



Findings from tutorial work under pandemic conditions

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Abstract

Mit diesem Beitrag werden Erkenntnisse in der Tutorienarbeit an der TU Dresden während der SARS-CoV-2-Pandemie herausgestellt, die einerseits auf den Erfahrungen in Qualifizierungsmaßnahmen beruhen und andererseits auf Evaluationsergebnissen. Diese werden unter anderem im Beitrag vorgestellt und diskutiert. Es ergaben sich neue Herausforderungen für Tutor:innen und damit auch eine veränderte Aufgabenvielfalt: größere Gruppen, Online-Tutorien, Interaktion anregen - um hier nur die wichtigsten zu nennen. Unterstützend dabei wirkten vor allem die Betreuungspersonen, ein stabiles Beschäftigungsverhältnis und psychologische, methodische Unterstützung bei Krisen und schwierigen Situationen sowie Wertschätzung und Motivation durch gezielte Qualifizierung. Neben den Erkenntnissen und der veränderten Aufgabenvielfalt während der Pandemie werden in diesem Artikel die Potentiale von Tutorienarbeit, Unterstützungsoptionen für Tutor:innen und Schlussfolgerungen für die nach-pandemischen Semester bezüglich der Qualifizierung von Tutor:innen aufgezeigt.

This paper highlights findings in tutorial work at the TU Dresden during the SARS-CoV-2 pandemic, which are based on experiences in qualification measures on the one hand and on evaluation results on the other hand. Among other things, these are presented and discussed in the article. New challenges arose for tutors and thus also a changed variety of tasks: larger groups, online tutorials, stimulating interaction - to name only the most important ones here. Supporting factors were above all the tutors, a stable employment relationship and psychological, methodical support in crises and difficult situations, as well as appreciation and motivation through targeted qualification. In addition to the findings and the changed variety of tasks during the pandemic, this article highlights the potential of tutorial work, support options for tutors and conclusions for the post-pandemic semesters regarding the qualification of tutors.

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1. Introduction and overview of tutorial work

The aim of this article is to illustrate the findings of the tutorial work in the pandemic semesters at the Technical University of Dresden. It is intended to highlight "learnings" on the basis of which it is possible to qualify tutors in a more targeted manner in the post-pandemic period so that they can transfer the acquired knowledge into their own teaching. Finally, the knowledge gained can also help to make tutorial work and tutor qualification more targeted and attractive - for everyone involved: tutors, their supervisors, students and qualifiers.

First, after the introduction to the subject of tutorial work and the project framework in which the project "TUTORING" operates is touched upon. Then, the potential of tutorial work for the students are highlighted, which have become more evident in the pandemic semesters. Finally, it is worked out which support and which concrete measures are necessary in order to fully exploit the potentials of tutorial work. Surveys and evaluations conducted within the project are included in the analysis. The questions of what helps tutors to cope with their changed variety of tasks and how the findings can be used for the post-pandemic period are answered.

2. Tutorial work and the TUTORING project

Tutorial work refers on the one hand to the teaching activities of tutors and on the other hand to the support of tutors in their work, such as the qualification of the TUTORING project.

About tutors

Tutors are an important part of teaching at universities, because they help to ensure the quality of teaching, supplement the course offerings with integrative or additive offerings, and support and relieve full-time teachers.

Tutors design teaching-accompanying or advisory offerings, primarily in the form of tutorials, workshops, practice groups, internships, writing workshops, or student advising.

About qualification offers for tutors

In 2018, the position paper of the Netzwerk Tutorienarbeit an Hochschulen [6] (Network for Tutorial Work at Universities), which now includes 70 universities in Germany, clearly stated, with reference to the recommendations of the German Council of Science and Humanities and the German Society for Higher Education Didactics, that "a reliable qualification and support offer for tutorials, embedded in the overall university context (...) is the prerequisite for the acceptance and effectiveness of tutorials". In the tutorials themselves, the teaching quality also influences the learning and study success of the participants: "In some cases, the quality of support for tutors with training is judged better than for tutors without training" [4]. The extent to which tutorial work is actually promoted effectively and to a high quality via seminars, further training or other qualifications is up to each university itself.

About TUTORING

The ESF-funded project TUTORING [7], located at the Center for Continuing Education of the Dresden University of Technology, supports tutors of all departments in planning their (digital) tutorials and advises them on difficulties that arise during the semester. The following qualification modules form the content basis of the project.

Qualification modules

- Basic modules: didactic and methodological basics,
- Workshops: Deepening specific topics, such as "Stimulating Interaction" or "Presenting with Confidence."
- Peer meetings: Exchange among tutors and collegial case consultation as well as
- Coaching and shadowing in tutorials: Work on individual resources with peers or TUTORING staff.

