



Teacher Education at the University of Tübingen

Tübingen School of Education

Further development, accents, horizons







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Greeting from Minister Petra Olschowski MdL

The further development of teacher education calls for strong places. The Tübingen School of Education is one such place – for the city and the region, for the state and beyond. In its comparatively short existence, the Tübingen School of Education has already developed into a beacon.

In addition to funding from the federal and state initiative Qualitätsoffensive Lehrerbildung or the state program “Lehrerbildung in Baden-Württemberg”, this can be attributed to the University of Tübingen’s own strong commitment. In addition, the Tübingen School of Education finds the best conditions for its work right in its own neighbourhood, for example in cooperation with the Leibniz-Institut für Wissensmedien, the Hector Research Institute of Education Sciences and Psychology or the recently founded Tübingen Center for Digital Education.

As a contribution to the continuation of the Tübingen School of Education (from 2024), the federal state is supplementing the university’s contribution with additional funds via the “University Financing Agreement 2021-2025”. I am very pleased that the Tübingen School of Education intends to use these funds to expand its broad network and forge even closer ties. Together with the Professional School of Education Stuttgart-Ludwigsburg, cross-university and cross-location structures are to be created to promote early career researchers in the post-doctoral phase. The Karlsruhe University of Education and the Tübingen School of Education have also recently acquired a joint research and early career college for the improvement of task quality in digitally supported teaching. The college will be launched this year. The Tübingen School of Education is also committed to the transfer of knowledge into practice. As part of a call for proposals from the Federal Ministry of Education and Research, the Tübingen School of Education is now receiving funding as a “Competence center for digital and digitally supported teaching in schools and further education in the STEM field”.

In addition to this enormous dynamism in the field of research, the Tübingen School of Education coordinates all aspects of teacher education at a comprehensive university with over 20 subjects. The teaching-related Bachelor’s and Master’s degree courses, which have replaced the previous state examination courses, have been successfully introduced. A quality package for studies and teaching was put together to minimize overlaps between compulsory courses.

These few keywords alone increases the appetite for more. I wish the Tübingen School of Education a continued successful development and all readers an exciting read.

Petra Olschowski MdL
Minister of Science, Research and Arts Baden-Württemberg



Greeting from President Karla Pollmann

Ten years have now passed since the university management and the academic senate set the course for teacher education in Tübingen. Around two years later, the Tübingen School of Education was founded as the central academic institution for teacher education at the University of Tübingen. Since then, the Tübingen School of Education, or the TüSE for short, has gained a high reputation both within the university and at state and national levels, as well as with its international partners.

The TüSE has been able to develop into a research-intensive and innovative academic institution, not least thanks to the great commitment of the teacher education faculties, the extensive funding programs as part of the joint federal and state Qualitätsoffensive Lehrerbildung and the extraordinary commitment of the teacher education stakeholders. It is the place for teacher education and the mouthpiece for over 4000 teaching degree students at the university. In addition to the establishment of central structures and committees and the acquisition and implementation of numerous projects in the seven work areas of the TüSE (1. studies and teaching/student advisory, 2. professionalism, 3. research/TüSE research, 4. promotion of early career researchers, 5. diversity and inclusion/exclusion, 6. internationalization, 7. digitalization), 19 new professorships have been created, 13 of which are in subject didactics and five in educational sciences. Since its foundation, the TüSE has been able to raise over €20 million in funding for teaching, research and development projects. Its transfer achievements are considerable and are of inestimable social value in terms of the future professional field of teachers alone.

The importance of future-oriented and responsible teacher education is beyond question in the wake of social transformation processes and, not least, experiences of crisis. The TüSE therefore not only works closely with all teacher education faculties and the more than 25 teaching subjects, but also with other internal university and external institutions such as the Leibniz-Institut für Wissensmedien, the Tübingen Seminar for Teaching Practice and Teacher Training (Grammar School) and schools in the Tübingen region. Both their day-to-day work processes and their long-term strategy developments are characterized by the work on inter- and intra-organizational intersections and constant integration efforts. This is because the joint further development of teacher education can only be understood as a task for the university as a whole and for society as a whole, and must be shaped responsibly by all stakeholders involved.

In 2018, a documentation of teacher education in Tübingen was produced that has received great national recognition. After that successful first edition, I am delighted with this new edition, which illustrates the integrative capabilities and continuing importance of the TüSE for the best possible teacher education at the University of Tübingen. I am looking forward to the further development of the TüSE!

Prof. Dr. Karla Pollmann
The President of the University of Tübingen

Preface by the Executive Board of the Tübingen School of Education

Global challenges can only be met by global society through targeted concepts and actions that are negotiated in an intergenerational approach based on consensus and problem-solving. Future generations must be won over to this task, but we also have a responsibility to overcome the challenges for future generations. In the European context, pupils spend around 15,000 hours of their lives at school. This time must be used to facilitate educational processes, to teach and acquire skills, but also to spend quality time at school: i.e., in good mental and physical health and with a high level of satisfaction. It is obvious that this also places high demands on teacher education. The global challenges can only be overcome with high-quality teacher education.

Several years have now passed since the Rectorate's strategic decision in 2013 to establish teacher education systematically and sustainably at the University of Tübingen and to invest heavily in it with the founding of the TüSE in 2015. Where does teacher education in Tübingen stand today? What has happened since the TüSE was founded?

The TüSE is now entering its eighth year. The formation as a cross-faculty academic institution has been completed; its responsibilities, structures and processes have been established and communicated both within the university and to the outside world. 19 new professorships and eleven new academic council positions have been appointed or filled for Tübingen Teacher Education. While the TüSE has already been able to consolidate itself in many respects in everyday university life, it has also shown itself to be unwaveringly innovative and involved, as evidenced by the wide range of projects and activities under its leadership and participation: 23 million euros in third-party funding have been raised since its foundation. By March 2023, the Executive and Management Board had been involved in around 75 applications, with around 25 research, development and transfer projects running in parallel at the time. These are figures that are often presented as proof of performance. However, they only represent plain figures; behind them are lively discussions, content-related developments, quality improvements, forward-looking projects and fruitful collaborations and innovative offers for students and lecturers. The TüSE works closely and fruitfully with the Rectorate, the teacher education faculties with more than 25 teaching subjects and numerous other institutions such as the Leibniz-Institut für Wissensmedien, the Graduate School and the LEAD Research Network or the Center for Ethics in the Sciences and Humanities, whether in appointment committees, with application processes for projects, with strategic considerations or with the introduction of innovations.

This documentation illustrates these diverse activities of the TüSE. The individual contributions also document and discuss a wide range of fundamental and typical challenges facing teacher education in times of global challenges, high quality standards and complex structures.

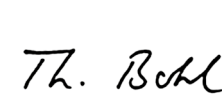
For the second time – after the first documentation in 2018 – all TüSE stakeholders are involved in this volume, as well as other cooperation partners. The volume illustrates the high degree of differentiation in the teaching subjects, areas of work and committee structures of the TüSE. It is an expression of the high status and the now undoubtedly high recognition of teacher education at the University of Tübingen.

Perhaps you are curious? We cordially invite you to gain an overview of all the structures and work in the context of teacher education in Tübingen and to delve into one or two of the contributions.

Special thanks go to all the authors who contributed to the success of the documentation. Each contribution reflects in its own way the passion and commitment with which the diverse areas of teacher education in Tübingen are addressed and represented. We would also like to thank Gabriele von Briel for the stylish design of the documentation.

Last but not least, the publication of this documentation offers the Management and the Executive Board the opportunity to express their heartfelt thanks: To all employees of the TüSE office, to our student employees, to all colleagues in the teaching subjects and in the educational sciences, to the deans of the teacher education faculties, to the employees of the central administration and to the rectorate of the university. Many thanks to everyone who makes a valuable contribution to teacher education in Tübingen!

We wish you an inspiring read!



Thorsten Bohl
Executive Director



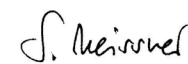
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Sibylle Meissner
Managing Director

By Way of Introduction: “Keep it up!” Continuation of creative reform activities in teacher education in Tübingen and beyond

While the first documentation on the founding and consolidation phase of the TüSE from 2013 to 2017, published in 2018, focused on the structures characterized by interdisciplinary work areas, the massive increase in academic staff by 19 new professorships and the long-term strategy, this new edition reflects the internal expansion of the TüSE in research, teaching and study, which is still supported by a broad spirit of optimism with its diverse innovative accents, and outlines its future prospects.

During the dynamic expansion and profile development of the TüSE, its own programmatic and conceptual ideas from the founding phase were substantially strengthened by impulses from the Qualitätsoffensive Lehrerbildung (QLB) launched shortly afterwards by the federal and state governments. This funding program, with a funding volume of up to 500 million euros, has reached the vast majority of teacher education locations across all federal states and has initiated an almost historic development boost for the professionalization of teachers. The focus was and is – also in Tübingen – on profiling and optimizing the structures of teacher education, professional counselling and support for students in teacher education as well as – more strongly related to the training curriculum – the requirements of heterogeneity and inclusion and the further development of professionalism, subject didactics and Educational Science.

In contrast to the Professional Schools of Education, which were founded as cooperation projects between teacher education colleges and universities as part of the Qualitätsoffensive Lehrerbildung (QLB) in Baden-Württemberg, the TüSE concept followed the “Tübingen path” as a model of teacher education from a single source.

Without opportunities for cooperation with teacher education colleges in the region, all three central components of the first phase of teacher education (teaching subjects, subject didactics, and educational sciences) had to be optimally integrated within the university in Tübingen.

This constellation led to the upgrading of subject didactics with 13 new professorships from the university's own funds, resulting in a systematic networking of subject didactics and educational sciences that is a unique selling point for the TüSE nationwide, not only in teaching but also in research. Soon after the mission statement adopted in 2017, another important document, the didactics framework concept based on common standards, was approved in 2018.

Under the umbrella of TüSE Research as the work area dedicated to research with both quantitative and qualitative approaches, over 70 applications for basic, applied and accompanying research have now been submitted. The TüSE junior researcher program (TüNaProDoc), which was established in 2018, offers early career researchers an attractive and therefore highly sought-after platform for targeted content and methodological support, as well as material support for their qualification projects. Eight Special Interest Groups (SIGs) serve various closely interlinked projects in subject didactics and educational and professionalization research. The TüSE's most recent flagship project was the Center for Research and Transfer. Digitalization in Teacher Education (TüDiLB), which is run together with the Leibniz-Institut für Wissensmedien (IWM).

A key indicator of the TüSE's research strength is the third-party funding it receives. While 7.2 million euros have been raised since 2018 as part of the Qualitätsoffensive Lehrerbildung

CONTACT

PROF. DR. PETER DREWEK
CHAIRMAN OF THE ADVISORY BOARD OF THE TÜBINGEN SCHOOL OF EDUCATION

(QLB) alone, a further 7 million euros have been added through the approval of further applications outside of the Qualitätsoffensive.

This means that from 2018 to 2022, an average of over 120,000 euros/professorship per year was approved for a good 20 professorships in didactics and Educational Science. This amount exceeds several times over the average amount approved by the German Research Foundation (DFG) in the humanities and social sciences at universities of just under 40,000 euros/professorship per year (approval amount 2017-2019: 116,500 euros/professorship).

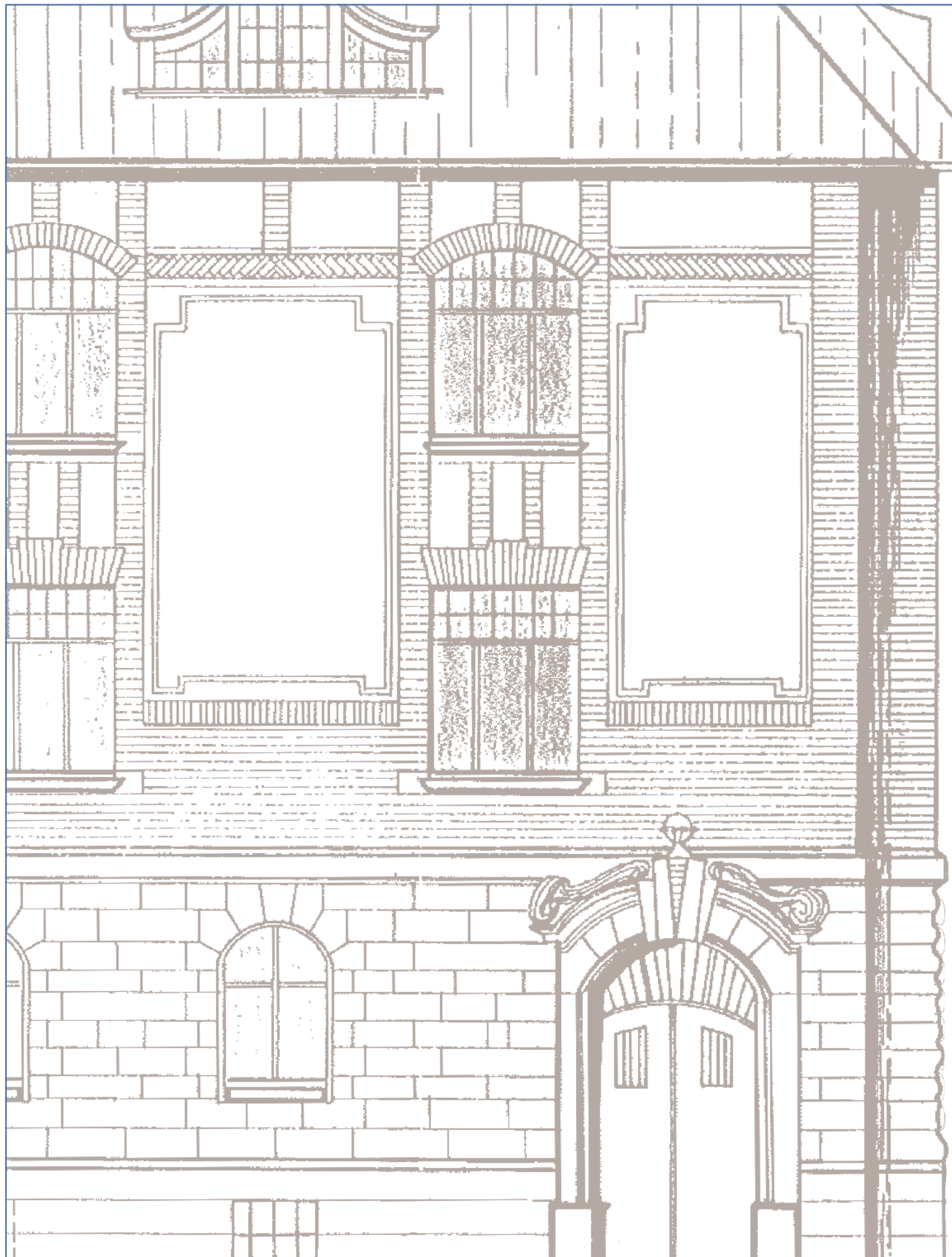
The TüSE's success is based on the high demand for research and development in the areas of school education and the professionalization of teachers, with numerous very well-funded calls for proposals in conjunction with the attractiveness and quality of Tübingen's research proposals. These in turn are based not least on the intensive cooperation with excellent internal and external Tübingen partners during the expansion phase, above all with the IWM and the interdisciplinary research network Learning, Educational Achievement, and Life Course Development (LEAD).

For teaching degree students, the school's added value was not only noticeable in the building on Wilhelmstraße, which the TüSE moved into in 2017 as a central point of contact on campus, but also through numerous, well-coordinated measures to improve teaching and learning. Examples include the Quality Package for Studying and Teaching in the Teaching Profession with the newly founded Information and Counselling Center for Teacher Education and the intensive work on a course offering with as little overlap as possible across the various teaching subjects.

Since 2018, the TüSE has decisively advanced its networking with other locations at a national level. The platform for this was provided in particular by events as part of the Qualitätsoffensive Lehrerbildung (QLB), which resulted in a key points paper on institutionalization in teacher education, written jointly with other schools and led by the TüSE. This paper is currently receiving a great deal of attention in politics and science and provides important constructive impetus for the sustainability issue of QLB funding, which expires in 2023.

While the success of the Eberhard Karls University through its 2019 award as one of only ten universities of excellence (and one university alliance) in Germany has also spurred and inspired the TüSE conceptually, but not least in the field of its international relations, the Corona pandemic, which has now finally subsided, soon afterwards dramatically challenged the university as a whole and thus also all members of the TüSE.

The Advisory Board, which has remained virtually unchanged since it was established in 2016, has also provided critical and constructive support during the expansion phase of the TüSE documented here and recommends that the Executive Board, the Management Board, and its members “Keep it up!” for the continuation of their creative reform activities in teacher education in Tübingen and beyond. At the same time, the Advisory Board would like to thank the previous Rectorate under the leadership of Rector Prof. Dr. Bernd Engler and Vice-Rector Prof. Dr. Karin Amos for the numerous discussions in an always open, collegial atmosphere and is confident that the constructive cooperation will continue with the new Rectorate under the leadership of Rector Prof. Dr. Karla Pollmann.



The Tübingen School of Education



The Tübingen School of Education – an overview

Teacher education at the University of Tübingen and the Tübingen School of Education is research-based, application-oriented and responsible. With these key points in mind, the mission statement of the Tübingen School of Education was jointly developed and implemented by a working group of the School Board in 2018.

Eight years have now passed since the TüSE was founded in 2015.

The organizational structure of the TüSE is established, routines have been set up. This is exemplified by the TüSE's committee work: the School Board, as the central and integrative body, has now met 30 times. The Advisory Board, made up of external experts, has met seven times. The (currently seven) work areas have been established. On the face of it, one could therefore speak of a phase of consolidation. However, this term obscures the ongoing expansion and the increasing dynamics due to constant small and large changes in the day-to-day work structure that are driven not least by immense social challenges and rapid developments.

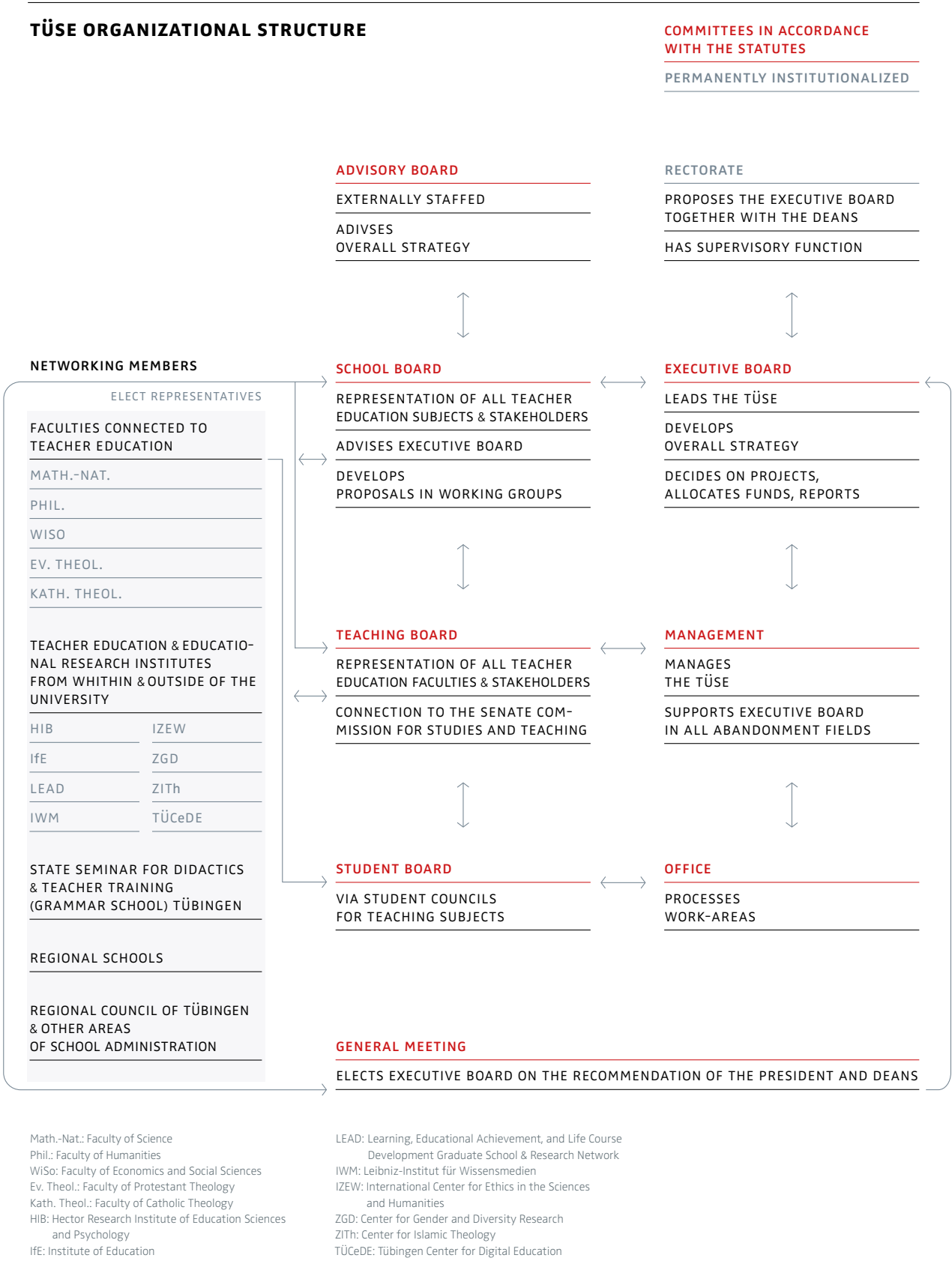
Teacher education plays a crucial role in preparing future generations for these challenges, and empowering them to master them. This is what drives us in our work.

Accordingly, the TüSE, like other teacher education institutions, is required to clarify whether and in what way the demands arising from these societal challenges can be incorporated and implemented in teacher education. Implementation is also always linked to questions of quality and contextual conditions and must therefore always be carefully reflected upon. Committees, collaborations and networking as well as relationship-building play a decisive role here, as this is how concerns are made understandable, circumstances are clarified and innovations are implemented. Against this background, it is not surprising that the tasks and degree of networking are growing in all areas. Some of the more recent developments are outlined below.

According to its statutes, the TüSE is a central academic institution. It is tightly integrated within the university as well as with local and regional cooperation partners such as the Leibniz-Institut für Wissensmedien and with all levels of the education administration, including the newly founded institutes (Zentrum für Schulqualität und Lehrerbildung and Institut für Bildungsmonitoring Baden-Württemberg). This interconnectedness is also reflected in the central committees: in the School Board, in which students and doctoral students are represented alongside colleagues from the subjects, subject didactics and educational sciences, and in the Advisory Board, in which representatives from school administration, industry and the non-profit sector are active alongside Educational Science and subject didactics expertise. In 2023, the Student Board was newly implemented, in which students from the student committees of the various teaching subjects contribute their perspectives and concerns. This directly gives the TüSE the opportunity to address and work on student issues regarding both global challenges and everyday study conditions.



TÜSE ORGANIZATIONAL STRUCTURE



The fact that the committee structure has proven its worth is extremely pleasing. At the same time, we share a typical characteristic of teacher education at a university with all similar institutions in Germany, which has increased rather than decreased over the years: the TüSE is not able to act hierarchically, but depends as a central academic institution – not as a faculty – on all inter-institutional relationships being proactively and prudently built up and constantly maintained. Almost everything is a matter of negotiation: the relationships can only be worked on with conviction and well-founded substantive arguments – be it with the representatives of the teaching subjects, the dean’s offices, the central administration or the students. In almost all cases, this relationship management has been successful – but it is sometimes time-consuming, sometimes laborious and requires patience.

A fundamental characteristic of the TüSE’s work is therefore the provision of a high level of integration in order to be able to work on all topics with the relevant stakeholders.

A few years ago, when the digitalization boom in the education sector was not quite as pronounced as it has become recently, the TüSE held a variety of discussions with the Rectorate at the time on the development of structures in our digitalization department, for example on digital projects or innovations in studying, teaching and research.

As a result of this digitalization boom, clear demands are justifiably being made on teacher education to make the next generations ‘digitally fit’ without neglecting educational and social as well as ethical issues in the process.

Digitalization boom in the education sector

However, the jointly developed digitalization strategy was quickly overtaken by real developments. Even before the BMBF’s five calls for proposals for digitalization centers in 2022, the TüSE was able to advance an innovation: With the support of the rectorates involved, we applied for the [TEIFUN postdoctoral college](#) together with the Professional School of Education Stuttgart-Ludwigsburg as part of the competitive call for proposals from the Baden-Württemberg Ministry of Science, Research and Arts for the Higher Education Funding Agreement II and were thus able to implement a sustainable and cooperative support structure for early career researchers. The first cohort of the post-doc college will focus on the topic of technology-based innovation.

At the time of application, the BMBF calls for proposals for the digital competence centers had not yet been published and could not be anticipated. In the meantime, the TüSE and the University of Tübingen are involved in all five BMBF calls and the topic of digitalization will become the central innovation topic in the coming years. At the same time, the [Tübingen Center for Digital Education \(TüCeDE\)](#) was founded at the University of Tübingen in 2022, a central scientific institution that will bundle and coordinate all activities (research, teaching, development) in the field of digitalization. The Center is headed by Prof. Andreas Lachner. Together with LEAD, among others, the TüSE played a key role in its foundation. In addition to these structural fields of activity, the TüSE has promoted numerous innovations in studies and teaching (e.g. a compulsory module on teaching and learning with digital media in Educational Sciences) and professional research and development projects (e.g. the Dia:GO project on teaching and learning with digital media in adaptive lessons at upper secondary level at comprehensive schools).

Numerous other changes have also been initiated recently in the other work areas. In all areas, it is important for us to reflect on current developments, examine innovations and integrate them into our basic strategy.



TüSE Work Areas



The individual measures and projects are described in the chapters on the work areas in this documentation. The strategic orientation of these work areas is therefore only outlined below.

In the [work area Study, Teaching and Student Advisory Services](#), the fundamental task of the TüSE is to ensure and, where possible, further improve the quality of studies and teaching in the teacher education sector and to introduce innovations into teacher education programmes. To this end, the TüSE reflects on social processes and challenges, current calls for proposals and developments in national and international teacher education, as well as creative approaches and ideas. We also consider complex changes and problem-solving strategies, such as avoiding overlaps in the range of teacher education courses, to be our task. In the area of student advisory services and in the TüSE Information and Counselling Center for Teacher Education, which was founded in 2019, the new concept documents our claim to provide research-based, professional, adaptive and flexible services.

The [work area Internationalization](#) is about much more than exchange programmes for students and lecturers. In view of the challenges of growing global interdependence and simultaneously increasing disadvantages and inequalities, a perspective on international cooperation that is based on social and educational theory and sensitive to diversity is required. For example, it can be helpful as a beginning teacher to experience and reflect on experiences of foreignness in order to be able to act appropriately in pedagogical situations later on.

In the [work area Professionalization](#), our offerings are aimed in three directions. Firstly, we promote projects and offerings that support lecturers in teacher education in balancing the relationship between discipline and profession and systematically focusing on the future professional field. Secondly, we offer teacher education students attractive opportunities for an intensive, reflective examination of their future profession in a variety of special formats that go beyond the normal course offerings. Thirdly, we try to intensify cooperations of lecturers and students with schools and experiment with different formats. In doing so, our courses are constantly addressing the tensions between the demands specific to academics and research and those specific to the teaching profession rather than offering simple, linear solutions which do not do justice to the complexity of the field.

Three strategic lines have been implemented and intensified in the [work area Research/TüSE Research](#): 1. tender-related cooperations; 2. establishment of interdisciplinary special interest groups; and 3. needs and resource-related measures and activities. Numerous applications have been submitted under Line 1, which have now resulted in more than 23 million euros in second- and third-party funding. As part of Line 2, the strategy was implemented – in agreement with the Rectorate and the Advisory Board – to accompany, advise and support ambitious Special Interest Groups (SIGs), the so-called SIGs extended, on their paths to ‘larger’ research formats in the medium to long term. In addition to these three lines of research, the TüSE is increasingly aiming to participate in the University of Tübingen’s preparations for the next phase of the Excellence Initiative. The TüSE was already involved in various formats during the last round of applications. We are currently working on the preparations for an excellence cluster, thus illustrating the TüSE’s ambitions to substantially position teacher education in internationally competitive formats and thereby, among other things, to enable systematic transfer strategies for future generations.

In the [work area Promotion of Early Career Researchers](#), our commitment aims to support academics in three qualification phases. Firstly, this year we are starting to develop specific offers for Master students who may be interested in a doctorate in order to promote potential at an early stage. Secondly, our TüNaProDoc programme for early career researchers has been running for many years now for doctoral students who are gaining qualifications in teacher education and research. Thirdly, with the TEIFUN postdoc college, we are entering into the systematic promotion of postdocs, together with the Professional School of Education Stuttgart-Ludwigsburg. In doing so, we are supplementing offers in the subjects and faculties in a differentiated manner by specifically addressing teacher education-related topics or research methodological expertise.

In the [work area Diversity and Inclusion/Exclusion](#), we aim to provide programmes for specific topics and issues such as inclusion, migration and flight as well as language-sensitive teaching that are fundamentally designed to reflect on these complex developments and, for example, take institutional conditions as well as suitable educational settings into consideration. The focus is on issues such as the social construction of gender, cultural difference, social inequality and disability within and by the education system. The two additional qualifications offer an excellent opportunity for prospective teachers over and above the normal range of courses.

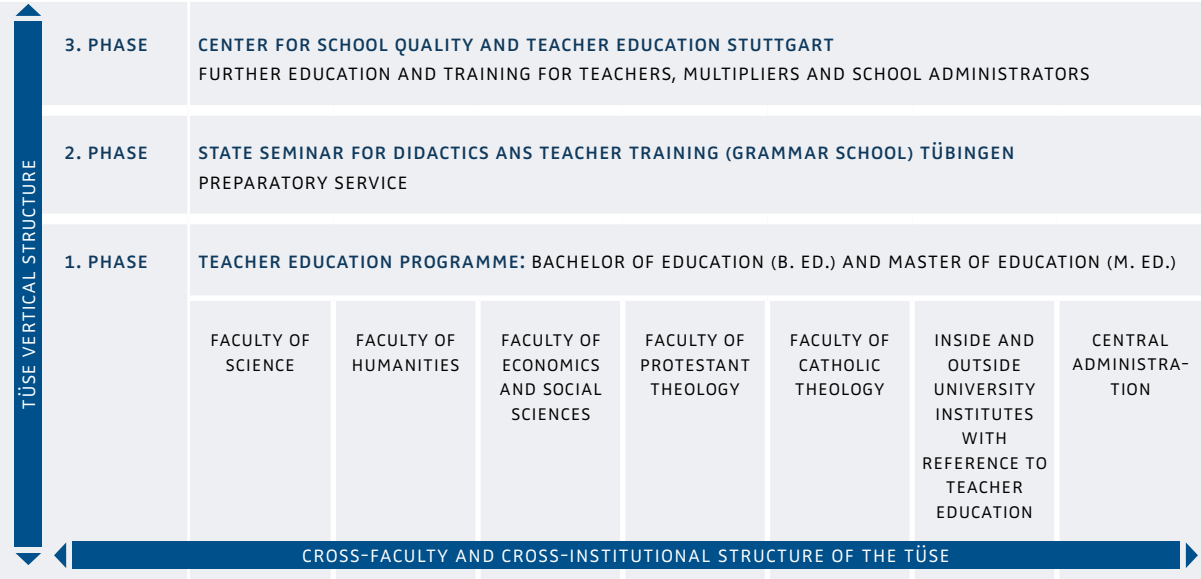
In the course of the expiry of the Qualitätsoffensive Lehrerbildung at the end of 2023, a structural change in the areas of work may be necessary in order to ensure that the TüSE as a whole can continue its sustainable and substantive work.

Not only within the university or at state level, but also at national level the TüSE has provided lasting impetus for the further development of teacher education, which can be summarized under the heading of institutionalization in teacher education.

Questions relating to the institutionalization of teacher education initially intensified significantly in the course of the restructuring of teacher education within the Bologna reforms, with the establishment of the Standing Conference of the Ministers of Education and Cultural Affairs’ standards and recommendations for teacher education, but especially in the course of the Qualitätsoffensive Lehrerbildung. Shortly before the (provisional) end of the funding programme at the end of 2023, those questions are still widespread. In 2019, they were addressed for the first time at the funding programme’s networking conference and in 2020 at the digital exchange format of the projects in the session ‘Institutionalization of teacher education: good practice, institutional boundaries, open potentials’ in a larger group and fed into the nationwide discussion. Most recently, the topic area was discussed again in a workshop at the programme’s 2022 networking conference.



Structural anchoring of the TüSE in teacher education (LB)



The discussed problem areas of the institutionalization of teacher education resulted in the draft of a strategic paper on the institutionalization of teacher education (Eva Arnold, Nina Beck, Thorsten Bohl, Peter Drewek, Martin Heinrich, Axel Gehrmann, Katja Koch, Lilian Streblow, Isabelle van Ackeren, 2021). The paper was then made available to central committees, associations, federal and state organizations, university rectors and professional associations, such as the Standing Conference of the Ministers of Education and Cultural Affairs, the German Rectors’ Conference and the Executive Board of the German Educational Research Association, for information and discussion and was then slightly revised. In addition, the concerns of the key points paper were discussed in several meetings with representatives of the BMBF.

The institutional and organizational problems have been analyzed in several articles from a governance-related perspective. The multi-level consideration of teacher education contained therein serves as a structuring element of the analysis as part of Ramboll’s evaluation of the Qualitätsoffensive Lehrerbildung funding programme. The key points paper continues to be a point of reference in events, workshops and discussions between teacher education stakeholders when it comes to how teacher education can be developed sustainably following the innovation surge of the past decades.

The initiative Sustainable Institutionalization of Teacher Education aims to ensure the increased importance of teacher education and the quality of its efforts to meet the expanded range of tasks and responsibilities in the long term.

SELECTED PUBLICATIONS

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Teacher education and Schools of Education in Baden-Württemberg: Current developments

Baden-Württemberg’s teacher education system is highly differentiated compared with other German systems. Teacher education in Baden-Württemberg takes place at universities (grammar school teacher education, some vocational training), at teacher education universities (primary, secondary and special schools) and at art colleges and music colleges, among others.

With the call for applications for the first funding phase of the joint federal and state Qualitätsoffensive Lehrerbildung in 2013, several places within the university sector founded Schools of Education: Institutions where teacher education university programmes and teacher education universities co-exist (for Baden-Württemberg in Heidelberg, Freiburg and Stuttgart/Ludwigsburg as well as in Konstanz with the PH Thurgau) and the Tübingen site, which has gone its own way.

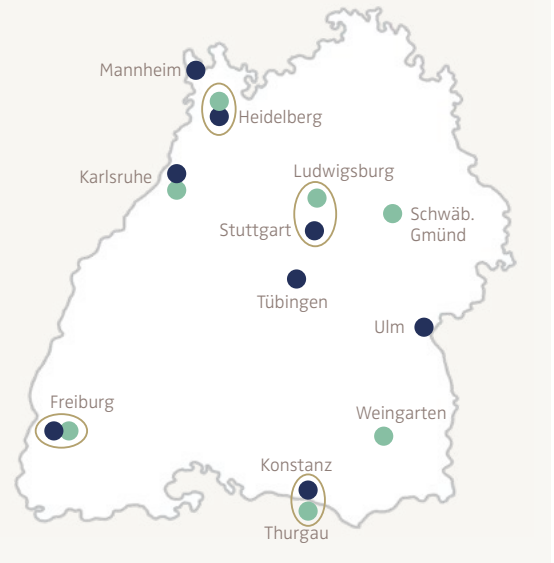
As there is no university of education geographically close to Tübingen, the Rectorate at the time, with the support of the University Council and the Senate, decided to establish a School of Education on its own. As a result, there are currently five Schools of Education in Baden-Württemberg, all of which were successful within the framework of the Qualitätsoffensive Lehrerbildung (1st funding phase) and used these funds to finance or support their establishment.

In the first years of their foundation, cooperation structures were established and individual joint activities were implemented, but the five Schools of Education primarily competed for various national or state-specific calls for proposals.

In the following years, the cooperative relationships between the schools were strengthened considerably.

Teacher education in Baden-Württemberg: Locations

- Universities
- Teacher Education Universities
- Cooperation



The following joint activities and collaborations are particularly noteworthy:

- PROJECT BRIDGE THE GAP**
As part of the support for pupils following the homeschooling period of the corona pandemic, the Bridge the Gap project was planned, implemented and evaluated in 2021 in a joint effort by the Schools of Education in Baden-Württemberg with the Ministry of Culture, Youth and Sport and the Ministry of Science, Research and Arts.
- BMBF FUNDING FOR THE DIGITALIZATION CENTERS**
With the announcement by the Federal Ministry of Education and Research (BMBF) in 2022 to publish five national calls for proposals for digitalization centers in various subjects and fields, the cooperation between the schools entered a new phase. Following agreements between the five schools, joint applications were submitted under rotating leadership (Tübingen, Freiburg, Stuttgart/Ludwigsburg, Konstanz).
- POSTDOC COLLEGE TEIFUN**
As part of the financing of the Schools of Education via the Higher Education Funding Agreement II, the TüSE submitted a joint application with Stuttgart/Ludwigsburg for the shared Postdoc-College Technologiegestützte Innovationen in fachspezifischen Unterrichtssettings (Postdoc TEIFUN) aiming to cooperate in the areas of research and the promotion of early career researchers in the long term. The college will start in 2024.

In the future, it seems not only desirable but also necessary to further intensify the cooperation between the teacher education institutions in Baden-Württemberg in order to overcome the common challenges – digitalization, lateral entry into the teaching profession, promoting early career researchers, inclusion and diversity, and sustainability, to name just a few.



**The TüSE under review:
a joint look at the achievements, development dynamics and
prospects of the Tübingen School of Education.**

PROF. DR. THORSTEN BOHL
is an educational scientist and has been executive director of the Tübingen School of education since 2015.

PROF. DR. PETER DREWEK
is an educational scientist and has been chairman of the Advisory Board of the Tübingen School of Education since 2016.

PROF. DR. BERND ENGLER
was rector of the University of Tübingen from 2006 to 2022; he is currently president of the global ethic foundation.

TÜSE: What is the importance and status of teacher education both in society as a whole and within the University of Tübingen?

ENGLER: In addition to the further development of science, a university has the overall responsibility for society as a whole to address its current and future challenges and to find answers – in both the academic and socio-political fields. The University of Tübingen made a clear commitment to this as early as 2011 in its mission statement in the context of the application for excellence. In principle, the concept of responsibility for society as a whole is directly linked to the task of educating young people, allowing them to grow into the working world that awaits them and enabling them to solve the problems facing our global society in a creative and responsible manner. The training of multipliers – and school teachers are a crucial part of this – is of central importance. In Tübingen, we have taken this task very seriously.

By founding the Tübingen School of Education in 2015 and making extensive investments in teacher education, the University has made a significant step forward in favour of research-based teacher education.

And this is logical in that the group of teacher education students makes up around 18% to 20% of the total student body at our comprehensive university. That's quite a lot! In terms of content, however, valuable horizons have also opened up in the subjects via teacher education, particularly through the educational mission inherent in teacher education. In this way, our students learn, through the perspective of teacher education, that science thrives on communication and (simplified) communication of content and the latest scientific findings, and that science should always be directed towards society and must not take place in isolation.



DREWEK: Mr. Engler's comments can be extended and continued in an educational sciences dimension: School as a multidimensional system serves the acquisition and development of skills in various subjects, but this only succeeds if good teaching quality prevails. In turn, high-quality teaching can only be expected if teachers are enabled to plan and implement good lessons through high-quality teacher education.

Investing in teacher education and enabling teachers to teach well is particularly necessary when the school system (like ours) is open, if it is to respond to a heterogeneous student body and – despite all existing inequalities – aims at educational expansion.

As international school performance comparison studies show, there is still a lot of room for improvement in terms of the quality of teaching at German schools (as a prerequisite for good school performance). However, schools do not only prepare pupils for the world of work; rather, it is their task to prepare pupils for life in society, to allow them to acquire and apply prevailing values and to integrate them socially and culturally. The teaching of values varies from society to society, but it also evolves historically. Instead of a blanket teaching of values, the Tübingen School of Education therefore attaches importance to integrating the issues of the day into teacher education, e.g. inclusion, heterogeneity, diversity or digitalization.

BOHL: In the last ten years, the keywords "third mission" and "transfer" have become increasingly important for universities, both in terms of content and strategy. The question is therefore about how the university has an impact on society – a task that has basically always been performed in the course of teacher education. In this respect, the importance of teacher education for the university is underestimated in my view. Teacher education acts as a transmission belt to transport relevant and future-oriented topics into society. There is still a lot of potential for development here. With regard to transference activities, we could think much more intensively about the role teacher education can play for the entire university.

With regard to the importance of teacher education in Tübingen, it can be said that the changes for the University have been enormous, especially in the last eight years. I myself have been in Tübingen since 2007 and can justifiably say that teacher education has undergone an extraordinary and positive change in importance and structure since then. While teacher education used to be a niche area at the university and was largely dominated by the fields of the teaching subjects, we have now gained extensive expertise – particularly thanks to the many additional professorships for subject-specific didactics in teacher education with an original discipline-specific focus and the associated teaching and research achievements – and can now design and discuss teacher education from multiple perspectives and in coherence with the various areas of requirements. Of course, the third-party funding of meanwhile over 23 million euros acquired through the TüSE has also helped to significantly support the teacher education subjects and strengthen them in the task of teacher education.

That is a real quantum leap. The importance of teacher education for society and for the university is no longer in question; the need for subject-specific academics, didactics and teaching practices and Educational Science components in teacher education programmes is undisputed and well established. The focus is now on the project of designing high-quality teacher education – and everyone is doing their best to achieve this.

TÜSE: What was the original impetus for founding the TüSE and getting involved in teacher education to this extent?

BOHL: I still remember well when Frank Loose, Philipp Thomas and I were sitting at lunch in 2010 and we were annoyed about the perception of subject didactics – in the university context, which at that time was still dismissed as mere classroom technique and received no recognition. It was clear to us that this was no longer a contemporary view, that we should not only discuss the quality of teaching, but that we needed a new structure for teacher education with a clear emphasis on subject didactics as an academic discipline. Even if we didn't have a clear idea of what the structure could look like in detail at the time, we knew that we needed a strong interfaculty institution that focused on research orientation in teacher education. In the years that followed, we held countless shorter and longer discussions with a wide range of stakeholders in order to position the issue and explore what this could look like. Mr. Engler, in 2012, you finally set the course at the German Rector's Conference by teacher education. For us, this was the decisive moment and the start of a new era with regard to teacher education, because there was basically no turning back. It was clear that from then on, the university would be strongly committed to teacher education and the development of a new structure.

ENGLER: I once studied to become a teacher myself, so I know from my own experience how deficient teacher education was back then, because the subject didactics and educational skills that were so urgently needed for the teaching profession played no role whatsoever in the degree course, but were instead shifted entirely to the post-graduate traineeship – albeit at that time with an exclusively practical focus, without the necessary theoretical reflection. So, after your plea, Mr. Bohl, it became completely clear to me that we at the University of Tübingen need to completely reorganize ourselves if we want to live up to our social responsibility in the slightest. In the context of the German Rector's Conference you mentioned, Mr. Bohl, it was therefore on the one hand a matter of creating a certain provocation by pointing out the deficits in the implementation of teacher education at the universities at that time, whereupon I also caused a clear frown among those present. At the same time, I was completely serious about my declaration to completely rethink and restructure teacher education in Tübingen.

