



Federal Ministry  
of Education  
and Research

# ‘Qualitätsoffensive Lehrerbildung’

A look back, a look ahead



# Foreword

School education plays a crucial role when it comes to promoting knowledge, skills and values that are essential for personal development and social participation. Teachers are the key figures who monitor and support pupils on this journey. They lay the foundation for a lifelong journey of learning. This requires highly qualified and well-trained teachers. When the 'Qualitätsoffensive Lehrerbildung' (QLB) was adopted in 2013 as a joint initiative of the Federal Government and the Länder, there was a need for action in various areas of teacher education.

Over the course of an eight-year funding period that started in 2015, the QLB of the Federal Government and the Länder responded to these needs for action and set many change processes in the German teacher education landscape in motion. As part of the QLB, the Federal Government and the Länder funded a total of 92 projects at 72 higher education institutions across Germany.

One of the first successes of the QLB was the nationwide recognition of teaching-related academic credits, degrees and pre-service teaching. This facilitates the mobility of students of teaching and teachers. Structural improvements and consistent, practice-oriented teacher education at higher education institutions prepared students of teaching for current and future challenges at schools. The initiative involved stakeholders from science, politics and practice, who together developed and implemented innovative ideas. Their work was based on high-quality, substantive research and teaching. New teaching and learning concepts, both in-person and digital, improved integration of theoretical and practical phases, the transfer and strengthening of digital skills and cross-phase cooperation brought significant and lasting changes to teacher education. The resulting insights also sparked a broader discussion about the future of school

education in Germany. Furthermore, the higher education institutions succeeded in developing diverse approaches to meet the societal and technological requirements that played a significant role during the project period. Specific examples include the impact of the Covid pandemic, the increasing digitalisation of teaching as well as the shortage of teachers, which is currently shaping the discourse on teacher education.

Although the conclusion of the QLB marks the end of the funding programme, its impacts and achievements have discernibly changed teacher education, particularly at higher education institutions. The sustainable structures and fruitful networks that were established and, above all, the newly gained knowledge and approaches will continue to serve as a basis for modern and effective teacher education.

The 2013 Federal Government-Länder agreement states that the QLB "aims to provide [...] impetus for a qualitatively sustainable improvement of the entire teacher education process, extending into the professional entry phase and continuing education, both in terms of content and structure." This goal has been achieved. This final report brochure summarises the results and provides an outlook on the challenges facing teacher education in Germany.

Your Federal Ministry of Education and Research

# Content

---

A critical look at the achievements of the 'Qualitätsoffensive Lehrerbildung'	2
Project highlights: What remains?	8
Securing and optimising the structures of teacher education at higher education institutions: preliminary results of the programme evaluation	13
The 'Teacher education community'	17
The 'Qualitätsoffensive Lehrerbildung' is coming to an end – the exchange continues	26
Project location map	31
Imprint	37



# A critical look at the achievements of the ‘Qualitätsoffensive Lehrerbildung’

Manfred Prenzel, chair of the selection committee, Cornelia Gräsel, co-chair of the selection committee, Herbert Altrichter, academic advisor for the programme evaluation and Iris Winkler, former vice president for study and teaching and former project manager at Friedrich Schiller University Jena, participated in a round table discussion hosted during the closing congress of the QLB in October 2023. They summarised the key achievements of the QLB, considered its long-term impact and drew attention to future fields of work.

## What were the main structural changes the QLB contributed to?

**Cornelia Gräsel (CG):** For me, there were two key structural changes. One structural change that is particularly important for me is that the traditional centres for teacher education with a more practical-organisational focus have evolved into schools of education at many locations. These new centres conduct teacher education, research, and the promotion of junior staff, many of which administered and developed the QLB projects.

They made teacher education more visible at higher education institutions. Now that the QLB is coming to an end, we need to make sure that this strong and visible role is maintained at the higher education institutions. The second structural change is in fact a good or at least tentative convergence of the first and second phases. Several projects, through practical semesters and other curricular elements, tried to work together, develop common curricula, perhaps even common structures, find a common language and better coordinate with each other.

**Manfred Prenzel (MP):** Although initiatives were in place before the QLB, there was always the impression that teacher education was peripheral, something of a fifth wheel. The question at the beginning of the programme was: How do you get higher education institutions to take teacher education seriously? We saw it as a key role to improve education and the professionalism of teachers in Germany. This major initiative was launched with this in mind. Firstly, in order to strengthen the centres. And secondly, to raise awareness at the higher education institutions that teacher education is essential and not a mere accessory.

**Iris Winkler (IW):** Exchange between the higher education institutions was also promoted. Speaking for our location, the exchange between the teacher education stakeholder groups was encouraged under the umbrella of the centre. The fields of subject didactics, the disciplines and the educational sciences suddenly had to actually work together – this started during the application phase but continued into the projects. Due to the long funding period, the QLB took on a kind of protective function for the structures that emerged. Given the current strict austerity measures along with numerous job cuts at our university, there is definitely cause for concern that certain commitments will be revoked.

**Herbert Altrichter (HA):** The terms of tender were very beneficial for some of these developments, such as the unusually long funding period. In my view, another important structural effect of the programme is the increased interest the leadership of higher education institutions now take in teacher education. A less pleasant outcome is probably the fact that the disciplines have become less involved over time. The qualitative results as well as the quantitative monitoring show that there is now more cooperation between all stakeholders, only the disciplines are less involved. I suspect there are two reasons for this: One is that, in the first application phase, the leadership of higher education institutions actively approached the disciplines. The other reason is that functions that were initially the responsibility of the disciplines were gradually taken on by the now stronger field of subject didactics.

**IW:** I don't think this is an effect of the QLB; rather, it is a misconception that the leadership of higher education institutions have always had, namely that it is subject didactics that is primarily responsible for teacher education.



**Short CV: Cornelia Gräsel:**

- Doctorate (education, psychology, art history) and habilitation (education and educational psychology) at the Ludwig Maximilian University of Munich
- Professor of Teaching, Learning and Instructional Research at the University of Wuppertal
- Previous positions include professorship at Saarland University; scientific director at the Leibniz Institute for Science and Mathematics Education, Kiel

**MP:** But I would go back to the fifth wheel analogy here. It was for a while quite common for students of teaching to just tag along in the disciplines. But we need specific offerings for students of teaching, not only in the educational sciences and subject didactics, but also in the disciplines. And I think that's where the QLB was indeed helpful.

**CG:** I also believe that the role of the disciplines has changed. They now cooperate, for example when it comes to curricular development and module development for specific groups. At the same time the subject didactics were made stronger by the new professorships and junior professorships, which have



**Short CV: Manfred Prenzel:**

- Doctorate (education, psychology, sociology) and habilitation (education and educational psychology) at the Ludwig Maximilian University of Munich
- Professor of Empirical Education Research and Head of the Centre for Teacher Education at the University of Vienna
- Among other positions, previous professorships at the University of Regensburg, Christian-Albrecht University of Kiel; former managing director of the Leibniz Institute for Science and Mathematics Education in Kiel; founding Dean of the TUM School of Education at the Technical University of Munich.

much more of a coordinating function and push the disciplines into the background a little.

**MP:** It continues to be their job to agree on what is important about the disciplines. How much physics, mathematics and so on do our students of teaching need to know? In my view this is a key question that needs to be discussed. And that hasn't really been done with regard to the overall question: How much do students of teaching need to know about their subject when they start their pre-service teaching?

**Many measures were tested, developed and improved as part of the QLB. New teaching-learning methods and materials, degree courses, platforms, etc., have emerged. Can these measures be implemented effectively? Is that desirable?**

**CG:** What is likely to continue are curriculum-based courses or labs, at least until no legislative changes are made. Other things will also be continued, such as the meta video portal for teaching videos. But there are other things that have worried me. For example coaching and support measures and other special offerings that were only made possible with greater teaching capacity as a result of the QLB, and special interdisciplinary offerings or certain tools. In any case, we should look at where flagship projects were created.

**IW:** If something gets done with the help of project funds, then it's no surprise that everything that requires a lot of staff is no longer possible to the same extent when the funds dry up. This is a problem with large projects, as welcome as they are.

**MP:** In addition to smaller grants, the QLB provided resources for teacher education, for getting together to develop new ideas and test and evaluate them, which was a wonderful opportunity. And that's how we found out what works. This is a desirable situation to bring developments into teaching. It also raises the question of how important teaching and innovation is to us at the university. And in this regard the additional resources we were given through the QLB is a huge step forward for teacher education. It will not be possible to continue with teacher education on the same scale for the time being. But what I hope, to save resources, is that certain principles of working, namely cooperation and coordination, including in curricula development, will become permanent. We also need to document our innovations, perhaps allow them to be shared, both within and across locations.

**HA:** The QLB could also be seen as an external intervention, an innovation incubator. It offered the opportunity for change. And now it is the job of the individual project leaders to develop the products so that they are sustainable. I would say that it is also the task of the leadership of higher education institutions to identify useful results of the QLB and to carry them forward and promote them. This is also the task of the Länder. Going by the interviews conducted during the

evaluation, it is my impression that it tended to be the leadership of higher education institutions who became aware of this. But at Länder level, things are very different. Many interviews reveal that some of the project teams do not feel appreciated enough by developments in their Land and that the legal foundations that would allow the adoption of innovations are not in place. Another structural aspect: for the development of teacher education, it was precisely this opportunity for exchange through the QLB, these transregional contacts, the workshops that were held, that represented a new strength in German teacher education, and which in turn also led to people expressing new wishes and demands. However, in many cases the Länder did not play an active enough role in this.



**Short CV: Iris Winkler:**

- Doctorate and habilitation at the Philosophy Faculty of the Friedrich Schiller University Jena
- Professor of German Didactics at the University of Jena
- Among other positions, professorship at Carl von Ossietzky University of Oldenburg from 2010–2012; Vice President for Academic Affairs and Teaching at the University of Jena from 2014–2020

**IW:** What's more, the Länder are concerned about other things now. With the federal elections coming up, the question is how many lessons will be cancelled. The Länder need people that make sure teaching at schools continue. Qualifications are of secondary importance for the time being. This is a development that has come to a head in parallel with the QLB. Ilka Parchmann pointed out this side-entry and lateral entry issue in an interview for the QLB programme brochure in 2018. I see this as something that ultimately calls our work into question. There's a lot of talk about how much the QLB has improved quality. But some of the students taking their final exams tell me that they have already been teaching for ages.

**CG:** I wonder whether the fact that we all worked so hard at improving the quality of regular teacher education in the QLB meant that we quite simply missed the boat on this trend that you've just outlined so well.

**MP:** It was the ministers responsible for research who monitored the QLB more than the ministers responsible for schools. From the outset it was not really possible to raise awareness for this programme among the school actors. I am concerned that the commitment to the second phase has not yet been formalised. The school actors did not really ask themselves: How can we use the QLB to improve the structure of our teacher education? With an eye on the second phase, we have now reached a critical juncture to establish institutional regulations regarding various responsibilities.

**CG:** The thing that currently annoys me about the situation is that almost all side-entry and lateral entry models run without the involvement of higher education institutions.

**MP:** But wasn't it the case that several models were developed with the QLB? Dual concepts were also tested and pilot schemes were launched.

**CG:** That's true. But the problem could have been addressed more clearly. Alongside the efforts of the QLB, a quality-assured, non-academic teacher education programme could have emerged. If I could go back to 2017, I would make this more of a priority.

**IW:** Calls for a proposal like the QLB have a steering function. First of all, to encourage research in a field that has not yet attracted attention for its research

performance and, secondly, to direct focus on specific contents. Nevertheless, it can be said that the QLB has indeed initiated developments in the areas that were emphasised in terms of management.