The qualification modules differ in terms of the number offered and the time periods in which they are offered. While the one-day basic modules are held shortly before the start of the

new semester to give new tutors in particular a good start, the remaining modules are offered during the semester and usually comprise one and a half to three hours. Participation in the individual modules is free of charge. The following learning objectives for tutors are pursued with the help of the qualification modules:

- Sharpen didactic knowledge,
- Learn methods and tools for leading tutorials,
- Strengthen own existing competencies and self-confidence,
- Understand and communicate their own role as a tutor, and
- Master online and face-to-face teaching.

The target group is all student tutors - this includes subject tutors from all degree programs as well as student assistants who are tutorial, exercise and internship leaders.

3. What is the role of tutors for students?

During the pandemic, it has become even clearer that the potential of tutorial work can go far beyond providing technical support to students in their learning process.

Particularly in the area of social interaction, tutors did an excellent job in the pandemic semesters by giving students an orientation, absorbing frustration and uncertainty caused by the initial chaos in the summer semester 2020, and fulfilling their mediator function between students and full-time lecturers far beyond the previous level. In mentoring first-year students, these functions occupied a large space in the tutorials. The frequently cited peer effect appears to be much stronger here than before the pandemic.

On the peer effect:

The greatest advantage of tutors, compared to other teachers, is their proximity to the students. Since tutors themselves have first completed the appropriation and learning processes that they accompany in their tutorial work with students, they often have a very

deep understanding of the difficulties in these processes. They can comprehend why something is not understood or where the hurdles lie in the appropriation process. Misconceptions are often more understandable to them than to full-time faculty. Due to the similar background of experience and the same status, tutors can work with students at eye level. This lowers the hurdle for students to reveal their own gaps in knowledge.

In the following, we draw on research findings on peer effects in youth research that are transferable to tutorial work and highlight potentials that should be discussed in more detail in the context of tutorial work in future research.

Tutors as the driving force of the development from school into studies

In addition to supporting their own (professional) development and emotional security, peers promote "further development of social and emotional competencies" [...] by challenging each other, providing or asking for social support, comparing and giving feedback to each other, but also by pushing each other to examine their points of view, set boundaries, and solve conflicts and problems together." [8]

These findings from the field of youth education can be transferred to students, especially when they enter university. Developments such as the formation of one's own identity, career orientation and the exploration of one's own abilities are often not yet complete. They (the students) experience irritations or impulses in the context of the transition from school (or other contexts) to study, which can also lead to a reorientation. Here, tutors as peers can - so the assumption - be a driving force to promote the development of high school graduates into reflective, critically thinking and self-confident students.

Tutors as door openers

In the context of youth research, Behrens and Rabe-Kleeberg assume that peers can assume the function of door openers who enable "access processes of individuals to institutions" [2]. In this way, they could provide students entrusted to them with access to counseling and

contacts. On the one hand, "this can be done by passing on information, but on the other hand also by passing on contact data or by the concrete recommendation of certain persons." [2]

Discourse practice for the working world

Discourse in lectures and seminars was given far less space in the pandemic semesters than before. This was partially compensated for in the tutorials, where students were more confident to address the tutor.

If students engage in professional discourse with their tutors and vice versa, they are practicing and training, so to speak, for the later world of work, in which they interact with colleagues, some of whom have a similar or even a different background of experience, but a similar status. In the context of youth research, Betz states that "by interacting with peers [...] conflict strategies are developed, learned, and practiced that can be used for professional and private life and represent a central component of social participation." [3] In addition to internships in companies or other institutes, this can be good preparation for the increasingly complex world of work, in which the ability to communicate and collaborate is a fundamental prerequisite for meeting the demands of the working world. In addition, tutors practice imparting knowledge in a university context, which can be exceedingly beneficial for a career in science.

In summary, tutors have a high potential for the development and academic success of their students in many ways. They enable social inclusion, serve as a bridge to university representatives, and support students' competence development towards cooperation and collaboration.

4. Changed variety of tasks in the pandemic for tutors

The "roles" of tutors outlined above already play an important role under "normal" study circumstances. Under pandemic conditions, this role was reinforced in communicative terms, as tutors - even while still studying - experienced many of their fellow students' needs

and concerns first-hand and were therefore often preferred as contact persons - this was made clear in direct conversations with tutors. According to their statement, communicating with and advising students, far from providing professional support, was a greatly increased area of responsibility during the pandemic.

Another challenge was the larger groups in online tutorials. Thus, one tutor stated in an interview with TUTORING:

"My challenge? How, since tutoring funds have been cut, I can keep almost double the amount of students in tutorials and encourage them to participate. Participation continues to drop over the last two semesters." (Tutor, Department of Humanities and Social Sciences; statement in anonymous questionnaire, summer semester 2021)

The following changed tasks resulted:

- Set up and coordinate breakout sessions for smaller groups,
- Clarify organizational issues accordingly,
- Organize interaction between students online by motivating participation in the online context and collaboration,
- Make student solutions visible to each other online,
- Record the learning status of the students online as well as
- Create videos and online materials.