TÜSE: But surely there was also criticism or even opposition to this idea within the university and various challenges that had to be overcome, right?

ENGLER: The central question we asked ourselves was how we could manage to restructure teacher education in such a way that it would have a broad impact in the individual subjects and that no isolated solutions are produced that would have little effect for students.

Of course, this broad approach immediately raised the question of how this could be solved in terms of resources. It was clear to me that we had to take the teaching subjects with us and convince them of the necessity of this university-wide structural change – even if it required some force. It is clear that this was not always met with enthusiasm due to the diverse interests within the various faculties and subjects and that it also led to difficult discussions in the Senate. However, with patience, good arguments and a continued willingness to talk, we finally managed to reach a consensus together and implement a new structure. You, Mr. Bohl, also did a great deal of convincing in the Senate.

DREWEK: From a historical perspective, it is an extremely interesting development that can be observed here at the universities, as in the 1960s there were no professors willing to take on the task of vocational training for prospective teachers, even in subjects – such as German studies – which see large numbers of teacher education students. The term vocational training alone was a real deterrent. At the time, the universities distanced themselves from the idea of vocational training and deliberately wanted to leave this to other types of higher education institutions, such as universities of applied sciences or technical universities. In addition, in times of educational expansion, almost all students were able to move seamlessly into teacher education and then into the teaching profession. Students at the time were therefore not driven by the same questions as those studying to become teachers today. The changed circumstances in the education sector and the increasing demands on the teaching profession have therefore already ensured that teacher education at universities has become more important. At the Tübingen location, however, we have succeeded in bringing the teaching subjects on board and winning over the faculties for this task. I believe that this was also possible because the level of the subjects is excellent and they enjoy the highest academic reputation. The concomitant sovereignty made it possible for the subjects to dedicate themselves to the tasks of teacher education with high standards. And finally, the TüSE offers a professionalization model for the subjects that is attractive to researchers in the medium to long term, which is convincing and for which Tübingen is envied by many other locations.

BOHL: Most of this has already been mentioned here. I would also like to add that there have always been people in Tübingen who have been committed to teacher education as a matter of course. Without the help of these players, it would not have been possible to found the TüSE and establish teacher education here in this way.

TÜSE: What were the milestones and achievements in the development of the TüSE?

DREWEK: The decision to take the Tübingen Way, i.e. instead of cooperating with a university of education with regard to subject-specific didactic research and teaching, rather



establish this independently at the university in the form of subject-specific didactic professorships, is certainly the first and most important milestone to be mentioned. Furthermore, the Qualitätsoffensive Lehrerbildung has provided an enormous boost and – as this coincided well with the timing of the initiative – has actually led to a mutual reinforcement of the university's internal policy on teacher education.

Another milestone was the extremely smart decision to place a strong emphasis on research in the development of subject didactics and to establish TüSE Research, because acceptance in the subjects can only be achieved via the path of research. That was very innovative.

And in Tübingen, this is not just a label, but is actually realized through the systematic interlocking of subject didactics and Educational Science. I was very impressed by this. Supported by Tübingen's own programme for the promotion of early career researchers, it has been possible to give teacher education in Tübingen a clearly defined profile by strengthening research. Thanks to the investments and funding provided, the research strength within the University and in the region, as well as strategic aptitude, it was possible to attract further funding in subsequent years and to ensure a multiplier effect. But it does not stop there: the TüSE Executive and Management Board are also committed to teacher education at a national level, through their participation in the strategic paper for the institutionalization of teacher education and through the preparatory work for the founding of a German Association for Teacher Education.

ENGLER: I agree with you, Mr. Drewek. The highly dynamic developments that we have not only striven for, but also achieved for the University of Tübingen in the field of teacher education were largely made possible by the coincidence of the Qualitätsoffensive Lehrerbildung launched at the same time by the federal and state governments. However, much more important than the financial resources we received here, which also allowed us a high degree of creative freedom and a wide range of priorities, was the accompanying change in awareness and culture in science and society, which brought teacher education into focus. Another important milestone was the founding of the LEAD Graduate School and Research Network in 2011. This made it clear that there is a need in society as a whole for research into issues relevant to education, which was also recognized at the highest scientific level, such as the German Science Council and the German Research Foundation (DFG), through the allocation of research funds. Another important window of opportunity was the parallel excellence strategy of the University of Tübingen, which gave us the opportunity to think about teacher education against the background of the excellence programme.

Our motto "Establish a culture of cooperation and commitment" was achieved in a joint focus on teacher education through the founding of the TüSE and the successful inclusion of the teaching subjects by the University in both its entirety and its diversity.

BOHL: I see the establishment of subject didactics in the teacher education faculties as a milestone.

By establishing subject didactics, we have succeeded in building up intensive cooperation structures with our 25 teaching subjects and anchoring teacher education as an academic task more firmly in the subjects. This is a great achievement in that, as a central academic institution, we do not have direct access to those stakeholders involved in the subjects. This in turn means that we have to constantly renegotiate their willingness to take on the tasks at hand and continually renew their commitment to teacher education and the TüSE. We are therefore constantly carrying out extremely important day-to-day networking in the performance of our basic task: the delivery of teacher education. Many other substantial leaps in quality have been achieved over the years, such as the establishment of our TüSE Information and Counselling Center for Teacher Education, our diverse communication channels that we use and on which we can be reached, or the provision of diverse and innovative courses and events for teacher education students to increase their professionalism. We must not forget our many structural quality assurance measures that have improved teacher education, e.g. the framework concept for subject-specific teacher education that spans all 25 teacher education subjects, the overlap-free course planning, the reduction of examination peaks and the creation of transparency in course-work. And with our office at Wilhelmstraße 31, we have finally been able to give teacher education a place that all groups of people with concerns about teacher education can turn to: from school leavers, students and lecturers to stakeholders from the education administration, such as the regional council or the educational authority – we are available to everyone, we have offerings ready and have established structures. The fact that in just a few years we have actually succeeded in establishing the TüSE as an institution responsible for all matters relating to teacher education can therefore be seen as the most important milestone.

TÜSE: Thank you very much for your time, your well-founded answers and your perspectives on the TüSE and teacher education in Tübingen!



The TüSE into the Future: A shared view
towards the future of teacher education

PROF. DR. KARIN AMOS
is an educational scientist and has been Vice-President of Academic Affairs since 2013.

PROF. DR. THORSTEN BOHL
is an educational scientist and has been executive director of the Tübingen School of Education since 2015.

TÜSE: What role can or should the TüSE play in the future in society as a whole?

AMOS: In my view, the TüSE must succeed in reacting promptly to new societal and technical challenges and developing appropriate offerings and structures to deal with these challenges, such as for the topics of inclusion, migration, educational equality, education for sustainable development or for the challenges arising from increasing digitalization, artificial intelligence, machine learning or augmented reality.

We need to understand that education does not take place in isolation as formal education in schools but in a variety of ways in the overall context of people's lives.

In this respect, it will be necessary to question and redefine educational content against the backdrop of constant change.

At the same time, it should also be borne in mind that we use the term education to describe a complex process that encompasses both the development of professional skills and social abilities such as empathy and the ability to work in a team. Critical thinking and (self-)reflection can only develop when learners are presented not only with constant forward movement, but also the opportunity to pause and look back.

BOHL: New topics and challenges are hitting us at shorter and shorter intervals, are accelerating and are becoming increasingly global. We therefore need to find ways and forms of working that allow us to take up these issues and process them thoroughly. This dynamism can be seen, for example, in the number of proposals we have submitted since the TüSE was founded in order to acquire funding to tackle these pressing issues and new social challenges. One call for proposals is followed by the next one, meaning that we have now submitted our 75th application since the TüSE was founded in 2015. It is also not easy to absorb this dynamism at the level of studies and teaching and translate it into high-quality provisions.

It will not be possible to rewrite the module handbooks in the teaching subjects every few months. The changes must therefore be cleverly integrated into existing module handbooks.

We therefore need to find a good balance between curricular stability and flexibility to incorporate new topics and content.

TÜSE: What development trends can be identified for teacher education in general?

AMOS: Schools are a crystallization point for societal and political debate and negotiation processes. For example, we are currently observing discussions about the potential of dual training as a response to the shortage of teachers, the question of the consequences of digitalization for the relationship between the public and private sectors and, since PISA, the increased embedding in international education policy processes. These are very turbulent times with varying, sometimes contradictory requirements and developments. It seems important to me that fundamental questions are not lost. These include the emotional approaches of teachers and their awareness of the fact that they have a significant influence on young people's lives.

If teachers are to fulfil their main task of developing the potential of young people and fostering their personalities comprehensively, they must also be able to take on this responsibility.

BOHL: Contradictions and tensions are inherent to the core of pedagogical activity: there is never just one solution in pedagogical situations and teachers are constantly reacting to such demands on a daily basis. However, global issues and challenges, some of which are existential in nature, create new urgencies and complexities in everyday life. For the preparation of teacher education students for their profession, this means initiating precisely the assumption of responsibility mentioned by Karin Amos.

At the same time, we have to make sure that prospective teachers can also learn sufficient basic, central skills and requirements, such as designing challenging subject-specific tasks, acquiring substantial knowledge of their subjects and finding their way into didactic thinking, knowing and learning the importance of and strategies for classroom management, building relationships with children and young people, etc.

Teacher education that makes this possible provides an excellent foundation and good networking options for meeting all challenges and innovations. And I agree: we will also be increasingly faced with the challenge of changing study programmes, such as dual



teaching degrees, as well as different variations of cross and side entry as alternatives to the normal teacher education course, not only to accept them, but also to actively help shape them. It is precisely then that the aforementioned balance becomes even more challenging.

TÜSE: What medium and long-term developments do you hope to see for the TÜSE as an institution within the university?

AMOS: The task of the TÜSE will be not only to manage what has been achieved, but also to create structures with the help of which new societal challenges can be recognized and dealt with. Anchoring teacher education in the excellence strategy can be an attractive way of demonstrating the so-called changeability of the TÜSE.

The demand placed on the TÜSE will be to be able
to continue on its path in a stable manner even under structural changes
and continue to prove itself as a learning institution in turbulent times.

In terms of content, it would be promising if the TÜSE could succeed in taking a leading position in interdisciplinary teaching in didactics and educational research as well as in research on digitalization in teacher education and in expanding the area of internationalization in teacher education.

BOHL: The progress of the School of Education compared to the previous structure lies precisely in the fact that it not only manages, but actively shapes teacher education. There is no return. The TÜSE's participation in one of the clusters of excellence submitted shows the school's further development and willingness to innovate as well as its commitment to internationalization. But there is still a lot to do!

TÜSE: Thank you very much for your perspectives on teacher education and on the future of the Tübingen School of Education!

Work Area Study, Teaching and Student Advisory Services



Work Area for Study, Teaching and Student Advisory Services: Continuous further development and innovation of teacher education and counselling for teacher education students

Studying to become a grammar school or vocational teacher (the latter with a focus on social pedagogy), which is offered at the University of Tübingen, poses special challenges for its students that can hardly be compared to any other degree course at the university. On the one hand, two subjects need to be studied to an equivalent extent (at least in the grammar school teaching degree); in addition, teacher education students need to complete classes in Educational Science (“Bildungswissenschaftliches Begleitstudium”, BWS), which is a highly differentiated domain in itself. And finally, a prospective teacher must also integrate the practical phases of the orientation internship (“Orientierungspraktikum”, OP, approx. 3 weeks) and the school internship semester (“Schulpraxissemester”, SPS, approx. 12 weeks) into their studies. This requires a high degree of coordination and entails overcoming structural problems.

The aim of the Work Area Study, Teaching and Student Advisory Services is to identify the – mostly structural – problems and organizational challenges that arise in this context, to point them out clearly and, wherever possible, to find solutions to them in order to enable teacher education students at the University of Tübingen to complete their studies as smoothly as possible and to prepare them optimally for their later, highly relevant profession in society.

Our strategy is to include all those involved in teacher education at the university through clear and efficient structures and to be able to react quickly and as unbureaucratically as possible to problems specific to the teacher education programme. However, we don’t just want to act reactively and remedy shortcomings, but also to be proactive and take the initiative and create sustainable and innovative provisions for teacher education students so that they can ultimately meet the new societal challenges on the horizon in the teaching profession. For example, we are currently exploring whether German as a second language can be implemented as a supplementary subject in Tübingen.

The structure of the work area is initially determined by a streamlined committee structure. The central body is the Teaching Board, in which all the key players in teacher education (representatives from all faculties and subjects involved in teacher education, student representatives, representatives from the central administration, the examination offices and the Data Center) at the University of Tübingen meet once a semester. Some of the achievements brought about by the Teaching Board (and to some extent by the predecessor body of the AG Umstellung) include (a) the possibility to complete a limited number of Master’s credits during the Bachelor’s degree course in order to avoid delays in study time; (b) preliminary work in extension subjects is also made possible during the Bachelor’s degree course (of the main subjects); (c) the early admission to the Master’s degree course is made possible.



The inclusion of the SPS in the Master’s degree programme is made possible in order to be able to complete the SPS in the first semester of the Master’s degree programme, as intended in the curriculum.

The Teaching Board has also identified key problems regarding the feasibility of the teacher education programme. These arise from the multiple subject structure within the teaching profession, e.g. overlapping courses, the accumulation of examinations or the lack of transparency of coursework. Addressing such structural problems and challenges in teacher education is part of the [Quality Package for Studying and Teaching in Teacher Education](#).

In addition to the Teaching Board, the Student Board was recently established as a committee. It is mainly made up of student representatives from the student councils and student unions and meets twice a semester. Here, teacher education students bring up current topics and study-related problems and discuss possible solutions. These are in turn discussed intensively in the Teaching Board, where they are regulated for all subjects.

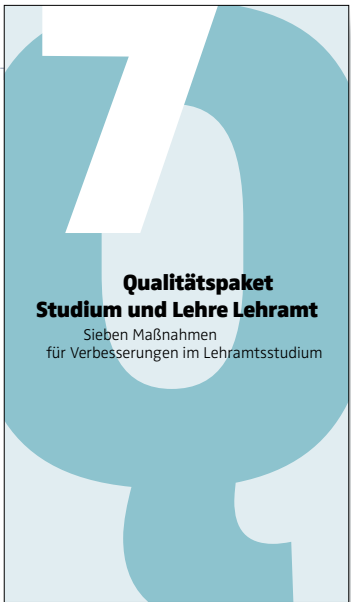
The second major pillar in the conception of this work area is the establishment of differentiated information, support and counselling services. The centrepiece is the [TüSE Information and Counselling Center for Teacher Education](#), which is run by employees with great expertise, commitment and empathy on the first floor of the TüSE building at Wilhelmstr. 31. Here, professional, specific teacher educational and interdisciplinary advice is provided in one place. Even the most complex organizational issues relating to teacher education can be resolved here.

There is also an extensive range of informational events conveying all aspects of the teacher education programmes, for example on starting the B.Ed. course, the transition to the M.Ed., the practical semester, the traineeship after graduating or study alternatives to the teacher education programmes. Twice a semester, we offer teaching degree students through the [School Talks](#) event series the opportunity to examine and discuss relevant everyday topics (e.g. conflicts in the classroom; teachers as experts and confidantes; migration stories in the classroom) from a multiprofessional perspective: For each topic, a practitioner and a researcher are invited. The series are very popular among students.

There are a few other components in this now quite large department we are dealing with, such as the graduation ceremony for our Master graduates, which was held for the first time last October (see photo above). All of this is intended to ensure that our teaching degree students feel at home at their alma mater and are ultimately well prepared for the second phase of their training.



Quality Package for Studying and Teaching in Teacher Education – Seven measures to improve teacher education courses



According to its statutes (§1, para. 2), quality management in the context of teacher education is another one of the TüSE’s central tasks.

In view of the above-mentioned, notoriously complex basic structure with interfaces to more than 25 teaching subjects, this is no easy undertaking, especially as improvements must always be made collaboratively rather than with force. On the basis of a thorough analysis of the situation, the TüSE has developed a strategy for substantially tackling and solving several problem areas.

In 2020, this resulted in the Quality Package for Studying and Teaching, which consists of seven measures to improve the teacher education programme. It is important to emphasize that the problems identified are largely typical of teacher education or are inherent to the structure of teacher education and therefore also occur at other teacher education sites. They are not easy to solve yet must be tackled with patience and a variety of steps, jointly and in continuous consultation with many stakeholders.

The seven measures are outlined below (more details can be found in the brochure available for download on the TüSE website), which are currently in various stages of completion; some have already been resolved, while the process of solving others is still ongoing.

MEASURE 1: ESTABLISHMENT OF AN EXPANDED COUNSELLING CENTER FOR TEACHER EDUCATION

1

Initial situation: The teacher education programme has a complex basic structure (two to three teaching subjects, Educational Science area, internships). The changeover from the state examination to the Bachelor’s and Master’s structure (B. Ed. and M. Ed.) requires the design of study courses and transitions. For quite a few teaching degree students, the question arises (especially after their internship) as to whether their career choice is the right one. Societal dynamics are added to this, and psychological and financial burdens can arise. In short, the need for counselling is increasing and requires nuanced, tailor-made services.

Objective: The TüSE would therefore like to provide a professionally organized student counselling service specifically tailored to teacher education that covers the entire range of student concerns.

Measures: In recent years, the TüSE has established an [Information and Counselling Center for Teacher Education](#) on the basis of a research-based overall concept; the existing structure has been considerably upgraded, professionalized and further developed in terms of space, personnel, and concept.

Status: The measure has been successfully implemented. Further innovations and quality improvements are a natural part of everyday work.



MEASURE 2: INTENSIFICATION OF COOPERATION WITH THE STUDENT ADVISORY SERVICES IN THE TEACHING SUBJECT DEPARTMENTS

2

Initial situation: In addition to subject-related questions from teacher education students, which are clarified by subject advisors, more complex interdisciplinary questions require university-wide agreements in order to be able to implement them uniformly across all teacher education subjects.

Objective: The TüSE would like to ensure a binding, uniform and coordinated flow of information among all student services so that teaching degree students do not receive varying information – especially regarding complex issues.

Measures: The TüSE has therefore intensified the flow of information with the academic advisors, e.g. through regular meetings, central information materials and clear and transparent responsibilities. In addition, academic advisors from other departments are invited to the regular meetings of the Teaching Board and informed via the minutes. This ensures a systematic flow of information and participation in the quality assurance process.

Status: Implementation has been completed. Information flow and contacts must of course be maintained regularly.

MEASURE 3: WRITING DOWN ALL ESSENTIAL REGULATIONS IN THE AREA OF THE NEW B. ED. AND M. ED. STUDY PROGRAMMES

3

Initial situation: The change to the programme structure in 2015/2016 brings with it a wealth of desirable, but also undesirable consequences. These relate in particular to issues of transition and the recognition of academic achievements. The situation becomes even more complicated due to the different teacher education structures at the teacher education institutions in Baden-Württemberg when uniform procedures are required.

Objective: The TüSE has therefore set itself the goal of clarifying complex issues individually, initially for the Tübingen site, also taking into account the legal regulations, and to write down this clarification in a suitable form in order to make it accessible to teacher education students and all student services at the University of Tübingen and to inform the other teacher education sites in Baden-Württemberg.

Measures: Several so-called information cards on teacher education have been designed for this purpose.

Status: So far, five information cards have been produced on the following topics: 1. information on the Bachelor’s thesis in the Bachelor of Education; 2. deadlines for the transition to the M. Ed.; 3. changing of the degree programme to the B. Ed. and M. Ed. if the First State Examination is not passed; 4. bringing forward Master’s courses in the B. Ed.; 5. extension subjects. Further information cards are in preparation.



	Mo	Di	Mi	Do	Fr
08 - 09					
09 - 10	A	F	C	B	A
10 - 11					
11 - 12	F	B	A	A	B
12 - 13					
13 - 14	E	D	BWS	C	D
14 - 15					
15 - 16	F	C	E	D	D
16 - 17					
17 - 18	B	E	E	C	F

MEASURE 4: INTRODUCTION OF A MODEL TO AVOID OVERLAPPING OF COMPULSORY COURSES IN THE TEACHER EDUCATION PROGRAMME

4

Initial situation: The issue of freedom from overlaps is a typical and complex problem area at almost all teacher education sites. As teaching degree students study at least two teaching subjects as well as Educational Sciences, (compulsory) courses are often offered at the same time. As only one course can be attended in this case, this quickly leads to delays in the course of study, which is regularly reflected in evaluation results.

Objective: The aim of the TüSE is to introduce a model for reducing the overlap of compulsory courses at the University of Tübingen by working with the university stakeholders involved.

Measures: The TüSE has been working continuously on this topic since 2019 and has organized numerous working meetings and events to learn about and examine various models for reducing overlaps in studies. The topic has been put on the agenda within the university and discussed with the colleagues involved, the central administration and the Rectorate. In 2020, the TüSE was commissioned by the Rectorate to advance the introduction of a model to realize a degree programme at the University of Tübingen that is as free of overlaps as possible. This objective has since changed: it is now no longer 'just' about introducing a model for teacher education courses, but about a completely new, digital administration of courses and room allocation for all degree programmes at the University of Tübingen.

Status: After many preliminary clarifications, a public call for bids was issued in 2022. The contract was awarded to the company Mathplan. The first steps are currently underway.

MEASURE 5: ANALYSIS AND REDUCTION OF PEAK LOADS DUE TO THE ACCUMULATION OF EXAMINATIONS IN CERTAIN SUBJECT COMBINATIONS

5

Initial situation: Due to the study of two teaching subjects and Educational Sciences, there is an uncoordinated accumulation of examinations, especially in certain subject combinations, according to the initial situation based on feedback from teaching degree students.

Objective: The TüSE aims to systematically investigate the accumulation of examinations in all teaching subjects and then take measures to improve the situation.

Measures: In a complex process, the module handbooks and examination regulations of all teacher education subjects and then the most common subject combinations were examined (see Fig. page 35). Discussions were then held with representatives of subjects in which high workload peaks occurred. However, the study revealed that the central problem is not always the peak workload due to examinations (which is obviously balanced out quite well by the central requirements for each degree programme), but 1) the highly varying workload that is



	Sem.	Fach 1	Fach 2	Bildungsw. Stud.	Summe	
B. Ed.	1	THE KL / HA 1 1	KL 5 1	—	7	angemessen
	2	KL 1	KL 3 PP 2	KL 1	7	grenzwertig
	3	KL / HA / MP KL / THE 2 1	KL 2 KL / LP 1	—	6	
	4	KL / HA / MP 1	KL 1 PP 4 LP 1	—	7	sehr hoch
	5	KL / HA / MP MP / HA 1 1	KL 1	MP / SP 1	2	
	6	KL / HA MP / HA 1 1	—	—	2	
M.Ed.	7	—	KL 1	—	1	
	8	MP HA 1 1	KL / HA / MP PP / LP 1 1	KL 1 MP 1	6	
	9	KL / HA 1	KL 2	KL 2	5	
	10	MP 1	KL / HA / MP PP / LP 1 1	KL 1	4	

5

demanded per ECTS in everyday study life or in some cases is not mapped in ECTS, as well as 2) the non-transparent workload for coursework, some of which is subject-specific and requires a great deal of effort (and some of which is obviously assessed) in addition to the examinations during the semester.

Status: The analysis has been completed. Discussions are currently continuing with the subjects concerned on the points outlined. In addition, the TüSE has initiated a joint letter from the TüSE, the Vice-President of Academic Affairs and the Deans of Academic Affairs in the Executive Board of the major teacher education faculties to all Deans of Academic Affairs. In this letter they request that in future all degree programmes at the university, not just the teacher education programmes, indicate in good time in the ALMA course portal which coursework is required for the respective module in order to ensure the necessary transparency in the coursework.

MEASURE 6: INSTITUTIONAL ESTABLISHMENT OF AN INTEGRATIVE BODY FOR ISSUES RELATING TO THE TEACHER EDUCATION PROGRAMME

Initial situation: The teacher education programme is highly interconnected and numerous stakeholders are involved. In addition to the TüSE, students and lecturers from the more than 25 teacher education subjects, these include the Vice-Rectorate for Academic Affairs, several actors from the Central Administration (Division III: Academic Affairs) and the Examinations Office. Until 2021, the University of Tübingen only had the so-called AG Umstellung, which followed the previous AG Lehrerbildung and accompanied the conversion process from the state examination to the Bachelor's and Master's structure. Even after this transition, issues relating to teacher education programmes still need to be clarified on a regular basis (e.g. recognition issues, transition between B. Ed. and M. Ed., evaluation and quality management). It was therefore urgently necessary to create a new committee with close connection within the university.

Objective: A new committee should clarify issues relating to teacher education in a binding and collaborative manner. The committee should be institutionally anchored for the long term.

Measures: In 2021, the Teaching Board was therefore introduced with the support of the Rectorate, integrated into the TüSE committee structure and written into the TüSE statutes. The statutes also stipulate a binding integration with the Senate Commission for Studies and Teaching. The introduction of the Teaching Board gives the TüSE formal responsibility for the area of teaching and learning in the teaching profession. The Teaching Board is headed by the Deputy Director of the TüSE for study, teaching and student advisory services.

Status: The measure has been successfully completed with the introduction of the Teaching Board, which has met regularly once a semester since 2021.

6

MEASURE 7: PROFESSIONAL COMMUNICATION WITH AND FOR STUDENTS

7 Initial situation: From the outset, it was important to maintain close contact with teaching degree students in order to be ‘close’ to their needs and concerns and to be able to identify and clarify any problems. However, it is not easy for teaching degree students to set up an interdisciplinary student representative body in the teacher education program. Teaching degree students are anchored in the more than 25 teacher education subjects, with varying subject combinations. They are primarily socialized in their subjects – not least due to the high proportion of subject-specific studies in the B. Ed. degree – which means that they feel a certain distance to interdisciplinary teaching topics. Formally, there are no election procedures or committees for teaching degree students representatives. Experience has shown that the fluctuation of teaching degree students involved in student representation is high.

Objective: The TüSE strives for close cooperation with teaching degree students, but this should be organized with a low threshold and low level of formality.

Measures: After various attempts to support and cooperate with an overarching teaching degree student council, the TüSE introduced the [Student Board](#) in 2022, in which representatives of the student councils of almost all teacher education subjects are involved and provide information on current topics, discuss them and initiate solutions to problems together with the TüSE. In contrast to the other boards of the TüSE, it is deliberately not anchored in the statutes in order to avoid demanding formalities such as election procedures and to enable low-threshold and flexible work as well as broad and flexible participation.

Status: The Student Board has now met several times with very good participation and feedback. Student topics have been addressed directly on several occasions. The TüSE is obviously increasingly perceived by its teaching degree students’ councils as a reliable partner that takes up both subject-specific and interdisciplinary concerns of teaching degree students and promotes solutions. We are very pleased about this!

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The TüSE Information and Counselling Center for Teacher Education – An exclusive offer for those interested in teaching and teaching degree students at the University of Tübingen

Social change processes, which are progressing rapidly and, in some cases, coming to a head, pose particular challenges for future generations and therefore also for (prospective) teachers. Preparing future teachers for these challenges is one of the major tasks facing teacher education. This includes the responsibility of universities to create a supportive framework that provides orientation for teaching degree students and accompanies them in their development, from the decision to study to the transition to the teacher training phase. Numerous indications of a corresponding need have been found for years not only in research findings on teacher education, but are also reflected in the recommendations of the Standing Conference of the Ministers of Education and Cultural Affairs. With the establishment of the Information and Counselling Center for Teacher education, an institutionalized service has been created that is specifically aimed at those interested in becoming teachers and teaching education students.

The starting points of the TüSE Information and Counselling Center are the complexity and professionalization of teacher education courses and the associated need for aptitude- and profession-oriented self-reflection on the part of prospective teachers.

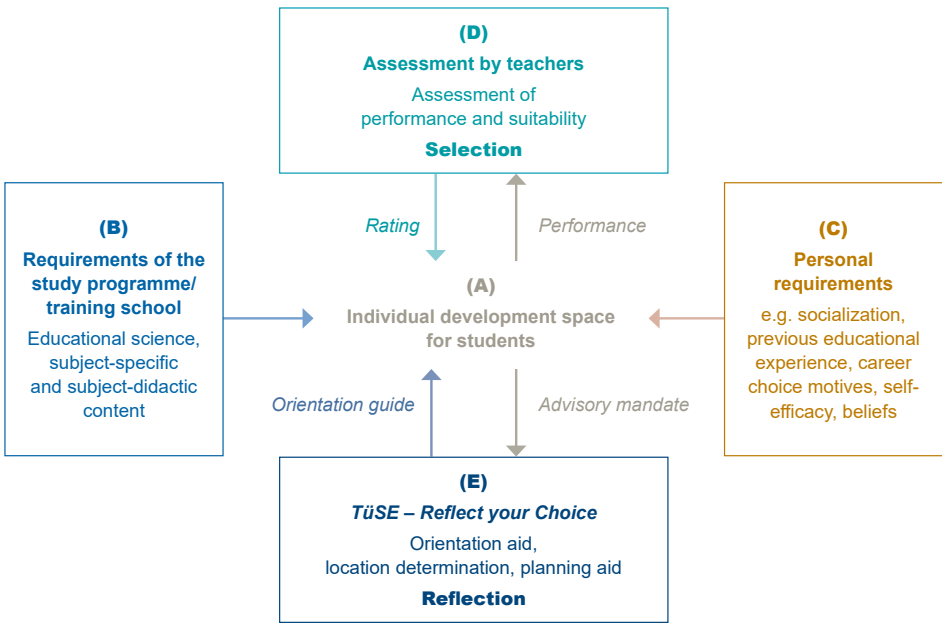
Along the student lifecycle, needs-based and tailored information and advice formats are provided to accompany the teacher education programme in Tübingen throughout its entire course.

The range of services includes low-threshold information formats. These include

- counselling by phone,
- information material on the study programme teacher education in print and digital form (including the comprehensive brochure Infos und Links. The guide for grammar school teacher education),
- information events at every important milestone before and during the entire teacher education programme and
- a differentiated digital information offered via website and [social media](#).

In addition, those seeking advice have the opportunity to receive individual counselling on more complex issues before and during their entire teacher education study programme in a personal meeting. This general counselling service is supplemented by special formats, such as counselling in small groups during the course of study as part of [Profil](#). Another offer is the one-off consultation *TüSE – Reflect your Choice*, which can take place at the transition from the Bachelor programme to the Master of Education as part of the Master of Education Assessments (TüMAS) and serves as professional orientation, development-related assessment, and targeted further planning in the teacher education course.





All information and advisory services are embedded in the research- and theory-based overall concept of the Information and Counselling Center for Teacher Education.

Its core element is the clear separation of reflection and assessment, which is consistently reflected in the design of all offerings across all formats.

In this model, it is assumed that professionalization takes place in an individual development space (A), which is framed on the one hand by the objective requirements of the course of study and the training school (B) and on the other hand by personal prerequisites (C). This perspective is compatible with the psychologically oriented and educationally adapted supply-use model of teaching research, which sees learning processes as dependent on the quality of the learning provision as well as on the individual situations and educational contexts of the learners.

For teachers, learning and development results are primarily visible in the form of performance as they assess it (D). Performance assessment is therefore professional feedback for students that provides them with important information about their current level of development and, in connection with this, possible areas where action is required. If students fall short of formally set learning and development goals, a selection process can be set in motion at this point (failing exams, tests, internships). The relationship between teachers and students is therefore inevitably an asymmetrical one, as students are partially dependent on teachers and their assessments.

On the other hand, the TüSE Reflect your Choice support (E) offers students a protected environment in which to clarify their personal concerns. To make this possible, it counteracts an asymmetrical relationship between those seeking advice and those providing it in three ways.

Firstly, students generally make use of the counselling services on a voluntary basis.

Secondly, they define the subject of the conversation themselves and formulate a corresponding counselling assignment. Those seeking advice are always seen as experts in their own life situation.



Thirdly, counselling is only provided by trained counsellors who are bound by confidentiality. They are not lecturers or full-time teaching staff. All discussion results are subject to data protection and are not passed on to third parties. This counteracts a power imbalance between those seeking advice and those providing it and enables them to meet in a confidential setting. In this way, recommendations for student counselling are implemented that serve to prevent basic ethical conflicts between performance assessment and personal counselling.

The concerns of those seeking advice are always the starting point and focus of the provision of information and counselling.

These are considered in the overall context of students’ life situations and are dealt with in a resource- and solution-oriented manner. Their individual backgrounds and prerequisites are taken into account as well as the personal, organizational and societal context of the university, school and teaching profession in which teaching degree students operate. The advisors take on the task of creating a space for reflection that is free of judgment. They moderate the discussion using systemic methods and frame it with facts about organizational and teaching-related requirements in order to point out opportunities and limitations within the given structures. In this context, the knowledge provided is merely an offer for students, and can be used to clarify personal questions and construct tailored solutions as required. With the necessary information on study and career-related plans, prospective teachers are supported in making appropriate decisions in a self-determined manner. In this way, the advisors support teaching degree students in expanding their options for action within their individual development space, in reflecting on and formulating personal goals and in planning realistic steps with a view to their professional biographical future. The procedure described reflects the guidelines and the understanding of counselling of the Information and Counselling Center for Teacher Education, which is based on national and international counselling standards and is implemented across all formats in all provisions.

The fact that the advisors can take on the role described is also made possible by the intensive networking and cooperation of the Information and Counselling Center.

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This is achieved, for example, through committee work or as part of joint information events and other cooperation and exchange formats. On the one hand, the TüSE Teacher Counselling Service staff gain insights into important teacher education processes, which can be integrated into the advice given to those who are interested in the study programme teacher education and students who are already studying within this programme. On the other hand, contact with those seeking advice provides valuable insights into their concerns and perspectives, which in turn can be reflected into the teaching-related structures within and outside the university. The resulting overall view enables the TüSE Information and Counselling Center to act as a central interface in the teaching profession for students as well as for teaching-related stakeholders and institutions. At the same time, it makes an important contribution to the further development of teacher education in Tübingen through this intertwining and the associated synergy effects.

Overall, the TüSE aims to be a place for students within the framework of a complex and differentiated teacher education programme that is also physically accessible with the building at Wilhelmstraße 31, where orientation and support during studies can be experienced.

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Work Area Professionalization



Profession and Professionalization in Teacher Education – Systematic networking, reciprocal transfer and critical reflection of the phases of teacher education

In view of the overall social significance of the field of activity of (future) teachers, there is no question that the best possible options for the acquisition and development of professional skills must be provided in teacher education. How this can be achieved in view of the enormously complex requirements profile of the teaching profession is anything but trivial, not least due to the complex relationship between research-based and application-oriented studies

The aim of the work area Professionalization is to shed light on various aspects of the teaching profession and – in addition to the courses offered by the subjects – to develop profession-related measures and occasions for reflection with the help of which the profession itself and the associated challenges and contextual conditions can be adequately addressed within university teacher education.

In doing so, it is important to keep the uniqueness and ‘dignity’ of science and practice in mind as well as to consider their complex relationship. During their studies, teaching degree students can already gain practical experience in the school in a variety of ways and are given the opportunity to reflect on and relate the experiences gained with specific reference to scientific theories and empirical research findings in preparatory and follow-up courses at the university.

The target group of the work area is therefore both teaching degree students and lecturers in teacher education. Furthermore, the work area addresses the issues of schools as workplaces and the so-called 3rd phase of teacher education, i.e. further and continuing education activities as well as their stakeholders, teachers, multipliers, etc.

With a view to the increasingly important reciprocal transference processes, the orientation and working methods of the work area are characterized by a dialogue among all the stakeholders involved in higher education teacher education (study, teaching and research, 1st phase) and school, training and further education practice (2nd and 3rd phase).

In these transference processes, the focus is always on the mutual understanding and adaptation efforts and the constitutive networking of the stakeholders.

The measures and offerings in the TüSE’s work area Professionalization are aimed in four directions:

Firstly, teaching degree students in Tübingen are offered attractive opportunities for an intensive, reflective examination of their future profession.

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There are a variety of innovative formats for this in both the compulsory and supplementary areas, such as the [portfolio](#) project for reflecting on professionalism topics or the practical formats [Lehr:Transfer](#) or [Lehr:werkstatt](#) as alternatives to the orientation internship.

Within the [TüSE Information and Counselling Center for Teacher Education](#), further offers are provided for teaching degree students to help them reflect on their own career aspirations, for example in the project [Professionalization through Counselling in Teacher Education \(ProfilL\)](#). As part of the [Educational Science degree programme](#), teaching degree students acquire professionally relevant personal skills, which are taught to them by qualified practitioners from the second phase.

The [School Talks](#) series of events offers current and fundamental discussions about the teaching profession as well as school and teaching events.

Secondly, the TüSE promotes projects and offers support lecturers in teacher education in balancing the relationship between discipline and profession and systematically taking their future professional field into account.

This includes, for example, the project [Coherent, innovative and profession-related teacher education through the systematic integration of subject-specific science and subject didactics in teaching](#), which supports dedicated profession-related courses in subject-specific teacher education.

Thirdly, our aim is to intensify cooperation between lecturers, students and school stakeholders and to bring them together in different and experimental formats.

These include numerous TüSE projects and events, some of which are also in other areas of work, such as the series [Promoting Innovative Projects! Tübingen’s Projects in the Qualitätsoffensive Lehrerbildung 2019-2023](#) or the additional qualification [Lehr:Forschung – differenzieren, reflektieren, diskriminierungssensibel unterrichten](#).

Fourthly, the TüSE offers further education and advanced training courses for teachers via several projects, for example in the [teacher education and further training](#) project and as part of the Tübingen digital training initiative.

The courses offered by the TüSE aim to deal with the conflicting demands of relating scientific and research-based standards to concrete challenges in the professional field, in the knowledge that they do not offer simple or linear solutions, but instead do justice to the complexity of the field.

In the future, the work area Professionalization will take on a new shape and will focus even more strongly on the task of transference and translation.



**Lehr:werkstatt –
Long-term school internships for teaching degree
students in tandem with a teacher**

With the Lehr:werkstatt, an alternative long-term internship opportunity has been offered at the Tübingen site for teaching degree students in the Bachelor of Education (B. Ed.) since the 2016/17 school year.

On the one hand, the Lehr:werkstatt project is a response to the desire of many prospective teachers to gain intensive practical experience during their studies. On the other hand, individual 1:1 support at the school as a place of learning, preparatory and follow-up seminars at the university, and supplementary skills workshops ensure a high-quality supervision and support throughout the entire practical training period.

Last but not least – and this is also shown by the continuously increasing number of participants – more and more teachers appreciate the regular support provided by the student teaching assistants and see that the reliable work in tandem creates the freedom to provide individual pupils with more intensive support or to try out new teaching methods. By working together to improve the quality of teaching, the tandem partners can increase pupils’ learning success.

It is also known from the research literature and empirical studies on professionalization processes in teacher education that an increase in internship quantity alone is not a characteristic of internship quality: Longer practical phases do not simply – and certainly not automatically – lead to the development or expansion of professional skills among prospective teachers and can even have deprofessionalizing effects. Even if it proves to be extremely complex from a research methodology perspective to identify a sufficient number of potential influencing factors on learning in the practical placement, there is nevertheless a broad consensus on the importance of the quality of supervision and support provided by schools and universities in order to stimulate learning and development processes of teaching degree students during practical phases in schools. Findings from the accompanying research for this project show that the quality of the relationship between the students and the mentors supervising them, as well as a balance between supportive and challenging mentor-mentee interactions, are key indicators for the skills-building design of such a practical phase.

The Lehr:werkstatt concept therefore provides the opportunity for a teaching degree student (Lehr:werker:in) to work in a 1:1 tandem constellation with a teacher (Lehr:mentor:in) continuously throughout the school year in both the classroom and in everyday school life.



Students spend a total of one day a week at their placement school during the lecture period, and there are two flexible block phases during the lecture-free periods. In university-organized preparatory and follow-up seminars, students can then systematically reflect on their practical school experience in a goal- and topic-oriented manner under supervision and receive suggestions for their work in everyday school life and teaching. Thirdly, university-organized skills workshops, which are designed by experts from academia and school practice, offer Lehr:workers and Lehr:mentor:innen the opportunity to further develop their collaboration as a tandem and to further develop and expand their respective professional skills. In this way, the Lehr:werkstatt can contribute to improving the quality of teacher education and further training by linking the theoretical content taught in university teaching with practical experience from everyday school life:

“You have much more time than in the three weeks of the orientation internship to really adjust and internalize your role as a teacher, to challenge yourself, to try things out, to reflect on your career choice and gain experience for the practical semester and traineeship without being judged.” (Lehr:werker, class of 2021/22)

After the Lehr:werkstatt was launched in Bavaria in the 2011/12 school year on the initiative of the Eberhard von Kuenheim Stiftung, the Lehr:werkstatt was also launched in Baden-Württemberg in the 2016/17 school year, initially in Tübingen and for the duration of one school year also in Ulm, adapting to state-specific conditions. Following agreements between the Ministry of Culture and Science, the Prorectorate for Academic Affairs at the University of Tübingen, the state study seminars and the Tübingen School of Education, the Lehr:werkstatt was implemented at the TüSE in cooperation with the Neumayer Stiftung. The project is financed by the University of Tübingen and the TüSE’s own funds, third-party funds from the BMBF’s Qualitätsoffensive Lehrerbildung funding line and funds from the [Neumayer Stiftung](#), which has been supporting the project alongside Tübingen – with personnel and material resources at four other new locations since January 2022: At the Heidelberg School of Education, the Karlsruhe Institute of Technology, the University of Mannheim and the Professional School of Education Stuttgart-Ludwigsburg. The TüSE acts as the central coordination office for the Lehr:werkstatt network in Baden-Württemberg; in addition, the Baden-Württemberg locations cooperate with the four Bavarian Lehr:werkstatt locations (Augsburg, Erlangen-Nürnberg, Passau and Würzburg) and together form the Lehr:werkstatt network association.

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Lehr:Transfer –
School is more than just lessons

The long-term aim is to establish the Lehr:werkstatt as a permanent and comprehensive provision in the university landscape. More information about the expansion of the Lehr:werkstatt in Baden-Württemberg can be found on the website of the Tübingen School of Education.

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The **Neumayer Stiftung** is committed to a society characterized by social cohesion and equal opportunities and, as a foundation, sees it as its responsibility to contribute to a society in which participation, inclusion, respect, democracy and charity are the cornerstones of coexistence. For many students, taking on civic responsibility in today’s diverse and heterogeneous society also means looking beyond the focus of purely imparting specialist knowledge in the educational landscape. The Lehr:werkstatt project helps prospective teachers to see things from this perspective, among other aims in order to provide them with the tools of the trade of practical professional content that they will need as the educators of tomorrow to take on responsibility in everyday school life. The aim of the Neumayer Foundation is to sustainably integrate the Lehr:werkstatt programme into the training of prospective teachers through its funding.

Students on teacher education courses educational experiences that go beyond the boundaries of the subject or subject areas, e.g. in the areas of social learning and personal development, as well as a clearly accentuated practical connection to their future professional field (e.g. in the form of school internships or other practical opportunities). Behind this expectation lies an awareness that school is more than just teaching – especially in light of current socio-political developments (e.g. heterogeneity, multilingualism, inclusion, migration, the coronavirus pandemic...).

Study groups, remedial teaching, break-time activities, homework supervision, projects and initiatives, extra-curricular activities, counselling, individual support, etc. are also part of everyday school and teaching life and are intended to support processes that promote the psycho-social development of pupils in addition to their subject-specific skills and academic learning.