**Short CV: Herbert Altrichter:**

- Doctorate at the University of Vienna (education, psychology) and habilitation (educational science) at the University of Klagenfurt
- Full Emeritus Professor of Education and Educational Psychology at the Johannes Kepler University Linz
- To date, among other positions, Senior Professor at Goethe University Frankfurt am Main; Advisory Faculty Member, Dublin City University, Ireland; Treasurer, European Educational Research Association.

**What are the further current needs according to you? Where do you see the teacher education over the next five to ten years?**

**MP:** Given the shortage of teachers, we need to ask the right questions. It is not about 'producing' teachers, but rather: How do we envision the school of tomorrow – with different professions?

**CG:** I believe that differentiating among school staff, setting clear tasks, relieving teachers from non-teaching related activities – these would be important steps regarding of the professional profile of teachers. What concerns me is the attractiveness of the profession. For example, in one project we employed two people, who had both already taught in schools. One of them had civil servant status. And they simply don't want to teach any more and are now voluntarily leaving their secure civil servant job. They say schools are not attractive places to work because things are atrocious and rigid...

**IW:** ...and there is a hostility to innovation, performance does not get rewarded – and so on!

**CG:** Exactly. And I find that alarming. In theory, we'd also need a 'Qualitäts offensive Schulen' that focuses on the workplace of teachers.

**MP:** It was never the aim of the QLB to overhaul the school system. The main focus was on teachers in a specific setting. They had to receive good training.

**IW:** But we probably also have to consider the fact that today's 25- to 30-year-olds have different career expectations than we may have had. We have to take this into account somehow: How do you make schools attractive, not just for pupils, but also for the next generation of teachers?

**What other development potentials are there in teacher education?**

**CG:** At the closing congress of the QLB, one can see the great things that were developed. I could imagine that the products, the results could be systematically processed again. Making the results easier to find would also make it easier to utilise them later. This is not a vision, it's something for the to-do list.

**MP:** The 'Startchancen' programme is being discussed in Germany. What does this mean for teacher education? I believe that the systematic development of diversity and inclusion can be a concrete requirement for teacher education over the next five to ten years.

**IW:** Our research has shown us time and again that our students of teaching have severe subject-specific problems in German. Even if they teach at primary level, they need to understand subject concepts. In this respect, cross-disciplinary topics such as inclusion and digitalisation add more topics that cannot be abandoned. Does this mean that in teacher education their integration into the curriculum goes at the expense of the disciplines, subject didactics or educational sciences?

**HA:** Finally, I would like to address one more topic, namely research in teacher education. I think that research in teacher education is different before and after the QLB. The possibility of research funding by the QLB alone initiated many research and development projects. And the promotion of junior staff played a major role in many of these projects.

**Looking back on the QLB or with a view to the future of teacher education, would you like to make a concluding statement?**

**CG:** I hope that the progress that was made in the skills development of teachers will be made available to all future teachers, not just to those who did a traditional degree course, but also those who got there via side-entry and lateral entry.

**MP:** For me, the QLB would be an example of the kind of progress that can be initiated and achieved with impetus and incentives. I don't think the impact of the QLB is temporary. We have also changed the way we look at things, strengthened collaborations, formed networks and so on. It is crucial that they survive. We don't know what problems will particularly affect this education system in five years' time. That is why it's important to have colleagues at the higher education institutions who are alert and are able to take up new activities and solve problems together.

**HA:** I'd go along with that. The networks that emerged through the QLB can be seen as an opportunity to identify challenges and crises and to take precautionary actions.

**IW:** I think it should be emphasised that the profile of the teacher education disciplines as research disciplines was improved through the QLB, both in the self-perception of the stakeholders and in the external perception. For me, this also means that in the future school and teaching development has to be research- or evidence-based.



## Project highlights: What remains?

Specific examples from the projects show what innovative teacher education can look like. The examples are described in detail in the digital version of this programme brochure which is only in German language, sorted by federal state. The descriptions outline mostly just one of many noteworthy achievements of the respective projects over the past few years. Below, we provide you with a summary of the key results and developments.



[qualitaetsoffensive-lehrerbildung.de/lehrerbildung/de/aktuelles/publikationen-der-programmbegleitung/publikationen-der-programmbegleitung.html?nn=337966w](https://qualitaetsoffensive-lehrerbildung.de/lehrerbildung/de/aktuelles/publikationen-der-programmbegleitung/publikationen-der-programmbegleitung.html?nn=337966w)

## The fields of action of the ‘Qualitätsoffensive Lehrerbildung’ (QLB)

The fields of action of the QLB represent the starting points of the funded projects. They address important aspects of a teacher’s career and everyday professional life, from the structural conditions of teacher education to the consideration of diversity and inclusion during the degree course and in lessons to digitalisation in teacher education. It is up to the individual project teams from which field of action they present their results. It is not surprising that the ‘digitalisation-related skills and digital media’ was referred to most frequently. Digitalisation is not just a separate field of action, it is also a cross-sectional topic that affects society as a whole. The chart below shows how often the individual fields of action were addressed in the QLB project contributions.

### Profile building and optimisation of higher education structures for teacher education

The presentations of the projects illustrate how the QLB contributed to the structural, organisational and personnel development of teacher education. Central institutions for teacher education at higher education institutions, such as the schools of education or centres for teacher education, were established at various locations throughout Germany. The content of teacher education at higher education institutions is also undergoing significant developments: Major topics such as inclusive teaching and digitalisation-related skills and digital media are increasingly being integrated into the curriculum. Several projects established certificate programmes to integrate key extracurricular skills into the degree courses. Among

### The QLB fields of action that were addressed in the project contributions



others, certificate programmes on interdisciplinary teaching (see SPL project, University of Göttingen), on how to deal with diversity (see DwD, University of Münster) and on digitalisation (see MoDiSaar, Saarland University section) were created. The integration of people with vocational qualifications into the teaching profession at vocational schools has also been systematically tested (such as the TUD-Sylber BBS project at Dresden University of Technology). And last but not least, many locations are reporting greater cross-phase cooperation. Transitions between school and higher education within the education process should be smooth and coherent to be able to leverage the combined expertise of theory, research and practice.

## Qualitative improvements in practical training

It is precisely at this intersection of the three phases of teacher education that the Communities of Practice (CoP) come into play, as the example of the collaborative ComeIn project in North Rhine-Westphalia shows.

Various cooperative approaches helped strengthen the transfer of scientific findings into practice. Another important aspect is the establishment of a network of school partners. Examples include “Campusschulen” (see Justus Liebig University Giessen and PSI-Potsdam, University of Potsdam), which support research at universities. Students can familiarise themselves with real-life teaching and learning situations during their studies not just in the school setting. Teaching videos in particular can help students reflect on and discuss the teaching process (e.g. LLF, Johannes Gutenberg University of Mainz). Virtual reality and 360° teaching videos offer new ways of experiencing lessons outside the classroom setting (e.g. LEBUS<sup>2</sup>, University of Stuttgart). Higher education institutions do not only serve as sources of inspiration, they are also important organisers of in-service trainings for teachers that enable teachers to stay up to date.



Consultation session with a student at the University of Marburg.

## Professional support and guidance

---

Guidance and support services are an essential part of the professionalisation of teachers as they help attract students of teaching and prevent students from dropping out. Excellent mentoring programmes (such as the collaborative project LEHREN in M-V) were created as part of the QLB. Such programmes support prospective teachers by providing specific and frequent guidance on teaching and teaching-related issues. In addition to the development of professional skills, interdisciplinary skills development can also play an important role in support and guidance, as in the ProPraxis project in Marburg. As part of the LeaP@CAU project in Kiel an online self-assessment tool was developed to help people interested in teaching evaluate their aptitude for teaching. But it is not just students who need advice: The WegE project at the University of Bamberg teaches students of teaching important techniques using peer counselling training so that they can later provide individual support and guidance to parents and pupils.

## Considering diversity and inclusion in teacher education

---

Pupils in the classroom differ, for example, when it comes to interests, prior knowledge, personality and language. Some children have (learning) disabilities. The development of teaching-learning opportunities for inclusive, adaptive teaching is essential in order to provide individual support for diverse pupils. Digital learning environments, such as those developed in the FDQI-HU-MINT project at the Humboldt University of Berlin, can make it easier for pupils to find their individual learning paths. Advice services such as the InklusSoB service centre (see ProfaLe, University of Hamburg) help (prospective) teachers and lecturers make their lessons inclusive.

## Linking subject, subject didactics and pedagogical knowledge

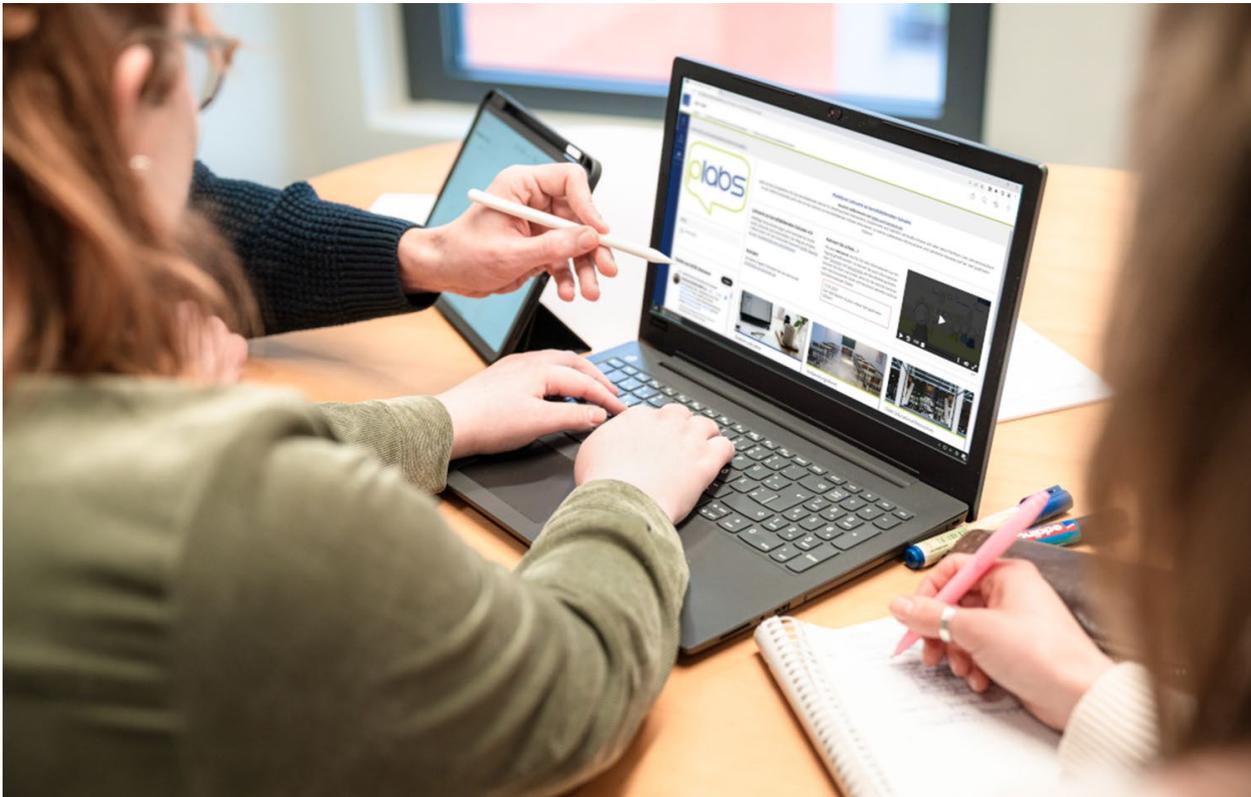
---

An intensified collaboration between disciplines, subject didactics and the educational sciences is necessary to create a coherent teaching and learning programme for prospective teachers. As part of the QLB, numerous teaching-learning labs, digitally equipped, were created in close cooperation with subject didactics, such as in the Teach@TUM 4.0 project at the Technical University of Munich. The article about the LeBiAC project at RWTH Aachen University describes how low-threshold physics experiments can be conducted using the students' own smartphones and a secure, self-developed app. This can break down potential barriers between the disciplines and subject didactics. Modern concepts were developed for a wide range of target groups. One example of this is the Diversitaet\_Bayreuth project on dyscalculia. Self-study phases for students of teaching were also improved: With the restrictions imposed as a result of the Covid pandemic, many blended learning concepts emerged in the nexus of the disciplines, subject didactics and the educational sciences, or gamified elements were tested in various courses in different subjects and disciplines. The qualitative and quantitative accompanying research ensured the quality of these developments of the teaching and learning offerings.

