in die Berufspädagogik, 2., Überarbeitete Auflage. Einführungstexte Erziehungswissenschaft, Herausgegeben von Heinz-Hermann Krüger; Band 6. Opladen Toronto: Verlag Barbara Budrich.

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