There are many such tasks at schools that go beyond subject-specific teaching. It therefore makes sense for teaching degree students to get to know these different areas of everyday school life and gain practical experience in addition to studying subject-specific, didactic and Educational Science content.

This is where the Lehr:Transfer project comes in and actively supports cooperation between teaching degree students and schools. Both sides can benefit from this: The teaching degree students get involved in various school areas, receive payment, and reflect on their practical experience against the background of the skills and knowledge they have acquired during their studies. This promotes the transference between theory and practice, which is otherwise considered difficult.

This enables pupils to benefit from a wide range of additional opportunities. Through contact with motivated teaching degree students, they can get to know new perspectives and orientations and gain an insight into teacher education and various study options.

The Lehr:Transfer project has been a successful cooperation between schools and teaching degree students in Tübingen and the surrounding area since 2007. All schools within driving distance are asked via various information channels to submit offers for homework supervision, remedial teaching, study groups, individual support, etc. There are currently requests from almost 100 schools at over 50 locations in the region. The school types represented include general and vocational grammar schools, secondary schools, comprehensive schools, elementary schools (in some cases with “Hauptschule” and/or “Werkrealschule”), vocational schools, vocational colleges and special education institutions. Interested students can view the offers on our password-protected ILIAS platform at the University of Tübingen and contact the schools directly.

In order to accompany the practical experience of the teacher education students and to support reflection on their school activities, the TüSE also offers all students taking part in the project the opportunity to acquire the Certificate of Social Engagement.

Interested schools and students can apply quickly and easily at any time directly via online forms on the Tübingen School of Education project website.

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**ProfiL –
Occupational counselling as a space for resource-oriented
self-discovery processes**

The demands placed on teachers are multiplying rapidly and becoming increasingly complex. At the same time, future teachers begin their teacher education with very different entry requirements and must find suitable connections to the standardized training programme in order to develop their own coherent educational path.

ProfiL counselling offers a protected, non-judgemental and open-ended space for reflection, which is necessary if students are to acquire the (self-)knowledge relevant to their career, which sharpens the contours of their individual development tasks, expands their scope for perception, interpretation and action and gives them more creative power over the upcoming professionalization process.

Two counselling formats are available for these resource-oriented self-discovery processes: Bachelor students can work on manualized elective topics within ten counselling sessions spread over the entire Bachelor period: ideals, career choice motives, stress, dealing with difficult situations, teacher-student-relationship, etc. Counselling for Master’s students during the practical semester or afterwards remains thematically open so that important observations and experiences can be reflected upon and the interweaving of biography and professional action, i.e. the controlling function of biographical leadership experiences, can be made aware of. In both formats, the counselling is aimed at constant groups of four to six participants. The counsellors are trained in systemic counselling and come from outside the university.

The individual groups develop very different focuses over the course of the counselling process, which the participants find very supportive because they find opportunities for very personal guidance topics such as fears, worries and doubts about being a teacher. Such an opportunity to reassure oneself by explicating uncertainties is seen as very beneficial:



“I find it very helpful [...] that you can also make yourself so open and vulnerable in relation to the teaching profession and what worries and fears there are [...] because it is very much taken for granted somehow.”
(Participant ProfiL, B. Ed.)

“Many don’t dare to talk about it in everyday student life because it’s seen as a weakness. These are almost taboo subjects.”
(Participant ProfiL, B. Ed.)

In order to move beyond these very personal descriptions of the status quo to potential future changes and to perceive what lies within the respective realm of possibilities, students need long-term and perspective-rich support such as that provided by ProfiL. In this way, the development of a stable teacher identity can already begin during the course of study.

The ProfiL project will be funded until the end of 2023 as part of the second funding phase of the Qualitätsoffensive Lehrerbildung by the federal and state governments. It will then be integrated into the TüSE Information and Counselling Center in a modified form.

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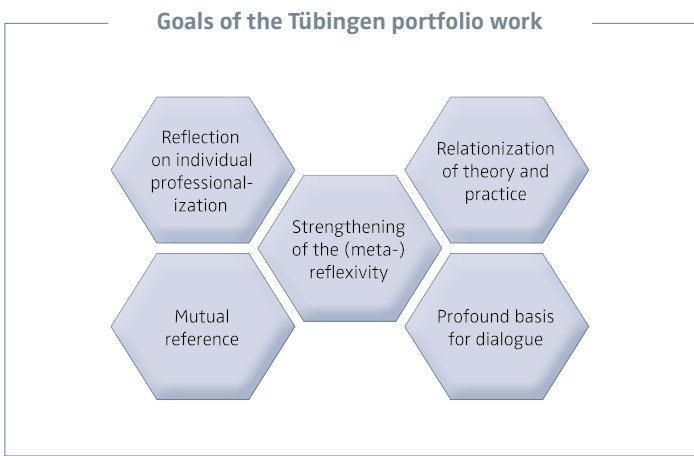
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**Portfolio work – A contribution
to the relationship between teacher education and school practice**

The central aim of the Tübingen portfolio is to contribute to a (meta-)reflexive attitude in teacher education by adopting and relating different theoretical and empirical perspectives on the teaching profession and the school as a field of activity.



Both during the process of professionalizing prospective teachers and in their later professional activities, the ability to take a multi-perspective view is of great importance as many professional tasks cannot be standardized.

The development of portfolio work is supported by integration into the Portfolio BW network. At the same time, intensive research was conducted as part of the project in collaboration with the research network Portfolio Work in Education. A systematic analysis of the potential of portfolio work was carried out, corresponding empirical evidence was systematized internationally and a measuring instrument for students' attitudes towards portfolio work was developed. The project Portfolio Work Practice compares various portfolio concepts in Germany, Austria and Switzerland.



Portfolio work will be an integral part of Educational Science studies ("Bildungswissenschaften") until the end of the project period in 2023. In addition, the integration of the portfolio into subject-didactics has been advanced.

These developments can create a variety of opportunities for teacher education students to reflect on and relate their different study modules from multiple perspectives (increasing coherence).

The e-portfolio implemented via the ILIAS internet platform ensures easy handling and individual support. This facilitates the long-term storage and use of the portfolio entries and a possible exchange of entries between students and with lecturers.

The portfolio project will be funded until the end of 2023 as part of the second funding phase of the Qualitätsoffensive Lehrerbildung by the federal and state governments. After the end of the project, portfolio users will have access to an explanatory video, which is currently being created and will then be available on the TüSE website.

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Conditions for Success
Subject-specific online training courses for teachers
on the effective use of digital media in the classroom

Digital media offer a wide range of potential for supplementing analog learning opportunities, creating new learning opportunities and thus promoting teaching and learning processes. While digital media are increasingly finding their way into classrooms, their potential for teaching and learning processes is not always fully exploited. The question therefore arises as to how teachers can be supported in using digital media in a meaningful way in the classroom and in designing teaching and learning environments that promote learning.

The aim of the research and development project within the Tübingen Digital Training Initiative in teacher training and further education is to impart knowledge and the necessary skills relating to the effective use of digital media in the classroom.

The focus is on the conditions for the success of effective teacher training. To this end, various subject-specific online training courses are being developed, the acceptance and effectiveness of which will be examined using a comprehensive evaluation concept that also addresses the implementation of what has been learned in practice.

The courses, which initially focus on modern foreign languages and natural sciences, were developed together with teachers, subject didactics experts, subject department leaders and teachers in order to enable a high degree of integration of practical and scientifically based content.

A central element of the online training courses are self-study modules with short video-based learning modules for acquiring or updating relevant media pedagogical knowledge, which can be completed at individualized pace and times. In addition to relevant concepts and study results, examples of simple digital tools and their possible uses in the classroom are presented here.

Furthermore, authentic case vignettes, so-called staged videos, are used as a basis for discussion. The collegial exchange about two variants of the same lesson, which differ only in their more (good practice) or less (conventional practice) learning-effective use of digital media, promotes a critical view of the thoughtful use of digital media. At the same time, the teaching and learning situations shown can offer initial suggestions for changes in the learners’ teaching practice.

Several tasks – from discussing case vignettes to reflecting on one’s own and others’ lesson plans – take place as guided exchanges in targeted small groups, the Professional Learning



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Communities. Support for the small groups’ cohesion and profitable exchange aims on the one hand to keep participation motivated, and on the other to deepen knowledge and to turn theory into practice.

The project will be funded until the end of 2023 as part of the second funding phase of the Qualitätsoffensive Lehrerbildung by the federal and state governments.

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**Bridge the Gap:
Teaching degree students support pupils during school closures
due to the pandemic**

School open. School closed. Classroom teaching. Alternating lessons. Homeschooling. Restricted in-person operation. Since March 2020, school life in Germany has repeatedly been subject to massive restrictions. In particular, the pandemic-related school closures and the restrictions on teaching have led to learning deficits and psychosocial stress for many pupils.

A representative survey conducted by the Allensbach Institute for Public Opinion Research on behalf of the Deutsche Telekom Foundation in July 2021 shows that more than a quarter of 10 to 16-year-olds in Germany consider themselves to be lagging behind in their learning: 52% of the children and young people surveyed believe that they and their classmates are “somewhat” behind in their learning, while 27% say they are “significantly” behind. A study conducted by the Berlin Institute for Educational Quality Improvement (IQB) at Humboldt University in June 2022 shows that fourth-graders are up to half a year behind on average across Germany: 18.8% have not reached the minimum standards in reading, 30.4% in spelling and 21.8% in Mathematics. Even though there are overall differences between school types and social factors also play a role, it was already clear shortly before the second school closure in December 2020 that some of the problems were so severe that remedial and support programmes had to be initiated.

As one of the first reactions to this, the state government of Baden-Württemberg initiated the short-term Bridge the Gap support programme as a pilot project in preparation for further measures and subsequently pledged corresponding support funds. The experience gained during the organization, implementation and evaluation of this pilot project was ultimately to be incorporated into the follow-up programmes “Lernbrücken” and “Rückenwind”, which were planned for the last two weeks of the summer vacations and for the 2021/22 school year and possibly beyond.

As part of Bridge the Gap, those pupils who were particularly affected by the school closures were given the opportunity to be supported by teacher education students in individual group support measures for the period between the Whitsun and summer vacations in 2021.

The focus was particularly on developing basic skills in the core subjects of German and Mathematics, the modern foreign languages English and French as well as Latin.

In close coordination with the Ministry of Science, Research and Arts, the Ministry of Culture, Youth and Sports Baden-Württemberg, the responsible school authorities (regional councils and state education authorities) and the Center for School Quality and Teacher Education), teacher education universities were tasked with placing suitable teacher education students in schools with particularly urgent support needs. The aim was to acquire up to 550 teaching degree students and assign them to these supplementary support services for up to four hours per week.



Under the leadership of an ad hoc task force, an online platform was set up literally overnight to invite teaching degree students from the Stuttgart/Ludwigsburg, Tübingen, Konstanz, Heidelberg, Freiburg, Karlsruhe, Schwäbisch Gmünd and Weingarten campuses to register for the pilot project.

In a second step, the schools’ need for support was determined and they were also able to register via a specially created online platform.

Both the appeal to teaching degree students and the call for applications from schools met with an immense response.

The school authorities then prioritized those schools, where a particularly urgent need for support was identified, and reported these to the universities. In a complex process, suitable students were then placed at these selected pilot schools by the respective universities in order to assist the teachers with various support and remedial measures, and to help the pupils catch up on learning deficits caused by the pandemic for the remaining time until the summer vacations.

These activities were supported, among other things, by an online provision with content-related and subject-specific teaching suggestions, materials and impulses. This broad, cross-university programme, which included materials, workshops, consultation hours and coaching sessions, was made available to all teaching degree students and teaching staff participating in Bridge the Gap. In addition, there were location-specific online consultation hours and other accompanying measures.

Thanks to the jointly coordinated and pragmatically harmonized efforts of the working groups at the participating universities and colleges, the placement of students was successful. A total of 442 students were placed at 286 schools of all types.



Work Area
Research/
TüSE Research



**Research in the Research/TüSE Research Department –
Interdisciplinary, transfer-oriented and with international aspirations**

It was clear from the outset that the Tübingen School of Education should have a strong research profile.

This was implicitly expected and explicitly demanded or emphasized by all sides, such as the Rectorate, the Advisory Board and the School Board. This seems obvious in view of the research strength of the university environment in Tübingen, its success in the University Excellence Initiative and in view of several renowned and research-strong institutions in the field of Educational Science, such as the Hector Research Institute of Education Sciences and Psychology, the Institute of Education, the LEAD Graduate School and Research Network, the Leibniz Institut für Wissensmedien and a few traditional subject didactics departments that were able to demonstrate their research strength even before the TüSE was founded, in particular Protestant and Catholic Theology.

At the same time, the tasks of teacher education institutions in Germany have been changing for years: while around 15 years ago they were largely concerned with the organization of studies, teaching and internships, their range of tasks has now expanded considerably: research, promotion of early career researchers, innovation, further and continuing education, transfer and other tasks have been added.

At the center of the changed range of tasks of the academic institutions for teacher education is the expansion towards a research-intensive institution.

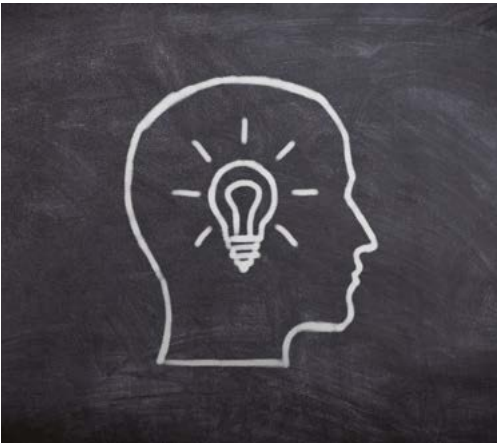
In this respect, the aspiration and starting position were clear from the outset. However, achieving this expected research strength as a central scientific institution is not trivial for several reasons. Firstly, the TüSE itself has no genuine human resources available for independent research work. Secondly, the TüSE has no direct influence or ‘direct’ opportunities to initiate research collaborations or research projects with those involved in teacher education. Although a large majority of professorships in didactics and Educational Science are associated members of the TüSE through dual membership (faculty and the TüSE), their chairs are formally assigned to the respective faculty. Thirdly, the TüSE does not have an explicit or ‘other’ budget to promote and control research via incentive structures, e.g. the awarding of doctoral positions. In this respect, the research structure of the TüSE can only be developed through creativity, through additional funding to be acquired or with, (third-party) funds to be negotiated with the university management or via content-related incentives and motivation. Fourthly, there is



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great diversity in terms of scientific theory, discipline, research methodology and content among the actors represented in the TüSE: Large-scale assessments, social reconstructionist case analyses, theory-based work, historical work and international comparative research can all be found in the repertoire of the TüSE stakeholders – to name just a few possible research approaches and designs.

The structure of TüSE Research needed to take these conditions into account and at the same time develop ambitious strategies. The basic strategy, which was jointly developed in the course of nuanced discussions and preliminary clarifications in the Advisory Board and School Board, among others, wanted to be aligned in such a way that it would do justice to the diversity of research skills and interests and at the same time also allow the targeted promotion of research relevant to teacher education as well as a certain degree of control. Based on the premises and considerations outlined above, three strategic lines have been developed in TüSE Research:

The TüSE first needs a tender-related strategy in order to be able to respond to the numerous calls for applications. This resulted in strategic [Line 1: Tender-Related Cooperations](#). As part of this line, the TüSE reacts proactively to relevant tenders: the Executive Board and management decide promptly which preliminary discussions need to be held in the context of applications and which internal and external cooperations could be expedient.

However, there are several reasons why strategic Line 1 is not sufficient to advance a successful research strategy. Among other things, this line responds only to content-related decisions that come from outside and that are largely in the mainstream discourse of current topics. For example, in recent years, calls for proposals on digitalization-related topics have dominated, and significantly more funding has been allocated to STEM subjects than to humanities subjects, for example. However, there are 25 teaching subjects at the University of Tübingen and the TüSE considers itself ‘committed’ to all subjects and all colleagues involved in teacher education in these subjects. It is therefore also important to enable research structures and options that do justice to the breadth of teacher education in Tübingen. In addition, topics from calls for proposals do not per se correspond to individual, professorship-related research interests and opportunities. It is therefore important to provide a structure that considers the wide range of research topics and methodological approaches, and that is adaptive to these individual research opportunities. This realization gave rise to strategic [Line 2: Special Interest Groups \(SIGs\)](#). Special Interest Groups are initially designed as a clear bottom-up strategy in terms of

content and personnel. Subject teaching, academic and Educational Science colleagues come together in interdisciplinary groups on the basis of shared research topics and approaches. This results in thematic and methodological orientations of research groups that are formed from the respective interests. The basic idea of the SIG is accordingly: the research topics worked on here are understood by the participants as their own and not as an additional field outside their interests. The SIGs thus offer the opportunity to bring colleagues from different disciplines into research collaborations in the context of teacher education – even outside of common mainstream topics.

The third strategic Line of TüSE Research focuses on a stronger management perspective from within the TüSE. The TüSE (as a cross-faculty scientific institution for teacher education) has a primary interest in supporting needs that prove to be worthy of funding based on the analysis of the specific situation in Tübingen – in the sense of research for the improvement of teacher education. The third Line thus follows an internal TüSE control strategy. Via [Line 3: Needs- and Resource-Related Measures and Activities](#), the TüSE allocates resources internally based on relevant criteria, i.e. resources that have been raised or acquired additionally through negotiations. Job formats for early career researchers have proven to be particularly suitable, as they can be used to actively shape both research and the promotion of early career researchers in relevant and forward-looking topics.

The TüSE shapes its research strategy through the three strategic lines of Tender-Related Cooperations (Line 1), Special Interest Groups (Line 2) and Needs- and Resource-Related Measures and Activities (Line 3).

In addition to the activities and measures within the scope of this research strategy, the TüSE is currently involved in preparatory work for the University of Tübingen’s application for the Cluster of Excellence funding; specifically, we are working on the Critical Proximities application outline and focusing on specific implementation strategies. Back in 2019, the TüSE was involved in various formats in the onsite visit of the reviewers as part of the University of Tübingen’s application at the time.

By means of the strategy outlined above and the associated steering options of the TüSE, the systematic and long-term aim is to bundle the research strengths of the stakeholders involved in teacher education which are organized via the TüSE in a thematic and interdisciplinary manner and to gradually advance them with the aim of clustering them into larger research formats for the future. In parallel, this process is supported by various measures. For example, a retreat for the SIGs extended took place in June 2023, attended by the Advisory Board, exter-

nal critical friends and research funding staff from the University of Tübingen. The aim of this retreat was to support the SIGs extended in their profiling and medium-term orientation and to jointly agree on goals and measures.

At the same time, research formats that are creative and unusual and do not necessarily lead to more ambitious formats are also explicitly supported. The publication [series 2 Lehrerbildung. kreativ. innovativ. ungewöhnlich.](#) should also be seen in the light of these efforts, in which topics, approaches and thought-provoking impulses are published that are less prominent in the focus of the current scientific mainstream in educational sciences, subject didactics and specialist sciences in teacher education, but are nevertheless significant for the scientific discourse.

Last but not least, smaller departments and mid-level teaching staff are also strengthened in terms of research via this route with the publication [series 1 Lehrerbildung. forschungsbasiert. anwendungsbezogen. verantwortungsbewusst.](#) the Tübingen School has created a platform in which the interdisciplinary research work and subject areas of teacher education, school and teaching research from a subject-specific, subject-didactic, and Educational Science perspective are published with free access, i.e. in



open access, and subjected to a peer review process. Four volumes have now been published in this quality-assured series (peer review), which is published by the university’s own publishing house, Tübingen University Press (see illustrations above).

With these two publication series, the TüSE fulfills its promise to provide free access to scientific information.



Further activities in the context of open science are supported and promoted by the TüSE via the Tübingen Open Science Initiative (TOSI), which is based at the Faculty of Economics and Social Sciences (WiSo). The TOSI is a mid-level initiative recognized by the WiSo Faculty Council and has been based at the Dean's Office since 2021. In line with the concerns and goals of the Open Science movement, the TüSE is committed to equal opportunities in access to knowledge, the further development and self-correction of research, the involvement of the public and the accessibility and use of technical developments. With the annual Tübingen Winter School Open Science – supported by the TüSE, among others – TOSI offers an attractive qualification programme on various facets of Open Science.

The TüSE continues to work on support measures and a modern research infrastructure that meets the specific needs of teacher education and school research. For example, the TüSE was able to initiate the use of the Ethics Committee anchored at the WiSo Faculty for all researchers in teacher education, schools and teaching from educational sciences and subject didactics in the examination of empirical research projects.

This means that all members of the TüSE, including those from other faculties, in particular subject didactics, are entitled to make use of this Ethics Committee for the examination of their research projects.

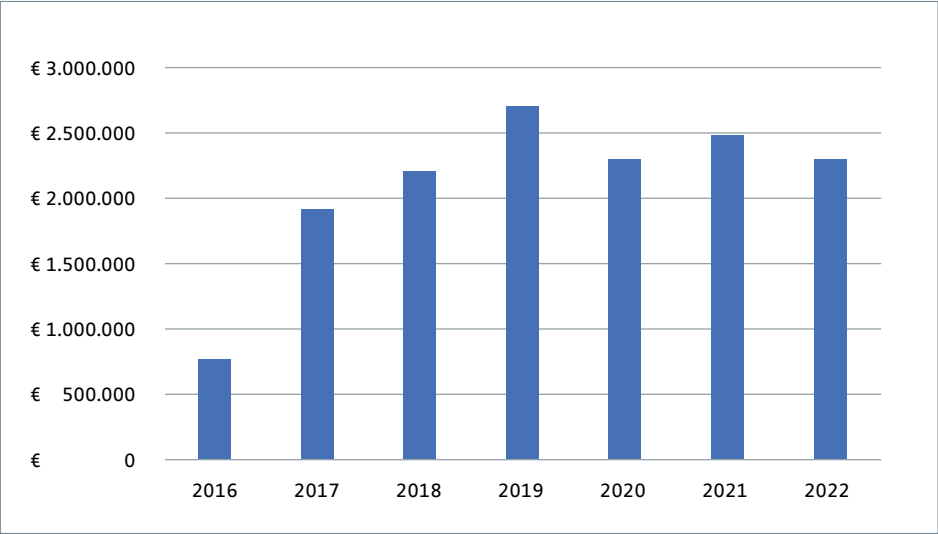
Two professors from the didactics departments of other faculties are represented on the Ethics Committee alongside colleagues from the Faculty of Business, Economics and Social Sciences. Further infrastructure measures are in preparation, such as a joint school network or a cross-institutional coordination office for school cooperation or the use of the new [Tübingen Center for Digital Education \(TüCeDe\)](#) for research and application activities in the fields of digital education and digital teaching and learning.

Other highlights in the TüSE Research department include the two extraordinarily successful seasons of the [expert talks Teachers and Teacher education. Research. Discourse. Perspectives](#), which have been developed and held jointly with the universities of Dresden, Hanover and Münster over the past four semesters since 2021/2022. Questions relevant to the academic discourse in teacher education are addressed and discussed in the already established Expert Discussions Teacher Education in an innovative online forum by nationally and internationally renowned colleagues from the educational sciences and subject didactics. All contributions can be viewed on the [TüSE YouTube channel](#).



TüSE Research Line 1: Tender-Related Cooperations

As soon as a call for proposals is announced or published, deliberations on the application strategy begin in consultation with the colleagues concerned. Due to the large number of strong researchers in Tübingen who work in different disciplines and specializations, it is important to consider at an early stage which direction an application can and should take. This approach has now been implemented in more than 60 applications and in around 30 successfully acquired second and third-party funded projects. In doing so, the considerations oscillate between the anticipated success of the application and the School's own interests and opportunities. The success of the TüSE's applications resulting from this strategy is considerable. In the first few years of its existence, more than 23 million euros in second and third-party funding were acquired. The following figure illustrates the projects in which the TüSE played a leading role.



Most of the funding was obtained from BMBF calls for proposals. As an example of the research strategy of Line 1, the sub-project Competence Modelling and Competence Development is presented in more detail below as part of the overall project of the Tübingen School of Education in the frame of the second funding round of the Qualitätsoffensive Lehrerbildung.

Example TüSE Research Line 1:
Modelling and Developing Academic and Didactic Skills
in Teacher Education Courses

One of the most important aims of the teacher education course is
to impart subject-scientific and subject-didactic skills.

This project therefore examines the acquisition of these skills, including possible difficulties, as well as the interplay and separation of the two forms of skills for the subjects of Mathematics and English studies. Subject-specific scientific skills are seen as a prerequisite for subject-didactic skills. In English studies, the focus is on the central subject-specific competence of text comprehension, while in Mathematics, the prerequisites for successfully completing a course of study form the focus of our work.

The Skills Modelling and Development sub-project is supported as part of the overall project of the Tübingen School of Education as part of the second funding round of the joint federal and state government-program Qualitätsoffensive Lehrerbildung until the end of 2023.

The cooperation with the Methods Center has proven to be very beneficial, as quantitative and qualitative methodological approaches are combined in both subjects. In Mathematics, this includes the analysis of intensive longitudinal data on thoughts of dropping out using residual dynamic structural equation modelling in conjunction with a planned interview study to investigate the role of practical experience in coping with study requirements in greater depth. In English studies, the psychometric evaluation of specially developed test instruments is combined with the qualitative analysis of student response texts with the aim of gaining a deeper insight into text comprehension processes. This is important because text comprehension is one of the central aims of foreign language teaching. Students must therefore develop the relevant skills themselves in order to be able to teach them successfully in the classroom.

The planning and implementation of a concluding workshop of the Tübingen School of Education project on the topic of hurdles on the way to becoming a teacher – findings from English, Mathematics and Physics – will be carried out together with members of the [Special Interest Group Competence Modelling and Competence Development](#) from Physics Didactics, as the exchange has proven to be particularly fruitful here.

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SELECTED PUBLICATIONS

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Kelava, A., Kilian, P., Glaesser, J., Merk, S. & Brandt, H. (2022). Forecasting intra-individual changes of affective states taking into account interindividual differences using intensive longitudinal data from a university student drop out study in math. *Psychometrika*, 87, 533–558. <https://doi.org/10.1007/s11336-022-09858-6>

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TüSE Research Line 2: Special Interest Groups (SIGs)

Following intensive strategic and conceptual considerations and discussions with the stakeholders on the School Board and the Advisory Board, the structure of the SIGs was developed and implemented in 2019. Colleagues are currently conducting research together in eight SIGs:

Special Interest Groups of the TüSE (as of 2023)

SIG	SPEAKER
SIG EXTENDED RELATIVITY, NORMATIVITY AND ORIENTATION	CAROLIN FÜHRER
SIG EXTENDED CONCEPTUAL UNDERSTANDING AND DIGITALIZATION IN STEM SUBJECTS	JAN BURDE + WALTHER PARAVICINI
SIG EXTENDED DIGITALIZATION IN TEACHER EDUCATION	ANDREAS LACHNER
SIG CRITICAL THINKING AND BEYOND: NORMATIVE QUESTIONS IN TEACHER EDUCATION TODAY	UTA MÜLLER
SIG PROFESSIONALISM IN THE TEACHING PROFESSION	JULIA HAPKE
SIG SKILLS MODELLING AND DEVELOPMENT	JUDITH GLAESSER + TINO KELAVA
SIG RECONSTRUCTIVE SUBJECT DIDACTIC TEACHING RESEARCH	DANIEL GOLDMANN
SIG VIDEO-BASED CASUISTRY	MARCUS SYRING

The thematic, methodological and work-related focuses of the individual SIGs are presented in more detail on the following pages.

The SIGs are supported via the TüSE budget with a maximum of 2500 euros per year. This allows 'smaller' projects, such as covering fees for review board members invited to exchange ideas, etc. The SIGs work with different goals and in different formats: they organize joint conferences, internal colloquia and expert discussions, publish papers, submit applications or jointly supervise doctoral students. One SIG was able to submit a DFG application in 2021, which was unfortunately rejected despite very systematic preparatory work, even with external experts.

An interim evaluation was carried out in 2022, which further developed and outlined the existing SIG structure on the basis of systematic considerations and strategic discussions with the Rectorate and the Advisory Board. Some SIGs work and conduct research according to the formats and conditions outlined so far. A second group, the so-called SIGs extended, consisting of the SIG Conceptual Understanding and Digitalization in the STEM Subjects (KoDiMi), SIG Relativity, Normativity and Orientation and the SIG Digitalization in Teacher Education, are to receive more dedicated or stronger support in the future due to their preliminary work and ambitions to strive for larger or more ambitious research formats. The TüSE supports these three SIGs in various ways, in particular with measures from strategic Line 3.

Special Interest Group (SIG) Professionalism in the Teaching Profession

“Teachers make a difference!” Numerous studies point to the high relevance of teachers’ professionalism for the success of their students at school. What constitutes a professional teacher in terms of subject didactics (aspect of professionalism) and how they can best be professionalized for the teaching profession within the framework of teacher education (aspect of professionalization) are central questions of teacher education that can only be adequately addressed in cooperation between subject didactics and educational sciences. This multi-perspectivity is a prerequisite for strengthening coherence in teacher education. The SIG makes a central contribution to the shaping of TüSE Research by making teachers and the teaching profession itself the object of research.

Since the turn of the millennium, there has been an intensive discussion about the professionalization of teachers and its relevance for pupils learning. The subject- and subject didactics departments have developed their own concepts of professionalism and professionalization, each of which can be traced back to different – sometimes decades-long – subject traditions and each of which has different qualitative and quantitative references to subject-scientific and educational science discourses.

The aim of the SIG is to advance the discourse on professionalism at the interface of educational sciences and four subject didactics (German, Religion, Sport, Economics) in an interdisciplinary manner.

The SIG focuses on questions of (in)coherence and meta-reflexive relations in the systematic comparative consideration of Educational Science and subject-didactic professionalism and professionalization. The SIG focuses on questions about the subject-specific and at the same time interdisciplinary professionalism of teachers – i.e. on the question of what constitutes a professional teacher – which has so far mainly been dealt with in Educational Science and thus in an interdisciplinary manner. These discussions contribute to the development of theory in general subject didactics and to professional theory by systematically explicating and comparing specific characteristics of individual subject didactics (German, Religion, PE, Economics).

The work of the SIG led to an expert meeting which produced numerous suggestions for the SIG’s further work and inspired the joint application and publication activities.

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SIGs

THE SIG:

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- Prof. Dr. Carolin Führer
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- Prof. Dr. Julia Hapke
(Physical Education Didactics)
- Prof. Dr. Dr. h.c. Friedrich Schweizer
(Protestant Religious Pedagogy)
- Prof. Dr. Colin Cramer
(Professional research with special consideration of subject didactics)
- Prof. Dr. Jana Groß-Ophoff
(Educational Sciences, Vorarlberg)
- Dr. Felix Schreiber
(Professional research with special consideration of subject didactics)
- Dr. Sebastian Röhl
(Professional research with special consideration of subject didactics)

SELECTED PUBLICATIONS

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Cramer, C., Groß-Ophoff, J. & Schreiber, F. (2023). Professionalität im Lehrerinnen- und Lehrerberuf. Zur Inkohärenz von Professionstheorie und Überzeugungen von Lehrpersonen. *Zeitschrift für Pädagogik*, 69(1), 67–87.

Führer, C. & Führer, F.-M. (Hrsg.) (2019). *Dissonanzen in der Deutschlehrerbildung. Theoretische, empirische und hochschuldidaktische Perspektiven*. Münster: Waxmann.

Hapke, J. & Cramer, C. (2020). Professionalität und Professionalisierung in der Sportlehrerbildung. Potential des Ansatzes der Meta-Reflexivität. *Zeitschrift für sportpädagogische Forschung*, 8(2), 39–58. <https://doi.org/10.5771/2196-5218-2020-2-39>

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Special Interest Group (SIG)

Relativity, Normativity and Orientation in Professional Education

In a pluralistic and democratic society, relativity seems as natural as it is conflict-prone. It can be seen as a danger, but it can also describe an educational goal that arises from the necessary insight into the conditionality and subjectivity of knowledge, convictions and value systems. This explains why, on the one hand, relativity always seems to lead to a dangerous proximity to a lack of alternatives, post-factuality and lack of orientation in the sense of relativism or, on the other hand, to massive attempts at unification, e.g. in the form of authoritarianism or religious fundamentalism. Without an appropriate approach to relativity, peaceful coexistence in plural societies, which are increasingly to be seen in a global context, is not possible. This situation represents both the starting point and the background for the balancing of standards (education) in subject lessons that do not avoid the challenge of multiple perspectives. In this view, orientation and certainties can only be gained by consciously accepting and reflecting on the problem of relativity in subject-specific contexts. In order for such a world-view to become socially effective, it must also be translated into subject-specific educational processes and an understanding of education must be developed that is adapted to the subject-specific requirements of relativity.

Against this background, the subject-didactic SIG Relativity, Normativity and Orientation in Subject-Specific Education, with the participation of Educational Science, offers the rare opportunity to develop relativity as an interface problem of different disciplines and to demonstrate the potential of a multi-perspective approach to questions of relativity with regard to education.

The aim is to trigger a common movement of thought in both teaching and research, which, in view of the fragility of scientific knowledge and its resonance in schools and society, emphasizes the special contribution of subject-specificity (in school contexts) and describes it more precisely (and makes it fruitful) for other disciplines in its respective teaching-subject-relatedness and mode of action.

So far, the group has been able to hold an interdisciplinary conference and publish a paper (in the Gesellschaft für Fachdidaktiken series) funded by the Fritz Thyssen Foundation. A successful joint application with the SIG Reconstructive Subject Didactic Teaching Research led to a [doctoral position](#) in 2021, which will explore the topic of the SIG in depth using the example of teaching literature. In the winter semester 2021/22, a virtual lecture series was held in the Studium Generale of the University of Tübingen on the topic of Wie sich Leistung bewerten lässt. Zur Relativität und Normativität von Beurteilungen (How to evaluate performance. On the relativity and normativity of assessments) which led to a publication. In addition, there have been several joint external presentations by group members on the topic, including at the 2022 conference of the Gesellschaft für Fachdidaktiken in Vienna. In the future, the group aims to specialize the conceptual considerations to date by conducting empirical teaching research.



THE SIG:

- Prof. Dr. Carolin Führer (German Philology/ Didactics of German Literature)
- Prof. Dr. Bernd Grewe (History Didactics and Public History)
- PD Dr. Jessica Heesen (Media Ethics and Information Technology)
- Prof. Dr. Bernd Tesch (Didactics of Romance Studies)
- Prof. Dr. Uwe Küchler (Didactics of English)
- Prof. Dr. Dr. h.c. Friedrich Schweitzer (Protestant Religious Pedagogy)
- Dr. Marco Magirus (German Philology/ Didactics of German Literature)
- Dr. Wolfgang Polleichtner (Latin Didactics)
- Prof. Dr. Philipp Thomas (Philosophy/Ethics, Weingarten)
- Prof. Dr. Fahima Ulfat (Islamic Religious Pedagogy)
- Dr. Dominik Balg (Didactics of philosophy/ epistemology)
- Philipp Marzusch (Working group Prof. Dr. Carolin Führer)
- Prof. Dr. Marcus Syring (Educational science with a focus on school education)
- Dr. Uta Müller (International Center for Ethics in the Sciences and Humanities)

SELECTED PUBLICATIONS

Führer, C., Schweitzer, F., Tesch, B., Eiben-Zach, B., Ulfat, F., Thomas, P., Polleichtner, W., Grewe, B.-S. & Küchler, U. (Hrsg.) (2022). *Relativität und Bildung. Fachübergreifende Herausforderungen und fachspezifische Grenzen*. Münster: Waxmann Verlag.

Führer, C., Magirus, M., Bohl, T., Grewe, B.-S., Polleichtner, W. & Ulfat, F. (Hrsg.) (2023). *Relativität und Normativität von Beurteilungen. Fachübergreifende und fachspezifische Analysen*. Tübingen: Tübingen University Press.

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Special Interest Group (SIG) Competency Modelling and Competence Development

In times of an increasing shortage of teachers, it is essential to identify possible obstacles on the way to becoming a teacher in order to enable as many (in principle suitable) students and prospective students as possible to successfully complete their teacher education

The acquisition of both subject-scientific and didactic skills is an essential prerequisite for the successful completion of the teacher education program and is therefore the focus of interest of the SIG Competency Modelling and Competence Development.

The three subjects of Mathematics, English and Physics, for example, – despite their differences – have a common interest in comparatively examining the acquisition of skills in these three areas from different perspectives. Obstacles to be overcome on the way to a successful degree can include a lack of subject-specific skills, which are actually a prerequisite for understanding the course content. In Physics, a three-stage test is

therefore being developed to identify possible misconceptions of fundamental concepts of electricity. The acquisition of a central academic skill, the comprehension of texts, is at the center of interest for English studies. Fictional texts in particular place special demands on students, especially in the foreign language, as they exhibit a wider range of textual phenomena than non-fiction texts. Finally, in Mathematics, the focus is on matching the expectations of teacher education courses with reality, as in this subject in particular, the academic content of the course and the requirements of school practice can be far apart or even clash in the perception of many students.

A special feature of our SIG is that we were able to raise funds for a [PhD position in Physics](#), which enabled the labor-intensive development of the aforementioned test.

Despite, or perhaps because of, the heterogeneity of the disciplines, the exchange between the SIG participants proves to be extremely fruitful and enables a new perspective on the research topics to be adopted time and again.



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SIGs

SELECTED PUBLICATIONS

Glaesser, J., Kilian, P. & Kelava, A. (2021). Mögliche Vorläufer von Studienabbruch in der Mathematik: Stabile Persönlichkeitsmerkmale und veränderliche affektive Zustände. In M. Neugebauer, H.-D. Daniel & A. Wolter (Hrsg.), *Studienerfolg und Studienabbruch* (S. 127–149). Wiesbaden: Springer. https://doi.org/10.1007/978-3-658-32892-4_6

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THE SIG:	
<ul style="list-style-type: none">■ Prof. Dr. Augustin Kelava (Quantitative Methods, Director of the Methods Center)■ Dr. Judith Glaesser (Methods Center)■ Prof. Dr. Matthias Bauer (English Philology/Literary Studies)■ Jun.-Prof. Dr. Jan-Philipp Burde (Physics and its Didactics)■ Dr. Helga Gese (German, Didactics of Language)■ Prof. Dr. Julia Hapke (Physical Education)	<ul style="list-style-type: none">■ Leonie Kirchhoff, MA (formerly English Studies/TüSE, Competency Modelling and Competence Development)■ Prof. Dr. Frank Loose (Mathematical Physics)■ Prof. Dr. Walther Paravicini (Mathematics and its Didactics)■ Dr. Gorden Sudeck (Sports Science, focus on health education)■ Prof. Dr. Angelika Zirker (English Literature and Cultural Studies)

Special Interest Group (SIG)
Digitalization in Teacher Education

Teacher education has the task of preparing future generations for potential challenges. Digital transformation is considered one of these challenges. Against this background, it is necessary that teachers enable pupils to use digital technologies so that they can realize self-regulated learning processes and thus contribute to subject-specific learning. In addition, pupils must be enabled to reflect on the opportunities and risks of media use in order to ensure confident use of and in digital environments.

The SIG Digitalization in Teacher Education has set itself the goal of researching concepts and formats with the help of which a research-based development of digitalization-related competencies of teachers can be realized.

SIG members have been able to acquire various third-party funds and to publish in high-ranking international journals. Most recently, these efforts resulted in the founding of the Tübingen Center for Digital Education (TüCeDE). The TüCeDE is designed as an interfaculty and interdisciplinary center at the University of Tübingen in order to bundle the existing expertise of the location.

A spiral curriculum that addresses teaching and learning with and about digital media has been firmly anchored in the curriculum. To this end, the teacher education programme at the University of Tübingen was supplemented with a digitalization-related course concept that systematically covers learning with and about digital media as well as media-critical reflection on digital technologies in educational contexts. In the compulsory lecture and subsequent in-depth seminars, prospective teachers are encouraged to learn about the risks and potentials of media use, to justify them on the basis of research and to draw actionable consequences from their considerations. In addition to media didactics, a focus is also placed on media education and critical content (e.g. algorithmization, artificial intelligence). Most of the courses are held in the Tübingen Digital Teaching Lab (TüDiLab), where digital technologies can be tested hands-on.

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THE SIG:

- Prof. Dr. Andreas Lachner
(Educational Science with the focus on Teaching and Learning with Educational Technology)
- Prof. Dr. Katharina Scheiter
(Empirical Teaching and Learning Research, Leibniz-Institut für Wissensmedien)
- Prof. Dr. Kathleen Stürmer
(Teaching and Learning Arrangements in the Subject Didactics)
- Prof. Dr. Taiga Brahm
(Business Didactics and Economic Education)
- Prof. Dr. Bernd Grewe
(History Didactics and Public History)
- Prof. Dr. Carolin Führer
(German Philology/Didactics of German Literature)
- Prof. Dr. Julia Hapke
(Sports Didactics)
- Prof. Dr. Uwe Küchler
(Didactics of English)
- Prof. Dr. Christoph Randler
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- Prof. Dr. Philipp Thomas
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- Jun.-Prof. Dr. Jan-Philipp Burde
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Special Interest Group (SIG)
Critical Thinking and Beyond. Normative Questions in Teacher Education

The SIG Critical Thinking and Beyond was founded to address evaluative and normative questions in education and teaching and to discuss them in various research contexts and with colleagues from different disciplines. These questions have become increasingly relevant in recent years because the values and norms of liberal, progressive democracies are being called into question by some political currents that can no longer be ignored. Dealing with these developments, which have to do with the acceptance, validity and justification of values and norms, is of great importance in the context of education and teaching, which is why the SIG is also dedicated to didactic issues in schools and universities in this context.

The Critical Thinking and Beyond SIG deals with evaluative and normative questions in education and teaching in various research contexts and with colleagues from different disciplines.

In 2021, a first workshop was held dedicated to the central theme of the SIG: Critical thinking and beyond. Normative questions in education and teaching. Among other things, it dealt with the question of how normativity is reflected in current pedagogical debates. Theses of critical thinking were discussed, as well as the criticism of ethics in critical thinking and controversies from post-critical pedagogy. These discussions were supplemented by field reports from university teaching. The conference volume will be published in the Tübingen School of Education's [publication series 2 Lehrerbildung. kreativ. innovativ. ungewöhnlich](#). with the following title: Kritisches Denken und darüber hinaus. Normative questions in education and teaching. Editors are Simon Meisch, Martin Harant and Uta Müller.

Following these discussions, it became clear that there are extensive debates in ethics, Ethics Didactics and pedagogy about how to reflect discursively on normative goals, topics and conflicts using rational methods. But there is little scientific exchange about which other sources are also important in influencing or determining evaluative and normative attitudes. In October 2022, the SIG held a workshop on this topic entitled Sources of Meaning: Questions of Religiosity, Spirituality and Ethics in Education and Teaching, with contributions from colleagues from subject didactics, philosophy, theology and sociology. The contributions from this conference will also be published in a volume of the TüSE publication series 2.



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In the discussions at the SIG conference, it became clear that the challenge in teaching of dealing with questions of meaning, or more precisely, questions about the role of the genesis and validity of values, requires further reflection. Further research activities in the SIG include a workshop planned for 2024, which will involve the Baden-Württemberg Center for Civic Education, among others.