## Digitalisation-related skills and digital media

---

Digital media played an important role as a cross-cutting theme in almost all subject areas. They are an effective means of making project results easily available to a wide range of interested parties in the long term. The contributions also present a selection of the large number of open educational resources (OER) that were created during the QLB period. Numerous digital platforms support the theory-practice transfer through the provision of teaching and learning materials. The *Schulsport2030* portal of the German Sport University Cologne, for example, makes many teaching and learning materials for inclusive school sports available for the long term, while the Leibniz University Hannover ('Leibniz works 4.0') maintains the *plabs* learning platform for teacher education. The *Allpaka* digital tool of the KoLBi-BK project in Wuppertal offers active lesson planning support for vocational education. The projects



The *plabs* learning platform at Leibniz University Hannover supports students of teaching.

also demonstrate digital possibilities for accompanying the learning process of students as well as pupils, or for the simulation of classroom scenarios.

## Strengthening teacher education for vocational schools

---

Although teacher education at vocational schools, a particularly complex area, was funded from the outset, it only gained visibility thanks to the additional funding guideline and 17 additional projects. In order to address the shortage of teachers in these types of schools in particular, a number of projects specifically focused on how to recruit students of teaching for vocational schools. The *LBS Navigator*, which was initiated by DEIN-LBS Campus at Osnabrück University, offers potential students an overview of Germany-wide training opportunities and requirements for various vocational subjects in addition to basic information on

the courses of study. New, contemporary teaching and learning concepts were intended to make the teaching profession more attractive: The InnoNet.sh project at the European University of Flensburg presents blended learning as a particularly suitable didactic approach to cross-university cooperation. Overall, many cooperations were established to connect with practice and recruit potential teaching staff, particularly with external companies.



# Securing and optimising the structures of teacher education at higher education institutions: preliminary results of the programme evaluation

Together with Professor Herbert Altrichter (Johannes Kepler University Linz), Ramboll Management Consulting GmbH has evaluated the 'Qualitätsoffensive Lehrerbildung' (QLB) since 2016 with the aim of examining the profile and effectiveness of the programme and identifying interactions with its environment. To this end, project teams and other stakeholders were interviewed using qualitative and quantitative surveys on activities, challenges, conditions for success and relevant framework conditions.

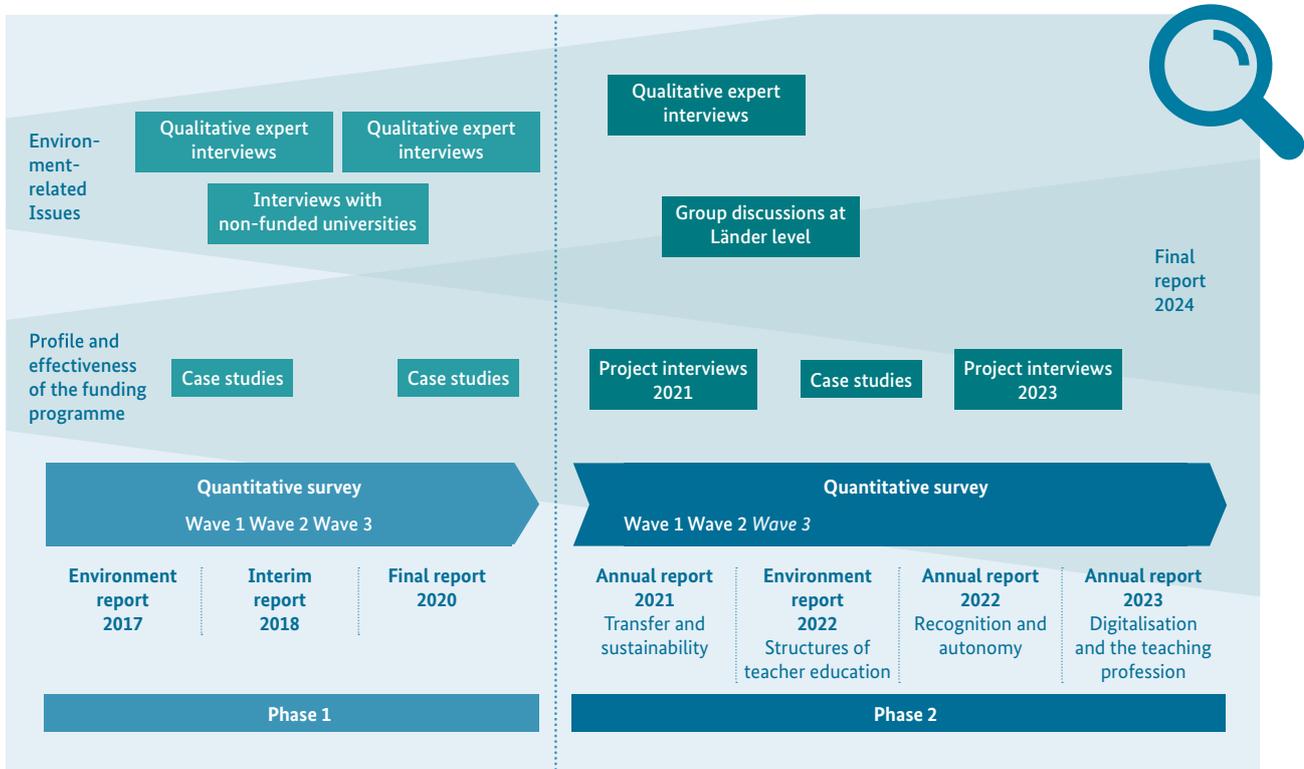
### Strengthening the institutional status of teacher education as an objective

In addition to other objectives for the effective qualitative improvement of three-phase teacher education, the funding was intended to provide inspiration for profile building and for the improvement of internal university structures and processes. The results of the programme evaluation thus far<sup>1</sup> show that many higher education institutions have taken significant steps towards strengthening the institutional status of teacher education, although this varied depending on the location. Examples include raising awareness among leadership of higher education institutions for teacher education, strengthening so-called cross-structures (such as centres for teacher education and schools of education) and intensifying research into teacher education.

### Institutionalisation of teacher education in higher education institutions and resilience

The question remains as to how sustainable these relative gains are and where efforts need to be made to consolidate and expand them. The responsibility for three-phase teacher education lies in the federal system on various stakeholders at the operational and controlling levels. The stakeholders must coordinate their efforts under changing conditions (for example, changes in the governance system when there is a change of government, societal challenges such as digitalisation and teacher shortages and external events such as the measures due to the Covid pandemic). In order to reduce dependency on environmental factors, QLB-funded higher education institutions need to be proactively resilient: they need to have anticipatory problem-solving and action-taking capabilities. To

## Mission, data sources and publications of the programme evaluation



<sup>1</sup> The evaluation reports, including a description of the methodology, are available at: [c.ramboll.com/de/qualitaetsoffensive-lehrerbildung](http://c.ramboll.com/de/qualitaetsoffensive-lehrerbildung).

this end, internal (and cross-university) mechanisms and resources must be developed in order to leave ‘the comfort zone of gradual adaptation and crisis management that starts too late’<sup>2</sup> behind, to identify challenges early and to work on development trajectories across phases and levels. This goal can be termed ‘institutional resilience’.

The Fraunhofer Institute for Systems and Innovation Research has developed five approaches to strengthen systemic resilience:

1. Development of local resources,
2. Strengthening of networks,
3. Strategic intelligence for the governance of transformations,
4. Promotion of anticipation capabilities, and
5. Maintaining a broad set of competencies.<sup>3</sup>

## Indications of increased resilience

---

The programme evaluation data provides clear indications of greater resilience in teacher education at some higher education institutions; this is mainly the result of the strengthening of local resources 1) such as cross-structures and improved links to the leadership of higher education institutions, 2) networking between higher education institution and with schools and various stakeholders in the multi-level system, and 5) the expansion of competencies, such as research competencies. Higher education institutions have paid particular focus on the development of the range of responsibilities of their cross-structures: In the fourth quarter of 2022, a good 70 percent of individual project teams stated that their cross-structures were working appropriately on building the profile of teacher education; in the first quarter of 2021, only 42 percent considered it appropriate. 59 percent of the individual project teams worked on the coherence of the teacher education programme. The assessment that this is appropriate increased from 30 percent (in 2021) to 46 percent (in 2022).

Individual project teams describe more resilient structures in interviews at the start of 2023: “With our

cross-structure, the steering committee and the specialist working groups, we have built a structure that can be scaled up and down for additional development tasks, and it provides a broader basis for a wide range of research approaches, from qualitative and quantitative to modelling.” However, there are other projects that did not identify any increase in resilience: “We do not have access to key committees, and our scope of action is still limited. Our [cross-structure] is so virtual that it has no place in the university’s organisation chart [...]” A special group of projects are the collaborative projects; among other things, they developed the cross-structures and thus pooled resources and created ‘stable institutions’ that ‘promote networking’.

The assessment of the impact on research funding is divided: In the Monitoring 2022 report, 70 percent of all project teams attribute strong to medium effects to the funding in terms of increasing research collaborations, 46 percent see strong to medium effects in terms of increased submission of research proposals and 39 percent in terms of additional acquisition of third-party funding.