SELECTED PUBLICATIONS

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Meisch, S., Hofer-Krucker, V. & Lang, S. (2022). Klimawandel im Literaturunterricht. In J. Weselek, F. Kohler & A. Siegmund (Hrsg.), *Digitale Bildung für nachhaltige Entwicklung. Herausforderungen und Perspektiven für die Hochschulbildung* (S. 179–191). Berlin, Heidelberg: Springer. https://doi.org/10.1007/978-3-662-65122-3_14

Müller, U. (2019). Der „moralische Pakt“ in der Literatur - und andere Themen der Ethik im Lehramtsstudium. In: W. Polleichtner (Hrsg.), *Ethik in der Pädagogik – Pädagogik in der Ethik* (S. 15–35). Speyer: Kartoffeldruck-Verlag Kai Brodersen.

THE SIG:

- Dr. Uta Müller (International Center for Ethics in the Sciences and Humanities)
- PD Dr. Dr. Martin Harant (Education Science, School Pedagogy)
- Prof. Dr. Thomas Potthast (Ethics, Theory and History of Life Sciences)
- Dr. Simon Meisch (International Center for Ethics in the Sciences and Humanities)
- Dr. Dominik Balg (Didactics of Philosophy)
- Prof. Dr. Uwe Küchler (Didactics of English)
- Prof. Dr. Philipp Thomas (Didactics of Philosophy/Ethics, Weingarten)
- Dr. Wolfgang Polleichtner (Latin/Greek)
- PD Dr. Gabi Schlag (Institute of Political Science)
- Prof. Dr. Fahimah Ulfat (Islamic Religious Pedagogy)

SIGs

Special Interest Group (SIG)
Reconstructive Subject Didactic Teaching Research

Teaching represents the core of school as a place of learning and living. This is where pupils learn with and from each other both necessary knowledge and key subject-related skills as well as social skills and democratic values. In the last 10 years or so, basic theoretical research has emerged in Educational Science and subsequently also in subject didactics which attempts to make use of the latest advanced social theories and innovative empirical approaches for understanding teaching and subsequently also for designing lessons. However, fundamental problems can be observed in the debate: Educational research largely focuses on phenomena in the social dimension, while subject-didactic research places the factual dimension at the center of its considerations. An integrative interweaving of both dimensions seems to be difficult in both fields.

The Special Interest Group Reconstructive Subject Didactic Teaching Research has taken this desideratum as its starting point and is working on it in the form of cooperation between representatives of Educational Science and subject didactics. The aim is to establish a forum in which national representatives from both fields meet and discuss these basic theoretical problems by referring to current research.

The SIG Reconstructive Didactic Teaching Research
deals with the utilization of recently advanced social theories and
innovative empirical approaches for the understanding
of teaching and subsequently also for the design of teaching
from an Educational Science and didactic perspective.

To this end, one or two so-called research forums are held each semester, in which members' own current research is presented and discussed and external researchers are invited. This format will be supplemented and intensified in the future in the form of a working conference. One 'product' of this collaboration is the successful joint application with the Relativity, Normativity and Orientation SIG for a [doctoral position](#), which is intended to provide impetus to the groups as well as being supported by the group in its work.

In addition to continuing the basic work, the group also aims to discuss the question of what connections can be made from this research for the application side of didactic actors and what consequences this can have for teacher education.



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SELECTED PUBLICATIONS

Goldmann, D. (2020). Lernkonflikte im Verstehen der Sache. Zur Unterscheidung fragend-entwickelnder und diskursiver Unterrichtsmuster. *Zeitschrift für interpretative Schul- und Unterrichtsforschung*, 9(1), 9–22. <https://doi.org/10.3224/zisu.v9i1.02>

Grewe, B.-S. (2023): Der Pharao – Positivistisches Geschichtsbild und Historisches Lernen. In M. Syring, N. Beck, T. Bohl & B. Tesch (Hrsg.), *Klasse 6b. Eine Unterrichtswoche. Bildungswissenschaftliche und fachdidaktische Analysen* (S. 261–274). Tübingen: Tübingen University Press.

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- THE SIG:
- Dr. Daniel Goldmann (Educational Science, General Education)
 - Prof. Dr. Marcus Emmerich (Educational Science with the focus on Inclusion, Heterogeneity and Diversity)
 - Dr. Damaris Borowski (DaZ)
 - Prof. Dr. Carolin Führer (German Philology/Didactics of German Literature)
 - Prof. Dr. Bernd Grewe (History Didactics and Public History)
 - Matthias Grein (Didactics of Romance Studies)
 - Prof. Dr. Uwe Küchler (Didactics of English)
 - Dr. Marco Magirius (German Philology/ Didactics of German Literature)
 - Prof. Dr. Bernd Tesch (Didactics of Romance Studies)
 - Prof. Dr. Fahimah Ulfat (Islamic Religious Pedagogy)

Special Interest Group (SIG) Conceptual Comprehension and Digitalization in the STEM Subjects (KoDiMi)

Today’s world and our current world view are increasingly shaped by scientific knowledge and modern technological achievements. Against this backdrop, didactic research and teaching in the STEM subjects (Mathematics, Computer Science, Natural Sciences and Technology) play a central role. At the end of 2021, the Tübingen STEM subject didactics departments therefore joined forces with representatives from the Educational Sciences to form the Special Interest Group Conceptual Comprehension and Digitalization in the STEM Subjects (KoDiMi).

A central concern of the SIG Conceptual Comprehension and Digitalization in the STEM Subjects (KoDiMi) is the support and coordination of joint projects and interdisciplinary cooperations between STEM subject didactics. It also aims to strengthen the exchange not only within STEM subject didactics, but also to encourage discourse with representatives of other departments and institutions in order to generate impulses for teacher education in Tübingen.

It is in line with the self-image of STEM subject didactics departments in Tübingen to contribute to the university's objective of Research – Relevance – Responsibility with high-quality subject didactic research. The newly founded STEM Forum, in which current research projects are regularly discussed, provides the ideal framework for pooling the expertise available on campus and thus harnessing synergies in research. One example of the numerous joint activities in this area is the STEM study ambassador project funded by the Gips-Schüle-Stiftung, which gives pupils in year 9 an authentic impression of the content, requirements and opportunities of studying STEM subjects. Other major projects include the BMBF-funded school laboratory network MINT me!, which aims to sustainably strengthen extracurricular learning opportunities on STEM topics in the Neckar-Alb region, as well as participation in the BMBF project Professional Networks for the Promotion of Adaptive, Process-Related, Digitally-Supported Innovations in the STEM Field.

As prospective teachers in the STEM subjects act as multipliers not only of knowledge, but also of attitudes in the STEM field, it is a key concern of STEM subject didactics in teaching to enable prospective teachers to get girls and boys equally excited about STEM-related topics at an early stage and to deal with them in a reflective manner. To this end, a wide range of research-based and practice-oriented courses are offered, including in the [STEM classroom](#) funded by the [Vector Foundation](#), in order to optimally prepare student teachers of STEM subjects for their important social role in schools. In addition, further training formats for the third phase of teacher education and various activities as part of the university's Third Mission (including the Kinder-Uni research day) complement the activities of STEM subject didactics.



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- THE SIG:
- Jun.-Prof. Dr. Jan-Philipp Burde (Didactics of Physics)
 - PD Dr. Johannes Bleibel (Didactics of NWT)
 - Prof. Dr. Miriam Clincy (Didactics of NWT, Esslingen)
 - Prof. Dr. Walter Paravicini (Mathematics and its Didactics)
 - Dr. Benjamin Pölloth (Didactics of Chemistry)
 - Prof. Dr. Christoph Randler (Didactics of Biology)
 - Dr. Timo Sedelmeier (Didactics of Geography)
 - Prof. Dr. Stefan Schwarzer (Didaktik der Chemie)
 - Jun.-Prof. Dr. Nicolas Hübner (School Pedagogy)
 - Prof. Dr. Augustin Kelava (Quantitative Methods, Director of the Methods Center)
 - Prof. Dr. Uwe Ilg (Neuroscience Student Laboratory)

Special Interest Group (SIG) Tübingen Video-Based Casuistry:
Instructional Videos to Support Teaching Skills Development in
University Teacher Education

A look at the projects currently being funded as part of the Qualitätsoffensive Lehrerbildung reveals both the increased ease (thanks to new technical possibilities) of and the importance attached to the use of teaching videos in university education. This importance has also been underlined for several years by the recently published thematic booklets and publications and the abundance of (new) video portals at various university locations.

In May 2022, the Tübingen School of Education's latest Special Interest Group, Tübingen Video-Based Casuistry (TüViKa), was founded to pool existing expertise at the site.

In many places, teaching videos are regarded as the central medium for illustrating lessons in teacher education and in-service training. They also serve as a medium for case-based work in terms of skills acquisition or as a means of developing reflection skills. Each of these three functions of video-based casuistry is based on a different understanding of both the profession and professionalization in teacher education.

Parallel to the increase in the use of instructional videos, research activities in this field have also increased, primarily on different uses and forms of design as well as on the impact and yield of video-based casuistry.

A hitherto largely neglected issue in the context of video-based casuistry is the multi-perspective use in different subjects and disciplines, i.e. working together or separately on the same object and medium.

The SIG would like to address this question and facilitate an exchange between all representatives of teacher education in Tübingen.

The overarching goal is to establish a dual-purpose (for students on the one hand and the university organization on the other) reflective network of Educational Science, subject didactics and subject science via teaching videos in teacher education as well as to develop, test and research the necessary concepts and funding opportunities.

The aim is to contribute to the national and international discourse on the use of instructional videos in teacher education.

The recently published anthology Klasse 6b, edited by Marcus Syring, Nina Beck, Thorsten Bohl and Bernd Tesch, contains initial research work on the multi-perspective use of video-based casuistry in various subjects and disciplines.



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TüSE Research Line 3:
Needs- and Resource-Related Measures and Activities

In this strategic line, three competitive awards have been set up so far, in each of which positions for doctoral students could be awarded internally:

2024 - 2030	W1 professorships to strengthen the cross-disciplinary topic of digitalization in didactic teaching and research
	<ul style="list-style-type: none">W1 Digital Education in the Historical-Cultural-Social Field (focus on the teaching of History)W1 Digital Education in Mathematics and Natural Sciences (focus on the teaching of Chemistry)
2021- 2024	Positions for doctoral students to strengthen the SIGs
	<ul style="list-style-type: none">Project: Development of a Three-Stage Test for Electricity TheoryProject: Relativity of Literary Learning Processes in Grammar School German and French Lessons
2016 - 2021	Positions for doctoral students to strengthen research-related cooperation between subject-specific sciences, subject-specific didactics and educational sciences
	<ul style="list-style-type: none">Project: Statistical Representation Skills in the Interdisciplinary Teaching Context of Economics and Biology (Economic Education and Biology)Project: Education, Identity, Body. Philosophy-Didactic and Educational-Theoretical Groundwork for Closing a Theoretical Gap and for the Thematic Conception in the Field of Teacher Education (Didactics of Philosophy and Educational Science)Project: Health Education in Physical Education (Sport and Empirical Educational Research)

An internal call for proposals was developed in each case. The first procedure started in 2016, even before the SIGs had been established, and aimed to strengthen research collaborations between subject sciences, subject didactics and/or educational sciences. The second call for two doctoral positions was targeted exclusively at the SIGs and aimed to strengthen systematic preliminary work for ambitious research proposals (e.g. DFG application). The two successful projects are presented in more detail below. In 2023, a third award is now pending (financed by funds from the Higher Education Funding Agreement II of the state of Baden-Württemberg), which will provide support for further preparation for ambitious research proposals by attaching two W1 professorships to two extended SIGs.



Dissertation Project Relativity of Literary Learning Processes in Grammar School German and French Lessons

In times of instapoetry, twitterature, Kafkaesque chatbots, narratively complex video games and epic series, print literature can seem to have fallen out of fashion. A challenge also and above all for literature lessons, torn between approaching the aesthetic experiences of young people's lives and reflecting on the boundary-breaking educational potential of its brand essence. However, it is sometimes worth putting aside the wishes for and lamentations about literature teaching and instead daring to describe examples of its complex everyday practice.

Against this backdrop, Philipp Marzusch is researching the Relativity of Literary Learning Processes in Grammar School German and French Lessons as part of the Special Interest Groups [Relativity, Normativity and Orientation](#) and [Reconstructive Didactic Teaching Research](#). The interdisciplinary dissertation project is supervised by Prof. Dr. Carolin Führer (German Philology/ Didactics of German Literature) and Prof. Dr. Bernd Tesch (Didactics of Romance Studies). The project, which is funded by TüSE Research, strategic [Line 3 Needs- and Resource-Related Measures and Activities](#), thus contributes significantly to the further development of the SIGs Relativity, Normativity and Orientation and Reconstructive Subject Didactic Teaching Research.

The main research interest of the project on the Relativity of Literary Learning Processes in Grammar School German and French Lessons is to investigate practices of speaking about aesthetic texts as they are reflected both in teacher-led classroom discussions and in largely autonomous small group discussions.

The potential of a comparison lies in identifying, on the one hand, overarching patterns of action that manifest themselves in the teaching of literature in both subjects and, on the other hand, those that characterize their respective subject-specificity. An initial working hypothesis is that the relative nature of literary interpretation processes is sometimes negotiated differently in German and French lessons under the influence of linguistic and literary didactic paradigms and pragmatic challenges. The focus on the continua of student vs. subject orientation and process vs. result orientation, for example, seems to modify the teaching of literature. This is also reflected in specific methods of text development, which were examined in more detail (e.g. the action-oriented methods of freeze frame and role play).

The documentary method is a suitable epistemological instrument, as it makes the data the starting point for abductive hypotheses. Literary-aesthetic learning processes can also be made visible that might not have been recorded on the basis of hypothesis-testing procedures. In addition to verbal language, videographic lesson documentation is also able to depict gestural-mimic communication and the spatial positioning of the actors and place them in relation to each other.

The data was collected at several grammar schools in Baden-Württemberg with pupils from different socio-cultural backgrounds, which means that an essential factor of literary socialization is taken into account with regard to the significance of the findings.



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Dissertation Project
Development of a Three-Stage Test
for Electricity Theory



Life without electricity is no longer conceivable in our modern society. Accordingly, electricity plays an important role in Physics lessons. The main teaching objectives are to arouse pupils’ interest in this important subject and to give them a sound conceptual understanding. However, many studies have shown that pupils and even students do not have a basic understanding even of simple DC circuits. One reason for these difficulties in understanding are so-called pupils conceptions, such as the idea of electricity consumption, which often contradict scientific concepts. As the correct scientific understanding of teachers is an essential prerequisite for competent teaching, a central starting point for increasing the quality of electricity lessons is to improve teacher education. The prerequisite for this, however, is to be able to reliably, validly and objectively diagnose the understanding of students.

Previous testing instruments for electricity theory are only suitable to a limited extent for this purpose and in particular for diagnosing pupils’ performances.

The aim of the project is therefore to develop a psychometrically mature three-stage test for the introductory phase of studies, which can capture learners’ ideas about simple electric circuits across the board. A major advantage of the three-stage test is that not only can typical conceptions of pupils be recorded, but also the question of how confidently the respondents hold the respective conception can be clarified. This information is not only important with regard to teaching, but also promises important insights into the nature of the diagnosed ideas and the question of how these can be collected efficiently.

In a next step, the finished test is to be incorporated into an online assessment tool in order to be able to quickly and easily assess the competence levels of larger groups of learners. The use of such a diagnostic tool opens up prospects for many other interdisciplinary projects. These include, for example, longitudinal surveys to track the development of academic skills during the transition between school and university or in the course of teaching studies, or the development of an adaptive support programme based on the test results for teaching degree students to qualify them in a research-based manner to teach electricity effectively.

The project of doctoral student Benjamin Groß, funded by [TüSE Research, Line 3 Needs- and Resource-Related Measures and Activities](#) and the [Vector Foundation](#), thus makes a meaningful contribution to the further development of the [SIG Skills Modelling and Development](#) and the [SIG Conceptual Comprehension and Digitalization in the STEM Subjects \(KoDiMi\)](#).

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Work Area
Promotion
of Early Career
Researchers



Promotion of Early Career Researchers at the Tübingen School of Education – Oriented towards the specific needs of academics in qualification phases in the subject areas of teacher education, school and teaching

The support of early career researchers in the field of teacher education and within the remit of the School of Education is subject to specific characteristics that need to be considered before a strategy can be developed.

As a central academic institution, the TüSE is not a faculty, but cooperates continuously and closely with the five teacher education faculties and the more than 25 teacher education subject departments in a wide variety of contexts. This also applies to the support of early career researchers. The following should be borne in mind: 1. Academics in qualification phases – from Master’s to doctorate to postdoc phases – are formally assigned to the faculties and subjects and receive their qualifications and certificates there. 2. Established support structures and a wide range of support services already exist at the faculties, in the departments and among the professors, as well as across university-wide structures (e.g. Graduate Academy) and are used by academics in qualification phases. 3. Early career researchers in the field of teacher education are generally anchored either in departments of Educational Science or subject didactics and conduct their research here, closely connected to the respective disciplinary and departmental orientation, for example in terms of subject matter and research methodology or with a view to networking in the respective scientific community (e.g. associations, conferences, standards). 4. The early career researchers are united by the fact that they all conduct research in the context of teacher education-related and school-related topics in the broadest sense. 5. They also have in common that they work on topics and have to develop expertise for these topics that cannot usually be fully covered by a department or that, due to the diverse interdisciplinary orientation of research questions and the increasing demands and complexity of research questions, very often also extend into subject areas and disciplines that are more distant from the department. This can very often be observed in empirically oriented work when it comes to research methodological standards (e.g. impact studies) or in theory-related work when social or educational theories provide a fundamental framework.

The five points outlined above result in both limits and needs for the support of academics in qualification phases. The limits initially lie in those areas where offers already exist in the departments (e.g. subject-specific colloquia), in the faculties (e.g. Ethics Committee) or at central university units (e.g. offers of the Writing Center, language courses).

Junior and graduate support programmes – especially if they are cross-faculty – should therefore not duplicate existing programmes, but rather focus on complementary qualification programmes in both research methodology and content.

Regarding the support of early career researchers in the field of teacher education, this means focusing on fundamental teacher education, school-related topics, and targeting methodological advice and support services for which there is currently no alternative offer on campus. In order to provide doctoral students with tailor-made support, it is also essential to carry out

an individual diagnosis of their respective needs and support options, as these vary greatly in view of the diversity of subjects and research methods in their careers.

In addition, the TüSE is not only concerned with identifying and facilitating offers for individual needs. The TüSE has a fundamental interest in increasing the number of young academics in the field of teacher education and thus making an important contribution to qualifying and shaping future generations of teachers and pupils. In this respect, the support of early career researchers is primarily aimed at assisting young academics for university teacher education across all teacher education subjects (insofar as this is possible with more than 25 teacher education subjects, some of which are very small). In addition, schools and school administrators can benefit in many ways from academically socialized experts.

In this respect, doctoral degrees also strengthen the quality of those working in the school system and in school administration.

Strategies for supporting early career researchers:

Firstly, within the scope of the TüSE’s possibilities, a specific, precisely identified offer is made that in no way competes with existing offers but rather complements them in a meaningful way.

Secondly, there is a focus on providing research methods for qualification work with a didactic focus. There is not always subject-specific or professorship-specific expertise available for this or it is not always possible to make such an offer depending on resources.

Thirdly, the programme to support early career researchers should be able to react flexibly to emerging needs, approaches and developments with an appropriate structure in order to open up new horizons and enable innovation in the subject area.

Against this backdrop the TüNaProDoc programme was designed, which focuses on the doctoral phase. In addition, there are offers for the phases before and after the doctorate, so that there are now systematic offers for all qualification phases: For example, the BMBF project “Inspiring Early Career Researchers within the Field of Teacher Education! Motivating, Orienting, Supporting and Networking Student Degree Teachers and Young Teachers (WiNa Lehramt!)”, was designed primarily for students in the Master of Education programme who are interested in pursuing a doctorate in the subject area (duration: 06/2023 to 05/2025). Furthermore, together with the Professional School of Education Stuttgart-Ludwigsburg, the postdoc-college “Technology-Supported Innovations in Subject-Specific Teaching Settings (PostdocTEIFUN)” enables a sustainable postdoc structure (varying thematically every six years) as part of the Higher Education Funding Agreement II of the state of Baden-Württemberg.





**The TüNaProDoc Programme to Support Early Career Researchers –
A cross-faculty qualification and support programme in the context of
teacher education, school and research in education sciences**

Based on the strategic considerations and objectives outlined above, the TüNaProDoc early career support program was launched in 2016. This programme is designed specifically for the target group of doctoral students whose research focus lies the field of teacher education, school and teaching research. Participants' dissertations predominantly focus on subject-specific didactics or Educational Science; however, the program is also open to doctoral students who are pursuing a subject-specific research question with a recognizable school or educational focus as part of their doctorate.

In view of the integrative nature of the programme, it is open to doctoral students from all 25 teacher education subjects on campus and thus combines a wide range of academic disciplines as well as research methods and methodology.

Another characteristic of the target group is the varying degrees of proximity to school practice: the 50 participants currently include both doctoral students who have taken up a doctorate directly following their master's thesis (and therefore do not yet have any teaching experience of their own) and those who are doing their doctorate parallel to their teaching activities or who have returned to academia after completing their traineeship. Their expertise in research methods and their insight into everyday school and teaching life are correspondingly heterogeneous. What may, at first glance, appear to be a challenge is, at second glance, extremely rewarding – after all, the different levels of (specialist) expertise can be used profitably for exchange and mutual support at peer level.

Programme participants can benefit from the following qualification and support offers: Doctoral students outline their research plans in individual initial interviews: Necessary support requirements are determined together with the primary supervisor, existing university offers are pointed out and reference is made to experts at the location. In addition, a wide range of research methodological support services are compiled each semester, which are provided by cooperating university institutions (e.g. LEAD Graduate School and Research Network, Graduate Academy, Methods Center, Tübingen Open Science Initiative, QualiNet WiSo, Ethics Commission, etc.). In addition, there are needs-based, flexible on-demand funding offers as well as annual doctoral student conventions at which they report on the progress of their doctorate and exchange ideas with other scientific stakeholders on various topics. Programme participants start with an individual funding budget of €500 at their disposal.

The TüSE doctoral prize of € 500 for outstanding dissertations in teacher education, school and teaching research (donated by the University Association of the Eberhard Karls University) rounds off the range of support and ensures increased visibility of excellent research in the subject area.



Cooperative Postdoc-College Education and AI in the 21st Century
(PostdocTEIFUN)

of the Tübingen School of Education
and the Professional School of Education Stuttgart-Ludwigsburg

Together with the Professional School of Education Stuttgart-Ludwigsburg, the Tübingen School of Education has funded the postdoc-college “Technology-Supported Innovations in Subject-Specific Teaching Settings (PostdocTEIFUN)” as part of the Higher Education Funding Agreement II of the state of Baden-Württemberg. Six postdoc positions per cohort are provided in the college, three in each of the two schools.

The college also aims to promote young academics with school experience or teachers with an excellent doctorate in the teaching profession.

With this college, the two schools can address specific requirements of the postdoc phase in a sustainable and multi-faceted way:

- (1) While funding programmes for doctoral phases are common, there are few systematic funding structures for the postdoc phase – although there are often complaints that it is precisely after the doctoral phase that a bottleneck arises within an academic career.
- (2) The postdoc phase has specific characteristics, some of which differ significantly from the doctoral phase.
- (3) The cross-location cooperation is a contemporary approach to addressing one of the major topics of the 21st century in teacher education through the integration of AI.
- (4) With Cohort 1, the college enables a bridge to be built with the Cyber Valley partnership between the universities and Max Planck Institutes in Stuttgart and Tübingen, which has already been successfully implemented since 2016, by bringing together participating Computer Science colleagues with colleagues from teacher education, Educational Science and subject didactics departments.

The content of the first cohort (2024-2030) is geared towards technology-supported innovations, which go beyond established digital technologies such as multimedia applications or simulations and include innovative technologies such as virtual reality or machine learning methods.

The aim is to make a contribution to improving the quality of teaching in specific subjects. Technologies must be justified and used appropriately in order to develop their potential for teaching at school. The research projects in the postdoc-college are not aimed at laboratory work, but at use in authentic school and teaching contexts.

In the postdoc phase, there are often not only professional but also family challenges, particularly with regard to family planning.



Relevant topics to be addressed individually during this phase include developing an independent research profile, taking on a leadership role, a high degree of autonomy while maintaining high research and teaching standards, international mobility and networking, work-life balance, acquiring third-party funding and independent publication strategies, activities with the aim of achieving DFG applications, personal career planning, the further development of research methodological and content expertise in depth and breadth.

To this end, the college offers specific opportunities for national and international networking and subject-specific expertise development, for writing competitive proposals and for individual development and support. It is semi-structured and thus does justice to the higher degree of autonomy of this phase.

The governance is designed to make the infrastructure and expertise of the participating locations accessible to all and integrates experts from different disciplines via the board and steering committee, in particular experts from Computer Sciences and subject didactics.

The topic of the postdoc-college is redefined for each cohort so that there is a flexible basic thematic structure and current and relevant topics of the 21st century can be advanced again and again.

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Work Area Diversity and Inclusion/ Exclusion

School as an Active Part and Central Factor of Social Structural Genesis – Teacher education in the area of diversity and inclusion/exclusion

Since the UN Convention on the Rights of Persons with Disabilities came into force in Germany, state school systems have been called upon to develop and implement forms of inclusive education. At the same time, the structural improvement of educational participation for all pupils is an urgent social task, especially in view of migration and refugees. This includes, in particular, dealing with multilingualism and fostering language development. In view of the continuing financial underfunding of the education system, its continuing high level of social selectivity and its contribution to the (re)production of social inequality, the socio-political and academic question arises as to whether and in what form schools are not only part of the emerging structural problems, but can also be part of their solution.

At present, coping with the resulting challenges at school is primarily delegated to the professionalism of teachers, so that teacher education is nolens volens also given the task of preparing prospective teachers for conflicting educational realities.

The work area Diversity and Inclusion/Exclusion researches school processes in the area of conflicting political demands and analyses the interplay between the macro, meso and micro levels.

The feasibility of normative heterogeneity programmes or inclusion concepts is often seen as dependent on the educational or learning-relevant characteristics of the respective target groups and/or on the development of 'pedagogically desirable' attitudes of teachers. However, this is associated with the risk of reifying social differences and externalizing school-generated problems.

The TüSE work area Diversity and Inclusion/Exclusion (Head: Prof. Dr. Marcus Emmerich, Chair of Inclusion, Diversity, Heterogeneity) therefore focuses its research on the social construction of gender, cultural difference, social inequality, disability, etc. in and through the education system in its sub-areas of Inclusion and Diversity as well as Migration and Flight.

From a systems theory-inspired perspective, concrete school organizational decision-making conditions and teaching routines thus come into view as generative mechanisms of inclusion/exclusion, which, among other things, make forms of structural discrimination in school and teaching visible. Another central research focus is on the professional (self-)observation and regulation of teaching by teachers. The project Reflexivity and Intentionality in Teaching (Dr. Daniel Goldmann) examines, among other things, attribution and decision-making routines and thus potential discrimination.

In 2019, the work area initiated an interdisciplinary [Special Interest Group \(SIG\) Reconstructive Didactic Teaching Research](#), which is dedicated to methods and theory development in the focused field.





In recognition of the realities of Germany as an immigration country, the sub-project Language-sensitive teaching shifts the focus away from a deficit-oriented approach and a monolingual environment to recognizing the potential of multilingualism.

Adapted to the multilingual circumstances, multilingual pedagogical approaches and concepts of language-sensitive subject teaching are being developed in this area (Head: Prof. Dr. Doreen Bryant, Chair of German Linguistics / German as a Second Language (GSL)), which are not only geared towards the German language acquisition of children of non-German heritage languages, but are also intended to foster German language skills in all pupils and thus generally increase educational and participation opportunities and help to cushion social inequality. For example, the attitudes of teachers with regard to multilingualism as part of professional GSL competence (Beliefs Matter, Dr. Damaris Borowski) and the question of how teachers in social studies lessons use corrective feedback strategies to support their students' educational language skills, among other things, were examined (Dr. E.-L. Maiberger).

The results of the research are made available in all three sub-projects of the work area for the initial and further training of teachers (e.g. DGFS information day Performative Zugänge zu DaZ und Sprachbildung im Fach (Performative approaches to DaZ and Language Education in the Subject)), further training on heterogeneity in lessons and schools, and the transfer of research results into practice is also achieved through regular lectures and workshops. The sub-area Language-Sensitive Teaching also cooperates closely with the Multilingualism Center in Tübingen, which, as part of the Bilingualism Matters research network, fosters international exchange in the field of multilingualism (e.g. Mössingen Native Language School project, specialist conference on GSL and language education in the context of multilingualism, etc.).

For teaching degree students, there is a wide range of courses on the main socialization demands on schools and teaching today in the accompanying Educational Science courses.

In lectures and seminars, phenomena of diversity, heterogeneity and inequality are examined from social, cultural and Educational Science perspectives and explored in greater depth, the institutional conditions for inclusion in the school system are critically reflected upon, and per-



spectives on inclusive schooling and teaching development are developed. The programme also includes courses on language-sensitive and language-development teaching in the sense of supporting the development of multilingualism.

The development of professional skills through two practice-oriented additional qualifications (ZQ) in the field of inclusion-oriented and discrimination-sensitive teaching is a special feature of teacher education in Tübingen: one qualification in the field of GSL and another ZQ offer on sensitivity to difference and discrimination.

Both programmes include extensive supervised internships at partner schools in the region and in this way attempt to strengthen and at the same time critically reflect on the theory-practice application that is often required in the field of teacher education.

An additional qualification in Lehr:Forschung – accommodate diversity, reflect, teach in a discrimination-sensitive way

Every semester since 2020, 15 Tübingen Master's students have been able to deepen their theoretical knowledge of the Educational Science discourse on inclusion and combine it with practical experience in inclusive contexts at comprehensive schools (4 hours/week over half a school year) via the additional qualification Lehr:Forschung. In addition to learning about teaching that accommodates heterogeneity, the focus of the practical part is on expanding reflective skills on the basis of research-based learning.

The programme participants develop small research projects themselves by critically observing and analysing their own or others' routines for attributing learning differences regarding their inclusive or exclusive effects during the internship.

By focusing on the whether and how of an inclusive pedagogical approach, inclusion is not only understood spatially as co-education, but also in terms of the actual participation of pupils in classroom communication. Numerous Educational Science Master's theses have now been written in the context of this ZQ.

Many students appreciate the concrete and practical introduction to the training of (self-)reflective and discrimination-sensitive skills that the programme offers and rate the ZQ as beneficial for their professional development:



“The opinion you have formed about certain students, how much they influence you in terms of language or how you deal with the students – and I simply never thought about that before, because it was simply never a topic in my studies. But I think it’s super important to think about it, because it’s the only way you can somehow initiate this process of reflection.”

(Participant, ZQ Lehr:Forschung)

An interview study with previous graduates will be conducted to evaluate the effectiveness and ongoing optimization of the ZQ offer. From September 2022, interprofessional teams will also be researched in their inclusive work and significance for the school via a research collaboration with a ZQ partner school.

GSL additional qualification in linguistic heterogeneity

The ZQ Linguistic Heterogeneity (from 2023: ZQ Language Education in all Subjects), which has been offered by the Language-Sensitive Teaching work area since 2019, responds to the requirements of the professional field and gives teaching degree students of all subjects the opportunity to develop their skills in dealing with linguistically heterogeneous student bodies.

The GSL-ZQ (duration approx. three semesters) comprises courses from the thematic areas of (second) language acquisition, multilingualism, language level diagnostics, language-sensitive teaching, language teaching methods and language support. In addition, students complete a school practice phase and submit a portfolio at the end in which they reflect on their experiences as part of the ZQ. Both parts of the ZQ are thematically closely coordinated and students are guided towards increasingly independent and reflective, culturally and linguistically sensitive language didactics. They put their specialist knowledge into practice and learn to take into account the individual needs of students from different backgrounds.

As part of the ZQ Linguistic Heterogeneity, data is collected from participants (with the corresponding declaration of consent) in the form of reflection portfolios. These can be used for future evaluations, e.g. in the area of convictions, motivation, practice-theory correlation of the teacher education courses, etc.

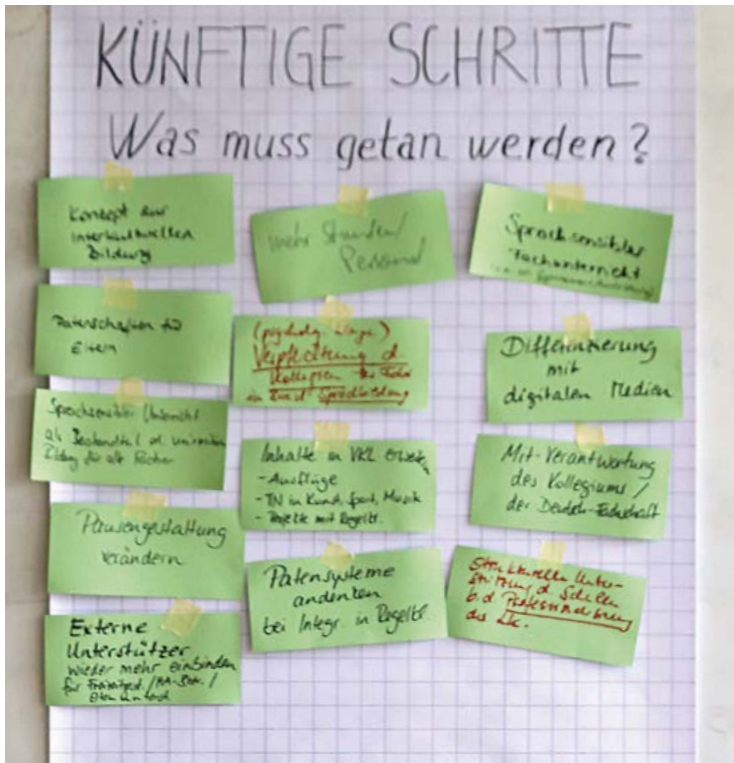
Since the start of the GSL-ZQ, around 170 students in five cohorts have received further qualifications. As a result, they are not only better equipped to cope with the linguistic demands of teaching in heterogeneous classes, but they have also improved their chances of employment, as successfully managing pupils with different first languages is a major challenge in the German education system.

The students’ self-reflections show that they find attending the ZQ extremely rewarding and beneficial for their didactic knowledge in the areas of language support and language-sensitive teaching and that they feel better prepared for dealing with linguistic heterogeneity in the classroom:



“The additional qualification enabled me to broaden my horizons and develop new perspectives. I am now convinced that language-sensitive subject teaching and support systems are essential for both German as a second language learners and native German speakers, and I want to integrate this knowledge into my everyday life at school.”

(Participant, GSL-ZQ)



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Work Area Internationalization



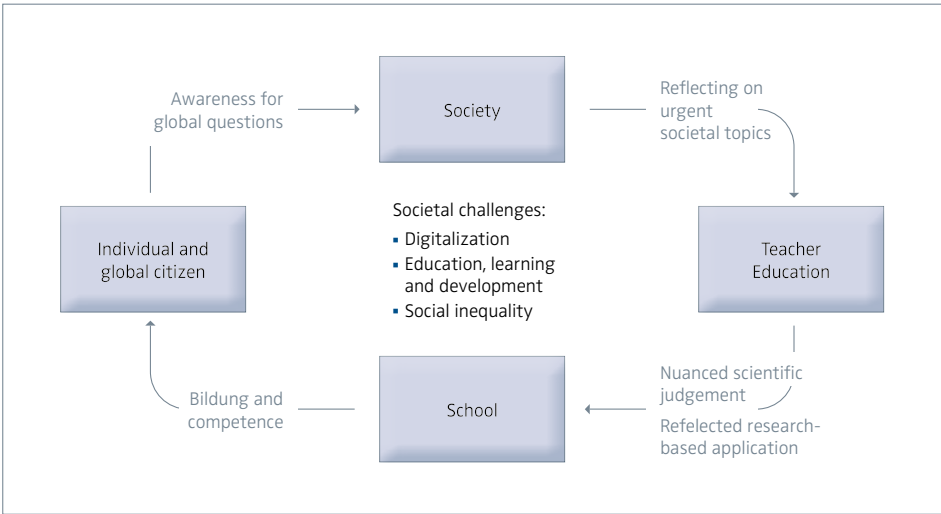
Global Awareness Teacher Education - Internationalisation of teacher education at the Tübingen School of Education

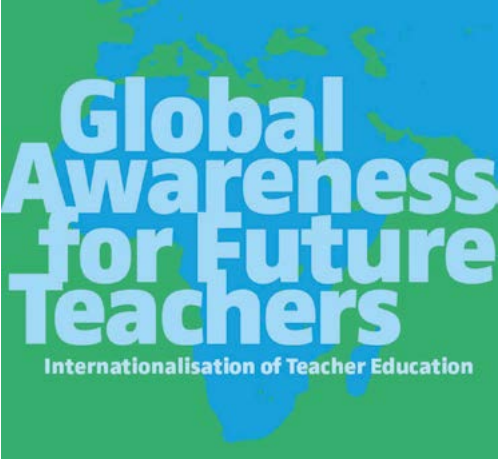
The internationalisation of teacher education at the Tübingen School of Education integrates global perspectives, cultural reflection, international experience and international exchange with the aim of developing global awareness in all aspects of teacher education. It assumes responsibility for school and teacher education in a globalized, interconnected and complex world and aims to prepare the young generations for the challenges of the future in the best possible way.

Meeting people from different backgrounds opens up the opportunity to get to know diverse values and to develop a broader understanding of other perspectives.

By interacting with learners from other nations, teaching degree students get to know other worlds of experience, values, concepts and influences, expand their own range of perceptions and develop new courses of action.

The construction of one's own professional knowledge, value positions or points of view can be re-examined and reflectively changed or confirmed, and values of tolerance and openness as well as awareness of one's own mind-set can be strengthened. The illustration describes how internationally oriented teacher education is positioned within the interplay of social developments, institutional developments at schools and universities and the development of the individual. Global perspectives are absorbed, negotiated, transformed and ultimately passed on by all those involved. Internationally oriented teacher education thus contributes to the development of global awareness in society, in individuals and in learning institutions.





In line with the University of Tübingen’s excellence goals, a separate department for teacher education was set up and established as part of the development of the Tübingen School of Education. Initially equipped with only one temporary staff position, the department now has one permanent staff position, two project positions and a deputy director position for international affairs, currently held by Prof. Kathleen Stürmer.

Until 2015, the internationalisation of teacher education was an undeveloped area. There were hardly any internationalisation offers aimed specifically at teaching degree students, researchers and lecturers. For this reason, the internationalisation activities of the entire university were examined regarding their potential for teacher education and central strategic objectives for the development and expansion were developed. The state of Baden-Württemberg provided massive support for the TüSE’s internationalisation work as part of a line of funding.

The internationalisation of teacher education was defined from the outset as a cross-sectional task that extends across all areas of teacher education.

The TüSE’s internationalisation goals are divided into three target areas:

(1) International reflection, experiences, skills

- Expansion of the range of courses offered in English, including the establishment of an accompanying course for teaching degree students on a semester abroad
- Counselling for teaching degree students on opportunities and financial support options for activities abroad
- Improving the range of study abroad programmes in cooperation with the International Office and numerous other stakeholders at the University of Tübingen
- Internationalisation offers at home: international summer schools in Tübingen, lesson observations in the field of German as a second language and intercultural programmes, English-language complementary course Education in Exchange with international students

(2) Internationally oriented research and teaching

- Digitalization training for lecturers and equipment with appropriate hardware enabling high-quality online collaboration and teaching
- Enabling short-term mobility abroad in order to develop and intensify lecturers’ language skills, cultural reflection and international perspectives and to implement them in courses

- International teaching formats, such as the International Education Week summer school, in close cooperation with lecturers from all teaching subjects
- Joint research projects and publications between Tübingen, Johannesburg and European Civic University Alliance (CIVIS) partners

(3) Establishing an international network for teacher education

- From individual teacher education contacts, the TüSE Internationalisation has gradually developed a network in teacher education, so far consisting of European and African partner institutions.
- Internal university networks and international institutions such as the Global South Center or the international university network CIVIS are used as essential building blocks for teacher education.
- The partnerships in the TüSE network form the basis for the acquisition of joint third-party funded projects and as contact points for international research cooperation.

In line with the University of Tübingen’s Excellence Strategy, the internationalization of teacher education in Tübingen fulfils the goal of Global Awareness Education, with a specific focus on future-oriented teacher education.

One highlight of the TüSE’s internationalization work is the two successfully acquired international mobility and networking projects Global Awareness for Future Teachers, a DAAD project by Lehramt.International and the Erasmus+ Teacher Academies Project UNI-T A European Civic Teacher Academy.

As part of the UNIT project, together with the project partners University of Aix-Marseille (France), The National and Kapodistrias University of Athens (Greece), La Sapienza University of Rome (Italy), University of Tübingen (Germany) and The Free University of Brussels (Belgium), a European Teacher education Academy is being created by setting up a Community of Practice. Blended learning courses and opportunities abroad for teaching degree students, workshops for teaching degree students and teachers as part of further education courses, the awarding of funding for collaborative school research projects and summer schools are developed and implemented (duration 2022-2025).

The DAAD-funded project Global Awareness for Future Teachers has been part of the internationalisation of the TüSE since the beginning of 2021. It supports the international networking of the TüSE as well as international experiences and global skills for teaching degree students,





researchers and lecturers. In line with the internationalisation strategy of the University of Tübingen, intensive networking is sought, especially with countries of the Global South.

Global Awareness Education aims to systematically integrate global perspectives, cultural reflection, international experience and international exchange and not only plays a central role in the University of Tübingen’s Excellence Strategy, but is also crucial with regard to the tasks of future teachers.

The project will initiate and institutionalize sustainable university cooperations with partners in Africa and Europe with the aim of offering internationalised study programmes for teacher trainees. The project is based on six different areas in which prospective teachers and university lecturers can acquire intercultural, linguistic and professional skills in the sense of Global Awareness Education: Network building, student exchange, lecturer exchange, portfolio-based accompanying courses during the semester abroad, mentoring and counselling on stays abroad and the International Education Week summer school.

Thanks to the teaching-related cooperation between the Schools of Education in Tübingen, Johannesburg and AixMarseille, ten students have already been awarded scholarships for their exchange semester and have received intensive support. Three lecturers were able to intensify their international teaching experience and establish research contacts as part of a guest lectureship.

Students are supported during their stay abroad in the project’s own portfolio course, where they reflect on and discuss their experiences. The blended learning course Global Learning Abroad – Education in Exchange is based on the Tübingen portfolio: individual experiences are specifically combined with a global perspective and practical experiences are reflected on both personally and theoretically.

A special event was the International Education Week in August 2022, during which the course Ethics and Sustainable Development was offered by Dr. Simon Meisch and Dr. Uta Müller, IZEW Tübingen. The course was attended by international teaching degree students from four different countries as well as from Tübingen and offered the opportunity to discuss and exchange ideas across borders. In keeping with the motto of Education Week Meet – Learn – Connect – Discuss, the intensive course was accompanied by a cultural programme.

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SELECTED PUBLICATIONS:

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“I have deepened my knowledge about ethics and sustainability [...]. In addition, I really enjoyed the didactic strategies [...], they were really inspiring for me as a future teacher, since I find them really efficient [...]. Coming to the personal side, I would say that spending time with so many people from different countries was extremely enlightening and offered me the opportunity to change my point of view.”

(Student of the Education Week 2022)

“I like the interactions of students during the lecture, they all had positive attitude and willingness to learn and engage. I also liked the opportunity I was given to meet people working on similar work with me. This may yield fruitful collaborations I believe.”