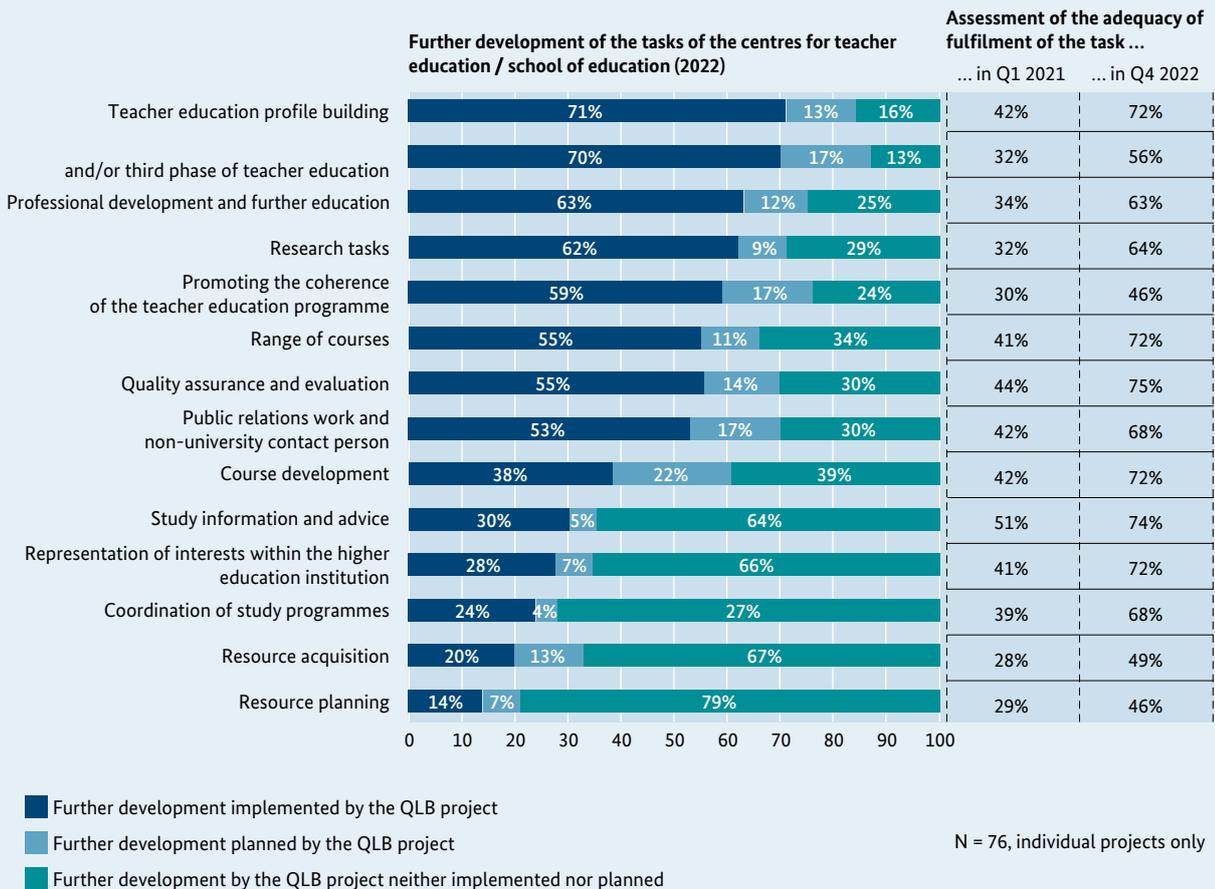
The resilience dimension ‘Use of strategic intelligence for governance’ 3) refers to the reduction of uncertainty by sharing strategic knowledge. In promoting anticipation capabilities 4), stakeholders deal with their respective futures from their perspectives and identify crises more quickly (ibid.: 15 ff.). For teacher education, both dimensions can be related to the interaction between the operational and controlling stakeholders: There are successes here as well as missed opportunities. Interviews with all funded project teams in 2023 show that the transfer-related focus of the funding has intensified discussions with the education and science ministries of the Länder. What is mentioned, on the one hand, are increase in autonomy, more stable financing of cross-structures, the establishment of negotiating spaces to ensure the exchange of all stakeholders in the state and improved research access to schools. On the other hand, people talk about a lack of effective political influence, for example with regard to the conditions for cooperation between the phases and the lack of interest in evidence-based further

2 Anders, Y.; Hannover, B. Jungbauer-Gans, M.; Köller, O.; Lenzen, D.; McElvany, N.; Seidel, T.; Tippelt, R.; Wilbers, K.; Wößmann, L.: Bildung und Resilienz. Gutachten. Münster 2022: 60.

3 Fraunhofer Institute for Systems and Innovation Research ISI: Systemische Resilienz – Einsichten aus der Innovationsforschung. Karlsruhe 2021.

## Development and appropriateness of the tasks of the cross-structure

**Monitoring 2021 and 2022, question: In your QLB project, to what extent is the centre for teacher education/ the school of education being further developed with regard to its tasks? Please also indicate (...) whether you believe that the respective task is being adequately fulfilled.**



development of teacher education. Without the attention of higher-level authorities, some project teams see little impact from cross-phase cooperation and would not seek institutionalised cooperation with stakeholders from other phases again, given the significant effort this requires.

has not yet been achieved. For a more efficient teacher education system, the future focus will be on optimising cross-level strategic intelligence for governance: for example by expanding cross-phase consultation and negotiation spaces and exploring and utilising the outcomes of projects for the future-oriented design of teacher education.

## Outlook

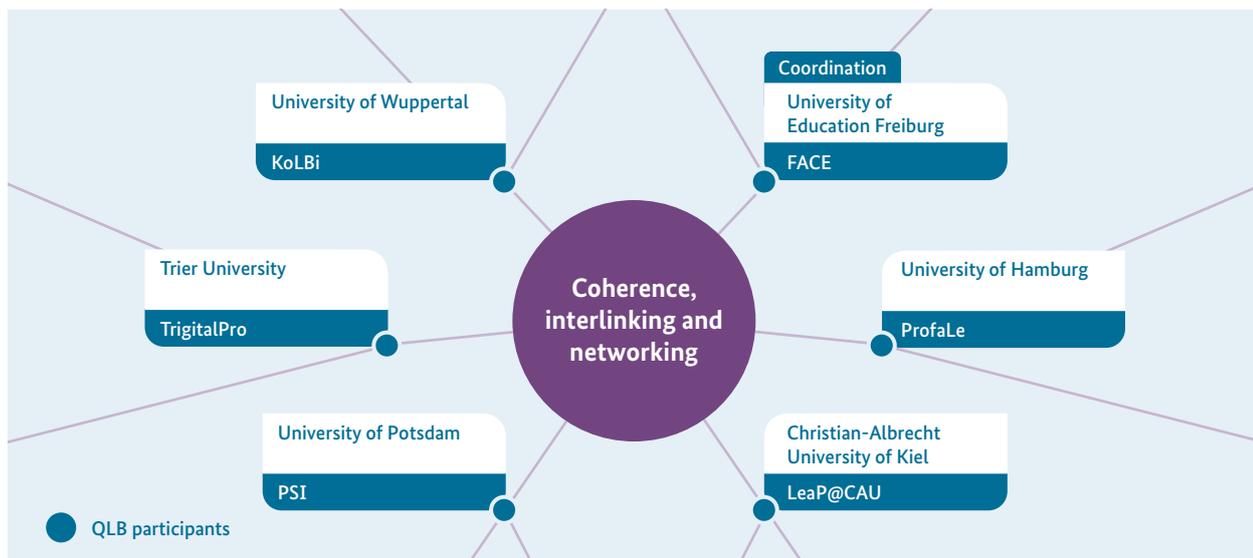
Overall, there is an indication that, at the level of individual locations, the developed academic structures have enhanced the problem-solving capabilities and effectiveness of teacher education. These need to be safeguarded and expanded in locations where this



## The ‘Teacher education community’

In addition to effective and systematic improvements in the fields of action already mentioned, the ‘Qualitäts-offensive Lehrerbildung’ (QLB) also succeeded in promoting the networking of researchers and other interested parties in the field of teacher education. The networks that emerged as part of the QLB are an impressive result of these efforts. Many QLB-funded higher education institutions have joined forces on the fields of action and additional themes. Many of these networks are continuously growing and, in some cases, institutions external to the QLB are already involved. Eight of these networks are presented below.

## The network 'Coherence, interlinking and networking in teacher education'



The network 'Coherence, interlinking and networking in teacher education', which was founded in 2018, aims to systematise and critically discuss project activities on the coherence, interlinking and networking of structures and knowledge elements of teacher education. Joint conference contributions, network meetings and publications helped to successfully link local approaches and theoretical perspectives and gradually consolidate the activities of the network. A key conclusion from the work so far is that, while numerous concepts for integrated teaching and learning offerings, higher education institution collaborations and theory-practice connections are in place, the effects of these offerings on the acquisition of professional knowledge and skills by students require further research.

The network will thus continue to work on making cognitive knowledge networking among students of teaching empirically measurable after the end of the QLB. An anthology is currently being compiled with the participation of various higher education institutions and departments. On this basis, future efforts will focus more on developing common research questions

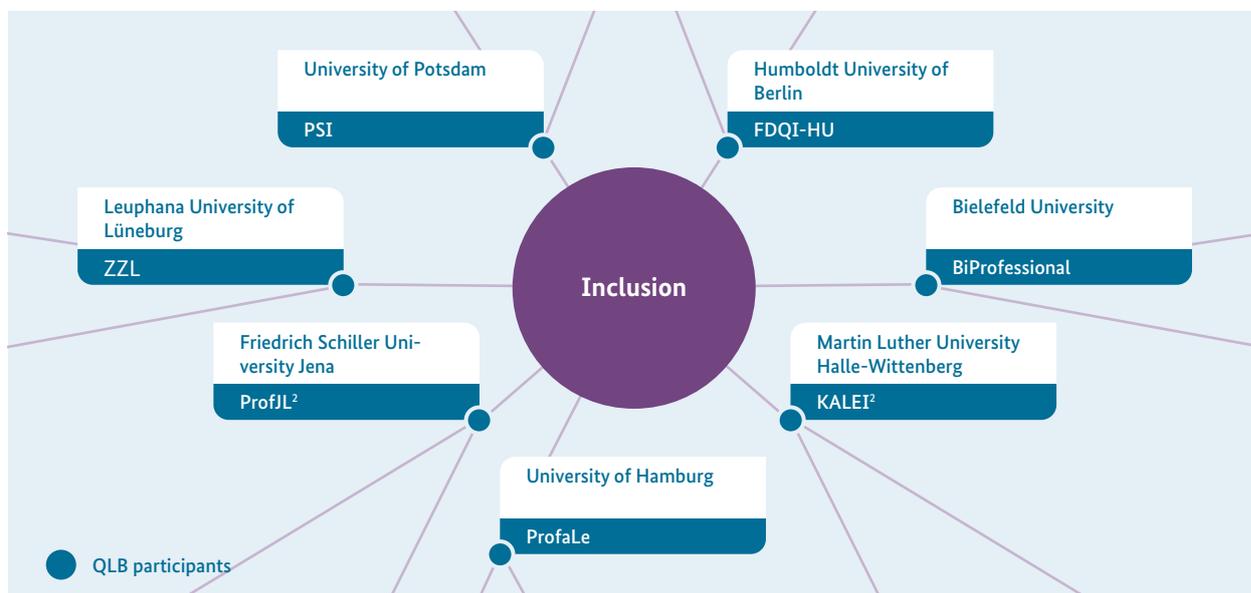
and tools in the area of coherence, in order to study good academic practice from teaching and research and to utilise this across higher education institutions.

A key challenge for continued effective cooperation is the changing employment and funding situation of individual members of the network. Despite these external circumstances, the cooperation has continued successfully.

### Contact:

Dr Katharina Hellmann, University of Education Freiburg  
katharina.hellmann@ph-freiburg.de

## The network 'Inclusion in teacher education'



As part of the QLB, a variety of approaches were pursued to research and (further) develop an inclusion-oriented teacher education programme which can prepare future teachers for the challenges of an inclusive education system. After initially developing separately, the seven QLB projects joined forces in 2017 to form the network 'Inclusion in teacher education' in order to create a space for exchange and networking despite, or perhaps precisely because of, their different priorities.

Since the network was founded, annual meetings have taken place at one of the participating locations to present and discuss the results of their work. Against the backdrop of the overarching task of teacher education at university that is sensitive to diversity, the network's activities promote the exchange of individual concepts and materials beyond the various theoretical, practical and research methodological approaches and boundaries. The network members participated in various QLB events with joint contributions and forums, as well as special exchange formats such as the material workshops in Bielefeld ("Bielefelder Materialwerkstätte"), to present products and engage in intensive exchange, both internally and with interested colleagues from outside the network. The many different approaches promote dialogue between the

locations and encourage participants to question and develop their own perspectives. Due to the enormous value of the network for those involved, the work will be continued after the end of the QLB, although the loss of personnel and financial resources in the future represents a significant challenge.