(Student of the Education Week 2022)

As a platform for exchange, the International Education Week event offers participants the opportunity to engage with global topics and different professional and personal perspectives. The summer school as an event also offers lecturers the opportunity to get to know the content and structural challenges of internationalised teaching as well as early career researchers from other nations. Teaching structures and research areas in Tübingen are presented and critically discussed.

The internationalisation of the Tübingen School of Education aims to provide interested students, lecturers and researchers with international perspectives in a wide variety of formats. The use of digital learning formats which gained momentum due to the Covid-19 pandemic is a major gain for internationalisation and has been integrated as an essential aspect.

The internationalisation of the Tübingen School of Education is driven by a variety of future-related issues, for example: How does internationally oriented teacher education combine the global and the local? How does green internationalisation look like? What characterizes an international classroom?

The TüSE Internationalisation hopes that international experiences and global learning at home and abroad will raise new questions about the present and the future and that the answers to these questions will contribute to a diverse, reflective and globally responsible school education.

Work Area Digitalization

Digitalization in Teacher Education in Tübingen – Comprehensive concept, practical application and innovative transfer

Digitalization affects all areas of society. Schools and teachers are called upon to design their lessons in such a way that digital media are used effectively in lessons so as to stimulate subject-specific learning processes and enable students to develop a critical media literacy. Despite the great importance of digital media, their integration into lessons still plays a subordinate role. Even the remote learning due to Covid19 led to a pragmatic rather than pedagogically sound integration of digital media in the classroom.

But what exactly characterizes the didactically justified use of digital media? How do you foster a critical view of digital media and what does that actually mean?

With the projects in the Digitalization work area, we want to help prepare prospective and advanced teachers for such issues and support them in using digital media in the classroom. This was intended to contribute also to the digital education of students.

The overarching goal of the Digitalization work area at the Tübingen School of Education is to develop an interdisciplinary, research-based and application-oriented digitalization concept for teacher education in Tübingen.

The central aspects of the concept are:

1. to bundle and make visible the wide range of digitalization-related research skills in teacher education on campus,
2. to develop and research digitally supported teaching concepts,
3. to systematically incorporate media-critical and ethical perspectives in the context of digitalization in teacher education,
4. to systematically advance implementation and professionalization in order to achieve a substantial contribution to improving the quality of teaching and learning processes in schools.

The Tübingen School of Education's activities in the context of digitalization in teacher education are closely linked to the Tübingen didactics departments, the Institute of Education and the Research and Transfer Center – Digitalization in Teacher Education Tübingen (TüDiLB), a network of the University of Tübingen and the Leibniz-Institut für Wissensmedien. The Tübingen School of Education also cooperates in this area with the Hector Research Institute of Education Sciences and Psychology.

In line with this concept, ambitious research, teaching and implementation projects have been carried out in the context of the Tübingen School of Education since 2016. Within these projects, Educational Science and subject didactic perspectives are equally addressed and related to each other. From a research perspective, an important pillar of the department is the [Special Interest Group \(SIG\) Digitalization in Teacher Education](#).

A unique feature of the projects in the field of digitalization is that the resulting scientific findings and practical examples are rigorously made available to teacher education stakeholders and the public as free and modifiable materials (OER).

In terms of perspective, the preliminary work represents an important building block for the Tübingen Center for Digital Education (TüCeDE), which is currently being established and in which digital education in (higher) education is to be fostered in an interdisciplinary and broad context. Key players in education and computer science will be brought together for this purpose. Other relevant players from the humanities, social sciences and medicine will be systematically involved. In the following, central projects of the Digitalization work area are presented.





Developing digitally supported teaching concepts: Digital media in adaptive teaching at the upper secondary level of the comprehensive school (DiA:GO)

In the course of the establishment of several higher levels of comprehensive schools (Baden-Württemberg) and the increasing digitalization of school teaching and learning processes, the development and implementation of innovative and sustainable media-supported teaching concepts to foster the subject-related and media related skills of pupils (at comprehensive schools) has been given high priority in order to deal productively with heterogeneity. This is because students have a wide variety of cognitive and motivational prerequisites that significantly influence their learning process and their needs.

In order to provide them with learning opportunities that are adapted to their learning situations, adaptive methods that explicitly take into account the learning conditions of students are a good option. Digital media can be used in a targeted manner to facilitate the implementation of adaptive methods. However, it is unclear how practical adaptive teaching with the help of digital media must be designed in order to support subject-specific learning processes.

In the DiA:GO project, a joint project between the University of Tübingen and the Gemeinschaftsschule (comprehensive school) West in Tübingen, teachers and researchers are working together as equals to develop practical concepts for adaptive teaching units using digital media.

As an introduction, joint workshops and BarCamps were implemented to initiate professional learning communities among the teachers. Building on this, teachers develop and implement teaching units in various subjects in close cooperation with the University of Tübingen. The results of the systematic accompanying research show a great increase in performance as well as improved self-regulation of the pupils after the teaching units. Lower-performing pupils in particular benefited from the teaching units. From the 2022/2023 school year, the program will be expanded to several comprehensive schools with upper secondary schools in Baden-Württemberg. The core of this second funding phase (still funded by the [Robert Bosch Stiftung](#) and additionally by the [Vector Foundation](#)) is the binding formation of a network between the comprehensive schools with their own sixth form in Baden-Württemberg.

Strengthening professional knowledge in the context of a digital teaching laboratory: fostering skills in media-supported teaching in teacher education (TüDiLab)

The Tübingen Digital Teaching Lab (TüDiLab) is a supplementary facility of the Tübingen School of Education (TüSE), which is operated jointly by the University of Tübingen and the Leibniz-Institut für Wissensmedien (IWM). The TüDiLab pursues two objectives, namely (1) the practice-oriented professionalization of teachers with regard to their skills for designing media-based lessons and (2) conducting research on the effects of teaching with support of digital media. The TüDiLab is a room



that is modelled on a modern classroom and equipped with digital media typical for schools as well as with survey instruments whose data allow a detailed description of teaching and learning processes in real teaching situations.

The TüDiLab enables the practice-oriented professionalization of teachers with regard to their media didactic competence within the framework of the Educational Science course of the Master of Education, in the context of further and advanced training of teachers and within the framework of the TüSE's programme to support early career researchers.

The TüDiLab also serves as a laboratory for pedagogical research. The TüDiLab enables research into real lessons, but at the same time allows the standardization of framework conditions as well as the systematic variation of contextual factors of interest and the detailed recording of a large number of teaching and learning processes. The TüDiLab was set up as part of a corresponding funding program of the state of Baden-Württemberg, as was the TPACK 4.0 project outlined below.

Advancing subject-specific professionalism in teacher education programs: TPACK 4.0 – interdisciplinary, practice-oriented and research-based fostering of media-didactic skills of teachers

In the TPACK 4.0 project, a joint project between the Tübingen School of Education and the University of Education Weingarten is being established as an integrated and cross-location media training for teachers in the first phase of teacher education in order to prepare teachers for the use of digital media in subject-related lessons. The starting point here was the promotion of so-called Technological Pedagogical Content Knowledge (TPACK), i.e. subject-related media didactic knowledge, which has so far played a subordinate role in teacher education. TPACK describes the knowledge of didactic functions and possible uses of digital media to achieve content-specific teaching and learning objectives and skills relating to the subject-specific design of digital teaching scenarios.

The University of Education Weingarten and the Tübingen School of Education developed an interdisciplinary media didactic module for this purpose, which was adapted for the secondary level in central subject didactic courses for the major teaching subjects at both universities. The knowledge transfer is flexible, location-independent and self-paced in individual, computer-supported self-study phases. The gradual approach to media-based teaching practice was achieved through guided practical phases in teaching-learning laboratories. More than fourteen different subject didactics departments at the two sides are involved in the project.

The results of the accompanying research underline the effectiveness of suitable support for the development of subject-specific media didactic knowledge and the motivation of prospective teachers to use digital media in subject lessons.





Bundling research and implementation activities: Establishment of a Research and Transfer Center – Digitalization in Teacher Education Tübingen (TüDiLB)

With the establishment of a Research and Transfer Center – Digitalization in Teacher Education Tübingen (TüDiLB) in 2019, a network of the University of Tübingen and the Leibniz-Institut für Wissensmedien, previous research and implementation activities in the field of digitalization in teacher education will be bundled and information services will be provided to show how digital change can succeed in the education sector. The center will receive funding from the Federal Ministry of Education and Research until the end of 2023 as part of the Qualitätsoffensive Lehrerbildung by the federal and state governments.

The work of TüDiLB is divided into three implementational and practical areas:

The work area Translation and Transformation strengthens the application of knowledge regarding digital media into educational practice.

The work area therefore sees itself as an interface between digitalization-related research and practice and is aimed at teachers and those involved in teacher training. The aim is to summarise current research findings in the field of digitalization (e.g. on teaching concepts, skills and forms of professionalization) and to prepare them for teacher education in a way that is appropriate and accessible for the target group.

The Tübingen Digital Library of Compiled Research Syntheses (TüDi-BASE) presents current research syntheses in the fields of learning with digital media and media education in a target group-specific form and provides free access to this information.

For the first time, TüDi-BASE provides information on science communication of current research findings in the field of digitalization in teacher education.

TüDiBASE introduces, presents and classifies findings from scientific surveys in an understandable way. A collection of good practice examples of teaching concepts and the use of digital media as well as the provision of tools round off the information on offer. At the same time, the accompanying research focuses on how actors from the target groups use the offer and what effects the offer has.

In the 1st phase of teacher education, needs-based and sustainable concepts for teacher education were developed and implemented at the University of Tübingen.

These concepts are geared towards the broad fostering of digitalization-related teaching skills of prospective teachers in Tübingen. Future teachers are qualified in the didactically meaningful and research-based use of digital media for the design of teaching processes, for the stimulation of learning processes in students and for a critically reflective use of digital media in their subject teaching. The starting point is the mandatory module Teaching and Learning with Digital Media, which was introduced in winter semester 2020/2021 and deals with media psychology, media

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didactics and media education principles for the use of digital media in the classroom. In advanced seminars in the area of specialisation, students are given continuous opportunities to try out didactic applications of digital media in subject-specific lessons. Subject-specific courses have been developed specifically for this purpose, covering the use of media in sciences, in humanities and social sciences, in foreign languages and in Mathematics. In the specializations, the students develop media-based teaching units independently, which are then tested in practice. The courses take place in the TüDiLab. The establishment of the concept for teacher education at the University of Tübingen is accompanied by a comprehensive longitudinal evaluation (including qualitative analyses).

The aim of the training and further education department is to develop and implement a research-based and sustainable training and further education structure to strengthen the digitalization-related skills of teachers.

In collaboration with the [Tübingen School of Education](#), the Institute for Adult Education at the University of Tübingen and the Hector Research Institute of Education Sciences and Psychology, a training concept consisting of several flexible basic and application modules is being developed and implemented together with the Center for School Quality and Teacher education (ZSL). The focus of the training initiative is the integrated and subject-specific further qualification of teachers in the field of media didactics and media education. The training initiative is offered in the form of modularized learning units, each of which can be completed in a time frame of several hours. Innovative approaches are taken into account, such as the analysis and evaluation of good practice examples and the formation of professional learning communities in the form of BarCamps.

Integrating social theory and ethical perspectives: Media-pedagogical and action-related further development of the Research and Transfer Center: Digitalization in Teacher Education (TüDiTeach 2.0)

In order to complement previous projects and thus integrate the topic of digitalization into teacher education in a comprehensive manner, the TüDiTeach 2.0 project will systematically supplement the existing content of the TüDiLB research and implementation center with media education content. TüDiTeach 2.0 is made possible as part of the teacher education funding program in Baden Württemberg.

In addition to didactic application scenarios, educational theory and ethical implications of the use of digital media are also addressed.

This includes critical reflection on current technological developments (e.g. in the area of big data, artificial intelligence, algorithmization) and their significance for the educational contextas well as fostering digital sovereignty, which enables a self-determined and reflective approach to digital media in algorithmized environments. When integrating media-pedagogical content into TüDiLB, the focus is placed on the one hand on promoting media-pedagogical professional knowledge and on the other hand on fostering the corresponding practical knowledge in order to enable prospective teachers to deal with digital media in a holistic, action-oriented and reflective manner.



Concepts developed for the qualification of teaching degree students are implemented in university teaching and focus on a critical and ethical-normative perspective on teacher education in schools, which addresses the opportunities and risks of digital teaching and learning processes in equal measure (Teacher Education 1st Phase). Central media-pedagogical content is also made accessible as open educational resources via existing distribution channels (work area Translation and Transformation).

The sustainable fostering of practical knowledge is pursued through the establishment of an application-oriented, cross-phase qualification concept in which teaching degree students – supported by video-based microteaching – can develop and test their own teaching concepts in professional learning communities with teachers (work area Further Education and Training).

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Lachner, A., Fabian, A., Franke, U., Preiß, J., Jacob, L., Führer, C., Küchler, U., Paravicini, W., Randler, T. & Thomas, P. (2021). Fostering pre-service teachers’ technological pedagogical content knowledge (TPACK): A quasi-experimental field study. *Computers & Education*, 174, 104304. <https://doi.org/10.1016/j.compedu.2021.104304>

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Schneider, J., Backfisch, I. & Lachner, A. (2022). Facilitating Open science practices for research syntheses: PreregRS guides preregistration. *Research Synthesis Methods*, 13(2), 284–289. <https://doi.org/10.1002/jrsm.1540>

The **Robert Bosch Stiftung** works in the areas of health, education and global issues. With its funding, it is committed to a sustainable future. The TüSE projects DiA:Go and, as a continuation, DiA:Net are in line with the Foundation’s aim of strengthening the education system to develop not only knowledge but also creative, social and technical skills, so-called 21st Century Skills or Future Work Skills.

Work Area
Science
Communication



Let's communicate!
Scientific communication at the TüSE

Society and politics use scientific findings to make and justify decisions. Science therefore also has a great responsibility. This applies just as much to academic, didactic and educational research in the field of teacher education, schools and teaching as it does to studying and teaching in teacher education. Teacher education at the TüSE continuously focuses its efforts on training and qualifying excellent teachers who can enable future generations to responsibly shape the immense challenges of the future. Research at the TüSE is research with international standards and a special focus on implementation.

However, scientific communication is not only a link between science and society or the public, but is also inherent to scientific work.

Academic communication at the Tübingen School of Education is understood as communication at different levels and with different stakeholders. Particularly in complex settings such as teacher education, it is important to focus not only on the objects of implementation but also on processes of understanding and adaptation and to support the necessary networking of stakeholders. How can research findings be presented in a target group-oriented way? How can we generate enthusiasm for our work? What needs do teachers and the various stakeholders in society have that need to be considered in order for academic communication to succeed?

A diversity-conscious implementation, a professional communications concept and strategy, and a recognisable corporate design were the basis of the wealth of scientific communications services developed since the TüSE was founded.

Free access to scientific knowledge: Open Access publication series

With the **publication series 1 Lehrerbildung. forschungsbasiert. anwendungsbezogen. verantwortungsbewusst.** (Teacher education. research-based. application-oriented. aware of responsibility) a peer-reviewed series was launched in 2020, which brings to light a variety of interdisciplinary research findings from educational sciences, subject sciences and subject didactics and illustrates the clear research mission of the TüSE. The series is published by Tübingen University Press and significantly underlines the university-wide open access strategy. Four volumes have now been published here in 2023 (see figure below); more are in preparation. Depending on the content of the volume, the target groups are researchers in teacher education, school and teaching research from the educational sciences, subject didactics and subject sciences, stakeholders in teacher education, especially in the first phase, but also in the second and third phases of teacher education, teaching degree students and stakeholders in education policy and administration.

With the title **Lehrerbildung. kreativ. innovativ. ungewöhnlich.** (Teacher education. creative. innovative. unusual.), the second publication series was established in 2021, enabling the publication of topics, approaches, food for thought and ideas that are less prominent in the focus of the current scientific mainstream in Educational Science, subject didactics and subject sciences in teacher education, but are nevertheless significant for scientific discourse. The first volumes (Volume 1 in German and English) have been published and others are about to be published or are in preparation.



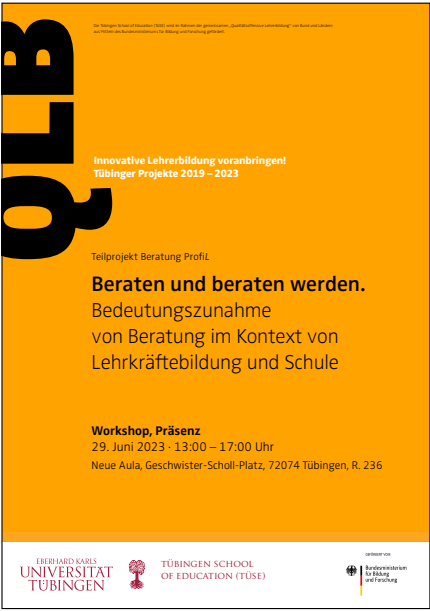
The second series is also published in **open access format by Tübingen Library Press**, thus adding to the TüSE's efforts in the context of open science in teacher education research.

The TüSE newsletter provides information and documents on the broad range of activities relating to teacher education.

Another important component of the TüSE's science communication strategy is the **newsletter**, which is published at regular intervals and now enjoys a nationwide readership at universities, schools and other educational institutions as well as in educational administration. While the first issues focussed on the foundation and development of the TüSE, including the work areas to be established, the newsletter now has a large number of sections and shows the differentiated breadth of teacher education-related activities at the location. The newsletter provides information about events, personnel news, third-party funding acquired, teaching and research projects, new publications etc. at the TüSE office and in the 25 teacher education subjects. Interviews, research portraits and focus topics complete the picture and allow a more intensive examination of people and issues. Since its publication, the newsletter has undergone a significant change in appearance and now resembles a magazine, which is offered to the interested public for reading both digitally and in printed form. In order to be able to report on developments at the location more flexibly and on a daily basis in future, we are currently considering developing the format into a blog or an electronic newsletter.

Subject-specific analyses and concepts, such as the concept of the [Information and Counselling Center](#), the analysis of the evaluation concept in the area of teacher education at the University of Tübingen or the [framework concept for subject-specific teacher education](#) are also available in a professional design for internal and external communication.

The **TüSE website** offers a compact overview of the structure, work areas, events, people and current news within the scope of the university's possibilities. The website serves as a central location for all TüSE web-based applications and contains relevant links and further information.



Target group-oriented events

The Tübingen School of Education regularly organizes event series and individual events together with and for various stakeholders. Currently, the following are particularly noteworthy:

To mark the conclusion of the Qualitätsoffensive Lehrerbildung 2023 funding programme, the Tübingen School of Education (TüSE) is holding a seven-part series of events entitled **Innovative Lehrerbildung voran bringen! Tübinger Projekte der Qualitätsoffensive Lehrerbildung** (Advancing innovative teacher education! Tübingen projects of the Qualitätsoffensive Lehrerbildung), which will once again focus on the extensive work in the various teaching, research and development projects that were funded and implemented between 2016 and 2023. Numerous research projects, structural and content-related improvements to teacher education courses and tailor-made offers for the further training of teachers resulted from the work in the sub-projects. In seven events of different formats, the Tübingen projects of the Qualitätsoffensive Lehrerbildung present central measures and results, put them up for discussion and provide an outlook on future challenges and perspectives. The events offer a platform for the exchange of content for critical discussion and networking between researchers, teachers, multipliers in teacher education and all interested parties.

In the winter semester 2022/2023 and summer semester 2023, the online event series **Fachgespräche Lehrerinnen und Lehrerbildung. Forschung. Diskurs. Perspektiven.** (Expert talks on teacher education. Research. Discourse. Perspectives.) has entered its second round after the successful first season. The expert talks are a cooperative series of events organized by the universities of Dresden, Hannover, Münster and Tübingen, which has attracted a great deal of interest and recognition throughout Germany. The problems associated with teacher education are multi-layered and complex and are discussed by stakeholders at very different levels.

The lively interest in the specialist discussions documents just how great the need is for interdisciplinary exchange across research methods and methodological boundaries at a high professional level.

Research-based, up-to-date, critical and forward-looking, both fundamental structural problems and current pressing challenges are addressed and examined from different perspectives, taking into account the national and international research discourse. An expert discussion begins with a pointed keynote speech, which is supplemented by critical and constructive impulses from a critical friend. The presentations conclude with a contribution from the next generation, before the exchange is rounded off with a joint discussion with the participants. All lectures can be viewed on the TüSE



YouTube channel. The event series is aimed at expert stakeholders and researchers in teacher education. Once again, all participating disciplines of educational sciences, subjects and subject didactics as well as all research methodological approaches are addressed.

Since the 2019/20 winter semester, the Tübingen School of Education has been offering the event series Schulgespräche: Lehramtsstudierenden, Lehrkräfte und Forschende im Dialog (School talks: teaching degree students, teachers and researchers in dialogue) for teaching degree students. The series deliberately focuses on current as well as basic topics of the teaching profession as well as school and teaching events and examines them from different perspectives.

The series thus addresses the justified desire often expressed by teaching degree students for more exchange with people in practice during the first phase of their teacher education.

At the events, practitioners first provide insights into various challenges of everyday school life and develop suggestions for solutions and conditions for success for school activities based on their experience. This is followed by the research perspective, which examines the same aspects from an academic perspective

The aim is therefore to look at authentic and current issues relating to the teaching profession from two perspectives at the same time and to arouse curiosity and anticipation among teaching degree students about working in a school environment

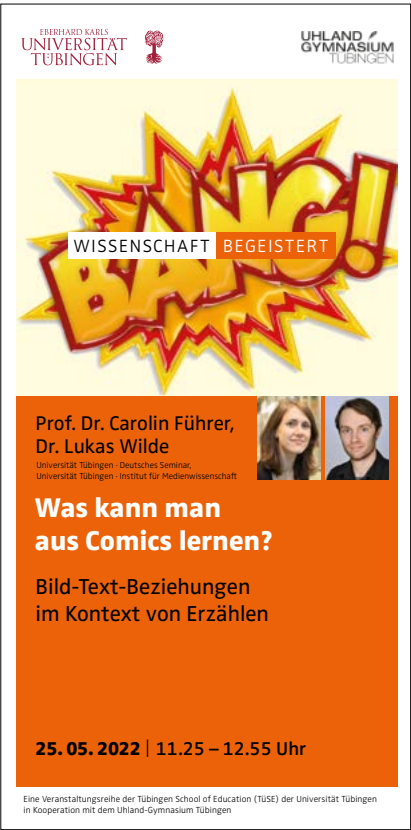
The series of events has been organized digitally as a live event series since the 2020/21 winter semester. Between 80 and 100 interested teaching degree students take part in each event. Statements such as “I’m already looking forward to the next event!” or “Can’t you offer an evening on this topic?” show that the evenings meet with great interest and are firmly anchored in the students’ event calendar.



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As the central location for teacher education at the University of Tübingen, the TüSE is aware of the outstanding importance of the teaching profession for the future of society. The video contributions aim to express recognition and appreciation and arouse enthusiasm for the teaching profession.

Sparking students’ interest in scientific topics: Science inspires!

How can schoolchildren be inspired by exciting research topics? How can science succeed in engaging the growing generation and taking responsibility for developments in society as a whole?

In cooperation with the Uhland Gymnasium Tübingen, the Tübingen School of Education has developed the concept for the event series *Wissenschaft begeistert* (Science inspires), in which pupils and university teachers approach current, exciting and relevant topics from different subject areas.

The event is intended to make an important contribution to the application of current and relevant knowledge, to present research questions in a student-oriented and appealing way, and to offer potentially interested students an exciting insight into the wide range of research and subject areas at the University of Tübingen.

Furthermore, such confrontations with new questions and different perspectives can initiate learning and educational processes. The experiences and feedback from this first pilot round should be taken as a starting point for a possible expansion and further development of this offer.

Ready for a new generation?
Videos that aim to inspire enthusiasm for the teaching profession and teacher education.

With the professionally produced videos **Bereit für die neue Generation – Studiere Lehramt in Tübingen** (Ready for the new generation – Study in Tübingen to become a teacher), the TüSE aims to generate enthusiasm for the teaching profession and focus on the enormous social importance of teachers. In view of the dynamics of global change, education, schools and teachers, and therefore teacher education, continue to play a key role in overcoming urgent challenges.

Curious? Then simply take a look at the TüSE website or YouTube channel!



The TüSE on social media: a success story

One of the central concerns of the Tübingen School of Education is to address teaching degree students and prospective students in a targeted, low-threshold and needs-oriented manner.

Social media, which are also becoming increasingly important in the field of science communication, are ideal for this, as they increase the visibility of the TüSE’s offerings as well as sharing teaching-related information in a simple way.

The TüSE recognized this opportunity and has been operating its own social media channels on YouTube, Facebook and Instagram since 2019, each with its own concept.

Recordings of lecture series, professionally produced promotional films about studying to become a teacher in Tübingen as well as video presentations on study-related offers from the TüSE Information and Counselling Center for Teacher Education are available on YouTube.

The TüSE Facebook channel is aimed at a public interested in science and primarily advertises public events (e.g. lectures, workshops and further education courses) organized by the TüSE.

However, the Instagram channel is an explicit offer for students and prospective students and provides an interactive and needs-based range of services for this target group, e.g.

- Information on the structure of the teacher education programme at the University of Tübingen and on supplementary courses,
- Information on informational events and important study deadlines,
- Assistance (also with questions about financing studies or in special life situations),
- Study tips and materials for independent study,
- Impressions of student life in Tübingen,
- Low-threshold interaction channels through surveys, question tickers, comments and direct messages.

The implementation of social media on Instagram follows its own strategy: The content of posts is based on the semester system and follows an editorial plan. Visually, the posts are designed in the TüSE corporate design; linguistically, they specifically address the target group of students and prospective students. Relevant hashtags and reposts are used to increase reach (e.g. via the channels of the University of Tübingen, the student councils and other educational institutions).

The response to the TüSE’s social media offerings has been extremely positive – both within the university and externally.

We are delighted that our number of subscribers (including universities, publishers, teachers, schools and school administration institutions such as the Ministry of Science, Research and Arts) is growing steadily and that our strategy has paid off!



The Educational Science Area



Educational Sciences in the Tübingen

Teacher Education Programme: Broadly oriented and excellently positioned

The still young German term “Bildungswissenschaft” (Educational Science) encompasses a range of disciplines and, in the context of teacher education, often replaces the previous term “Erziehungswissenschaft” (Educational Science).

Depending on the institution, the term “Bildungswissenschaft” (Educational Science) may include “Erziehungswissenschaft” (Educational Science), (educational) psychology, empirical educational research and/or (educational) sociology.

The importance of studying education sciences (“Bildungswissenschaften”) for later professional practice is undisputed. In its recommendations, the Standing Conference of the Ministers of Education and Cultural Affairs formulates applicable standards for teacher education in the field of Educational Science (“Bildungswissenschaften”) and thus emphasizes its great significance for the teaching profession. In view of the increasingly complex and multi-layered challenges facing society, all too often (too) high expectations are associated with this field when it comes to dealing with, integrating and teaching topics such as digital education, education for sustainable development or inclusion and diversity in the study and teaching of Educational Sciences (“Bildungswissenschaften”), which, however, only make up a part of the range of topics and compete with an extensive range of profession-related content for shares in the course.

The fields and topics of research in Educational Sciences (“Bildungswissenschaften”) are accordingly broad and highly relevant. As associated disciplines, they are characterized by a broad spectrum of methods and methodologies and are excellently represented in Tübingen.

The term Educational Science (“Bildungswissenschaften”) or the field of Educational Sciences is used in various ways in Tübingen.

- 1) To denote institutions that conduct educational research: The Department of Education, the Hector Research Institute of Education Sciences and Psychology, the Leibniz-Institut für Wissensmedien and the Tübingen School of Education are generally subsumed under this term.
- 2) To denote the studying of education sciences (“Bildungswissenschaften”) in the teaching profession (B. Ed. and M. Ed.): In Tübingen, this refers to courses offered in particular by the Department of School Education at the Department of Education and the Hector Research Institute of Education Sciences and Psychology, but also by the International Center for Ethics in the Sciences and Humanities and the Tübingen School of Education.

3) To denote Tübingen applications to the first and second funding phases of the Qualitäts-offensive Lehrerbildung, in particular to the three professorships in Educational Sciences (“Bildungswissenschaften”), which have received start-up funding as a result (since 2016) and will subsequently (from 2024) be continued by the University of Tübingen.

In this respect, the term is not immediately understandable, but requires explanation. The structure of this sub-chapter is also based on this distinction. As part of the application for the [Qualitäts-offensive Lehrerbildung](#) (1st funding phase), the Rectorate, the TüSE and other stakeholders of the Educational Sciences (“Bildungswissenschaften”) already working in Tübingen identified three areas that had not yet been adequately staffed. As a result, the three professorships of [Professorial Research in Subject Didactics](#), [Inclusion, Diversity Heterogeneity](#) and [Effective Teaching/Learning Arrangements in the Subject Didactics](#) were applied for and established following a successful review. With the structure of these professorships and the addition of „in subject didactics „, the close networking between Educational Sciences and subject didactics was to be supported from the outset – one of the central premises in the establishment of the TüSE. An interdisciplinary, innovative and research-based educational sciences program is offered to teaching degree students.

Tübingen’s teacher education program has a diverse, extraordinarily broad-based and high-calibre expertise in the field of Educational Sciences (“Bildungswissenschaften”), which includes empirical quantitative working professorships as well as social-reconstructive and theory-based professorships.

This diversity offers the TüSE many opportunities for cooperation and diverse research approaches which are used intensively for different measures and objectives, e.g. funding applications, offers in the research-related infrastructure and provisions for early career researchers.



Vocational Research – Teachers in the spotlight

The working group for vocational research, with a particular focus on subject didactics, is concerned with the question of who teachers, head teachers and other education professionals at schools are, in which working environment they work and how they can be meaningfully qualified for their tasks and professionalized throughout their careers. This puts the focus of interest on the central persons responsible for educational processes in schools, who have a significant influence on the school system through their pedagogical work with children and young people as well as through their leadership behaviour. The special fascination of this field of research lies in the fact that these people themselves become the subject of research, making an essential contribution to the education of future generations of adults. The focus is on (prospective) teachers from the start of their studies until they leave the profession, and the teaching profession is seen as a vocation that is linked to a lifelong professionalization process that must be shaped.

The special fascination of professional research lies in the fact that teachers themselves become the subject of research, making an essential contribution to the education of future generations of adults.

Current research priorities

The working group conducts research on very different aspects of the teaching profession and professionalization in teacher education. Three fields of research are currently of particular interest.

Further and continuing education and in-service learning for teachers

Firstly, research is being conducted into the continuing education and professional development of teachers, which has been little studied in Germany to date. Teachers are dependent on maintaining and expanding their professionalism and adapting to new social challenges (e.g. due to digitalization). Both an examination of the provisions at teacher education institutions (formal further training) and the largely unexplored individual professionalization of teachers beyond formal offers, such as through reading specialist literature (informal learning), play a role here.

School management

Secondly, the research focuses on school leaders, who play a key role in school development and have proven to be central actors, especially during the COVID-19 pandemic. In cooperation with colleagues in Germany, Austria and Switzerland, the career paths of school principals are examined in a longitudinal study, especially against the backdrop of a drastic shortage of school principals (unfilled positions) in Germany.

Orientation knowledge

Thirdly, the working group deals with the question of how to deal with frequently occurring, unclear terms in the school field (e.g. what exactly is meant when we talk about digitalization?). It is of great importance to provide



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vide orientation so that teachers can deal with complex issues as appropriately as possible. In this context, school issues should also be considered from several theoretical perspectives.

The working group's research also continually inspires the activities of its members in the study and teaching of Educational Science ("Bildungswissenschaft").

For years, the working group has been responsible for the lecture Introduction to the Study of Educational Sciences ("Bildungswissenschaften"), which is compulsory for all teaching degree students and which consistently provides a multi-perspective overview of the (sub-)disciplines and paradigms involved in the Educational Sciences ("Bildungswissenschaften") and thus represents the starting point for the study of Educational Sciences ("Bildungswissenschaften") as a whole.

Teacher education

As part of the [TüSE early career researcher support program TüNaProDoc](#), courses are continuously offered giving an overview of vocational research and teacher education and needs-based counselling on specific research work in this field. Elective and compulsory courses both in the teacher education program and in the Master's programs for school research and school development as well as school management and leadership, create opportunities to discuss current findings from the working group's research focus areas with prospective and practising school stakeholders (e.g. on professionalization through feedback). In addition, the working group supervises the central [Tübingen portfolio for teacher education](#) and advises interested parties (from subject didactics) on the implementation of this electronic tool until the end of the funding program Qualitätsoffensive Lehrerbildung at the end of 2023.

- Own professional theory of meta-reflection with international expansion
- Representative monitoring of the career paths of school principals in Germany
- Research on institutionalized and informal learning of teachers on the job
- Diverse activities in studies and teaching as well as responsibility in the Dean of Studies Office
- Publication of the reference work „Handbuch Lehrerinnen- und Lehrerbildung “
- International expansion of research through visiting professorships

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**Heterogeneity, Diversity and Inclusion:
Pedagogical closure and the contribution of the education system
to the social differentiation of society**

Organized education and the construction of societal structures

Societal change has always been a fundamental cause for pedagogical reflection, meaning that theories and concepts of education must answer the question of which society we are educating in, and with which societal consequences and side effects. Concepts such as heterogeneity, diversity and inclusion implicitly answer this question by making the social or cultural aspects of their addressees an object of pedagogical observation and offering knowledge that guides observation. Teaching, then, takes place in a heterogeneous or diverse society, which creates unequal learning conditions, requires inclusion and calls for corresponding strategies to accommodate differences among learners. In terms of the sociology of knowledge, however, heterogeneity or diversity categories do not represent a given pre-educational reality, rather they realize what they observe in the educational process: they create not only educational but also societal facts.

Concepts such as heterogeneity, diversity and inclusion implicitly answer the question of which society we want to educate in and with which societal consequences, by making the social or cultural aspects of their addressees an object of pedagogical observation and offering knowledge of differentiation that guides observation.

The Chair of Inclusion, Diversity, Heterogeneity addresses this fundamental problem from the perspective of knowledge and systems sociology analysis by a) making the construction of knowledge in Educational Sciences (“Erziehungswissenschaften”) the subject of scientific research, b) examining construction processes of socio-pedagogical structures (difference, inequality) in and through the educational system that are framed institutionally and organizationally (school) and interactionally (teaching) and c) focusing on knowledge and structural construction as co-evolutionary dynamics. This perspective of analysis from the sociology of knowledge and systems is relevant to society as a whole because its object is the social differentiation and inequality consequences of person-related observation in the educational system.

Pedagogical closure as a theoretical and empirical research program

The basic theoretical framework of the empirical (reconstructive, interpretative) research is the theory of pedagogical closure developed at the chair, which follows on from the analytical perspective of institutional discrimination, is based on the theories of social closure and inclusion/exclusion and integrates differentiation and inequality theory. Based on the assumption that inequality must be understood as polycontexturally constituted under the structural assumption of functional differentiation, the theory of pedagogical closure focuses on the genuine contribution of the educational system to the social differentiation of society. Empirical research is based on functional analysis and reconstructive/interpretative methods, which are also critically reflected and further developed in relation to the subject matter.



The theory of pedagogical closure focuses on the genuine contribution of the education system to the social differentiation of society.

Several empirical dissertation projects are currently located within the horizon of the closure-theoretical explanandum, which investigate the phenomena of classification processes at different school levels and with different thematic focuses (including inclusive teaching, sex education, school and teaching classification practices in international comparison). In addition to this school system-related research, research in Educational Science (“Erziehungswissenschaft”) forms a further theoretical and empirical foundation area, in which international strategies of educational inequality research and, within the framework of a dissertation, modes of adaptation of foreign disciplinary theories into education sciences (“Erziehungswissenschaft”) are currently being analysed.

A further research focus is on system-theoretical reconstructive teaching research with a focus on analyses of the polycontexturally constituted conditions of observation and reflection in the interaction system of teaching (Dr. Daniel Goldmann), which, among other things, make processes of inclusion and exclusion in the modus operandi of pedagogical communication visible.

Acquisition of professional reflective knowledge

As part of the Educational Science degree course, in which the research group is represented with two lectures per semester (Prof. Emmerich, Introduction to Diversity and Inclusion/Exclusion and Inclusion, Heterogeneity and Diversity in the School Context) and a teaching/research seminar (Dr. Goldmann), the results of our own research are systematically used to build up professional, reflective knowledge about mechanisms of unequal treatment in schools and classrooms. In addition to the theoretical foundations, which are primarily taught in the introductory lecture, empirical findings are also processed and integrated into the thematic structure of the courses (lectures and seminars). The contextualization of this research perspective within the horizon of alternative research approaches offers students opportunities for comparison, enabling them to reflect on empirical research in a theory-based manner and to critique theory in equal measure.



The research-and theory-based examination of pedagogical practices of differentiation and their possible structure-generating consequences (e.g. exclusionary barriers to learning in inclusive settings) form the framework for the critical analysis of school and classroom educational realities.

Unequal Inclusion: How local school systems create and legitimize educational barriers for ‘refugee students’

The group’s research currently focuses on the connections between pedagogical classification systems and complex system-internal inclusion/exclusion processes in relation to refugees and migration. Since 2015, a central research project (in cooperation with Prof. Ulrike Hormel, Ludwigsburg University of Education) has been looking at the question of how and with what consequences the inclusion of refugee/newly migrated children and young people at school is organized at a municipal level. On the basis of problem-centered expert interviews and school statistics evaluations, it was shown that the inclusion phase (usually in preparatory classes) was de facto used as a special selection system for refugees and that these pupils were channeled into low-skilled educational programs in regionally varying ways. The observed mechanisms of unequal inclusion are also based on polycontextural legitimacy conditions that are generated within the school systems.

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Learning to Teach Effectively

What constitutes good teaching and how can prospective teachers be supported in the early stages of their training to accumulate knowledge that will help them to teach effectively later on?

The work of the chair in research and teaching deals with these two central questions, but above all with their overlap. The aim is to establish current research approaches and findings on the design of effective learning environments in the classroom with special consideration of different subject didactic perspectives at an early stage in university-based teacher education. The work of the Chair of Teaching and Learning Arrangements in Subject Didactics is located in the field of empirical educational research with its conceptual and theoretical basis in educational psychology. In the last two decades, research work within the framework of empirical educational research has made a significant contribution to the precise description and validation of current practical requirements of the teaching profession. For example, the analysis of teaching videos is a prominent approach to documenting effective teaching and learning processes in the classroom and relating them to variables of student learning and teacher action in order to identify teaching practices that are effective for learning. Furthermore, such descriptions have helped to theoretically model the necessary prerequisites for coping with professional demands and to record them with the help of mostly standardized (knowledge) tests over the course of teacher education and into professional practice.

The work of the group builds on these achievements but systematically expands them to include three key areas. Firstly, against the background of the availability of new technologies, innovative research methods and approaches are used to empirically map effective teaching and learning processes in the classroom, but also in professional skills development. Secondly, the description of effective teaching and learning arrangements takes place against the background of the importance of new societal challenges for teaching, such as digitalization. Thirdly, learning opportunities for university-based teacher education will be developed and their effectiveness tested, allowing the knowledge of effective teaching design to be applied to real practical requirements.

Develop innovative research methods to describe teaching and learning processes

Until now, it has been a great challenge for teaching and teacher research to look at learning and teaching events at the level of actual processes. Various new technologies offer promising potential here, some of which are being investigated in more detail. Reactive methods such as mobile eye tracking are used to investigate how well prospective teachers are able to focus their attention on learning moments in the classroom and to examine the interaction processes with their learners more closely. These studies show, for example, that novice teachers in particular interact primarily with those students who actively participate in the classroom during a lesson. Active participation in the classroom, in turn, seems to be crucially dependent on the learning-effective design of the lesson. Since such methodological approaches are very time-consuming, a further objective of the chair is to automate and thus simplify these and other analysis procedures using various machine learning approaches.



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Reflecting on and implementing new societal challenges for teaching

One of the achievements of empirical educational research in recent years has been the development of the so-called basic dimensions of good teaching. Today, for example, there is a broad consensus that effective learning in the class-room is essentially determined by the cognitive demands of the design. While the significance of constructs such as cognitive activation is well documented, especially in mathematical and scientific school subjects. In Mathematics and natural sciences, there is sometimes a lack of application to new teaching settings that complement, expand or even replace conventional or traditional teaching and learning arrangements. In the work of the research group, particular attention is paid to the use of digital media in teaching. Initial findings show that the potential for cognitive activation is a deciding factor for the successful use of digital media. These findings apply to face-to-face teaching, but can also be outlined for remote teaching during the COVID-19 pandemic.

Creating practical learning opportunities in university-based teacher education

University-based teacher education is often criticized for imparting theoretical knowledge that is difficult for students to apply to real-life teaching situations. However, it is precisely this foundation that is considered essential in order to acquire the skills that will help students to teach effectively later on. The chair therefore uses practical learning oppor-tunities and empirically investigates their effectiveness, which represent an authentic context, but are reduced in their complexity compared to real teaching. For example, guided video analyses are used to investigate how students can be supported in recognizing successful learning moments in the classroom. Another focus is the work within the DFG re-search group COSIMA, which is investigating how the diagnostic skills of teaching degree and medical students can be fostered in simulation-based learning environments.

The chair has been responsible for the module [Core Topics in Empirical Educational Research \(“Bildungsforschung”\) and Educational Psychology](#) for years, in which students are familiarized with central and current studies and findings in the field of research and provided with practical learning opportunities such as the analysis of teaching videos. Systematic accompanying research in the module on empirical educational research provides constant direct feedback on the stu-dents’ own research.

As part of the [Tübingen early career researcher support program TüNaProDoc](#), needs-based counselling is also offered on an ongoing basis for specific research projects in this field.

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**The Study of Education Sciences (“Bildungswissenschaften”):
Reacting to social changes in an interdisciplinary and research-based
way – using education science knowledge to reflect on and further
develop own practices**

Societal changes and challenges, such as globalisation processes, digitalization processes (e.g. as a result of the COVID-19 pandemic) or diversification processes (e.g. migration as a result of wars), always have a significant impact on education systems, schools, and teaching. They present the school system with the task of professionally guiding and supporting the learning processes of all pupils. In order to meet this challenge, a comprehensive course in Educational Science (“Bildungswissenschaft”) for teacher education students is required in addition to subject-specific and didactic studies.

One aim of the degree course in education sciences is to provide academic knowledge on a wide range of challenges in the context of schools and education with the aim of being able to appropriately reflect on and further develop one’s own (later) practice and role as a teacher. The theory- and research-based preparation and follow-up of practical phases serves the purpose of developing a professional bearing.

Interdisciplinary educational research in Tübingen includes quantitative and qualitative research designs. Theory formation is also a research focus. At the Hector Research Institute of Education Sciences and Psychology, and the LEAD Graduate School and Research Network, among others, Tübingen’s education sciences (“Bildungswissenschaften”) conduct internationally recognized research in the areas of methodological research, educational effectiveness, motivation, per-sonality, teaching quality and STEM.

How do students studying education sciences (“Bildungswissenschaften”) meet the challenges they will face at school and in the teaching profession?