### Contact:

Dr Julia Frohn, Humboldt University of Berlin  
[julia.frohn@hu-berlin.de](mailto:julia.frohn@hu-berlin.de)

Prof. Birgit Lütje-Klose, Bielefeld University  
[birgit.luetje@uni-bielefeld.de](mailto:birgit.luetje@uni-bielefeld.de)

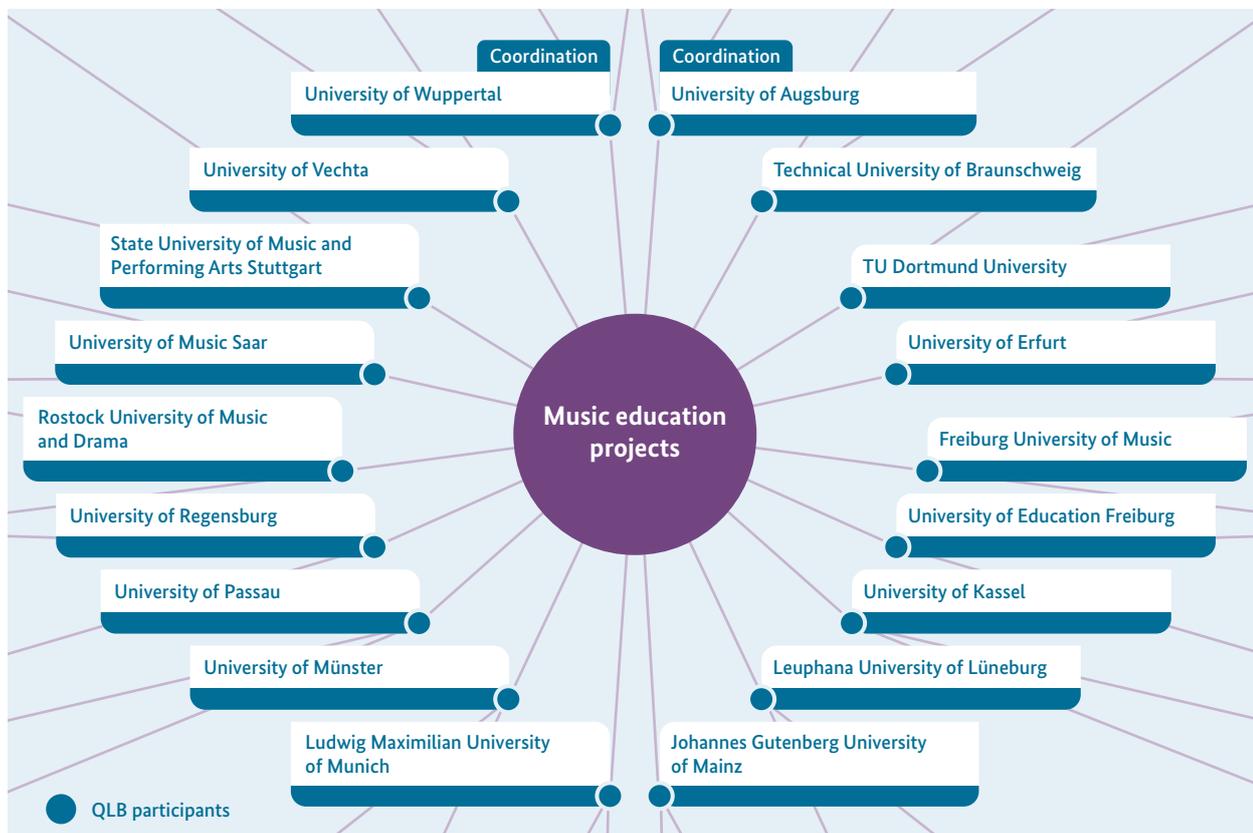
Prof. Gabi Ricken, University of Hamburg  
[gabriele.ricken@uni-hamburg.de](mailto:gabriele.ricken@uni-hamburg.de)

Dr Stefanie Czempiel, Friedrich Schiller University Jena  
[stefanie.czempiel@uni-jena.de](mailto:stefanie.czempiel@uni-jena.de)

Prof. Poldi Kuhl, Leuphana University of Lüneburg  
[poldi.kuhl@leuphana.de](mailto:poldi.kuhl@leuphana.de)

Prof. Antje Ehlert, University of Potsdam  
[ehlertan@uni-potsdam.de](mailto:ehlertan@uni-potsdam.de)

## The network 'Music education projects'



The network 'Music education projects' was set up in 2018 as an informal association. It opened up opportunity to work on joint issues across institutions. Biannual working meetings provided opportunities for fruitful exchange, for example, on how to prepare students for inclusive music lessons, the use of digital media, and concepts and methods of accompanying research. Another focus was on the organisational and content-related challenges faced by a 'minor' subject like music education when participating in the interdisciplinary research consortia of the QLB: What possibilities are there for a discipline to position itself within the overall project, to shape the predominantly educational science framework in a discipline-specific way, or to contribute to its modification? In this regard, the network provided an opportunity for mutual support and in-depth discussion from a music education perspective, which constituted an important addition to the exchange within the individual local projects.

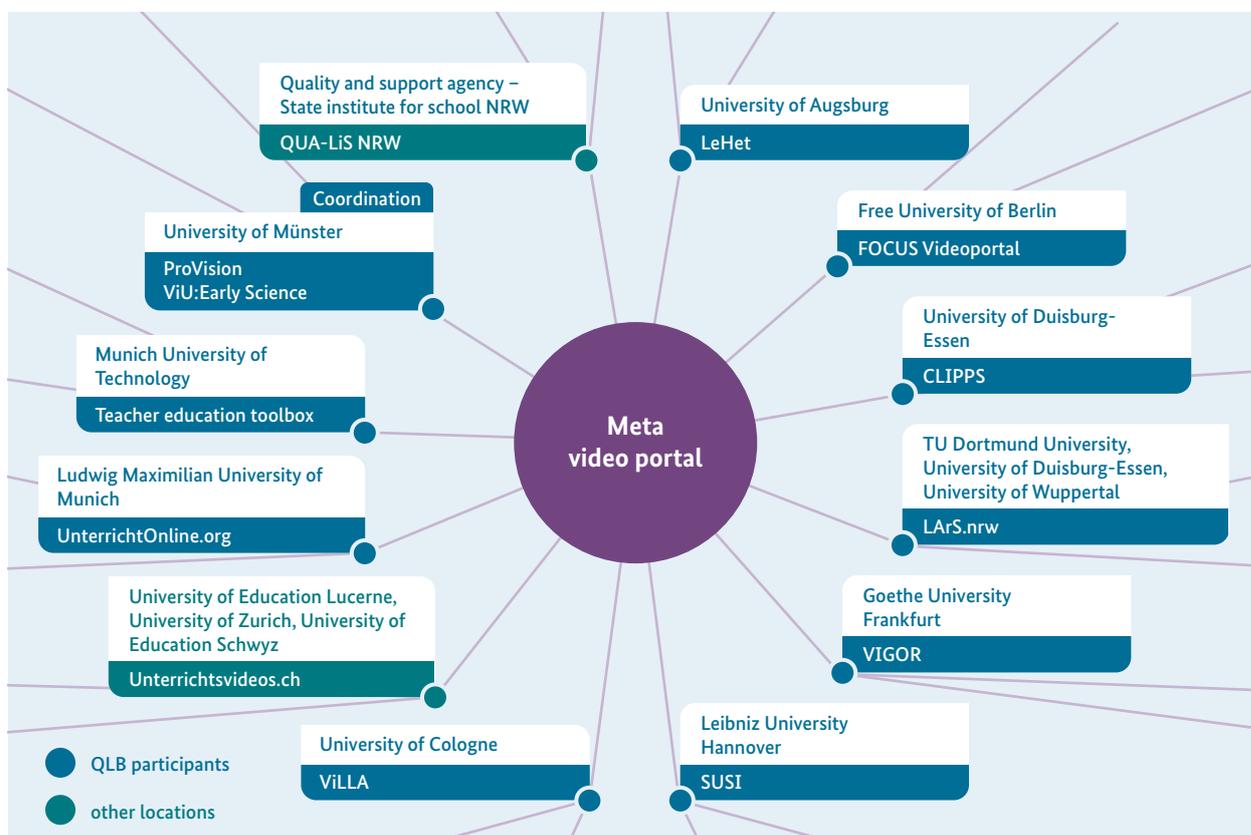
The implementation of university didactic material workshops based on the concept of the BiProfessional project in Bielefeld culminated in 2020 in a jointly conceived special edition of the journal 'Die Materialwerkstatt' (DiMawe). In September 2023, an issue of the 'Diskussion Musikpädagogik' journal was published, documenting and reviewing the outcomes of the music education projects based on selected focal points.

### Contact:

Dr Daniela Neuhaus, University of Wuppertal  
[neuhaus@uni-wuppertal.de](mailto:neuhaus@uni-wuppertal.de)

Prof. Gabriele Puffer, University of Augsburg  
[gabriele.puffer@uni-a.de](mailto:gabriele.puffer@uni-a.de)

## The 'unterrichtsvideos.net' meta video portal



The 'unterrichtsvideos.net' meta video portal is an association of now 13 video portals that makes teaching videos and accompanying materials for teacher education available (as of 2023). Many of these video portals were created as part of the QLB. Such teaching videos provide instructive insight into teaching practice and allow for a detailed analysis of the complex dynamics of classroom instruction, which can be both theory-supported and practice-oriented. This in turn allows for a well-founded integration of teaching theory and practice, which can be utilised for teacher education and professional development.

The meta video portal has a free search feature and over 2,000 teaching videos. This makes it possible to quickly and easily find suitable teaching videos and their accompanying materials for education and professional development purposes based on type of school, grade, subject or specific topic. The meta video portal functions as a search engine with filters that indexes the videos and materials of connected portals.

The videos are made available and retrieved via the different video portals, which for data protection reasons require central registration. The University of Münster will continue to host the meta video portal. The challenges for the future lie in the continued administration of the complex digital infrastructure at the portal locations and the innovative further development of the portal. The theory-based analysis of teaching videos was to become an integral part of teacher education, because it trains teachers to develop professional awareness, which is necessary for reflective teaching behaviour. This has been demonstrated by many intervention studies with video-based teaching analysis, not just as part of the QLB.

### Contact:

Prof. Manfred Holodynski, University of Münster  
[manfred.holodynski@uni-muenster.de](mailto:manfred.holodynski@uni-muenster.de)

## The initiative 'Sustainable institutionalisation of teacher education'

Questions and problem areas regarding the institutionalisation of teacher education have come to the fore in the course of the diverse developments in this area in recent decades, not least as a result of the QLB. This can be attributed not least to the concomitant greater range of tasks and responsibilities of teacher education in higher education institutions.

The topic 'Sustainable institutionalisation of teacher education' was initially discussed at the QLB network conference in 2019 and in 2020 at the digital event of the projects of the funding programme. The problem areas discussed resulted in the draft of a 'Key issues paper on the institutionalisation of teacher education'. The paper was then made available to the Federal Government and Länder's central committees, associations and organisations for teacher education and to expert associations for information and discussion, and revised. Furthermore, the concerns of the key issues paper, namely the sustainable institutionalisation of teacher education, have been discussed in several meetings with representatives of the Federal Ministry of Education and Research (BMBF). The key issues paper continues to be an important point of reference at events and in discussions about teacher education (research) when it comes to how teacher education can be developed effectively following the push to innovation in the past decade.

The initiative 'Sustainable institutionalisation of teacher education' aims to safeguard the increased relevance of teacher education and the quality of its expanded range of tasks and responsibilities for the long term.

### Participants:

Prof. Eva Arnold  
*University of Hamburg*

Dr Nina Beck  
*University of Tübingen*

Prof. Thorsten Bohl  
*University of Tübingen*

Prof. Ulrich Druwe  
*University of Education Freiburg*

Prof. Peter Drewek  
*Ruhr University Bochum*

Prof. Martin Heinrich  
*Bielefeld University*

Prof. Axel Gehrman  
*Dresden University of Technology*

Prof. Katja Koch  
*Technical University of Braunschweig*

Prof. Hans-Georg Kotthoff  
*University of Education Freiburg*

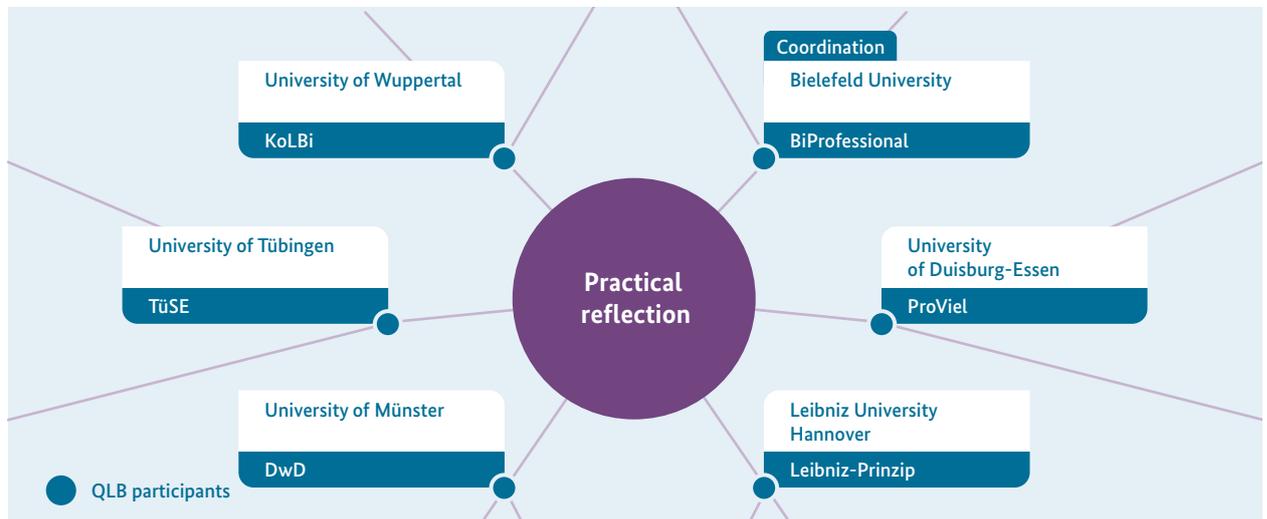
Dr Lilian Streblow  
*Bielefeld University*

Prof. Isabell van Ackeren  
*University of Duisburg-Essen*

### Contact:

Dr Nina Beck, University of Tübingen  
nina.beck@uni-tuebingen.de

## The network 'Practical reflection'



With the expansion of the practical phases in teacher education, offers that support a critical and reflective examination of school practice have become an increasingly important part of teacher education. The participants in the network 'Practical reflection' exchange views on how specifically such offerings can be designed and which educational formats on practical reflection are already being used successfully in teacher education. The network was founded in 2018 as part of the QLB as an association of six universities. It pursues the goal of making specific formats of practical reflection known across locations, comparing them

and sharing experiences with each other. Network activities to date include jointly organised symposia with different focuses as well as symposia prepared for QLB events.

The network will continue after the QLB, and interested colleagues are cordially invited to participate. From winter semester 2023/24 onwards, a digital exchange meeting will be hosted every semester, which can also be used to plan further activities.

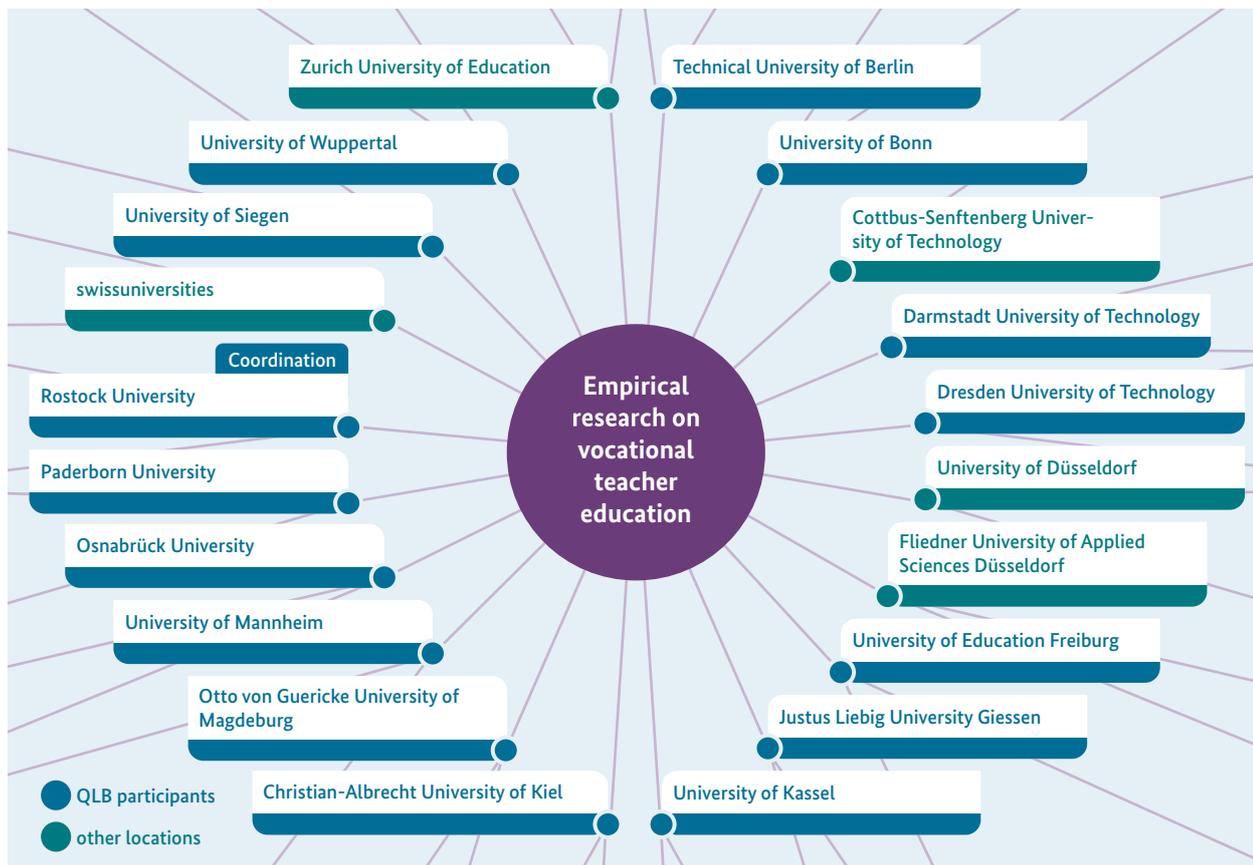
### Contact:

Dr Nicole Valdorf, Bielefeld University  
[nicole.valdorf@uni-bielefeld.de](mailto:nicole.valdorf@uni-bielefeld.de)



Discussion at the 'Theoria cum praxi? – Bielefelder Fachtag zum schwierigen Verhältnis von Theorie und Praxis in der Lehramtsausbildung', 2019

## The network ‘Empirical research on vocational teacher education’



The network ‘Empirical research on vocational teacher education’ is a digital meeting initiated by the collaborative ‘Campus BWP MV’ project. The impetus came after the QLB ‘Quo vadis vocational teacher education?’ workshop in March 2021 in Osnabrück. The event showed that many projects are working on similar topics and face similar challenges. The first online workshop was hosted in June 2021.

The exchange makes commonalities visible and initiates research partnerships. It gives participants an overview of the latest research activities. Joint publications and conference contributions, the exchange of tools and mutual support in sample collection are the aims of the network.

The network is intended to be permanent. The illustration gives an idea of the large number of participants across the German-speaking countries. Although the network is constantly growing, personnel and resource changes can jeopardise the continuation of its existence. Careful and early planning as well as regular monitoring of results are therefore essential. Researchers are welcome to join at any time.

Interested parties can gain an overview of the participants and topics on the jointly created Padlet: [padlet.com/annetraum/EmpirischeBerufsbildungsforschung](https://padlet.com/annetraum/EmpirischeBerufsbildungsforschung)

### Contact:

Dr Anne Traum, Rostock University  
anne.traum@uni-rostock.de

## The 'Expert network multi-professional cooperation'



Due to a variety of social changes and educational policy reforms (inclusion and all-day schooling), multi-professional cooperation between teachers and other educational professions is becoming increasingly important. In order for prospective teachers to be able to successfully meet this challenge in their later professional practice, it is important for university teacher education to place greater focus on this topic. The network was founded in 2019 based on this objective, and to promote cross-higher education institution dialogue on the research and development of teaching concepts for multi-professional cooperation in university education. Researchers and teachers across Germany from the fields of teacher education, inclusion, all-day school research and social work are currently involved in the network.

Its aims are the exchange and discussion of concepts, materials and evaluation tools as well as joint work on publications and conference contributions. The QLB locations in Kassel and Bielefeld organise regular

network meetings and workshops. Furthermore, the network activities initiated digital teaching collaborations between lecturers and students from Bielefeld University, the University of Siegen and Nordhausen University of Applied Sciences. This commitment was honoured in 2023 by the Stifterverband initiative with the University Pearl of the Month for May.

The members of the network have a great interest in continuing the collaboration and advocating multi-professional cooperation in teacher education to enshrine the topic in the curriculum. However, the loss of QLB funding poses a key challenge, as continuing the collaboration is dependent on personnel and organisational resources.