In the Bachelor of Education (B. Ed.), students first attend the lecture Introduction to Education Sciences (“Bildungswissenschaften”), which opens up a multi-perspective, theory- and research-based view of teaching, school, education and the teaching profession. The broad overviews gained in the lecture forms the basis for the subsequent three-week orientation internship. The [e-portfolio](#), which accompanies students throughout their entire teaching career and whose foundation is laid at the beginning of their studies, serves as a tool for reflection. Stu-dents then have the opportunity to expand central personal or ethical skills in the teaching profession in practice-reflective seminars (Profession and Professionalism I). Here they can set their first individual priorities. The theory- and research-related course Profession and Profes-sionalism II combines an updated (e.g. video- and portfolio-based) reflection on practice with an in-depth analysis of school contexts and challenges.

The Master of Education (M. Ed.) program begins with a twelve-week school internship semester. This is intended to give students the opportunity to get to know their future profession as early as possible and, if necessary, to critically reflect on their career decision.



Longitudinal supervision by teachers from the seminars for teaching practice and teacher training (grammar school) as well as preparation and follow-up by a university course combine practical relevance with current research.

Here, too, students can choose their own specialisations according to their interests. In three further courses, the components in Educational Science (“Schulpädagogik”) focus cumulatively and with multi-level analyses on school challenges at the micro, meso and macro levels. The Inclusion, Diversity and Heterogeneity module spans the breadth of current educational problems and societal challenges in school contexts in two courses, focusing in depth on linguistic heterogeneity. The module Educational Science Research (“Bildungsforschung”) and Educational Psychology focuses on the psychological processes of teaching, learning and other relevant concepts of human experience and behaviour in educational contexts. In the module Teaching and Learning with Digital Media, students deal with the social and educational challenges of digitalization processes, acquire practical knowledge about the use of digital media in the classroom and learn to (critically) reflect on and evaluate these with regard to pedagogical and practical issues.

In a final elective module, students have the opportunity to choose two courses from a wide range of different educationally relevant subject areas, including innovative focuses such as mindfulness or education for sustainable development. Students also have the opportunity to write a Master’s thesis in Educational Sciences (“Bildungswissenschaften”).

The following projects are examples of the aforementioned developments in the areas of Educational Science research, internationalisation, digitalization and social innovation:

Exemplary projects

Educational science research

Current studies are investigating, for example, ways of fostering motivation in Mathematics lessons and methods of capturing the quality of teaching.

Internationalization

Some of the courses are already taught in English, thus enabling internationalisation at home on the one hand and on the other the participation of students from European Erasmus universities or as part of CIVIS. Students also have the opportunity to work on transna-



tional issues and problems in the educational context with students from other European countries as part of the International Education Week

Digitalization

Even before the COVID-19 pandemic, innovative digital teaching formats were being developed, e.g. for preparing for and following up on the school internship semester. Among other things, the e-portfolio guides students’ theory- and research-based reflection processes on their first practical experiences in school. Examination formats with digital media such as podcasts and videocasts as well as digital-hybrid lectures in the form of flipped classroom provisions are currently being tested.

Social innovations

Chairs and professorships for inclusion, diversity, heterogeneity and teaching and learning with digital media proactively address social and technical developments in close cooperation with subject didactics departments.

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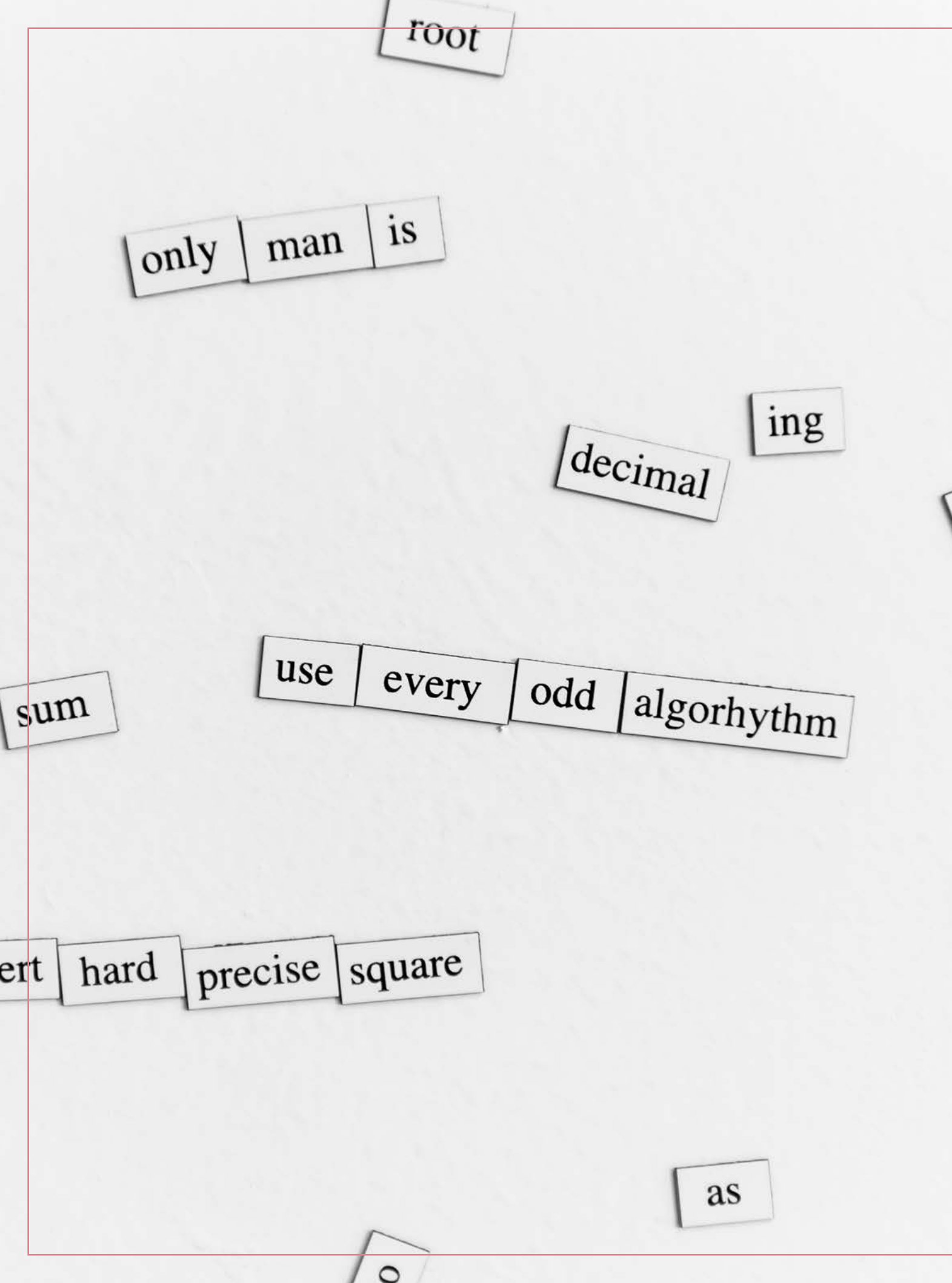
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Teaching subjects and subject didactics



Teacher Education ‚All of a Piece’ at the University of Tübingen:
The teaching subjects

The University of Tübingen offers an extremely broad spectrum of teaching subjects in the area of grammar school teacher education (and to a lesser extent for vocational teacher education). It can therefore rightly call itself a comprehensive university, and not only in this area. Of the nine universities in the state of Baden-Württemberg that offer courses for the grammar school teaching profession – the six teacher universities of education offer the teaching profession for the primary level, secondary level 1 and special schools – Tübingen takes first place, certainly in terms of enrolled students.

A contemporary and innovative teacher education program is by no means incompatible with a strong research focus at a university, as is the case at the University of Tübingen, one of eleven universities of excellence in Germany.

Of the 32 teaching subjects (including 5 as extension subjects) that can be studied in Baden-Württemberg according to the framework regulation of the Ministry of Education and Cultural Affairs, the University of Tübingen offers 27 (3 of which are purely extension subjects).

Only Fine Arts, Music and Jewish Religious Studies are not available as major subjects in the study program. However, the University of Tübingen maintains partnerships with the State University of Music in Trossingen, the State Academy of Art and Design in Stuttgart and the State University of Music and Performing Arts in Stuttgart, which ensure that future teachers can study Music or Art with a second subject in Tübingen. Although the University of Tübingen does not (yet) offer any technical courses, in particular engineering, due to its traditional focus on the humanities, the subject of [Science and Technology \(NwT\)](#) can also be studied. To this end, there is close cooperation with the Universities of Applied Sciences in Esslingen and Rottenburg.

The university offers the other 24 main subjects and 3 extension subjects from its own resources. The Faculty of Humanities has a ‚supertanker’ in English. Every third teaching degree student in Tübingen is enrolled in [English](#). There are only slightly fewer in [German](#) and [History](#). Of course, the [Romance](#) languages French, Spanish and Italian are also on offer. The classical languages are represented by [Latin](#) and [Greek](#) and even Hebrew as an extension subject. In



ASTRONOMY
FINE ARTS
BIOLOGY
CHEMISTRY
CHINESE
GERMAN
ENGLISH
EDUCATIONAL SCIENCE
PROTESTANT THEOLOGY
FRENCH
GEOGRAPHY
HISTORY
GREEK
HEBREW
INFORMATICS
ISLAMIC THEOLOGY
ITALIAN
JEWISH RELIGIOUS EDUCATION
CATHOLIC THEOLOGY
LATIN
MATHEMATICS
MUSIC
SCIENCE AND TECHNOLOGY
PHILOSOPHY/ETHICS
PHYSICS
POLITICAL SCIENCE
RUSSIAN
SPANISH
SPORT
ECONOMICS

Teaching subjects at the University of Tübingen
(some can be studied in cooperation with other universities)

addition to this perhaps expected range of subjects, the university also offers Slavic languages, especially [Russian](#), through its small but excellent Slavic seminar. And finally, the colleagues from Sinology also offer [Chinese](#) as a teaching subject. There is also the teaching subject of [Philosophy/Ethics](#), which attracts a large number of students. In Tübingen, it is also possible to study the traditional subjects of [Protestant Theology](#) and [Catholic Theology](#) as teaching subjects for grammar schools and, for some time now, Sunni [Islamic Theology](#).

The Faculty of Economics and Social Sciences offers the highly sought-after subject of Physical Education for school, as well as [Economics](#) and [Political Science](#), [Educational Science](#) as an extension subject and [Social Pedagogy/Education](#) (and general education subject) as a vocational teacher education course.

The Faculty of Science offers the subjects [Mathematics](#), [Physics](#), [Chemistry](#), [Biology](#), [Geography](#) and [Computer Science](#). In addition, as already mentioned, there is the subject of [Science and Technology \(NwT\)](#) and finally the extension subject of [Astronomy](#), which is comparatively rare in the teaching profession.

In 2012, when a commission of experts appointed by the state parliament of Baden-Württemberg presented various suggestions for improving teacher education and recommended, among other things, increased cooperation between universities and universities of education, the then Rector of the University of Tübingen, Prof. Bernd Engler, gave a groundbreaking presentation at a conference in Ludwigsburg organized by the commission. He announced a „teacher education all of a piece” for Tübingen. One of the reasons for this was that, in contrast to Stuttgart, Heidelberg, Freiburg and Konstanz, there is no university of education within reasonable geographical proximity to Tübingen. The University of Tübingen therefore decided to strengthen its offerings so that it would also ‚traditionally’ continue to be the location with the most Teaching degree students for the grammar

school teaching profession in Baden-Württemberg. This was a memorable feat implementing Rector Engler’s vision of many years’ standing of teacher education from a single source.

In addition to the establishment of the Tübingen School of Education (TüSE) with its magnificent location in the former villa of the Nobel Prize winner in Chemistry, Wittig, in the heart of Wilhelmsvorstadt, well-equipped chairs for subject didactics have been established in the departments with large numbers of students, as well as an impressive number of academic council positions in the smaller subjects and professorships with a clear link to subject didactics in the field of Educational Sciences. This, and above all the fact that the new structures have been integrated almost seamlessly into the departments, has made it possible to coordinate studies in subject-specific science, subject didactics, educational sciences and the practical components.

It is therefore not too bold to say that teacher education in Tübingen has been raised to a new level of quality and that Engler’s promise of „all of a piece” has indeed been fulfilled.

We can therefore state with Swabian modesty:
In Tübingen you can become a teacher very well and you can also enjoy it.

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**Framework for Subject-Specific Teacher Education:
Common quality aspects in the design of the teacher education program at the
University of Tübingen**

With 25 teaching subjects which can be studied in a variety of two-subject combinations or as a third supplementary subject, the University of Tübingen offers an extensive range of subjects, particularly for grammar school teacher education. For the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) degree courses, the relevant qualification aims of the teaching subject programs were differentiated in each department within the module handbooks (based on the study structure reform in the course of the Bologna reforms) and the respective parts of the training were defined in their graduation regulations.

With the founding of the Tübingen School of Education (TüSE) and the systematic establishment of subject-specific didactic professorships at the location, the TüSE Executive Board set itself the task of creating structures to intensively network the departments spread across five different faculties. To this end, the [School Board](#) and [Teaching Board](#) committees were used to create a common space for discourse for those involved in teacher education in order to shape the overall direction of teacher education on site and, in particular, to address interdisciplinary, socially pressing topics and issues relating to the teaching profession.

In 2017, the departments developed an initial framework for teacher education. As part of the development of research-based subject didactics at the various faculties, this provided an initial common content framework for the orientation of didactic teaching in the teacher education programmes and ensured a systematic link between the teacher education departments.

Five years later, now that the subject-specific didactic professorships have been established in their subjects, the framework needs to be revised and the previous qualification aspects critically reviewed to ensure they are up to date.

The aim of the new version is to make teacher education a task for the entire department (and not just subject didactics) and, among other things, to involve the different subjects more closely in vocational orientation.

With the aim of coherent teacher education at the University of Tübingen, as is required in the course of system accreditation processes or in interdisciplinary applications for second and third-party funding, the revised second version of the framework spells out the following (jointly agreed) guidelines and priorities for specific departments, which should shape teacher education in Tübingen in the coming years:



- 1) Societal relevance of the subject in view of global transformation processes and a dynamically changing society
- 2) Continuity between subject science and subject didactics
- 3) Clear connections to Educational Science in subject-specific teacher education
- 4) School and professionalization teacher education
- 5) Digitalization as an overarching topic
- 6) Conceptual and content-related integration of the overarching topic of diversity, inclusion/exclusion in subject-specific teacher education
- 7) Research and support of early career researchers in the fields of teacher education, schools and teaching
- 8) Cooperation formats/curricular coordination processes with the 2nd phase of teacher education
- 9) Further and advanced training programs and activities as part of the Third Mission of science
- 10) Orientation towards the mission statement of the Tübingen School of Education

Within the 25 teaching subject departments, these ten quality aspects (jointly defined by the members of the School Board) were specified and officially agreed on in specialist committees, so that they are now available in a bundled form as a [framework for subject-specific teacher education](#). Even though this is not legally binding, it clearly demonstrates the high level of resolve and commitment on the part of the stakeholders involved to advance high-quality teacher education in Tübingen.

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Coherent, Innovative and Profession-Related Teacher Education
through Systematic Interlinking of the
Departments and the Subject Didactics in Teaching (TüKoFa)

With the founding of the Tübingen School of Education (TüSE) in 2015 and the associated development and expansion of subject didactics, teacher education in Tübingen has received a considerable boost: Research-based subject didactic teaching and subject-didactic research were strengthened many times over and ensured dedicated specialised didactical profiling as well as new types of qualification programmes for prospective teachers. However, if we look at the study components of subject-specific science, subject didactics and educational sciences prescribed in the framework regulation of the state of Baden-Württemberg, the credit points required by the subject-specific component (FW) continue to be highest compared to the subject didactics (FD) and education sciences (BW) components (FW: 188 ECTS; FD: 30 ECTS, BW: 45 ECTS for two subjects).

Throughout Germany, the question has increasingly come to the fore,
how to achieve the desired interaction and mutual reference
between scientific and pedagogical expertise within and between the departments,
and how the connection to the teaching profession
(and the connections between university and school learning content)
can be shown in the academic courses.

To discuss this issue, a working group was set up in Tübingen on the initiative of the TüSE in 2020, which was made up of subject-specific, didactic and educational sciences stakeholders and covered a broad range of subjects. Following a survey conducted in the departments on the existing formats and measures, it became apparent that these differed significantly in terms of the professionalization realized in subject-specific teaching: While some subjects traditionally have a close interlinking of the subject matter and its teaching (e.g. Physical Education, Theology, Science and Technology), other subjects are required to implement the professionalization and the mutual reference between the knowledge domains of academia and teaching approaches via people, structures or teaching and qualification courses specifically designed for education students. There are various hurdles and challenges here. The members of the working group agreed that coherence in teacher education cannot be achieved through a central mandate; it is more effective to approach the desired teaching development in the departments through incentive systems.

Following this insight, the TüSE outlined a call for proposals with three funding lines, which aim to promote the coherence of subject specific and subject didactic expertise within the subjects and to strengthen professionalization in teacher education at the University of Tübingen:

- **Funding line 1 – TüKoFa** analysis supports the implementation of analyses of subject didactic and scientific aspects that can serve as a starting point for future innovations and measures in studies and teaching to establish coherence and professionalization in subject-specific teacher education.
- **Funding line 2 – TüKoFa-Lehre** supports experiments in innovative higher education teaching concepts to create coherence and increased professionalization in teacher education courses.
- **Funding line 3 – TüKoFa-OER teaching materials** supports the development, publication and sustainable use of Open Educational Resources (OER), openly licensed teaching materials in compulsory teacher education courses and systematically interlink subject-specific and subject didactic topics and issues.

The internal TüKoFa call for proposals led to seven pilot projects funded
in different subjects and faculties, each of which was carried
out by a team of a lecturer in the subject science and a lecturer in the subject didactics.

In a joint conference, the individual innovation measures will be evaluated and discussed in terms of their potential for expansion.

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Faculty of Science



Mathematics

Finding structures, solving problems and formulating arguments

Mathematics is characterized more than almost any other science by the precision of its statements and the clarity of its thought processes. It often develops beauty and elegance. Its endeavour to recognize what is absolutely essential for a problem often makes it irresistible. This often goes hand in hand with the great creativity needed to master its problems. After all, Mathematics is also the science with the greatest proven gain in knowledge. Once something has been proven, it lasts forever.

The social relevance of Mathematics can hardly be overestimated. It is the necessary basis for all kinds of high technology and, although it is not always obvious at first glance, it extends far into our daily lives.

What can Mathematics contribute at school to ensuring that we can all participate in society in a responsible manner? First of all, Mathematics lessons should enable everyone to develop the ability to look at the world with a mathematical eye, to see structures and to describe them in the precise language of Mathematics. This not only plays a role in everyday life and at work, but also in many and ever more sciences, from the natural sciences to psychology and economics.

However, the emancipatory potential of Mathematics is at least as important: every mathematical argument can, in principle, be understood by anyone without recourse to the authority of another, and every calculation and every proof can be checked independently. Making this tangible should be a goal of Mathematics lessons.

In order to be able to pursue this goal in everyday school life and in the face of real students, at least occasionally, it is important that future teachers experience that they can find and formulate mathematical arguments independently and that they can also solve challenging problems on their own.

Prospective teachers therefore receive a solid specialist education in Mathematics: in the first year, they study basic analysis and linear algebra; from the third to sixth semester of the Bachelor of Education (B. Ed.), courses in numerics, stochastics, geometry and algebra follow. In the four-semester Master of Education (M. Ed.), further academic courses follow. This in-depth examination of Mathematics as a discipline is flanked by subject didactic courses. These not only address fundamental approaches to the teaching and learning of Mathematics, but also build a bridge from scientific Mathematics to school Mathematics.

We organize the transition to the traineeship and school practice together with lecturers from the Tübingen State Seminar for Teaching Practice and Teacher Training (Grammar School), with whom we offer events on professional development following the school practice semester and coordinate the subject didactic curricula.



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The Master’s degree programme offers research-oriented didactic seminars on current topics such as the diagnosis and support of mathematically gifted children, Mathematics at vocational secondary schools, digital media in Mathematics lessons and the gender perspective on Mathematics and science lessons. Practical relevance is also facilitated by the fact that the realistic equipment of the [STEM classroom](#) at Morgenstelle can be used if required. Master’s theses are awarded on the basis of these seminars and doctoral topics can arise.

Diagnosis and support of mathematically gifted children, Mathematics at vocational grammar schools, digital media in Mathematics lessons or the gender perspective on Mathematics and science lessons are among the research focuses of the Mathematics and its Didactics working group.

The topics mentioned form a research focus of the Mathematics and its Didactics working group. For example, we develop online courses for mathematically interested pupils in grades 5 and 6, which are offered in cooperation with the [Hector Kinderakademien](#). To this end, the working group is not only building expertise in the production of sophisticated and aesthetically appealing digital learning materials, but also in systematic research into their effectiveness.

Other projects focus more on the skills of future teachers, be it in the use of digital media in Mathematics lessons or in the development of mathematical concepts, for example in geometry. Such topics enable a bridge to be built to practice and contribute to the improvement of teaching on site.

We also build a bridge to practice in cooperative projects with local vocational schools, which are supported by the Baden-Württemberg Ministry of Education and Cultural Affairs. A particular focus here is on the transition from secondary schools to the upper level at the vocational grammar school. Courses and materials are being developed to support this transition in Mathematics and are being tested in practice with students in the M. Ed. Mathematics programme. We are also working on investigating this transition empirically with broad-based tests and on a longitudinal basis.

The Mathematics and its Didactics working group is networked in many ways throughout Germany and within the university. We are in constant exchange with those involved in teacher education, other subject didactics departments, especially in the natural sciences, but also with those involved in empirical educational research and psychology, in order to represent this central study and school subject in a variety of projects: Mathematics as a science of structural vision, creative problem solving and precise argumentation.

The [Hector Stiftung II](#) finances the Hector Kinderakademien, which offer highly gifted primary school children an individual support programme in addition to regular school lessons. The Hector Stiftung II is a supplement to the H.W. & J. Hector Stiftung in Weinheim, which has been in existence since 1995. It supports projects in the fields of medical research, science and education, art and culture as well as social projects.

Astronomy

Learning to convey the fascination of Astronomy

Astronomy is considered the oldest natural science and has significantly shaped our view of the world. The incomprehensible expansion of the universe in space and time makes Astronomy a science that has fascinated and awed people across cultures for thousands of years. With its research interest, Astronomy touches on fundamental, partly philosophical questions of our being and our human existence, which also results in connections to philosophy and theology. However, Astronomy sees itself as a genuine natural science, which leaves the authority only to nature to disprove established assumptions. The Copernican revolution is an example of the enormous influence Astronomy has had on our world view and the social changes that can be attributed to its discoveries, among other things. More recent findings, such as the discovery of the expansion of the universe, black holes, exoplanets and gravitational waves, also arouse great interest in society and help us as individuals and as a society to become aware of our place in the universe.

The incomprehensible expansion of the universe
in space and time makes Astronomy a science which has fascinated
people across cultures for thousands of years.

Tübingen is a strong research site in the field of astrophysics, as demonstrated by its participation in numerous international space missions and the Kepler Center for Astro and Particle Physics, which was founded in 2007. The aim of this alliance is to promote close cooperation between theory and experimental practice in researching the development and structure of the universe in connection with the fundamental building blocks of matter and their interactions.

Astrophysics in Tübingen is known internationally as a strong research site.

Various research groups are conducting research into the spectral analysis of stellar spectra (such as white dwarfs and neutron stars) and gravitational waves using both ground-based and space-based observatories. The focus here is on using the gravitational wave spectrum of neutron stars to determine their exact internal structure. In addition, research is being carried out in Tübingen into the formation and development of cool stars and the formation process of planets, for example, using new numerical methods and algorithms for supercomputers.



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The independent Master’s degree programme in Astronomy as an extension subject for secondary school teachers at the University of Tübingen

The University of Tübingen offers an independent Master’s degree course in Astronomy as an extension subject for secondary school teachers which can be studied after successfully completing a Bachelor of Education (B. Ed.). However, this is not a consecutive Master’s degree course in the true sense of the word, as students choose Astronomy as a subject that they did not study in their Bachelor of Education. Knowledge of Mathematics and Physics is important for the course, which is taught in corresponding basic lectures and practical courses. As these are identical to those of the B. Ed. Physics course, the possibility of recognition of coursework already completed makes it much easier for students who have a B. Ed. Physics degree. After the foundations have been laid, the students deal with fundamental questions and cognitive methods of Astronomy in lectures, seminars and practical placements.

In the project internship in teaching Astronomy, students develop a school-related project.

In subject didactics, special emphasis is placed on enabling students to design their future lessons on the basis of subject didactic knowledge in a way that is appropriate for pupils, up to date, and effective for learning. To this end, a didactic project internship in Astronomy is planned, during which the students themselves plan and present a narrowly defined school-related project under subject-specific and teaching aspects.

Physics

Physics – Fundamental questions and coherent answers based on experimentally testable models and theories

The question raised in Goethe’s Faust as to what holds the world together at its core describes mankind’s age-old longing to know, describe and understand the ‘blueprint’ of our universe. Physics, as the most fundamental natural science, derives its fascination from, among other things, pursuing precisely this fundamental question and striving for universal, coherent answers based on experimentally testable models and theories. Physics’ interest extends from the smallest to the largest dimensions, whereby its success is based on the productive interplay between theory and experimental practice as well as an awareness of the limits and uncertainties of the models and theories developed.

The atomic hypothesis and quantum theory are examples of the extent to which our current conception of the world and the other natural sciences are shaped by our understanding of Physics.

Questions about the fundamental interactions and building blocks of matter as well as the structure and history of our universe also reach philosophy and theology, while questions about the technical implementation of physical findings are taken up by the engineering sciences. Our everyday lives are also characterized by technical achievements that have their origins in the findings of physical research, as can be seen in the information technology products we use every day.

Physics education is also a prerequisite for recognizing the opportunities and risks of scientific and technical discoveries (e.g. nuclear fission) and for being able to take a well-founded position in discussions on scientific topics (e.g. energy supply and mobility in the context of climate change).

The focus of Physics didactics research by the Working and Research Group of Physics Didactics in Tübingen, which is funded by the [Vector Foundation](#), is on the theoretical development and empirical evaluation of innovative concepts for schools and universities in order to find evidence-based solutions to current challenges in school and university practice. One example of this is the international design-based research project Electricity with Potential – Electricity with Contexts, which is funded by the [Deutsche Telekom Stiftung](#).



This project aims to make the topic of circuits more interesting and understandable for pupils. In accordance with the German model of didactic reconstruction, various teaching concepts are developed for this purpose and their influence on the interest and understanding of learners is empirically investigated using sophisticated statistical methods.

In a cooperation project funded by the Baden-Württemberg Ministry of Science, Research and Arts under the umbrella of the Tübingen School of Education, a seminar concept for prospective Physics teachers is being developed and empirically evaluated. This project focusses on the question how digital media can be integrated into lessons in a way that is effective for learning by closely linking research findings in subject didactics and practical teaching applications. This is done against the background that digital media open up new approaches in Physics lessons that go beyond the traditional possibilities and often enable a new quality of visualisation.

Digital media in Physics lessons often enable a new quality of visualisation.

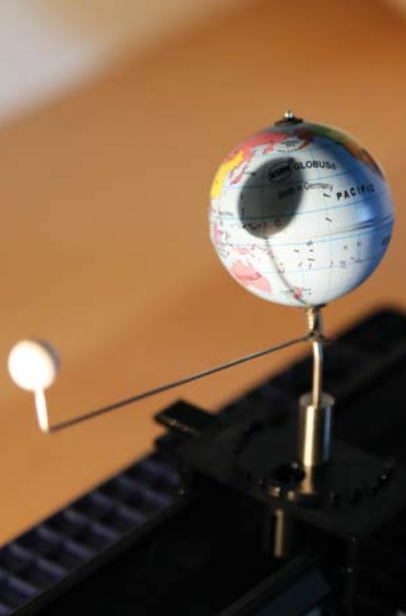
Smartphones today, for example, have a wealth of sensors that are also suitable for physical measurements and conducting experiments in Physics lessons. As part of the empirical evaluation, the students’ motivation and convictions regarding the use of digital media will be examined in addition to the development of digitalization-related subject didactics knowledge as a cognitive component of professional competence.

Physics teachers in training not only need an appropriate understanding of the subject, but in particular also the relevant teaching skills. Against this background, the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) degree courses in Physics in Tübingen are characterized by a close interlinking of subject-didactic and subject-scientific courses in order to enable teaching degree students to design their future lessons in a way that is appropriate for pupils, up to date and effective for learning. In three Bachelor’s seminars and two Master’s seminars, teaching degree students not only acquire a solid basic knowledge of the central findings of Physics didactics research to date and didactically proven teaching approaches, but also learn how to use experiments and digital media in Physics lessons in a way that supports learning.

“What I particularly like about my Physics teaching degree is the didactic part, as it creates a link between theory and practice and gives us an initial connection to teaching and learning at school. The STEM classroom is a great opportunity to try out different teaching methods – including with the help of digital media – under school-like conditions.”

(Student, M. Ed. Physics)





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It is an important concern of the Didactics of Physics Working Group to contribute with its work to ensuring that subject-specific didactic findings find their way into practice and thus lead to a sustainable improvement in Physics teaching. For this reason, the website [www. einfacheelehre.de](http://www.einfacheelehre.de) was set up to provide research-based teaching materials for teachers and students free of charge.

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For the **Vector Foundation**, the technological innovation potential and thus the future of Germany as a business location is largely guaranteed by research and education. The Vector Foundation aims to get young people interested in Science and Technology as early as possible and to accompany and support them throughout their education until they start their careers. Accordingly, the Vector Foundation is committed to promoting research and young scientists with a thematic focus on environmentally friendly and sustainable mobility. At the University of Tübingen, the Vector Foundation supports the junior Professorship for the [Didactics of Physics](#) and thus significantly supports research, studies and teaching in this important area.

The [STEM classroom](#) has been set up with the support of the Vector Foundation. It serves to develop the teaching degree students’ subject-specific and teaching skills in classroom-related situations during their studies. The technically excellent classroom is used cooperatively by the STEM teaching subjects of [Biology](#), [Chemistry](#), [Geography](#), [Computer Science](#), [Mathematics](#), [Science and Technology \(NwT\)](#) and [Physics](#).

The **Deutsche Telekom Stiftung** is one of the largest educational foundations in Germany. Based on the conviction that a modern education system must prepare children and young people in the best possible way to tackle global challenges such as digitalization, climate change, electromobility and biodiversity, the Deutsche Telekom Stiftung has been supporting projects that deal with topics from the field of Mathematics, Science and Technology (STEM) for over 18 years. These include the project [Electricity with Potential – Electricity with Contexts](#) by the Didactics of Physics Working Group.

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The STEM Classroom

Teachers act as multipliers not only of knowledge, but also of attitudes towards careers in the STEM fields (Mathematics, IT, natural sciences and technology). Not least due to the acute shortage of skilled workers in this socially important field, teacher education in the STEM subjects is of particular importance so that future teachers may inspire children and young people to explore scientific and technical issues. Against this backdrop, the University of Tübingen has not only filled numerous professorships in STEM subject didactics for the first time in recent years, but has also set up a state-of-the-art STEM classroom with the support of the [Vector Foundation](#).

The STEM classroom offers STEM subject didactics courses first-class conditions for research- and practice-oriented STEM courses in order to optimally prepare prospective teachers in STEM subjects for their important future work.

For example, a broad range of digital media enables the systematic support of digitalization-related subject-specific skills for prospective STEM teachers in order to enable them to design contemporary, interesting and effective lessons.

As experimentation as a fundamental scientific method plays a key role in teaching natural sciences, the equipment in the STEM classroom also includes experiments, devices and materials that are typical for schools.

As part of their courses, students have the opportunity to independently design school experiments and demonstrate them to each other in classroom-like situations. This is supplemented by testing in microteaching situations as part of teaching and learning labs directly with pupils. It is also possible to record corresponding teaching sequences on video in order to reflect on them together and, if necessary, develop improved approaches with a view to future teaching activities. The close inter-linking of didactic knowledge and practical teaching application achieved in this way enables students to build up practical and performance-related skills during their studies and prepares them for typical situations in science lessons.

However, the STEM classroom is not only used for didactics courses, but also offers the STEM didactics departments a space to exchange ideas about research projects in order to benefit from the expertise available on site. The STEM classroom also offers ideal conditions with regard to the university's Third Mission, e.g. for teacher education or a wide range of activities as part of the KinderUni research day.

STEM Classroom





Biology

Researching, experiencing and applying Biology

Biology fascinates many people even before and usually long after their school days. Learning about Biology and experiencing nature are essential aspects of lifelong learning. For this reason, the Biology Didactics practiced in Tübingen goes far beyond the school context and addresses leisure activities with a biological focus at all ages, predominantly in nature. Projects are also pursued in the socially highly relevant field of Citizen Science.

Experiencing nature is important for people’s health. However, society as a whole is going through an extinction of experience, i.e. opportunities for experiences with nature are dwindling. Studying Biology can counteract the loss of these experiences. As a result, Biology Didactics in Tübingen explicitly addresses learning at learning locations outside of schools. Events such as excursions for interested members of the public and special offers such as the KinderUniTag play an important role here.

Biology Didactics in Tübingen also explicitly focuses on teaching and learning outside of schools: how effective are such learning venues and how effective is the use of apps for learning?

Biology didactic questions deal with teaching and learning in Biology and what research has found about them. The focus is on quantitative surveys, usually in an experimental field setting. Research topics include the effectiveness of off-site learning locations, experimentation, living organisms in the classroom and classroom emotions. Other experimental pedagogical interventions focus on and investigate the influence of digital video support for dissections and the use of apps as learning-effective and motivating support during excursions.

Leisure Science and Citizen Science have found that birdwatching provides important data for nature conservation and environmental protection. It also provides information on the connection between biodiversity and human well-being.

Current research continues to focus on the impact of biodiversity on human well-being. The focus is also on birdwatchers who develop enormous expertise beyond formal education through intensive observation of birds and corresponding documentation. This is attractive both from the perspective of Leisure Science and from the perspective of the Citizen Science megatrend. Citizen scientists provide valuable data for nature and environmental protection projects. Studies are investigating the knowledge and motivation of participants in order to optimize the design of projects.

Prof. Dr. Christoph Randler and his team in Tübingen are currently working on how biodiversity (especially bird diversity) has a positive effect on people’s well-being. As part of these studies, more than 1,000 passers-by were asked about their experience of nature at 40 different locations between Rottenburg and Stuttgart. At the same time selected places were examined with a view to their bird occurrence, analysing various area characteristics and recording land-



scape-defining elements. In the survey study itself, 30 people per location will be asked on site how they experience this area/place and how this affects their well-being. This is based on psychological constructs (well-being, recreational function, loyalty to this place) as well as more technical aspects such as frequency and duration of visits and knowledge of species.

The Didactics of Biology in Tübingen is strongly research-oriented, international and practice-oriented. This means that research findings from Biology Didactics are intended to be beneficial to school practice (e.g. in the development of effective forms of teaching and learning). These findings are also received to a large extent outside Germany and deal with the international state of research regarding practice-related research questions.

Studies and teaching in Biology are research-based, international and practice-oriented.

This also applies to the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) in Biology. The coherence between subject didactics and subject science is strengthened by the fact that teaching degree students are trained in both subject didactics and subject science research and are given an international profile. The structure of the course follows a common thread in that a theoretical basis is created in the Biology didactics lecture, which is taken up and addressed in the subsequent compulsory and elective seminars. The focus is on acquiring one’s own theoretical and practical skills. In the compulsory elective areas, however, students can focus on specific topics or teaching and teaching methods. In the interdisciplinary area, the Health Literacy seminar addresses topics such as sex education, addiction prevention and nutrition. Individual seminars take place in the STEM classroom.

The use of digital media is not an end in itself. They are used where they provide useful didactic support, such as on excursions or in citizen science projects as well as for data collection in the field (camera traps) or in the laboratory.

With health literacy topics such as sex education, the interdisciplinary area of the Biology teacher education programme makes it possible to think outside the box.

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Science and Technology (NwT) –
Technical literacy based on a scientific and technical basic training

Technology, science, society

Everyday life in our society is shaped by technological development and the associated economic and ecological interactions. However, the reception of technology is often ambivalent and determined by extremes.

Technical devices, for example, influence our communication behaviour to a large extent. The user-friendliness of mobile communication devices is constantly being improved, usually at the expense of increasing complexity of technical implementation, not least when using artificial intelligence. This means that users hardly have a chance to deal with the underlying technologies in a technically competent manner, but this is often simply accepted, as is for example the voluntary and often unquestioned provision of personal data to global technology companies in order to be able to consume products in full. On the other hand, technical developments are paradoxically viewed with suspicion, particularly with regard to data protection in other, non-commercial areas, such as digital patient records, telemedicine or school teaching.

The subject of Science and Technology (NwT) can start here and provide a basic education in Science and Technology for pupils’ everyday lives. In order to meet the goal of technical literacy, the development and classification of technical issues must also be reflected in the general education curriculum. Only in this way pupils will be able to actively participate in shaping our society and even shaping technology themselves by making an informed career choice in research and development.

The main aim is to make the multidimensionality of technology tangible,
i.e. to acquire a broad basic knowledge of everyday techniques,
but also develop skills to answer topical questions regarding sustainability,
technology assessment and ethical issues.

NwT is a very young subject and is only offered in Baden-Württemberg, which means that there has been little subject-specific didactic research to date. The process of defining an independent profile for NwT Subject Didactics between the more vocational Didactics of Technology and the Subject Didactics of the Natural Sciences has not yet been completed and will remain in flux in the future due to the wide range of subject areas. The identification of an independent Subject Didactics of NwT beyond a mere stringing together of subject didactic teaching contents, research lines and goals of the participating natural science and technical subject areas is an essential goal for the near future. The pilot project to introduce NwT as an A-levels examination subject has shifted the focus of the subject to the area of technology. This opens up new perspectives in the subject-didactic research areas of content knowledge in the establishment of Technology Didactics at grammar school level beyond the state level as well as on vocational knowledge (pedagogical content knowledge).



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The subject NwT is offered as an independent subject in teacher education in cooperation with the universities of Esslingen and Rottenburg. In addition to the scientific content, the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) courses include engineering disciplines such as Information Technology, Electrical Engineering, Energy and Mobility as well as Materials Science and Production.

This cooperation between the University of Tübingen and universities of applied sciences in secondary school teacher education, which is unique in the state, is of particular importance for NwT in terms of practical training, which is particularly emphasized by the courses: Both universities offer dedicated, teacher-specific engineering courses for the degree course, while the Esslingen University of Applied Sciences also offers subject specific didactic modules.

The cooperation between the University of Tübingen and universities of applied sciences in secondary school teacher education is of particular importance for the practical training of future teachers in the subject of NwT.

Since 2018, a teaching and learning laboratory (STEM classroom) has been available at the University of Tübingen for teacher education in STEM subjects. The room offers typical classroom equipment and is also equipped with a camera system for filming and analyzing lessons. This makes it possible to obtain empirical research results under real conditions, e.g. with groups of pupils. The STEM classroom was set up with the support of the [Vector Foundation](#) and is used cooperatively by the STEM subjects of Biology, Chemistry, Geography, Computer Science, Mathematics, Natural Sciences and Technology (NwT) and Physics.



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Chemistry

Modern Chemistry for modern Chemistry lessons in schools and student laboratories

Innovative discoveries and new insights from the science of Chemistry help to address global societal and political issues. The key issues of our time include, for example, the challenges of climate change, sustainability, mobility and digitalization. In this context, many people are particularly interested in the relationship between Chemistry and the topic of sustainability or how scientific knowledge is acquired. Using Chemistry as an example, this knowledge should raise awareness of the impact of one's own activities on the environment, enable sustainable action and promote an understanding of scientific working methods. In concrete terms, this means making available the (everyday) handling of hazardous chemical substances, demonstrating the everyday relevance of ongoing research developments and their influence on our changing society. This knowledge and an understanding of science learning processes must be integrated into school education in order to contribute to basic science education. The research work of the Tübingen Chemistry Didactics department is directly linked to this.

From an experimental-conceptual perspective, the Chair for Chemistry Didactics develops new, socially relevant research results from Chemistry, i.e. reconstructs them for learners. This includes, in particular, the subject area of modern materials, e.g. nanotechnology, luminescent substances or pyrotechnics, with specific references to sustainability.

Organic Chemistry topics and modern scientific research methods such as Quantum Chemistry calculations are also prepared for pupils, taking into account their learning needs. These newly created experiments and materials are subsequently used in schools and student laboratories as well as in university teaching.

Teaching and learning effectiveness studies are carried out in particular for the extracurricular learning setting of the school laboratory, where our work takes an empirical perspective. On the one hand, the question of how the student laboratory learning setting can be made more effective for learning, e.g. through school-based preparation and follow-up work, is investigated. On the other hand, the perceived authenticity on the part of the pupils is investigated using videos from specialist research.

Also in teaching, our students of the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) Chemistry are given the opportunity to combine current Chemistry research with the learning content and learning objectives of the Chemistry curriculum. In addition to a range of undergraduate subject didactics courses, some laboratory courses and a seminar in the Master of Education (M. Ed.) in Chemistry are dedicated to practices for teaching innovative topics in school Chemistry lessons. As part of the seminar, school classes regularly come to our school laboratory TüChemLab to be taught by teaching degree students in micro-teaching situations. The courses and the school laboratory are mainly held in the modern [STEM classroom](#).

The department offers teacher education courses for Chemistry teachers, which are also researched with regard to the use of digital tools and innovative teaching formats, e.g. blended learning.

The foundation and research of the BMBF MINT Cluster MINT me! is directly linked to the student laboratory. Together with the network partners BBQ Tübingen, the University City of Tübingen and the Siemens Stiftung, a web portal is being set up to provide vocational references for the school laboratory programs in the form of short videos. Another focus is on the integration of outside learning opportunities with school lessons as part of a blended learning approach.



„The school lab provides an exciting environment in which to bring students, pupils and innovative research topics together. Whether through guidance by students or independent experimentation by pupils – a wide range of practical experience can be gained here.“

(PhD student, Didactics of Chemistry)

„Research in Didactics inspires me above all because it brings together different worlds, such as the science of Chemistry, Educational Science and practical work with pupils.“

(Postdoctoral researcher, Didactics of Chemistry)

Another project funded by the [Vector Foundation](#) and the [Siemens Stiftung](#) entitled Teaching Spirit 2.0: Lindau Nobel Laureates as Educational Mentors for Open Educational Resources (OER) in Schools & Student Labs is taking place in cooperation with the Council for the Lindau Nobel Laureate Meetings The aim is to use the existing digital media (videos, audio files, 360° laboratory environments) of the Lindau Mediatheque as authentic sources to promote scientific understanding in schools, student laboratories and teacher education. All materials are made available as OER.

The STEM study ambassador project funded by the [Gips-Schüle-Stiftung](#) is also anchored in the Didactics of Chemistry and [Physics](#). As authentic contacts at the school, students provide an impression of the content, requirements and opportunities of STEM studies.

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For the **Gips-Schüle-Stiftung**, the support of science, research, teaching, studies, early career researchers and company training is the essential basis for social progress and economic stability. The foundation is committed to the transfer of scientific knowledge, particularly to smaller and medium-sized companies. The guiding principles of the Gips-Schüle-Stiftung are sustainability, fairness and the responsible use of resources and growth. At the University of Tübingen, the Gips-Schüle-Stiftung supports the MINT Study Ambassadors project.