### Contact:

Alessa Schuldt, Bielefeld University  
[alessa.schuldt@uni-bielefeld.de](mailto:alessa.schuldt@uni-bielefeld.de)

Lea Stahl, University of Kassel  
[lea.stahl@uni-kassel.de](mailto:lea.stahl@uni-kassel.de)



# The ‘Qualitätsoffensive Lehrerbildung’ is coming to an end – the exchange continues

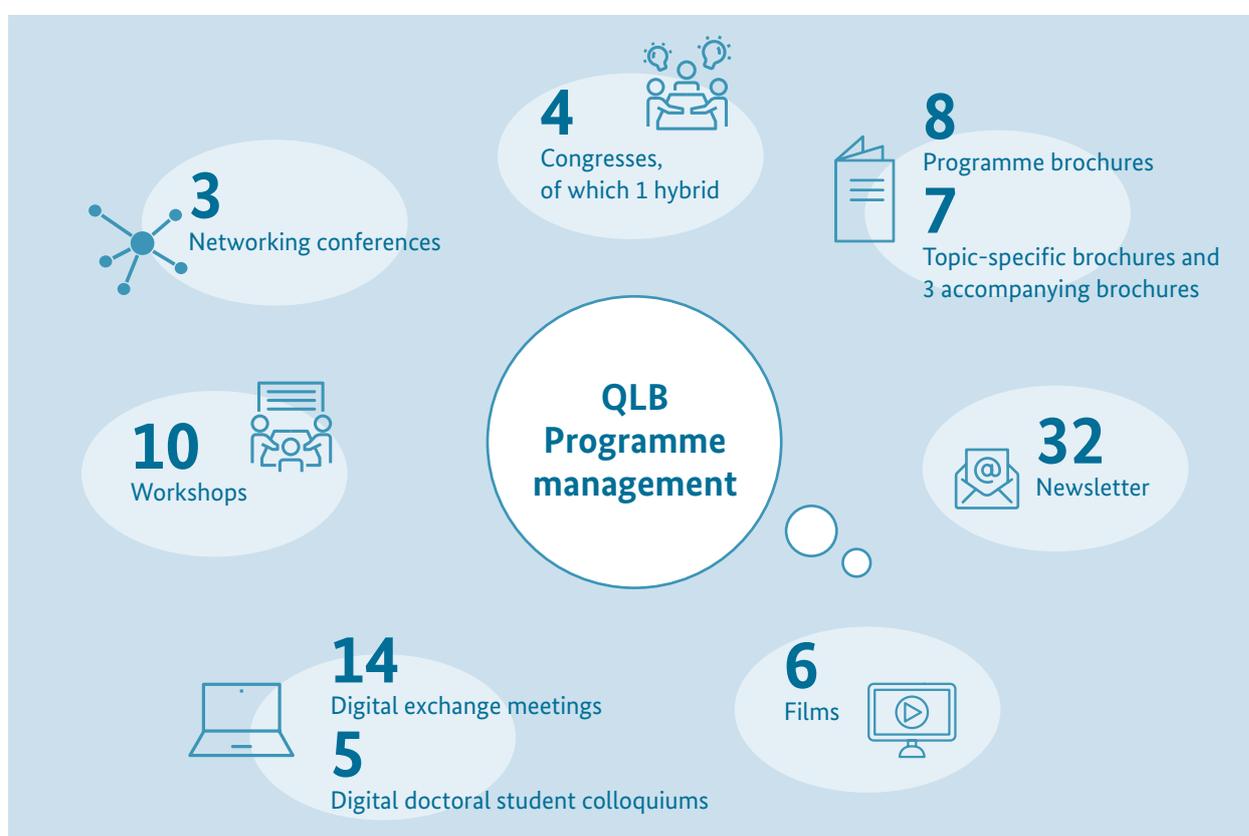
The ‘Qualitätsoffensive Lehrerbildung’ (QLB) as a Federal Government-Länder programme for many years shaped developments in teacher education and teacher education research in Germany. We now take a look back at the last few years and a look ahead to future tasks and subject areas within teacher education.

## The programme management in retrospect

Following the political decisions to establish the QLB in 2013, the Federal Ministry of Education and Research (BMBF) transferred the programme management to the DLR project management agency (DLR-PT) in 2014. In addition to providing continuous support, both in terms of content as well as administrative, for the 92 funded projects as part of the application and funding process, measures accompanying the programme were also important components. Special attention was paid to the networking of stakeholders in teacher education and the transfer of experiences, good practice, successes and results across higher education institutions and phases. This exchange, initiated by the programme management, made the creation of the networks (which are presented in the previous chapter) possible in the first place.

The exchange formats of the QLB, such as thematic workshops and the biannual network conferences and programme congresses, were of key importance for network formation. The transregional exchange and networking through these QLB programme-accompanying activities, especially the in-person events, significantly contributed to advancing teacher education in Germany. They allowed important stakeholders in teacher education to get to know each other and network. After the thematic workshops accompanying the programme, some of the projects independently implemented follow-up workshops during the programme period, for example, on topics such as teachers' in-service training or inclusion. The DLR-PT set up a new digital exchange format, the doctoral student colloquium, which were launched in 2022. These online colloquium on the key topic of digitalisation were very well received by the young researchers, as they gave them the opportunity to discuss their theses with experts. As the Federal Government-Länder

## The QLB programme management in figures



### A summary of the QLB from the perspective of the DLR project management agency

Supporting the QLB over a period of ten years was an extraordinary task for the DLR-PT. The QLB was a very long-term and extensive funding programme. The overall funding for the 92 individual and collaborative projects was spread across 123 separate grants; they were all subject to the same legal conditions, but each required an individual perspective on the projects’ needs and the project funding options.

We were very impressed with the commitment and passion with which the members of the selection committee reviewed the project proposals, deliberated and eventually chose the best projects. The preparation and execution of the selection meetings by the PT across five selection rounds required many helping hands and quick thinkers to document the arguments and the results. It was a great pleasure for the PT to accompany the selected projects on their journey. However, the PT also needed a lot of attention and sensitivity to communicate the results and reasons to the higher education institutions whose proposals were not successful and, where necessary, to outline possibilities for them in a subsequent funding round.

The PT served as a constant point of contact for the funded projects, both in terms of content and administration. The many positive responses show us that we have always been able to provide constructive support to the projects in the successful implementation of their work. We were also able to provide valuable input for the evaluation of the funding programme and publish the project results in the print and online media. Particular highlights of the programme, and of the project management work, were the numerous events the PT planned and organised for the BMBF. It gave the project teams the opportunity to regularly present their work and intensify the professional exchange among themselves and with experts from science and politics. The progress made by the projects over the years was clearly visible; we were also able to observe a growing of a QLB community, so to speak, which we hope will remain active also after the project funding has ended.

funding is coming to an end, it will be difficult to continue to host networking events on this scale, but the determination among participants to keep the exchange alive is strong.

The content and summaries of the various measures as well as newsletters and brochures can still be found on the programme’s website at [qualitaetsoffensive-lehrerbildung.de](http://qualitaetsoffensive-lehrerbildung.de). Countless committed researchers, teachers from higher education and school as well as others involved in teacher education contributed to the articles. They provide multimedia documentation of the achievements initiated by the QLB.



The QLB films can also be viewed on the website. The last film from the year 2023, which summarises the fields of action and the successes of the QLB from an educational policy and higher education perspective, can also be accessed via the following link:



[qualitaetsoffensive-lehrerbildung.de/lehrerbildung/de/aktuelles/mediathek/mediathek\\_node.html](http://qualitaetsoffensive-lehrerbildung.de/lehrerbildung/de/aktuelles/mediathek/mediathek_node.html)

## The achievements of the QLB

During the QLB closing congress on 5-6 October 2023 in Berlin, the participants were asked what they particularly valued about the QLB. In the word cloud generated for this purpose, the words 'networking' (Vernetzung), 'exchange' (Austausch), 'cooperation' (Kooperation) stood out.

The impact of the QLB is palpable at various levels, as the participants in the discussion round stated in the introductory chapter (see pages 2 to 7). At the level of the individual teacher education in higher education institutions, one of the successes of the QLB lies in the strengthening of coherence between the disciplines, subject didactics and the educational sciences. In some places this inspired interdisciplinary cooperation, for example, in the redesign of curricula. In addition, many new concepts and offerings for prospective teachers from different types of schools have been created that also address cross-cutting issues such as digitalisation. As a result of the new or changed roles of the centres for teacher education and schools of education, many of the funded locations are now structurally in a much better position than they were ten years ago. As a result, teacher education have gained esteem and visibility within the higher education institutions.



Assessment of 382 QLB participants on the question: 'What do you value about the QLB?'

Across universities, teacher education is now also recognised and valued as a research-based discipline. This is largely due to the large number of relevant publications, which have also been disseminated internationally. The terms "Sichtbarkeit" (visibility), "Forschung" (research) and "Nachwuchsförderung" (promotion of junior staff) were thus mentioned frequently in the participant survey. Some projects additionally succeeded in achieving a better link between the first and second phase of teacher education. This interlinking, including a stronger connection between theoretical and practical content, is an important step towards a sound professionalisation process.

## Outlook

The project contributions presented in this brochure are a selection of many good examples of the qualitative improvements in teacher education that have been achieved as a result of the 'Qualitätsoffensive Lehrerbildung'. In addition to these tangible results, the QLB also stimulated important debates at a broader educational policy and social level: What makes a teacher good and effective? How should teacher education develop? What are the challenges in everyday school life that both learners and teachers need to be prepared for?

This also raises the question of what the school of the future should look like. Teacher education is a key component in shaping the school of the future. In this context, the panel at the QLB closing congress discussed the importance of shared visions among all those involved in teacher education. This not only means higher education institutions, including the teacher education centres and schools of education located there, but also ministries, practical school seminars or study seminars, state institutes, school boards, training schools and other stakeholders at the school level. And this in turn means that advancing and developing teacher education is not tied to a funding programme, but rather it is the responsibility of everyone involved.



The QLB offered numerous initiatives to counteract the shortage of teachers.

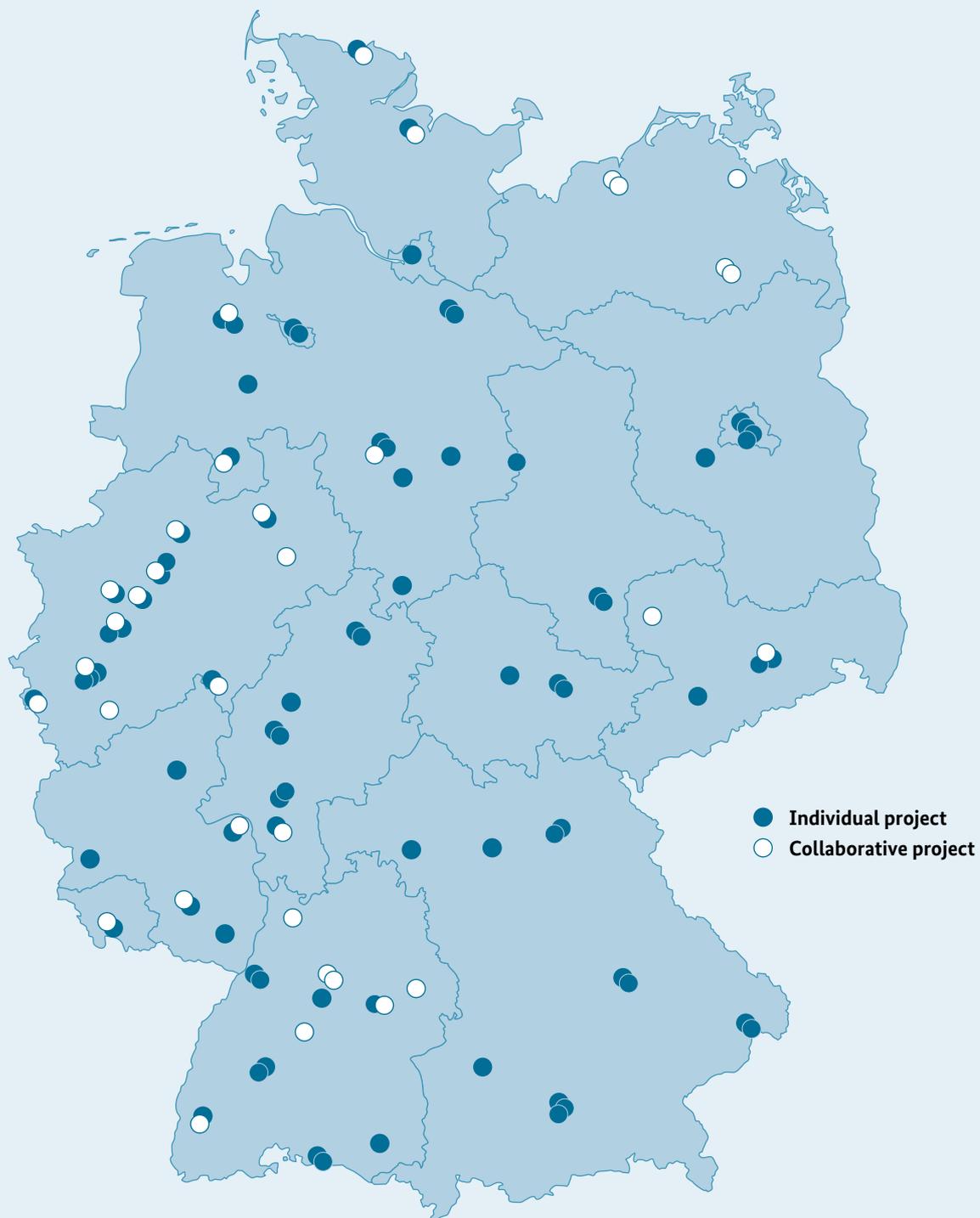
There is no doubt that it remains an ongoing task of teacher education to deal in depth with the increasingly diverse starting conditions of pupils. After all, all pupils should be able to acquire essential skills, for example, in mathematics and German, but also the newer digital and media skills, in order to be able to act as confident and successful members of our society.