The **Siemens Stiftung** is committed to sustainable social development as part of its support measures. A prerequisite for this is a secure basic supply, high-quality education and cultural understanding. In its international project work, the Siemens Stiftung therefore supports people in meeting these challenges of our time independently and responsibly. One funding priority is the initiation of high-quality STEM education, which is intended to bring about lasting change in society. The research group for Chemistry Education at the University of Tübingen is currently supporting the project [Teaching Spirit 2.0: Lindau Nobel Laureates as Educational Mentors for Open Educational Resources \(OER\) in Schools & Student Laboratories](#).

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Geography

Geography – Addresses urgent societal problems

Against the backdrop of the major global challenges of our time, which are reflected in the discussions about the responsible use of our planet’s resources, environmental changes caused by climate change and their impact on urban and rural societies, our education system must also respond even more strongly to these developments. Future generations must be enabled to solve the enormous challenges of their future: Whether energy consumption, traffic volume, growing geographical disparities, natural hazards, the use of raw materials or waste disposal – new solutions must be found in order to preserve the foundations of human life locally, regionally and globally in the long term.

Geography as an interdisciplinary combines social science and natural science topics, issues and methods like almost no other subject. It deals with topological structures and the relevant processes. The subject of geographical research and teaching is the geosphere, which is shaped by geofactors (rock, soil, water, air, flora and fauna) as well as human influences. The aim of geographical research and development is to analyze and evaluate spaces in order to help shape them. Like any applied science, it is subject to changes in social evaluation. Both Physical Geography (Geography of nature) and Human Geography (Geography of humans) have recently increasingly turned to solving practical problems: Geographers today research and work in a wide range of disciplines, from environmental protection, ecosystem research, urban planning, traffic planning and energy management to sociogeographic processes and behavioural research.

The range of professions is highly relevant to society and very diverse:

It ranges from environmental protection, ecosystem research, urban planning, transportation planning or energy management to the teaching profession.

In the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) Geography courses, fundamental skills are developed in the various areas of subject science and subject didactics. One of the central requirements for future-oriented teacher education in the subject of Geography is a comprehensive range of courses that qualify teaching degree students for school practice.

Teacher education in Geography at the University of Tübingen aims to qualify for the school practice of tomorrow.

In doing so, students should acquire a solid, structured and connectable body of specialist knowledge that they can draw on and build on. Furthermore, it is necessary to acquire overview and orientation, through which access to the current fundamental questions of the subject is achieved, and finally to acquire a basic knowledge of the subject. Students should also acquire reflective knowledge (meta-knowledge) about their subject. When designing the B. Ed. degree programme, equal emphasis was placed on teaching Physical Geography/Geoecology



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and Human Geography content and on the problem- and action-oriented examination of human-environmental change. The treatment of selected regional content and the mastery of the knowledge and working methods of the subject as well as the ability to process geoinformation are further focal points of the course. The teaching of geographically relevant research questions and methods is also part of the course content. New media and working techniques are becoming increasingly important in school-level Geography lessons, which is why the relevant skills and abilities are also taught in the courses for teaching degree students. Numerous blended learning formats have been developed and successfully tested in recent years.

In app-supported field trips, students use smartphones to visit field trip locations and work interactively on tasks from various areas of Geography.

The didactic training takes place within the framework of seminars. Based on the structural guidelines of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany, the Fachgesellschaft für Fachdidaktik Geographie and current research findings, topics that build on each other are useful in order to prepare for the practical semester with teaching methods and teaching principles. An in-depth examination of research findings in subject didactics takes place in the M. Ed. through the creation of a coherent teaching module, taking into account Geography didactic teaching methods and teaching principles as well as their application and reflection. Thematic references to Educational Science theories and models are an integral part of all seminars. The Institute of Geography is currently working on various key research areas, which are discussed in the didactic courses: In Physical Geography, the focus is on soil science and Geomorphology (Prof. Dr. Thomas Scholten), Geoecology (Prof. Dr. Yvonne Oelmann) and Geoinformatics and Geographic Information Systems (Prof. Dr. Volker Hochschild). Human Geography is represented by Economic Geography and Transition Countries (Prof. Dr. Sebastian Kinder) and Urban and Regional Development (Prof. Dr. Olaf Kühne).

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Didactics of Computer Science: Technological knowledge and IT thinking are in demand

Computer scientists are in high demand in Germany. Information Technology is the central topic in an ever-increasing number of areas of society, business and science. In 2021, the demand for IT specialists reached a new height. IT specialists are in extremely high demand – but the need for excellently trained IT teachers is even greater.

Due to the key role of Information Technology in so many areas, the importance of the subject is increasing rapidly, especially in schools.

In its recommendations on education, teaching and learning in a digital world, the Standing Conference of the Ministers of Education and Cultural Affairs describes a comprehensive competence model in which the recognition and formulation of algorithms is named as an essential area of competence.

A basic education in Computer Science in the sense of understanding, mastering and applying Computer Science methods and tools is essential so that pupils understand the advancing digitalization and learn to distinguish its social benefits and risks as well as being able to competently shape digitalization processes themselves.

A dedicated chair for Computer Science and its Didactics is currently being appointed, which will significantly strengthen teaching and research in the field of Computer Science Didactics. This will significantly increase the quality and attractiveness of the course and also make it more visible to the outside world, so that a significant increase in students and graduates can be ex-

we want you!

Computer Science

pected. In addition, a professorship for Computer Science and its Didactics will help to secure the next generation of academics in the long term.

There are also several professorial chairs that are involved in the Didactics of Computer Science. For example, the Chair for Programming Languages is researching methods to offer up-to-date Computer Science lessons and to evolve Computer Science lessons from a subject for using technologies into a subject that teaches Computer Science thinking.

The Bachelor of Education (B. Ed.) in Computer Science consists of a combination of leading Computer Science courses (Computer Science I, Computer Science II etc.) and didactic courses which are offered in close cooperation with the Tübingen State Seminar for Didactics and Teacher Training (Grammar School). In the Master of Education (M. Ed.) Computer Science course, this knowledge is further deepened, and students can set their own specializations by attending special lectures. In the [STEM classroom](#), students can test and reflect on their subject didactic knowledge as part of their courses.

The possibility of a doctorate in the Didactics of Computer Science supports early career researchers.

In addition to the traditional courses for grammar school teachers, the University of Tübingen also offers a Bachelor's and Master's of Education for higher-level teaching at vocational schools.

In addition, we currently offer the Master of Education (M. Ed.) Quereinstieg Lehramt Gymnasium (a lateral entry into the teaching professions at grammar schools), which makes it possible to study a second subject from this trio within two years after completing a Bachelor of Science in Mathematics, Physics or Computer Science and qualify to teach at grammar schools.

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**Sport – A cultural phenomenon
with diverse potential for schools and didactic research**

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Sport is an important cultural asset of our time. A large majority of the population of all age groups participate in the diverse culture of sport and exercise in its various forms of competitive, recreational and health sports. Major sporting events such as the European Women’s Football Championships are even able to eclipse societal and international crises for a short time. On the other hand, competitive sport in particular repeatedly prompts critical reflection on the excesses of a one-sided focus on success.

Against this backdrop, physical education at school plays an important role in the early, long-term and reflective development of a diverse culture of sport and exercise. It offers diverse potential for holistic (including physical, mental and social) developmental support (e.g. body image, health awareness, values education, social skills). Some of these educational ideas date back to antiquity and can be found today in all educational plans for the physical education in Germany.

The core Sport Science topics of education, performance and health which are particularly important for the Tübingen Institute of Sports Science are researched intensively from different Sport Science perspectives and prepared for the training of sports teachers. The Institute’s research work ranges from international comparative research on education and education policy in the welfare state, to the promotion of skills in game sports such as soccer, to the physical activity- and health-friendly design of the school environment (e.g. participation in the World Health Organization’s health survey Health Behavior in School-Aged Children Study).

The research spectrum at the Tübingen Institute of Sport Science is broad and highly relevant to society. Didactic research focuses, among other things, on health education in physical education.

Health education in physical education is a core topic of research-based subject didactics. In view of the health-promoting potential of sport and exercise, physical education is of particular importance as it offers the opportunity to have a comprehensive impact on all children and young people. With empirical studies on the diagnosis and development of health-related skills in relation to exercise and sport, research work is being supported in cooperation with the Hector Research Institute of Education Sciences and Psychology and the Tübingen School of Education, among others. Other focal points of didactic research are projects and research work on skills development by means of cognitive activation in physical education, also beyond the topic of health, as well as on the professionalism and professionalization of (prospective) physical education teachers.

In the course of digitalization, the culture of sport and exercise is currently undergoing major changes and presenting adolescents with new challenges in terms of their health-related decisions and behaviour. The current DiGebiS project is therefore working together with partners from the field (Physical Education teachers, specialist advisors of the Center for School Quality and Teacher Education



Baden-Württemberg (ZSL)) to develop, evaluate and disseminate scientifically sound and implementable teaching concepts for digitalization-sensitive health education in Physical Education.

With its diverse, strong professorial chairs, the Tübingen Institute of Sports Science guarantees a broad and well-founded Sport Science qualification in the Bachelor and Master of Education in Sport Science and at the same time focuses on the training of teachers for the profession. The teacher education course is aimed at the profession of a sports teacher at grammar schools. In the spirit of research-based learning, students participate in current projects and gain insights into school practice and research. This research orientation rounds off the traditional teacher education course, which teaches interlinked skills in sport and school practice, Sport Science and Physical Education Didactics.

Characteristic of the degree course in this subject is the breadth of content of the sports science sub-disciplines in combination with well-founded practical training in a broad spectrum of fields with a focus on didactics and methodology.

The concepts behind the distribution of teaching skills (e.g. to promote the social skills of prospective PE teachers), characterized by theory-based and practical orientation, draw on students’ own experiences and have repeatedly been awarded the University of Tübingen Teaching Prize. This is also reflected in recurring positive feedback from the Seminars for Teaching Practice and Teacher Training (Grammar Schools) as well as in regularly very good survey results for the quality of teaching (e.g. course evaluations; CHE university ranking).

“The varied training at the IFS (Institut für Sportwissenschaft) offers the opportunity to try out your future profession in a relaxed atmosphere among students and thus fill your toolbox with many creative ideas for your future school practice.”

(Student, M. Ed. Sport)

Sport

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Political Science and Didactics of Politics:
High relevance for ,the cultivation of democracy’ in society and schools

Politics

Political Science was newly founded in the Federal Republic of Germany in the 1950s. The subject initially saw itself primarily as a ‚science of democracy’. An important aim of the new subject was to train a new generation of teachers after the experiences of National Socialism, war, terror, the Holocaust and indoctrination. They were to teach young people about democracy, human rights, the rule of law and peace in Europe as central values of a democratic society. The subject of Political Science initially had to fight for its place alongside neighboring disciplines such as Sociology, Contemporary History and Law – the task of training teachers to teach Social Studies was an important part of the self-image of Political Science in Tübingen from the very beginning and still is today. This understanding has helped to secure a firm place for Political Science in the university’s canon of subjects.

In the 1950s, the Standing Conference for the Ministers of Education and Cultural Affairs called for the subject of Political Education to be firmly anchored in school lessons – the aim was to professionalize and academise Political Education, which began with the first chairs for Didactics of Politics in the 1960s and which created the basis for the turning point in the Didactics of Politics.

Political Education is the only school subject in Baden-Württemberg that even has constitutional status: Article 21 (2) of the state constitution states: „In all schools, Social Studies are to be taught in the classroom.” This means that the training of teachers for the subject of Political Science is of central importance for the entire political system and society.

The relevance of Political Science as a subject is confirmed by a daily glance at the news from around the world: wars, crises and other political, economic and social challenges such as climate change, hunger, poverty, migration, weapons of mass destruction, solidarity, globalisation, pandemics, digitalization, social inequality, extremism, authoritarianism, populism and polarisation are just some of the keywords that show that Political Science, as a cross-sectional science, can no longer just be a science of democracy. Today, the subject of Political Science and the didactics of the subject must cover a much broader range of topics that global society is confronted with.

In the 2016 education plan, the concepts of power and decision, interest and common good, and scarcity and distribution illustrate the wide range of topics to be covered in political studies lessons.

The so-called Beutelsbach Consensus from 1976 is of particular importance in Political Sciences and in the Didactics of Politics. This consensus formulates three basic principles of didactics that are still valid for political education.



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Teaching Politics as a school subject requires a broad scientific and didactic basis. The teaching of Political Science theories, methods and concepts in close connection with subject didactics is essential for a successful Political Science teaching degree programme. The Tübingen Institute of Political Science sees this close link between Political Science and didactics as the core of its teacher education program. This was also communicated very successfully, for example, in an online workshop that brought together teachers, school trainees and teaching degree students in May 2021. This Europa@School workshop was organized under the leadership of Prof. Dr. Gabriele Abels, Jean Monnet Professor at the Tübingen Institute of Political Science, in collaboration with the TüSE, the Arbeitskreis Europäische Integration e.V., the Landeszentrale für politische Bildung Baden-Württemberg and the RegioParl research project and was co-financed by the EU.

The study of Political Sciences and school practice phases are geared towards building up skills and imparting professional knowledge in which the various institutions – university, school, school trainees and the Seminar for Teaching Practice and Teacher Training Tübingen (Grammar School) – cooperate closely with each other.

Political science in Germany no longer sees itself primarily as a science of democracy. Since its rebirth in the 1950s, it has become much more diverse as a subject and professionalized as an empirically analytical science – but the challenges facing democratic societies worldwide remain an important topic for the study of Political Sciences and the teaching of Politics.

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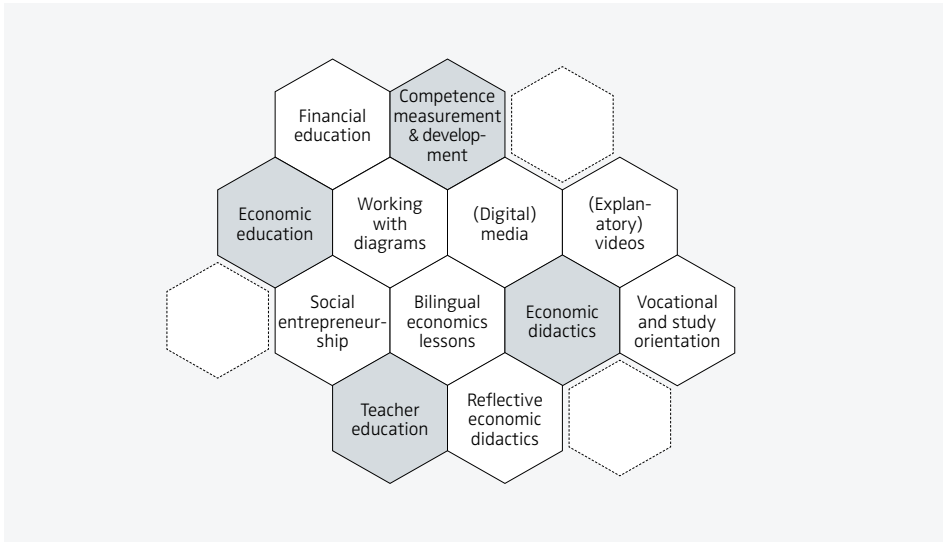
Economic Education at the University of Tübingen

Economic Education is becoming increasingly important against the backdrop of rapid technological and social change processes. These are often accompanied by an increasing complexity of economic structures and processes, meaning that basic economic knowledge is essential for coping with everyday working and living life. The primary goal of Economic Education is therefore to enable each individual to make independent and responsible decisions as a citizen. This includes understanding and taking into account the social, political, ecological, legal and ethical conditions of economic activity. Since the 2018/2019 school year, the subject of Economics/ Career and Study Orientation has been taught at all general education schools in Baden-Württemberg to help learners develop the necessary skills to meet the economic challenges of their environment.

Learning to understand and shape economic challenges is the overarching goal of Economic Education.

In addition to qualifying and training future Economics teachers, one of the core tasks of the chair for Economic Education, which was established in 2016, is to address key research questions in Economics and its Didactics. We carry out practical and fundamental research on skills development in schools and universities at the junction of subject-specific science, Educational Science, empirical educational research and other disciplines. We investigate the processes and outcomes of Economic teaching and learning opportunities and thus contribute to the skills development of learners and teachers. In our research projects, we work together with partners from the field and make the resulting publications available to teachers and other interested parties.

The research portfolio covers a wide range of topics (see figure) and methodologies.



“The degree programme offers the opportunity to build up a wide range of knowledge in addition to the basic courses in the respective subjects, depending on your interests. Through different practical phases, such as in the B. Ed. in Economics, you gain significant practical experience. For these reasons, the degree programmes prepare you extensively for the teaching profession, both theoretically and practically.” (Student, M. Ed. Economics)

On the one hand, the research focuses on learners in schools and universities, e.g. their competence in dealing with diagrams. A new set of instructions has been developed in this field of research, which will initially be tested with students and subsequently with learners at secondary level II. Validation in other cultural contexts is also planned. In another large-scale study, the economic competence of learners in Baden Württemberg was examined. In order to better understand the gender effects here, further explanatory factors for gender-specific differences will be identified in a follow-up study so that these can then be diagnosed and addressed with an adaptive learning environment.

On the other hand, the competencies of the teachers are also examined. Based on the general competence requirements for bilingual teachers, the domain-specific requirements for bilingual teachers of Economics, Geography and Politics are examined.

Research work focuses on competence development processes in the economic education of teachers, students and pupils in methodologically pluralistic designs – also with a view to gender-specific differences or domain-specific requirements for teachers.

The degree programme for training future Economics teachers pursues an integrated and multidisciplinary approach. The Bachelor of Education (B. Ed.) in Economics brings together the perspectives of subject-specific science (in particular Business Administration and Economics) with subject-specific didactics and other disciplines. In order to be able to adequately address the social framework of the economic system in later lessons, the economics perspective is expanded to include Political Science and Business Ethics. A compulsory company internship also ensures the necessary theoretical and practical links. The Master of Education (M. Ed.) focuses on specializations in Social Sciences and Economics and its Didactics, thus contributing to the professionalization of new Economics teachers at grammar schools. The chair for Economic Education is largely responsible for the design of the teaching degree programme in Economics. The chair is funded by the non-profit Dieter von Holtzbrinck Stiftung.

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In the courses on Business Didactics, students should develop the necessary skills to be able to successfully plan and conduct lessons later on. To achieve this, lessons are simulated during the course and reflected on with the help of video annotations.

In order to link research and practice more closely, a training course for teachers on video tutorials was offered in collaboration with the Center for School Quality and Teacher Education Baden Württemberg. After discussing quality criteria for videos, the teachers created tutorials on various topics and developed them further using peer feedback.

As part of a project funded by the PwC-Stiftung and the Karl-Schlecht-Stiftung from the 2022/2023 school year, the implementation of the Wirtschafts.Forscher! programme was investigated in schools using a model region in the Regional Council of Tübingen.

The programme aims to provide pupils and teachers with a well-founded, multi-perspective and problem-oriented approach to ethical issues in a digital economy. This is achieved with the help of a media-supported learning platform for pupils of all school types, the Wirtschafts.Forscher!-Labor.

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As part of the Wirtschaft Verstehen Lernen education initiative, the **Dieter von Holtzbrinck Stiftung** organizes training and further education measures for (future) teachers to enable them to teach Economics as a school subject competently. The foundation's aim is to enable pupils to develop the ability to make economic judgments in order to enable social participation. With this in mind, the Dieter von Holtzbrinck Stiftung supports the chair for Economic Education at the University of Tübingen and thus research, studies and teaching in teacher education in this key social field.

Since its establishment, the **PwC-Stiftung** has been committed to the social participation of young people regardless of their background. One of the foundation's funding priorities is ethical economic education. The PwC-Stiftung plays a leading role in the Wirtschafts.Forscher! programme together with the Karl-Schlecht-Stiftung. The **Karl-Schlecht-Stiftung** also works to foster good leadership skills and supports corresponding projects.



Teaching at Vocational Schools with a Specialization in Social Pedagogy –
An area with high societal relevance
for the qualification of urgently needed specialists

Social Pedagogy

Vocational schools make a significant contribution to the economy and society. They open up a wide range of opportunities for obtaining general school qualifications as well as initial and further vocational qualifications.

The vocational specialization in Social Pedagogy/Pedagogy is aimed at the teaching activities in the training of educators in childcare or in pedagogical social assistance and in social science grammar schools.

With this design, the Tübingen degree programme created a unique selling point in relation to the federal state of Baden-Württemberg, and is one of only a few degree programs nationwide with this profile.

The study programme Vocational School Teaching in Social Pedagogy/Pedagogy and General Education Subject (Bachelor and Master of Education) provides a broad-based knowledge of Educational Science and its sub-disciplines of Social Pedagogy and Pedagogy of (Early) Childhood as well as Psychology and Educational Science. Central to this is the examination of educational and learning processes throughout life and their interweaving with socio-political conditions. Current societal developments in the context of migration, gender, social inequality, inclusion, diversity, digitalization and much more are addressed and reflected in their significance for teaching and learning contexts.

The department offers a variety of access points to research and is connected to various research contexts at the University of Tübingen as well as to the nationwide network of other institutions in vocational education.

Two projects as part of the Qualitätsoffensive Lehrerbildung by the federal and state governments are presented here as examples:

In the project Professionalization through Counselling in Teacher Education (Professionalisierung durch Beratung im Lehramtsstudium, ProfiL), students are offered career-oriented counselling to systematically reflect on individual professionalization processes on the path to becoming a teacher. The accompanying research focuses on the effects of the counselling service. The project is a collaboration between the Institute of Education/Department of Social Pedagogy, the Tübingen School of Education (TüSE) and the University of Trier.

The DEIN-LBSCampus project is aimed specifically at the vocational school teaching profession and examines the impact of different study models and structures on the professional development of the students. The Tübingen site is involved as a network partner in the nationwide project led by the University of Osnabrück.

„I think the cohesion on the course is very good. As there are only about 30 people per year, you know each other, which creates a strong group feeling.“ (Student, M. Ed. Vocational Teacher Education in Social Pedagogy/Pedagogy)

/Pedagogy

Vocational education training in the field of Social Pedagogy requires a scientific and didactic approach. Central didactic principles relate to personality development, the theory-to-practice relationship and the dual pedagogical aims. The Didactics of Social Pedagogy is challenged in a special way on two levels of teaching: both individual social pedagogical and teaching-related professionalism as well as professionalization and the question of teaching and learning social pedagogical action are central. The Didactics of Social Pedagogy must therefore refer to several places and target groups: University and students, vocational colleges/technical schools and trainees; practice institutions and learners.

The study focus is on the vocational teaching subject, which is supplemented by a general second teaching subject. Two integrated practical modules (vocational school and specialist practice) offer systematic opportunities to reflect on the relationship between subject sciences, subject-specific didactics and subject as well as school practice. Students develop the ability to combine academic knowledge with the experience of teaching practice and make it usable for the intended research-based and practice-oriented teaching activities.

Innovative teaching formats take up current academic, departmental policy and (school) practice-related discourses in a special way. Examples of this include team teaching models with teachers from the vocational school system, practical dialogues integrated into the seminar context with specialist practitioners and a study trip with an international comparative focus. A special event format which is also used by students across all semesters, is the lecture series Kitas an der Uni, in which the practical relevance of current scientific research findings in childhood education are discussed with a broad specialist audience.

„Compared to other teacher education courses, the theory-practice link in the vocational teaching degree is much greater. With a total of 52 practical weeks in different institutions, you can apply what you’ve learned very quickly. In practice, I often think back to different seminars and lectures and suddenly realize the meaning of what we have covered. That’s motivating!“ (Student, M. Ed.Vocational Teacher Education in Social Pedagogy/Pedagogy)



„I found this format without any pressure to perform very learning-intensive. The many impressions in connection with previous seminar content have left a special impression on me.“
(Participant of the 2022 study trip)



Participants of the 2022 study trip

The vocational school teacher education course in Social Pedagogy is the smallest of the teacher education courses in Tübingen. The supervision of the course by a full-time coordinator enables a close connection to the institute and a high degree of coherence in the content taught and the group. A special highlight of the academic year is a joint study trip for lecturers and students. In addition to valuable – and internationally comparative – insights into systems of early childhood education, this format also provides a variety of opportunities for the all-important social exchange between cohorts.

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The Extension Subject Educational Science –
Future-oriented perspectives on education, schools and teaching

Current experiences of crisis and societal developments are a reminder no longer just to experts, but also to the general public, of how important intelligent conception, design and reflection are in processes of education and upbringing for the future of the individual, the country and the global world. The relevance of school education and its scientific pervasion is often emphasized in different contexts and it seems indisputable for teacher education that the perspectives of specific school subjects alone fall short of taking a broad view of individual and societal developments and pointing the way to the future.

Current crises and societal developments show the importance of education for a common future.

As an integrating and dynamically developing discipline, Educational Science is one of the largest social science subjects. With its sub-disciplines (e.g. General Pedagogy, Adult Education/ Further Education, School Pedagogy, Social Pedagogy), it focuses on educational and learning processes throughout a lifetime. It qualifies prospective teachers and other people working in education contexts for numerous tasks and fields of development.

Educational Science sees itself as a research-intensive discipline with a variety of methodological approaches: Work is carried out across the breadth of historical, theory-based, empirical-qualitative, empirical-quantitative and method-combining research. At the Institute of Education at the University of Tübingen, these pluralistic approaches to knowledge are represented and are constantly being further developed. They are visible in the large number, variety and quality of research projects. These provide interested students with an insight and, when indicated, a path into research. The acquisition of methodological skills begins during the first degree and continues within the framework of institutionalized support for early career researchers.

Educational Science in the teacher education program is a broad-based subject. It opens the mind to fundamental theoretical reflections and relates to different fields of educational activities. The functions of social work, for example, are addressed as well as the consequences of structural decisions in educational institutions. The central aim of the course is to impart skills for researching and developing educational organizations, and educational and teaching processes and to enable graduates to critically reflect on their own professionalization processes. This also includes engaging with educational research, differentiating between subjective and scientific theories and ways of thinking, acquiring specialist terminology to develop their own scientifically based positions and address new questions and problems.

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„The scientific approach to school and teaching opens up new perspectives for me.“
(Student, extension subject Educational Science M. Ed.)

„Everything is highly relevant, I have the feeling that what we are working on is important.“
(Student, extension subject Educational Science M. Ed.)

„We get to think and reflect a lot more in this course. Without studying Educational Science, I wouldn’t have questioned many things.“
(Student, extension subject Educational Science M. Ed.)

Educational Science in the teacher education programme is only offered as a supplementary Master’s course. Students can choose between two possibilities: 120 or 90 ECTS credits. Students who opt for the larger scope of study have the opportunity to choose specializations and extensions according to their own interests.

The Institute of Education is characterized by a large number and variety of research and development projects.

The research and development projects are designed and carried out on a departmental or cross-departmental basis as well as in national and international collaborations. Three current projects are presented as examples:

In the Adult Education/Further Education department, scientifically based offers for teachers are developed, tested and scientifically monitored in line with their needs. Participating teachers are expected to spread their findings in schools.

In the DFG-funded project Doppelt hält besser? (Two is better than one?), the Department of School Education is investigating the conditions for success of formative feedback in learning. To this end, several experimental studies were conducted to investigate the synergy and interaction effects of the combination of computer-based feedback and strategy instruction on affective and (meta)cognitive learning processes and the associated learning performance.

The cooperative DFG Research Training Group Doing transitions – The Formation of Transitions over the Life Course in the Department of Social Pedagogy with a total of ten participating professors from the Universities of Tübingen and Frankfurt marks a new approach to dealing with transitions. A total of twelve doctoral projects (six of them in Tübingen) and one postdoctoral project focus on transitions in education, work or parenthood, for example.

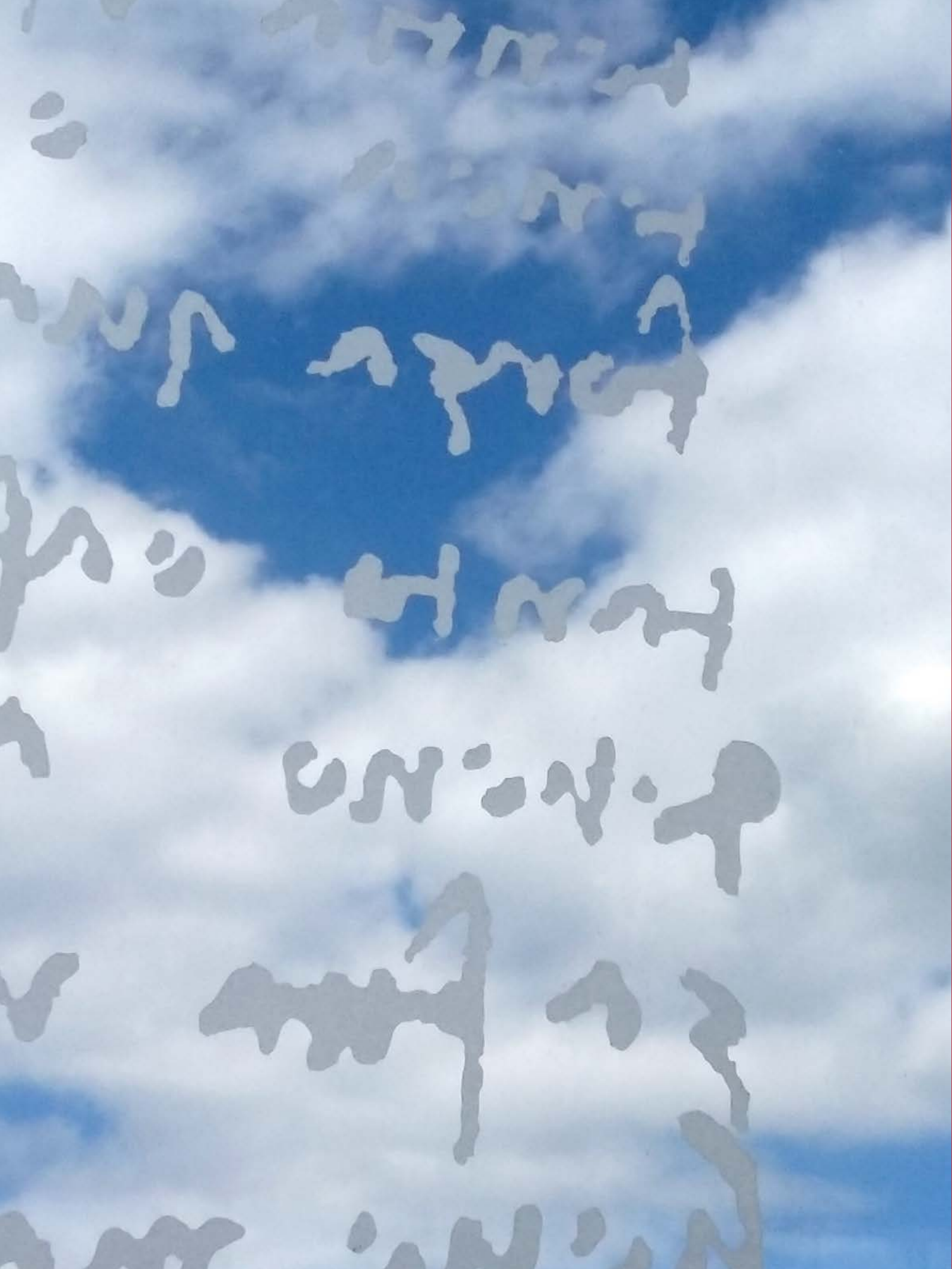
The Tübingen Educational Science has repeatedly drawn attention to itself through outstanding initiatives by or with students: the inter-institutional Educational Science Student Congress, the learning journey to innovative schools and publications by students are projects that have been running for years at a high level, making the research and development orientation practiced at the Institute visible and continuing it.

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Faculty of Humanities



Philosophy/

Teaching Philosophy and Ethics: Grounded values in times of crisis

The high societal relevance and great emancipatory potential of Philosophy are currently evident: In a time that is perceived as crisis-ridden and characterized by a multitude of political and moral challenges, there is a great need for normative orientation, both with regard to questions of one's own lifestyle and in terms of reflecting on developments in society as a whole. In this context, academic Philosophy, as a paradigmatic place of academic debate on fundamental questions of values, clearly has a particular responsibility.

This situation is also reflected in the context of the institutional teaching of Philosophy: in school, the philosophical subjects are constantly increasing in popularity, while at university, Philosophy is one of the most frequently chosen subjects in teacher education courses. At the same time, the Didactics of Philosophy is experiencing rapid professionalization, which has led, among other things, to the founding of the Gesellschaft für Philosophie- und Ethikdidaktik, which has been coordinating joint research efforts as an umbrella organization since autumn 2020 and represents the Didactics of Philosophy as an independent discipline in the German-speaking world.

Current issues in the Didactics of Philosophy are developing in line with current social dynamics and concern, for example, questions of digitalization, educational equity, the increasing pluralisation of public discourse, and questions of diversity and inclusion. In order to sensitise teaching degree students to these issues and enable them to deal with them professionally in their future careers, the Philosophy Didactics in Tübingen offers basic introductory courses as well as more advanced courses that are specifically geared towards current research. Such basic courses cover topics such as teaching argumentative skills, dealing with diversity of opinion or gender issues. While the focus of such courses ultimately remains clearly on concrete application, the Philosophy Didactics Colloquium in Tübingen also offers advanced students the opportunity to engage even more intensively and research-oriented with new developments within Philosophy Didactics research, to present and discuss their own related projects and to meet researchers from other universities.

The Bachelor and Master of Education in Philosophy/Ethics is one of the most popular teacher education courses at the University of Tübingen. The Didactics of Philosophy focuses both on clear application along current social dynamics and on research-oriented in-depth studies.

In addition to these efforts to closely relate school practice, teacher education and current research in the field of teaching, didactic research in Philosophy in Tübingen is also characterized by strong participation in current international discourses. A particular concern is also to link the results generated in these contexts to interdisciplinary perspectives and to prepare them for interdisciplinary cooperation. For example, within the framework of the [Special Interest Groups Relativity, Normativity and Orientation](#) and [Critical Thinking and Beyond](#), philosophical-didactic findings on the significance of and dealing with a pluralism of conflicting worlds and values are made useful for dealing with overarching classroom problems.



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Ethics

Of particular importance in this context are current philosophy-didactic considerations on the appropriate handling of differences of opinion: Characteristic of these considerations is a critical re-evaluation of the significance that disagreements have both for the formation of personal opinions and for the success of public deliberation processes. While optimistic considerations have so far been predominant in this regard, according to which disagreements primarily offer valuable opportunities to try on other perspectives, to constructively exchange arguments and to critically question one's own assumptions, this positive picture appears to require differentiation against the background of current psychological and epistemological findings: disagreements also have the potential to reinforce unfavourable polarization effects and to promote problematic cognitive distortions. Furthermore, they often also threaten the epistemic status of the convictions that constitute them, which fundamentally calls into question the rationality of a stable pluralism of conflicting positions.

Current research in Tübingen Philosophy Didactics on dealing with differences of opinion suggest not only favourable effects, such as the adoption of new perspectives, but also unfavourable polarization effects, which fundamentally call into question the rationality of a stable pluralism of conflicting positions.

This means that adolescents must be sensitized to the epistemic implications of differences of opinion and empowered to deal with situations of dissent in an intellectually responsible manner. To make this possible, teachers of all subjects must be provided with more differentiated objectives and clear expectations regarding their skills.

Future teachers must be put in a position to enable adolescents to deal with situations of dissent in an intellectually responsible manner.

Contributing to the fulfillment of these interdisciplinary desiderata is an important motivation for current publication activities and interdisciplinary cooperation efforts in Philosophy Didactics in Tübingen. It is also a goal which, against the background of current social dynamics, directly demonstrates the importance of Philosophy and its Didactics as postulated at the beginning.

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Greek

Greek – The fascination of an old school subject that remains young at heart

„It was Greek to me.”

This quote comes from William Shakespeare’s Julius Caesar. Here, Casca, who does not speak Greek, is unable to tell Cassius what Cicero had said in a discussion that Cassius had witnessed. It is generally believed that Shakespeare may have been inspired by the medieval saying „Graeca non leguntur”, which means that if you don’t know Greek, you not only cannot read a book written in Greek, you simply cannot read at all.

Even in ancient times, children and adults learned Greek. Without Greek, just like without English today, people were at a loss in many areas of life if they wanted to travel and work across regions.

The humanists of the 15th and 16th centuries also endeavoured to not only lament this lack, but also actively counteract it. In his Utopia of 1516, Thomas More describes how the inhabitants of Utopia eagerly pounced on the Greek books brought back by his protagonist Raphael Hythlodæus. They immediately wanted to reinvent the printing press on the one hand and, on the other, to learn Greek and understand these new sources. This can be seen as an attempt to shine a light on the educational eternalists of the time, who had long refused to study Greek literature at Oxford University, for example. Morus, on the other hand, already allowed his daughter to learn this language at that time. In Tübingen, too, the subject was only established in the curriculum in 1521 with the appointment of Johannes Reuchlin.

And today? Has Greek had its day as the language of philosophy, democracy, law, theatre, satire, serious and funny entertainment, education and culture in general? Not at all!

Wanting to step back past the Renaissance into the Middle Ages and no longer being able to read Greek is not an option. One must be able to remember or understand, for example, that Aristotle in his Politika says that slaves exist by nature. How much mischief this sentence has caused in the mouths of proponents of slavery for centuries!

The Didactics of Greek at German universities, including Tübingen, are to a large extent confronted with the fact that it is usually ‚taken care of’ by the Didactics of Latin. This has a direct impact on the resources allocated to both subjects. In view of the higher frequency of Latin learners and correspondingly higher requirements, Greek and related activities in studies, teaching and research are always neglected. The motto of wanting to do everything as in Latin – only with Greek texts – would ignore the specifics of Greek, which need to be clarified and researched.

Despite a lack of human resources, small-scale research and development activities are being carried out in the Didactics of Greek.



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For example, a corpus-based project is currently being carried out on the basis of current examinations to determine the extent to which students in fact need to expand their vocabulary knowledge compared to the basic vocabulary at school. The results will be made available for teaching in schools and universities. At the same time, it will help to develop and update the relevant digital and traditional teaching and learning materials.

The majority of Greek students in Tübingen are recruited from the teacher education courses.

In the winter semester, more than 50 percent of the total number of students of Greek were enrolled in the teaching degree. The Bachelor of Education (B. Ed.) and the Master of Education (M. Ed.) each include a subject-didactic module, whereby the subject-didactic reading in particular breaks new ground in the interlinking of subject science and didactics. In the B. Ed., subject-specific didactic principles are taught and then tested by students in a practical implementation of subject-specific academic content in subject-specific didactic forms. In the M. Ed., the subject-didactic seminars flank the practical semester and allow students to assess their subject-didactic skills. Furthermore, it is possible to write the final theses in the B. Ed. and M. Ed. in Didactics of the subject Greek.

Networking activities

A tandem conference was recently held with the University of Freiburg on the topic of digitalization in the teaching of ancient languages, half of which was dedicated to Greek.

For several years now, a workshop has been held regularly in spring for pupils from Baden-Württemberg on the topics of the Sternchen Themen in the A-level exams. However, the digital infrastructure that has been created due to COVID-19 means that Greek learners from more distant parts of our state can now also take part in this event.

The Department of Didactics of Ancient Languages is involved in two TÜSE [Special Interest Groups: Relativity, Normativity and Orientation](#) and [Critical Thinking and Beyond: Normative Questions in Teacher Education Today](#).

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Latin, and will thus be able to underpin with corresponding data the further development of resolutions by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder, as well as the further development of degree courses in Tübingen.

The Department of Philology counts a considerable proportion of its total number of Latin students among the teaching degree students.

In the winter semester 2022/2023, 80 percent of all Latin students were teaching degree students. The Bachelor of Education (B. Ed.) and the Master (M. Ed.) of Education Latin each include a subject-didactic module, whereby the subject-didactic reading practice in particular links subject science with subject didactics in a special way. In the B. Ed., subject-specific didactic principles are taught and then tested by students in a practical implementation of content in subject-specific didactic forms. In the M. Ed., the subject-didactic courses flank the practical semester and enable students to assess the subject-didactic skills they have acquired. It is possible to write the final theses in the B. Ed. and M. Ed. in Latin Didactics.

The networking activities are broad and range from cooperation within the subject at specialist conferences and publications to interdisciplinary research cooperation in teacher education to cooperation with educational institutions and schools.

In addition to cooperation with local educational institutions such as the diocesan archives in Rottenburg and various schools from Tübingen to Stuttgart and Schwäbisch Gmünd, an annual conference on the Didactics of Ancient Languages has been established, along with a book series of the same name, Didaskalika, which will be dedicated to the New Humanist, Tübingen student and Munich central school board member Friedrich Immanuel Niethammer on the occasion of the 175th anniversary of his death next year.

For several years now, a workshop has been held regularly in spring for pupils from Baden-Württemberg on the Sternchen Themen in the A-levels. The digital infrastructure that has been created due to COVID-19 means that Latin learners from more distant parts of our state can now also take part in this event.

The Department of Didactics of Ancient Languages is involved in two [TüSE Special Interest Groups: Relativity, Normativity and Orientation](#) and [Critical Thinking and Beyond: Normative Questions in Teacher Education Today](#).

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Latin

Latin – indispensable, or can it go?

„Away with him! Away with him! He speaks Latin.“

This statement from the second part of Shakespeare’s drama Henry VI is hurled at one of the characters who has just used Latin. This character even reveals his background knowledge of Caesar and his writings about Kent. However, he does not say a word about the Romans as occupiers of the British Isles. If you look at today’s debates about whether Latin is now the mother of the Romance languages or the colonial languages, it becomes clear what challenges the subject itself and its Didactics are facing today.

However, regardless of one’s view of the current cultural and political situation, what becomes clear from the accusations that Latin is a classist subject is its great importance for the development of our present day.

Without knowing the development of the use of Latin into one’s own mother tongue or other languages and without being able to contextualize the significance and legacy of the Ancient world for our time, not only in Europe, but actually everywhere in the world since the Renaissance, one will misunderstand and misinterpret many things.

It is not a question of asserting the cultural superiority of the Latin language or Rome. On the contrary: if we take, for example, the assertion that our Europe grew out of antiquity, it must be pointed out that Augustus, for example, hardly dreamed of a European Union. Many dreamed of Rome as the center – including Mussolini. The borders in which we think of Europe today are still essentially Western European ideas of the modern era. How did Europa on the bull on its way from the Levant to Crete become a figure with great symbolic power, a story about nothing other than the abduction of a minor whose family breaks up afterwards, a minor whose rape following the abduction is not spoken of? Nevertheless, this image still plays such an important role in politics today that we cannot afford not to have read this story in the original, as it is the details that matter. Even if Zeus was obviously allowed to do what would not be allowed to ordinary mortals today, we can hardly imagine our constitutional state without the impetus of Roman law, or even international law without Cicero, for example. But slaves from Germania still hardly ever appear in today’s Latin books; they are often from the Middle East.

Latin lessons must continue to evolve again and again!

In recent years, a considerable number of research and development projects in Tübingen’s Didactics of Latin have been carried out in the field of the Didactics of Latin.

In the German-speaking world, didactic research in Latin is rarely carried out in professorial departments or institutes. Tübingen is not an exception here. Nevertheless, a considerable number of research and development projects in the Didactics of Latin have been carried out in recent years. We are currently working on an overview of how the central Abitur has developed in North Rhine-Westphalia, Baden-Württemberg and Bavaria since 2000. This work will provide valuable information on the suitability of the Abitur and the students’ knowledge of

Chinese

Chinese – World language and future-oriented teaching subject

China – the magic of a great culture, the fascination of the clash between tradition and hyper-modernity, the encounter with a world of diversity and contradictions. The key to finding your way in this world is the Chinese language.

Chinese has been the most important lingua franca in the East Asian region for two millennia and is now one of the leading world languages. It is also becoming increasingly important as a business and scientific language.

Chinese language skills and expertise on China are more in demand today than ever before, even if exchange and cooperation with China have come under fire in the new era.

China remains an indispensable cooperation partner for the major issues (keyword: Paris climate targets).

The curiosity about China and the Chinese language and culture awakened at school can be a springboard to seize one of the numerous career opportunities that open up in the China-related job and labour market in the future.



China in the middle of Tübingen: Scene from the film From China to Tübingen: A dream journey in the year of the tiger, produced by teaching degree students under the direction of Vera Schick as a welcome video for the conference of the Fachverband Chinesisch in Tübingen.

A kaleidoscope of research in the field of intercultural competence acquisition and the Didactics of Chinese was offered at the conference of the Fachverband Chinesisch e. V., which took place from 1 to 3 September 2022 in Tübingen, organized by the Department of Sinology and the Erich-Paulun-Institute (EPI) of the China Centrum Tübingen (CCT) at the University of Tübingen.

Can schoolchildren with a reading and spelling disorder be helped if they learn Chinese at an early age and thus experience a sense of learning and success at school? This question is being investigated by the interdisciplinary research project Recording and Promoting Visual Skills of German-speaking Children with and without Dyslexia by Learning Chinese Characters (headed by Prof. Dr. Susanne Trauzettel-Klosinski, University Eye Hospital). It includes an ophthalmological-visual and a sinological-didactic focus. For the latter, the EPI is a cooperation partner in the person of Ms. Vera Schick.



“As a Chinese girl who grew up in Germany from primary school age, it was my dream from an early age to open the hearts and minds of young people and adolescents in this country to China, to the magic of the Chinese language and culture. Now, studying here in Tübingen has become a true journey of discovery for me, a journey of discovery that has opened my eyes to the diversity of Chinese culture, and the complexity of my own identity – challenging, exciting and thrilling every new day!”
(Student, B. Ed. Chinese and Philosophy)

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Teacher education in Chinese takes place in Tübingen in three courses: a Bachelor of Education (B. Ed.), a Master of Education (M. Ed.) course and as an extension subject in the main subject area. The traineeship takes place at the Tübingen Seminar for Teaching Practice and Teacher Training (Grammar School), the only location for teacher education in Chinese in southern Germany.

Students studying Chinese as a teaching subject in Tübingen receive a first-class language education, which is guaranteed in particular by an integrated semester abroad in China.

Another special feature is the uniform teaching and learning concept, which interlinks the training phases in the degree course, school internship and practical placement and emphasizes research-based learning in order to further develop research into the Didactics of Chinese in the long term.

Chinese Studies in Tübingen is characterized by a great diversity of fields. The EPI contributes to this diversity in the area of teacher education and cooperation with the teachers’ training seminar and local schools that offer Chinese as a school subject.

The EPI initiates and coordinates activities for the foundation and long-term establishment of Chinese as a school subject and for the teaching of scientifically and didactically sound Chinese skills for learners and teachers at general and vocational schools.

This includes, in cooperation with the Sinology departments in Freiburg and Heidelberg, a project for the scientific evaluation of Chinese as a second foreign language (in Baden-Württemberg only at the Friedrich-Schiller-Gymnasium Marbach) and the establishment of a working group on Chinese as a school subject within the China Netzwerk Baden-Württemberg (CNBW).

A highlight for Sinology and the EPI was the conference of the Fachverband Chinesisch in September 2022. A round table discussion took place there with representatives from schools, school administration, academia and business on the topic of Chinese as a School Subject, quo vadis? Assessment of the Current Situation – Future Prospects. The results of this and another panel discussion on intercultural encounters in schools will be presented together with the Minister’s welcoming address, the keynote speeches and the ‘Tübingen Declaration’ of the Fachverband on the development and expansion of China expertise.

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History

Didactics of History: Science of historical learning and Public History

In social debates, History repeatedly serves as an orientation aid for the present and future. History is referred to in a wide variety of contexts, and so different interpretations are offered side by side. This is unavoidable because every generation asks different questions about the past and develops new perspectives, meaning that our image of the past is constantly changing. A normative understanding of History is therefore no longer viable today, not least because of epistemological considerations. Instead, schools and universities must teach skills that enable learners to deal with History in a critically reflective and emancipated way so that they do not acquire a one-dimensional and mono-perspective view of History.

Every generation asks different questions about the past and develops new perspectives – our image of the past is constantly changing.

Teaching History at university should therefore not be limited to the practice of teaching historical knowledge to students. As a historical sub-discipline alongside the Theory of History (Historiography) and Historical Research, History Didactics therefore sees itself as the science of historical learning in general and is concerned with historical awareness in society. Far beyond the school context, it is therefore concerned with processes of creating meaning through the experiences of time that people have and whose narratives are negotiated in society. Questions relating to the culture of History, the politics of remembrance, and the methods of Public History therefore play a central role in historical didactic research and education.

History Didactics sees itself as the science of historical learning in general and is concerned with historical awareness in society.

The four central fields of work of modern History Didactics are: (1) theory, which, as an instance of reflection, deals with, among other things, what constitutes historical thinking and distinguishes it from other approaches to realities; (2) empiricism as a science of experience, which researches, for example, the changing historical consciousness of young people; (3) pragmatics, which can be seen as a science of action and which focuses on the practical teaching of history; (4) historical culture and public history, which deals scientifically with society's approach to history and all forms of public historical representation.

In the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) History, the History Didactics department teaches, in addition to the disciplinary foundations (Introduction to History Didactics), an in-depth examination of theoretical positions in seminars and courses (e.g.



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historical-political learning, contingency as a problem in teaching History, controversy, narrativity, the Holocaust in History lessons, etc.) and with topics of historical culture/public history (anti-Semitism, racism, the colonial legacy controversy, international comparisons of the culture of remembrance, non-school places of learning, controversial remembrance – memorial conflicts, Nazi memorials, how to make History exciting, Public History in the digital age, etc.). Advanced students are introduced to empirical and historical-cultural research in advanced seminars and learn the research methods of our subject. Seminars related to teaching (setting tasks, nationalism in textbooks, National Socialism in History lessons, teaching Global History, teaching History in the digital age, etc.) are also offered regularly.

Especially in the area of university education, it is crucial to broaden the perspectives of future teachers, to theoretically substantiate them and to try out new content, methodological and media approaches to teach History in an action-oriented manner and to reflect on them in a theoretically well-founded way. University courses in History Didactics must not be limited to merely preparing students for a shortened traineeship.

Future History teachers should have developed their own didactic viewpoints on History – also through their own experience in the field of Public History, through internships or in joint courses with non-school history educators (e.g. media, memorial sites, archives or museums).

The Institute of Didactics of History and Public History is setting new research accents with teaching-related and empirical projects on historical learning with digital media, focusing on the development of digital learning media. In close connection with historical and historical didactic research, modules are being developed for a historical learning platform that are generally accessible free of charge as OER: www.offenegeschichte.de

In the field of Public History, research focuses on the difficult handling of Germany's colonial legacy. Several dissertations are being written on the unresolved question of how deeply colonialism was rooted in German society during the German Empire and beyond. In this context, the Institute has organized a Namibian-German summer school in Stuttgart and Windhoek together with the Linden-Museum in Stuttgart and the University of Namibia in Windhoek (2 weeks each). Further teaching and research collaborations exist with the Université de Lomé in Togo and with the Université Aix-Marseille (within the integrated Franco-German TübAix degree programme).

German

German – From a basic school subject to a multifaceted research and dialogue partner at the University of Tübingen

German is a basic subject: communicative processes, reading comprehension and the acquisition of oral and written expression skills make up the core of the subject German at school.

The skills and knowledge taught here are relevant beyond German lessons for all other school subjects as well as for further education and careers. However, a fundamental role and the main challenge of the subject is also to awaken enjoyment in the German language and in thinking about it as well as in aesthetic reception and production as opportunities for cultural participation.

German didactic research focuses on literary and media-aesthetic learning, in particular aesthetic reception, writing didactics on and of aesthetic texts as well as considerations of what makes up the subject and aesthetic education in a culture of digitality. Suggestions for genre-sensitive reading and topic-oriented and media-sensitive literature lessons are addressed. The profession and professionalization of German teachers are researched with a focus on questions of coherence and literature teaching. In language didactics, emphasis is placed on grammar. The chair for German Philology/Didactics of German Literature is intensively involved in interdisciplinary exchange, among other things in the [Special Interest Groups Relativity, Normativity and Orientation](#), [Professionalism in the Teaching Profession](#) and [Reconstructive Subject Didactic Teaching Research](#). Selected research aspects of the culture of remembrance, children’s and youth media (in particular comics and graphic novels) and contemporary poetry are dealt with in scientific research. This broad orientation of German Didactics is characterized by its understanding as a mediation science, on the one hand with regard to research in the related disciplines (subject science, education and Educational Science, other subject didactics), and on the other hand between science and teaching practice.

The establishment of the Subject Didactics of German has led to a multi-layered provision of teaching and application for the practice of German as a school subject.

The Didactics of German remains strongly oriented towards the subject matter but presents itself in the courses in the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) German as a conceptually and empirically independent discipline. A special feature is the integration of language, literature and media in a newly established introductory lecture on the Didactics of German in the B. Ed. and an in-depth lecture on the Didactics of German in the M. Ed. which is supplemented by regular guest lectures, by experts on future-oriented topics



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and/or interesting empirical approaches. While the introduction is based on the skill areas of the subject German which are formulated in the educational standards of the Standing Conference of the Ministers of Education and Cultural Affairs, the later courses deal with knowledge, homework cultures, norms and current challenges (diversity, migration and digitality) in German lessons. Extensive seminar collaborations with subject, education, media studies and other subject didactics complete the profile. These include, for example, repeated co-teaching seminars with media studies, the Digital Teaching & Learning working group and the subject disciplines, which enable subject-specific questions to be addressed while incorporating the expertise of related disciplines. However, the courses on offer are also characterized by mediation between science and school, on the one hand through various deputations, which provide insights into their teaching in relation to seminar topics; on the other hand through close integration with the second training phase, with which the training content of the lectures is coordinated.

The newly established Tübingen Children’s and Young People’s Media Lecture, which is organized annually and sponsored by the Friedrich Bödecker Kreis and the association Leseförderung e.V., contributes to both the exchange with schools in the region and to the practical orientation of the German teaching degree.

By intensively preparing and following up the respective lecture in an accompanying seminar with a school class and participating in a workshop with the author, students can explore the importance of author readings as an interface between school and non-school reading promotion as well as the connection between authorship and work. In addition, pupils and teachers from the region gain insights into current children’s and young people’s literary work and the students into children’s and young people’s reading interests and modes of reception.

The German Department’s annual student lab brings pupils into contact with German studies at the university.

In addition, there is an annual German teacher education study day, which is organized and held jointly with the Center for School Quality and Teacher Education Baden-Württemberg, the Regional Council of Tübingen and various teachers’ seminars for teaching practice and teacher training (in particular Tübingen and Weingarten).

DaZ

German as a Second Language (DaZ) –
Using and fostering multilingualism in the classroom

For around a third of children and young people in Germany, German is not their first language or not their only first language. Multilingualism and linguistic heterogeneity have long been part of everyday life in all educational institutions and there is a growing interest and awareness of the need to learn more about the acquisition processes and ways of positively influencing them – including in grammar school teacher education. The content of the subject is tailored to children and young people who are learning German in a German-speaking country. Among them are learners of German whose acquisition has been virtually unguided and who need support to correct consolidated non-target language constructions and/or to expand their range and register of educational language; as well as learners of German whose introduction to the German language (e.g. in a preparatory class) is guided (as in foreign language lessons) and flanked by opportunities for natural language contact in the everyday environment. Due to the complex interplay of numerous factors that influence acquisition, the language profiles of pupils are very different, and their support needs vary accordingly.

The schooling of newly immigrated children and young people poses a particular challenge. They have to learn German very quickly to be able to take part in lessons. In order to ensure a successful transition, language learning must take place gradually and within subject contexts. The subject lessons themselves must also be organised in such a way that they do justice to the linguistic heterogeneity of the pupils and the language acquisition process, which takes several years.

Language-sensitive, language-developmental subject teaching,
including the use of multilingual resources in an epistemic function, is therefore a central topic in German
as a second language as part of teacher education.

A central research focus lies in the language didactic conception of the first language
contact year of immigrant pupils..

Welcome classes or preparatory classes (“Vorbereitungsklassen”, VKL) offer immigrant children and young people with a non-German language of origin and little knowledge of German a protected space that allows them to settle into the new society, get acquainted with the new language and familiarize themselves with school requirements. The lessons in VKL prepare them for integration into the regular classes. A successful transition to regular lessons requires that pupils have basic knowledge of educational and technical language and have already acquired receptive and productive skills in dealing with texts. The curriculum, which was developed on behalf of the Ministry of Education and Cultural Affairs and has been implemented on a compulsory basis since the 2019/20 school year following a one-year trial phase, shows how pupils can be led to the content-related and process-related skills of German as a subject, starting from their introduction to the language and the writing system via everyday linguistic communication. It is intended to help VKL teachers plan their lessons with a view to developing educational and technical language skills.



„An ‚aha‘ effect for me was that words such as the verb ‚zurücklegen‘ can be misunderstood, which can lead to incorrect solutions in math problems ‚only‘ due to linguistic difficulties, for example. It therefore makes sense to me that subject teachers should clarify such ‚vocabulary‘ before working on a task and that German teachers should ideally also work together with colleagues from other subjects. I also think the concept of students exchanging information about tasks in their native languages before communicating in German again, or other ways of incorporating the students‘ languages, is very positive, as you use the students‘ existing languages as a resource and at the same time convey to them that they are valued.”

(Graduate of the additional qualification in German as a second language and developmental language teaching)

Other central topics in teaching and research are the acquisition of German in the context of multilingualism in all its facets (first/second/tertiary language acquisition; spoken language acquisition and written language acquisition; normal and impaired language development), language diagnostics, language support in the elementary, primary and secondary levels as well as language-sensitive subject teaching.

The topics are part of the Bachelor’s degree program (B. A.) German as a Second Language: Language Diagnostics and Language Support as well as other degree programs at the German Department: B. A. German Studies, B. Ed./M. Ed. German, M. A. German Linguistics: Theory and Empiricism. In addition, the chair for German Linguistics / German as a Second Language is responsible for the lecture Linguistic Heterogeneity in the compulsory module Inclusion, Diversity and Heterogeneity in the Master of Education (M. Ed.) as well as the compulsory elective area Linguistic Heterogeneity/DaZ and the additional qualification German as a Second Language and Developmental Language Teaching.

Cross-linguistic and Intercultural Mediation – German as a lingua franca

The European teaching and research project, which involves four other university locations (Athens, Bucharest, Madrid, Rome) in addition to Tübingen, focuses on language mediation while taking cultural specifics into account. The project kicked off with several virtual workshops in which the participating academics from Germany, Greece, Italy, Spain and Romania exchanged views on key mediation research issues in order to design joint, cross-university online seminars for students. The first course with students from five countries took place in June 2022 – funded as a CIVIS Micro-Programme. Further events are being planned.

The Tübingen students benefit in a special way from the European teaching cooperation, as the language of communication is German and they (as native speakers) work in the discussions with students who are learning German as a foreign language and are at different language levels. This situation naturally gives rise to the need to act as tutors and language mediators and to gain experience with linguistic heterogeneity in the context of developing and presenting subject content. For the Tübingen students, language mediation, taking into account cultural specifics, is therefore not only the theoretical content of the seminar, but also an experienced and reflected practice.

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English

English – Lingua franca and most taught foreign language in Germany

As the most widely taught foreign language in Germany and other countries, English is on every-one’s lips. With its numerous varieties, the English language, its cultures and therefore also its teaching offer countless opportunities for dealing with cultural and linguistic diversity. In addition to economic and political globalization, advanced information and communication technol-ogies are also accelerating linguistic and cultural exchange.

Intercultural contact situations, in which the use of English is unavoidable, are multiplying.

Against this background, attention is also drawn to the connections between (foreign) lan-guage and thinking. The status of English as the dominant and global lingua franca relative to less prestigious languages must also be critically reflected upon for schools and foreign lan-guage teaching. In order for prospective English teachers to be able to meet these demands, they need a solid, knowledge- and research-based (subject) didactic education. The aim of English Didactics is to closely link the development of intercultural competence with current topics such as migration, heterogeneity, inclusion and ecology. In this way, prospective teach-ers are enabled not only to impart factual knowledge about Anglophone literatures, cultures and language varieties, but also to develop students’ language learning skills and language learning awareness.

The Didactics of English researches the conditions and processes of language learning and teaching, explores and processes thematic content and new texts and deals with theoretical concepts and possibilities for their methodical implementation in the classroom. The task here is to process knowledge about Anglophone languages, literatures, cultures and media in the context of historical and contemporary topics for the classroom, whereby this relates primarily to school, but also to higher education or non-school teaching and learning locations. The ob-ject of study is reflected upon in a theoretically comprehensive and practical manner.

International socio-political and school dynamics require new problems to be addressed, such as the issues of diversity and inclusive English teaching or heterogeneous learning requirements and multilingual didactics in the context of migration.

Subject-specific didactic research therefore requires the application, adaptation and transfor-mation of international and interdisciplinary knowledge with the aim of further theorizing the field of knowledge as well as applying these findings to relevant teaching and learning scenarios under current curricula. Current international, socio-political and school developments also re-quire new questions and topics to be addressed, such as diversity and inclusive English teaching or heterogeneous learning requirements and multilingual didactics in the context of migration.

As a subject in the humanities, the Didactics of English draws its impulses from the findings of English and American studies, focuses on the development of critical awareness and offers ori-entation against the background of the linguistic, media and cultural constitution of the world.

The courses offered in English Didactics in the Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) in English reflect the academic, research-based and profession-oriented approach to teaching English.



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Küchler, U. (2021). What’s in a Language: Environmental Concepts and Metaphors in Foreign Language Education. In R. Bartosch (Hrsg.), *Cultivating Sustainability in Language and Literature Pedagogy: Steps to an Educational Ecology* (S. 64–79). London: Routledge. <https://doi.org/10.4324/9780429328985-5>

Küchler, U. & Preiß, J. (2020). *Green Matters. Planet earth, language, culture. Schwerpunktthema Abitur Englisch. Textheft*. Berlin: Cornelsen.

Küchler, U. (2020). Digital Learning and the Humanities. *PraxisForschungLehrer*innen-Bildung*, 2(4), 178–189. <https://doi.org/10.4119/pflb-3504>

The Bachelor’s programme serves both to teach the basics of English teaching and didactics and to reflect on this content in preparation for the practical school semester in the Master of Education. As part of an introductory lecture and thematically focussed (accompanying) sem-inars, the principles and methods of foreign language didactics and basic terms, concepts and theories of the Didactics of English are taught in the Bachelor of Education.

Students deal with the objectives of skills-oriented, communicative and intercultural oriented English teaching on the basis of current key topics and critically examine the possibilities for the practical implementation of didactic theories, models and methods.

The Didactics of English deals with topics such as foreign language acquisition, skills orienta-tion, performance assessment and evaluation, methodical teaching and learning procedures, as well as models of Anglophone literatures and cultures and media. As an extension and consol-idation of the skills acquired in the Bachelor’s phase, the English Didactics courses at the Mas-ter’s level provide an overview of subject-specific didactic research and methodology. They also offer students the opportunity to reflect on their own work placement experiences from the school internship semester in a guided manner and to contextualize them against the backdrop of current research topics.

By offering further training and lectures with international speakers, the English Didactics provides students and teachers with new impulses that are necessary for the up-to-date development of teaching.

In collaboration with cooperation partners, in particular the English department of the Tübin-gen Seminar for Teaching Practice and Teacher Training (Grammar School), the Didactics of English now organizes annual, thematically focused English specialist days, for example on topics such as Ambiguity of Belonging, Environment and the Teaching of English or Bringing Poetry to Life in the Classroom.

Ottilie-Wildermuth-Chair for the Teaching of English as a Foreign Language

With funding from the DAAD, a guest lecturer programme was established for two years: the Ottilie Wildermuth Chair for the Teaching of English as a Foreign Language. The aim of this guest research is to enrich literature and cultural studies, linguistics and subject didactics by provid-ing impulses in the context of the theory-to-practice combination of internationally recognized expertise. The exchange initiated in this way will be further developed after the funding phase through additional research, lectures and networking activities. The intensive collaboration between subject didactics and English as a research subject culminated in the organization of the international, interdisciplinary and highly topical Political Education and American Studies conference in early summer 2022. Further research projects focus on questions of digitaliza-tion, the humanities approach to environmental topics in English lessons and topics of inclusive teacher education in English. Here, contemporary challenges (migration, climate change, social movements) and a rapidly changing society are to be described appropriately for English les-sons and captured through theoretical conceptualization and material development.

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Romance Philology

Romance Philology – French, Italian and Spanish as teaching subjects – invigorating European multilingualism and multiculturalism

The teaching subjects French, Italian and Spanish reinforce European multilingualism and multiculturalism by creating links to the linguistic and cultural diversity of three major European language areas. At the same time, the corresponding linguistic and cultural mediation and appropriation processes initiate lifelong practices of multilingual and multi-perspective European understanding, enabling a deeper understanding of European similarities and differences. Global transformation processes and social change are also reflected through diverse perspectives and approaches to topics such as migration, participation and the environment. Last but not least, the Romance languages teaching subjects ensure access to sources of information in other languages, in this case French, Italian and Spanish, which can be seen as a prerequisite for the free formation of opinion and democratic participation in a European context.

The profile of the chair of Didactics of Romance Languages is largely shaped by its research. Three members of staff are currently working on their doctorates at the chair: Lisa Ströbel on the topic The Body in Foreign Language Lessons, Damian Vernaci on the topic The Social Production of Language and Linguistics in Spanish Lessons and Philipp Marzusch (in cooperation with the German Didactics department) on the topic The Iterary Conversation in German and French Lessons. The DFG-funded research project Norms and Practices of the Foreign Language Classroom. The teaching of Romance languages in the context of educational reforms and social change will result in a monograph and almost two dozen published essays.

As a founding member of the Research Association for Reconstructive Foreign Language Research (Forschungsgemeinschaft Rekonstruktive Fremdsprachenforschung, RFF), the chair also cooperates with didactics departments at the University of Hamburg and Wuppertal, organizes an annual conference in this context and publishes an online journal (Zeitschrift für Rekonstruktive Fremdsprachenforschung). The close cooperation with the Tübingen School of Education is also clearly to be seen in terms of research: The chair is currently involved in two Special Interest Groups and is co-editor of two conference and anthology volumes Relativity and Education and Class 6b.

The highlight of the group’s research activities and its trademark are the regular project workshops on reconstructive foreign language research, in which all researchers involved in academic projects present and discuss their preliminary results.

The project workshops on reconstructive foreign language research mainly involve the supervision of qualification theses and the preparation of joint publications.

Empirical research-based learning and a scientific perspective are features of professionalization at the chair of Didactics of Romance Languages

At the chair for Didactics of Romance Languages, research-based learning and an academic perspectivation are seen as a feature of professionalization as well as prospects for professional mobility.



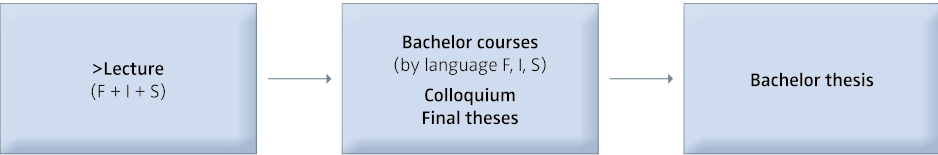
“Our Bachelor’s seminars deal with specific methods for promoting communicative skills. Based on this, students work in small groups to design tasks for a specific class level. In a third step, they try out these tasks in a lesson with a real school class. In this way, they come into contact with school practice during their studies.”

(Research assistant, Chair of Didactics of Romance Languages)

This includes empirically based seminars and theses as well as addressing doctoral prospects. This objective also includes arousing interest in doctoral studies among those already working as a teacher in the region.

This empirical orientation is specified in the Bachelor of Education (B. Ed.) in the introductory lecture as well as in the seminar. The introductory lecture provides an overview of the central topics of foreign language learning and builds up an understanding of the intersections with and differences to the related sciences. Students write an academic essay on each topic covered. The seminars then focus on individual skills, broken down by language (French (F), Italian (I), Spanish (S)).

Conception of the courses offered in the Bachelor of Education (B. Ed.)



In the Master of Education (M. Ed.), the focus is on the research-based follow-up of the practical semester in a colloquium and the introduction to the Master’s thesis. The master’s seminar plays a pivotal role in this. Here, the topics individually determined in the colloquium are pursued further on an empirical basis and concluded in an empirically based project study. This can be used as a starting point for the Master’s thesis.

Conception of the course programme in the Master of Education (M. Ed.)



A special feature of the courses offered is the module Tübingen bilingual (TüBIL) in three modules. The course is very well received by students and leads to a highly valued additional qualification.

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Grein, M., Ströbel, L. & Tesch, B. (2022). Sprechen in der Fremdsprache als sozio-materielles Können. Theoretische und empirische Ansätze zur Rekonstruktion einer komplexen Kompetenz im Französischunterricht. In C. Konzett-Firth & A. Wojnesitz (Hrsg.), *Multiperspektivische Zugänge zur Mündlichkeit im Französischunterricht* (S. 27–47). Tübingen: Narr.

Tesch, B. & Grein, M. (2022). Absurdes Theater? Sprachlich-kulturelle Inszenierungspraktiken als Spezifikum des Fremdsprachenunterrichts. In M. Martens, B. Asbrand, T. Buchborn & J. Menthe (Hrsg.), *Dokumentarische Unterrichtsforschung in den Fachdidaktiken. Theoretische Grundlagen und Forschungspraxis* (S. 197–213). Wiesbaden: Springer. https://doi.org/10.1007/978-3-658-32566-4_11

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Slavonic Studies

Slavonic Studies – ‘Exotic’ school subject with continuing societal significance

Russian is one of the more exotic school subjects that are only taught at some schools.

In Baden-Württemberg, Russian is offered as a subject at approximately 20 schools. The subject was introduced in the 1960s due to the growing importance of the former Soviet Union. Since then, the political situation has changed dramatically. In view of the latest developments (the Russian war of aggression against Ukraine), Russian as a school subject, as well as a subject at universities, faces considerable challenges. Although it is unclear what European cooperation with Russia will look like in the coming years, Russian Studies continue to be of essential social, political and cultural importance, as experts are still needed.

The Russian language and culture are still important and relevant, not least because more than two million Russian Germans have come to Germany since the 1970s. This has led to Russian occupying one of the top positions among the languages spoken in Germany. However, universities and schools should always be made aware of the fact that, in addition to Russian, there are Ukrainian and Belarusian as other East Slavic languages, as well as Ukrainian and Belarusian literature that are distinct from Russian.

Literary research at the Department of Slavonic Studies at the University of Tübingen is oriented towards literature and cultural studies and deals with various aspects of Russian literature from the 18th century to the most recent contemporary literature; in addition, there is an intensive examination of the medium of film. Russian literature is also viewed in the context of and in contact with other Slavic literatures (Polish, Ukrainian and Belarusian literature). Linguistic research concentrates on the modern Russian standard language, but is also interested in the Russian spoken in Germany and German-Russian bilingualism. It cooperates with other linguists in the department, for example in the creation of automatic placement tests for first-year students.



The training of future Russian teachers rests on three pillars: language teaching, linguistic training and training in literary and cultural studies.

As far as language teaching is concerned, it is possible to study Russian without any previous knowledge. The aim of the language training is to achieve fluency at the minimum level of C1 and in individual skills at level C2 of the Common European Framework of Reference for Languages. Special courses are offered for native speakers of Russian to compensate for the deficits caused by the fact that they have (generally) had no schooling in their mother tongue. The linguistics course provides a broad overview of the linguistic structures of Russian and their developmental dynamics; the literary studies course, for its part, provides an overview of Russian literature from the 18th century onwards as well as its intermedial and transcultural movements.

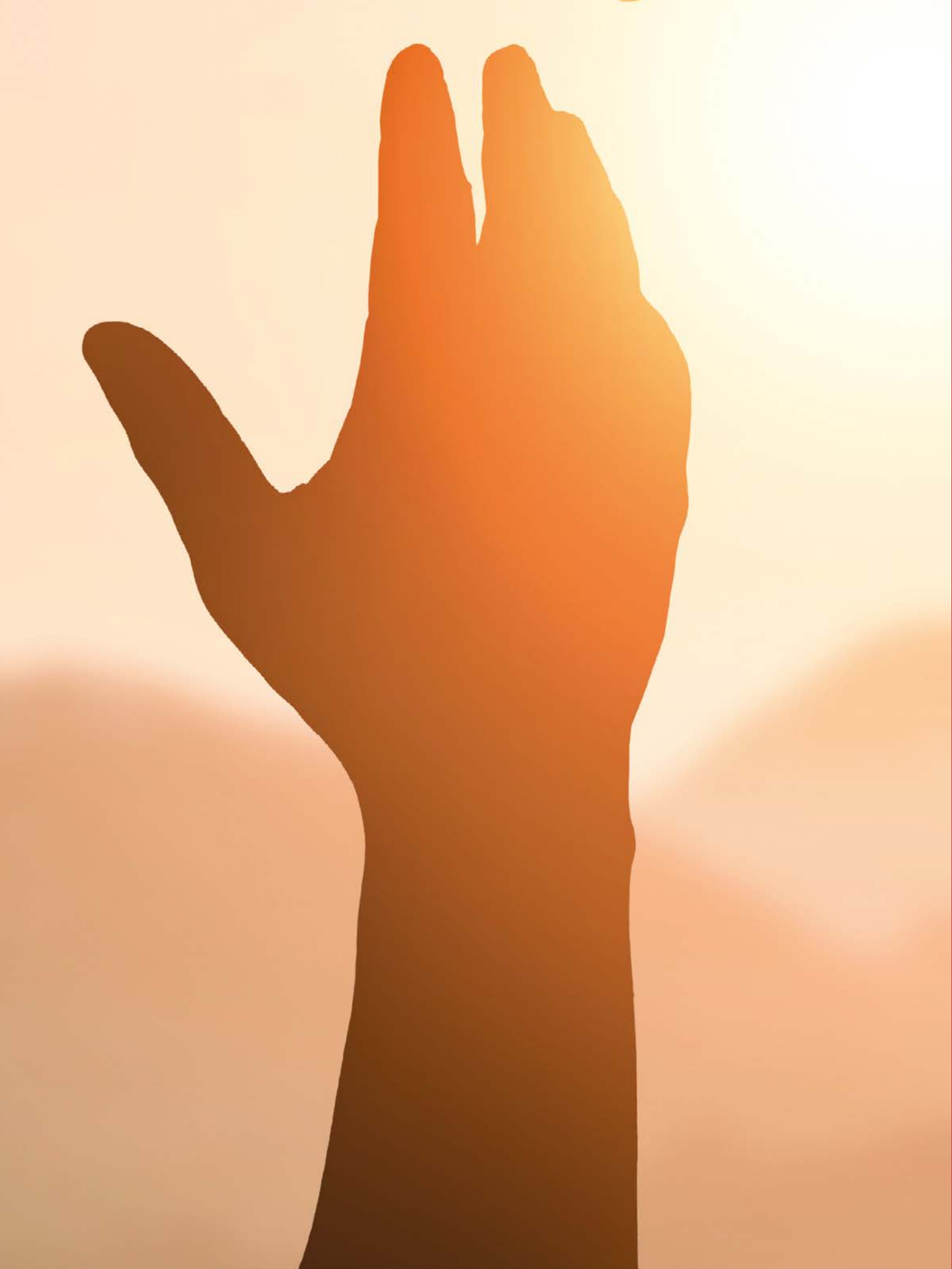
The Slavonic Studies Department regularly hosts guest lectures in which students can engage with findings from current research at other German and foreign faculties. We cooperate closely with the Institute for Eastern European History and Area Studies, so that the examination of current political developments in Russia also flows into the teacher education programme.

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SELECTED PUBLICATIONS

Perevozchikova, T. (i. Dr.). Saša hat Tee getrunken und Wanja hat mit seinem Handy gespielt. Wessen Handy? Interpretation der Possessivpronomina der 3. Person im Russischen als Fremd- und Herkunftssprache. In *Contributions to the 24th Annual Scientific Conference of the Association of Slavists (Polyslav)*. Wiesbaden: Harrassowitz Verlag.



Theologies



Theologies

Teacher Education in religious studies at the University of Tübingen is Protestant, Catholic and Islamic

Protestant, Catholic and Islamic Theology are three independent subjects, each with their own degree programs. At the same time, Tübingen places particular emphasis on dialogue and co-operation between these subjects, both in teaching and in research. For this reason, a joint presentation is chosen here.

Even in secularized societies religion, religions and religious communities are still present: on the one hand at the political level, in social discussions, in public questions about the coexistence of people of different religions, in the media and in connection with social and political conflicts in Europe and worldwide; on the other hand, also in people’s individual biographies. Young people in particular seek meaning, orientation and points of reference in the face of pluralistic and complex living environments.

The Tübingen Theology departments work at the cutting edge: they combine personal fascination with social relevance.

Theology at university stands for critical (self-)reflection on the religious communities’ beliefs and on the presence of religions in society.

It interprets its own faith traditions on a scientific basis and in close exchange with other disciplines (e.g. History and Cultural Studies, Literature, Philosophy, Social and Religious Studies) and opens them up to a contemporary, modern understanding of religion and faith. Today, this is always done in dialogue with other traditions and beliefs or worldviews.

The Theologies at universities have an enormous significance, particularly for the coexistence of people of different religions and world views, which extends far beyond the university sphere. Principles of coexistence such as tolerance, respect and mutual appreciation are developed from the sources of religions as well as from enlightened reason and made fruitful for practice.

With regard to the school subjects of Protestant, Catholic and Islamic religious education, the three Theologies provide a broad basis for fundamental reflection, examination of religious sources, historical, faith-related, ethical and practical topics. The disciplines of religious education reflect the various aspects of faith and religious life for today’s students in their respective lives. Future teachers are enabled to discuss current, controversial, and relevant topics with learners.



Such a well-founded religious education – also in cooperation with the school subject of Ethics – helps to offer pupils personal orientation and to practice peaceful, respectful coexistence between people of different religious and non-religious affiliations.

Future teachers should be enabled to discuss relevant topics with their students and to offer personal orientation for a respectful coexistence of people of different religious and non-religious affiliations.

Dialogue and cooperation also characterize the relationship between the various forms of Theology in teacher education in Tübingen. Both are consistently considered: the differences between the denominations and religions as well as the similarities, which are to be further intensified. To ensure that this can also succeed in school practice, for example in teaching cooperation, joint courses involving students from the different Theologies are offered regularly.

The religious education departments in Tübingen consistently strive for a double research base. On the one hand, the teaching content is based on the current state of research in the subject areas – i.e. Theology in particular – and on the other hand, subject didactics is research-based. The aim is to introduce students to the current state of research, including participation in research projects or the implementation of smaller projects of their own during their studies.

With regard to the Didactics of Religion, religious education follows the view that this discipline must be research-oriented, not only through the connection to specialist research, but also through its own research achievements in religious education. Today, this includes scientific research projects on the history, systematics and empiricism of religious didactics, as well as international, denominational and comparative religious studies.

Evaluative studies are becoming increasingly important in religious education and didactic research.

Increasingly important are also evaluative studies in which, for example, the quality and effectiveness of teaching is examined in the sense of scientific monitoring of religious education practice. Even if all of the above-mentioned research areas need to be pursued further, empirically oriented studies are currently at the forefront.



This repeatedly results in cooperation with Educational Science, in particular with empirical educational research and other subject didactics.

The academics working in Protestant, Catholic and Islamic religious education also work together regularly on research projects and at the same time participate jointly in larger projects in the theologies and beyond. Each of the three didactics contributes specific questions and interests in accordance with the religious traditions to which they refer. In the field of religious education, the practical relevance necessarily extends beyond the school – this justifies the concept of religious education as opposed to religious or subject didactics – and always includes informal and non-formal educational contexts as well as religious socialization in terms of research. In addition, there are the principles of interpretation and communication that characterize theology as a normative science and that differ according to denomination and religion. Both the practical relevance and the normative orientation result in the specific profile of research in the three Didactics of Religion, which, according to the understanding represented in Tübingen, in no way stands in the way of cooperation, but rather makes it interesting in the first place. In some cases, the research interests relate directly to similarities and differences as objects of research that require further clarification.

The direct practical relevance and the normative orientation distinguish the three specific Didactics of Religion and enable close cooperation.

Several ongoing or planned research projects are described below as examples. The three didactically oriented research institutes, which create particularly good conditions for the religious education research context in Tübingen, are also discussed.

Another key component of research work in religious education is doctorates and habilitations. Theology was one of the first subjects at the University of Tübingen to create suitable conditions for this with its own professorships. Doctorates in didactics have a long tradition in Protestant and Catholic religious education in Tübingen. Doctorates in didactics are also increasingly being promoted in Islamic Theology.



Protestant Theology and its study program is divided into the subjects Old Testament, New Testament, Church History, Systematic Theology and Practical Theology, which also includes religious education, as well as Religious Studies, both in the Bachelor's and Master's of Education. Tübingen has a very well-developed range of courses in all these areas and is therefore regarded nationally and internationally as a very attractive place for Protestant Theology, which is also reflected in the composition of the student body.

Teachers at the faculty are also responsible for teacher education in all areas, resulting in a close relationship between subject-specific science and subject-specific didactics. Cooperative courses between subject-specific science and subject-specific didactics are also regularly offered.

The study of Religious Education as part of the study of Theology is divided into proseminars, which aim to provide an initial overview, and in-depth advanced seminars, which are usually dedicated to a specific topic. There are also overview lectures. Colloquia offer those with a special interest and early career researchers the opportunity to further explore issues relating to religious education, for example by presenting their own projects.

Close cooperation between the first and second phases has a long tradition in religious education teacher education.

For many years, Protestant religious education has sought to establish cooperation between the first and second phases of teacher education. To this end, courses have long been offered in a cooperative format between the university's religious education department and the State Seminar for Teacher Education and Teacher Training (Grammar School) in Tübingen. In addition, cooperative courses are also held with the Pedagogical-Theological Center in Stuttgart-Birkach.

Observations held at schools in the region serve to link theory and practice.

Student employees are involved in many research projects in religious education, giving them the opportunity to come into practical contact with religious education research at an early stage. The same applies to Bachelor's and Master's theses, which can be designed with this in mind.



Catholic Theology, and therefore also Catholic religious education, is based on the theological principles of the Second Vatican Council (1962-1965), which stands for the opening of the Church to the world, to other denominations, religions and world views. Since then, people have been at the center of thinking about religion, faith and the question of God. Religious education is understood as a service to people, which should help them to reflect on their lives against the background of a possible belief in God.

The study program covers the following subject areas: (a) Biblical Theology, Exegesis of the Old and New Testaments; (b) Historical Theology up to Contemporary History (e.g. Christianity and the Church since the Second World War); (c) Systematic Theology: Fundamental Theology, Dogmatics and Ecumenical Theology as well as Theological Ethics; (d) Practical Theology: Pastoral Theology (pastoral care teaching), Religious Pedagogy as a theory of religious education, including Didactics of Religion, Liturgical Studies and Canon Law; (e) Philosophy; (f) Subject Didactics of Catholic Education Practices (closely interlinked with all the aforementioned theological subjects, especially religious education); (g) In addition, there are elective areas, key qualifications and the possibility of having studies abroad recognized.

Catholic Theology as a degree program aims to develop theological and religious pedagogical competence, develop and foster the ability to reflect, judge and make decisions and, the dialogical competence of future teachers.

The Bachelor of Education (B. Ed.) in Catholic Theology (for grammar schools and vocational schools) begins with an orientation phase that covers all theological disciplines. Building on this, the basic topics of the Christian faith, the community of faith and the practice of faith are thematized in various modules. Ecumenical and interreligious orientation is a consistent principle, which is practised as a dialogue with other denominations, religions and world views. In the Master of Education (M. Ed.), subject-specific topics are taught in close cooperation with subject-specific didactics geared towards teaching and learning processes in schools.



Islamic Theology and religious education are emerging as new academic disciplines in the German university landscape.

They are faced with the challenge of constantly balancing the preservation, research and further development of religious knowledge. On the one hand, they work in the field of tension between the situation of people who approach theology with their questions and the diversity of the tradition that has been handed down. On the other hand, they have the task of developing a self-image in a pluralistic society that recognizes and even endorses the 'truth of the other' without giving up their 'own truth'.

Among other things, the course is about mastering theological terminology, developing discourse skills, opening up hermeneutic approaches, being able to change perspectives, being prepared to work with others, discovering research questions, thinking in a problem-solving way, developing a willingness to act and deal with ambivalence, and developing your own, critically reflected religious position.

Islamic Theology and its study is divided into the following disciplines: Koranic Sciences and Koranic Exegesis; Hadith Sciences and Prophetic Tradition; Islamic Doctrine; Systematic Theology and Philosophy; Islamic Law (legal sources and methodology of legal determination, legal history); Islamic History and Contemporary Culture; Islamic Religious Education and Teaching Approaches; Islamic Mysticism; Islam and Ethics; Interreligious Studies and, in particular, the Arabic Language.

The Bachelor of Education (B. Ed.) in Islamic Religious Education (for grammar schools) comprises all the theological disciplines mentioned above. In the field of religious education, students deal with general questions of religious education, upbringing and socialization, with religious education approaches and didactic models. Theological and pedagogical challenges are reflected upon.

The Master of Education (M. Ed.) combines theory and practice in cooperative courses. Additionally, students have the opportunity to address selected didactic research questions and develop empirical questions and research designs as part of methods and research seminars.

In addition, interreligious and cooperative courses are held, which are of particular importance for the entire course.

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Joint research projects in Protestant-Catholic cooperation already have a long tradition in Tübingen.

For example, empirical studies on denominationally cooperative teaching, which have also attracted a great deal of attention nationwide, should be highlighted. In the meantime, cooperation has also been extended to Islamic religious education. For example, an innovative project is currently being carried out to research children’s and young people’s images of God and their significance for interfaith education. Other projects relate to the sustainable prevention of anti-Semitism.

International conferences on religious didactic issues are another focus of religious education in Tübingen. For example, the international symposium Researching Religious Education: Classroom Processes and Outcomes, which was held in Tübingen with the support of the DFG, and most recently the international symposium Improving Religious Education Through Teacher Education attracted national and international attention.

The three research institutes, the Catholic Institute for Vocational Religious Education and the Protestant Institute for Vocational Religious Education, which are dedicated to the scientific research and promotion of religious education at vocational schools, and the Institute for Islamic Religious Education Research, which focuses on Islamic religious education, offer particularly favorable conditions for subject-specific didactic research.

As part of the Tübingen Certificate Program in Migration and Integration, the three religious education departments offer a joint module that deals with religious and interreligious issues in working with refugees and is aimed at career beginners and lateral entrants who bring academic qualifications and work experience in the field of migration and integration.

The close cooperation applies not only in the area of research, but also in the area of teaching.

Among other things, joint courses are offered, e.g. on religious education in the plural. In this context, different reflection and research practices, scientific-theoretical clarifications, and thematic focuses of the three religious pedagogies are addressed, on which an interreligious exchange takes place at the same time.



Imprint

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Teacher education at the University of Tübingen.
Further development, accents, horizons.

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