At the same time the shortage of teachers poses major challenges for higher education institutions, second and third-phase teacher education institutions and the schools themselves. As a result more and more people are being recruited into the teaching profession via the side-entry and lateral entry route. For the higher education institutions this means that side-entry and lateral entrants, for example, have to be trained in their subject and in educational science much more quickly than this happens in the traditional teacher education courses. Schools, in turn, are faced with the task of integrating teachers who have entered the profession via this route into the school community and responding to any deficits they may have. At the same time teacher education and professional teaching standards should of course be maintained.

At the QLB closing congress, it became evident that a nationwide definition of entry requirements for teacher education courses and a basic consensus on the type and extent of qualification required for side-entry and lateral-entry candidates are tools for preventing excessive disparities in teaching quality. This consensus is also essential in order to maintain the mobility between the Länder that the QLB achieved. Diverse ways of training side-entry and lateral-entry candidates put into jeopardy the nationwide recognition of academic teacher education achievements and degrees for this group, as well as nationwide access to the profession.

It is therefore all the more important that evidence-based side-entry and lateral-entry models, some of which have also been developed in the QLB, are disseminated and that the nationwide exchange continues. During the panel discussion at the closing congress, it was emphasised that side-entry and lateral-entry candidates should be seen as an opportunity for the design and organisation of schools and lessons.

A 'Qualitätsoffensive' (quality campaign) in teacher education continues to exist. Future innovations can build on what has been created as part of the QLB in recent years. New challenges require new efforts. The teacher education standards that accept these challenges and meet social requirements remain high.



## Project location map

Information on the individual projects can still be found on the QLB website. The fields of action listed in the tables below are for guidance purposes and do not show all fields of action, but only the predominant fields of action of the respective (collaborative) project.



[qualitaetsoffensive-lehrerbildung.de](http://qualitaetsoffensive-lehrerbildung.de)

Baden-Wuerttemberg	
<b>Albert Ludwigs University of Freiburg</b> FL2_FR_Lehramtskoop 2	
<b>University of Education Freiburg</b> FACE profession FL2_FR_Lehramtskoop 2	 
<b>Heidelberg University of Education</b> heiEDUCATION 2.1	
<b>Heidelberg University</b> heiEDUCATION 2.1	
<b>University of Hohenheim</b> Lehrerbildung PLUS	
<b>Karlsruhe Institute of Technology</b> digiMINT	
<b>University of Education Karlsruhe</b> InDiKo	
<b>University of Konstanz</b> edu <sup>4</sup> edu 4.0	 
<b>Ludwigsburg University of Education</b> MakEd_digital Lehrerbildung PLUS	 
<b>University of Education Schwäbisch Gmünd</b> TWIND	
<b>State Academy of Fine Arts Stuttgart</b> Lehrerbildung PLUS MakEd_digital	 
<b>State University of Music and Performing Arts Stuttgart</b> Lehrerbildung PLUS MakEd_digital	 
<b>University of Stuttgart</b> LEBUS <sup>2</sup> Lehrerbildung PLUS MakEd_digital	  
<b>University of Tübingen</b> TüDiTeach TüSE	 
<b>Weingarten University of Education</b> TEgoDi	
Bavaria	
<b>University of Augsburg</b> LeHet	
<b>University of Bamberg</b> WegE	
<b>University of Bayreuth</b> Diversitaet_Bayreuth Uni_Berufsschule	 
<b>Ludwig Maximilian University of Munich</b> Lehrerbildung@LMU	
<b>Munich University of Technology</b> Teach@TUM Teach@TUM 4.0	 
<b>University of Passau</b> primary:programming SKILL.de	 
<b>University of Regensburg</b> KOLEG2 L-DUR	 
<b>Julius-Maximilians University of Würzburg</b> CoTeach	

## Subject areas

-  Digitalisation-related skills and digital media
-  Considering diversity and inclusion in teacher education
-  Qualitative improvements in practical training
-  Strengthening teacher education for vocational schools
-  Linking subject, subject didactics and pedagogical knowledge
-  Profile building and optimisation of higher education structures for teacher education
-  Professional support and guidance

Berlin	
<b>Free University of Berlin</b>	
K2teach	
<b>Humboldt University of Berlin</b>	
FDQI-HU-MINT	
<b>Technical University of Berlin</b>	
DiBeLe	
TUB Teaching 2.0	

Brandenburg	
<b>University of Potsdam</b>	
PSI-Potsdam	

Bremen	
<b>University Bremen</b>	
Schnittstellen gestalten	
SteBs	

Hamburg	
<b>University of Hamburg</b>	
ProfaLe	

Hessen	
<b>Goethe University Frankfurt</b>	
Digi_Gap	
The Next Level	
<b>Justus Liebig University Giessen</b>	
GOBeL	
GOL	
<b>Phillips University of Marburg</b>	
ProPraxis	

<b>Darmstadt University of Technology</b>	
MINTplus <sup>2</sup>	
TWIND	
<b>University of Kassel</b>	
PRONET <sup>2</sup>	
PRONET-D	

Mecklenburg-Western Pomerania	
<b>University of Greifswald</b>	
LEHREN in M-V	
<b>Hochschule Neubrandenburg</b>	
Campus BWP MV	
LEHREN in M-V	
<b>Rostock University of Music and Drama</b>	
LEHREN in M-V	
<b>Rostock University</b>	
Campus BWP MV	
LEHREN in M-V	

Lower Saxony	
<b>Technical University of Braunschweig</b>	
DiBS	
TU4Teachers II	
<b>University of Göttingen</b>	
SPL	
<b>Leibniz University Hannover</b>	
Leibniz-Prinzip	
Leibniz works 4.0	
TWIND	
<b>University of Hildesheim</b>	
Cu <sub>2</sub> RVE	
<b>Leuphana University of Lüneburg</b>	
CODIP	
ZZL network	

Subject areas	
 Digitalisation-related skills and digital media	 Linking subject, subject didactics and pedagogical knowledge
 Considering diversity and inclusion in teacher education	 Profile building and optimisation of higher education structures for teacher education
 Qualitative improvements in practical training	 Professional support and guidance
 Strengthening teacher education for vocational schools	

<b>Carl von Ossietzky University of Oldenburg</b>	
OLE <sup>+</sup>	
SeReKo	
<b>Osnabrück University</b>	
DEIN-LBS Campus	
SeReKo	
<b>University of Vechta</b>	
BRIDGES	

North Rhine-Westphalia	
<b>RWTH Aachen University</b>	
ComeIn	
LeBiAC	
<b>Bielefeld University</b>	
BiProfessional	
ComeIn	
<b>Ruhr University Bochum</b>	
ComeIn	
DiAL:Oge	
<b>University of Bonn</b>	
ComeIn	
<b>TU Dortmund University</b>	
ComeIn	
DoProfil	
K4D	
<b>University of Duisburg-Essen</b>	
ComeIn	
ProViel	
<b>German Sport University Cologne</b>	
ComeIn	
Schulsport2030	

<b>University of Cologne</b>	
ComeIn	
DiSK	
ZuS	
<b>University of Münster</b>	
ComeIn	
DwD	
<b>Paderborn University</b>	
ComeIn	
<b>University of Siegen</b>	
ComeIn	
FAKTUR	
<b>University of Wuppertal</b>	
ComeIn	
KoLBi	
KoLBi-BK	

Rhineland-Palatinate	
<b>University Kaiserslautern-Landau</b>	
BBS@U.EDU	
MoSAiK	
U.EDU	
WeLT	
<b>University of Koblenz</b>	
MoSAiK	
<b>Johannes Gutenberg University of Mainz</b>	
LLF	
TWIND	
<b>Trier University</b>	
TrigitalPro	

Subject areas	
Digitalisation-related skills and digital media	Linking subject, subject didactics and pedagogical knowledge
Considering diversity and inclusion in teacher education	Profile building and optimisation of higher education structures for teacher education
Qualitative improvements in practical training	Professional support and guidance
Strengthening teacher education for vocational schools	

Saarland	
<b>University of Music Saar</b>	
SaLUt II	
<b>Saarland University</b>	
SaLUt II	
MoDiSaar	

Schleswig-Holstein	
<b>Christian-Albrecht University of Kiel</b>	
LeaP@CAU	
OLaD@SH	
<b>European University of Flensburg</b>	
InnoNet.sh	
OLaD@SH	

Saxony	
<b>Chemnitz University of Technology</b>	
DigiLeG	
<b>Dresden University of Technology</b>	
PraxisdigitaliS	
TUD-Sylber <sup>2</sup>	
TUD-Sylber BBS	
<b>University of Leipzig</b>	
PraxisdigitaliS	

Thuringia	
<b>Friedrich Schiller University Jena</b>	
DiLe	
PROFJL <sup>2</sup>	
<b>University of Erfurt</b>	
QUALITEACH II	

Saxony-Anhalt	
<b>Martin Luther University Halle-Wittenberg</b>	
DikoLa	
KALEI <sup>2</sup>	

Subject areas	
 Digitalisation-related skills and digital media	 Linking subject, subject didactics and pedagogical knowledge
 Considering diversity and inclusion in teacher education	 Profile building and optimisation of higher education structures for teacher education
 Qualitative improvements in practical training	 Professional support and guidance
 Strengthening teacher education for vocational schools	



# Imprint

**Published by**

Bundesministerium für  
Bildung und Forschung/  
Federal Ministry of  
Education and Research (BMBF)  
Division 'Qualitätsförderung Schule'  
11055 Berlin, Germany

**December 2023**

**Edited by**

DLR Project Management Agency

**Layout**

neues handeln AG

**Photo credits**

Title: BMBF/bundesfoto/Kurc;  
p. 2, 3, 4, 5, 6, 17, 26, 30: BMBF/bundesfoto/Kurc  
p. 8: Friedrich Schiller University Jena/Jens Meyer  
p. 10: Phillips University of Marburg  
p. 12: Architecture photography/Julian Martitz  
p. 13: PUNCTUM/Alexander Schmidt  
p. 23: Bielefeld University/Julia Schweitzer  
p. 29: DLR Project Management Agency

**List of sources**

p. 9: DLR Project Management Agency  
p. 14: Ramboll Management Consulting  
p. 16: Ramboll Management Consulting  
p. 19: HU Berlin/Marie-Luise Schütt and Julia Frohn  
p. 25: University of Kassel/Bielefeld/Alessa Schuldt and Lea Stahl  
p. 27: DLR Project Management Agency

This specialised publication of the Federal Ministry of Education and Research is available free of charge. It is not for sale and may not be used by political parties or groups for electoral campaigning..