5. What helps tutors accomplish their many tasks?

From the tasks presented above, it is clear that in addition to technical knowledge, tutors also urgently need methodological-didactic skills as well as support in the area of online teaching.

Additionally, in times of uncertainty and few options for planning security, according to this survey (conducted Dec. 2021 - Jan. 2022) of 27 TU Dresden tutors, they need above all:

1. Backing of caregivers,
2. Stability of the employment relationship,
3. Psychological as well as methodical support in crises or difficult situations, so that they can deal with them confidently and self-assuredly,

4. Appreciation for the tutorial work and
5. Motivation through targeted qualification.

On the last point, there was an important finding in the survey of tutors: they work as tutors in particular because they enjoy teaching and teaching others something (Figure 1). The motivation for this can still be promoted through targeted qualification.

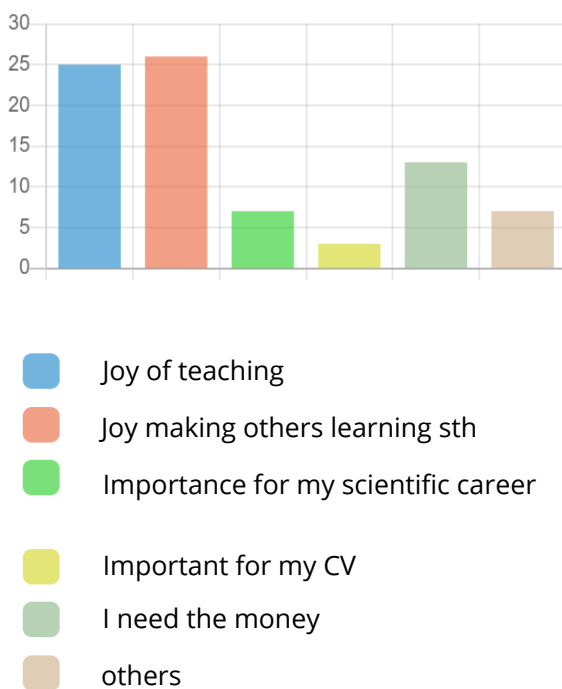


Fig. 1: Result of the survey of tutors (conducted in Dec. 2021 - January 2022) - question about the motivation for working as a tutor

The above-mentioned desirable support measures are also emphasized by lecturers and supervisors. This is shown by the following statements made in the context of the above-mentioned survey of eleven supervisors:

"Would be important to value tutorial work more as a learning format for tutors as teachers and learners - also in terms of financial support."

Another quote illustrates several aspects of needs:

"In my eyes, too little funding is provided for tutorial work, the 'paid' hours do not correspond to the effort. In addition, in my eyes, the importance of tutorials should be emphasized more as a supplement to teaching, also

through obligatory attendance. Thus, the relationship between teacher/examiner and tutor can be strengthened and supported, because the position as a hinge between students and lecturers is elementary."

Re 1: The support of tutors can be promoted on the one hand by supporting them in their function. The workshop "Let it work" provides them with important information on how tutors can be supported and involved (onboarding of students) as well as an opportunity for intensive exchange with other tutors. On the other hand, the support of tutors can be supported by the appreciation of tutorial work on the part of the university management. Informative articles in university media and newsletters can make a valuable contribution here.

Re 2: The stability of the employment relationship can be established primarily through the following points:

- Early recruitment and longer periods of employment,
- University leadership's stance on tutorials as an important instructional component.

Re 3: Psychological and methodological support in difficult situations can be implemented by the following measures, among others:

- Course offering on "Difficult Situations in Tutoring",
- Collegial case discussion in the form of peer meetings in which tutors have the opportunity to exchange information on specific incidents,
- Coaching offered by institutional agencies such as TUTORING staff,
- Basic attitude of the qualifiers and supervisors, which is based on the experience values and concretely experienced scenarios of the participants.

The decisive factor in qualification is that tutors receive practical help rather than theoretical input. A trusting atmosphere is also crucial, so that even unpleasant situations can be addressed and emotional support can be given.

The positive effect of peer meetings is primarily that tutors understand that they are not alone with their questions. In addition, it should be emphasized that fault tolerance in oneself and towards students is an important mental hygiene factor - especially in times of pandemic.

Re 4: Appreciation for the tutorial work can be expressed ideally, but also monetarily:

- Fair remuneration of the activity (pure tutorial time vs. tutorial time + preparation + follow-up + supervision between tutorials),
- Affirmation by university leadership that tutorials are an important instructional component,
- Targeting tutors by the supervisor with a thank you for the work they have done, and
- Joint event as an expression of appreciation.

Re 5: Support motivation: Above all, the joy of teaching is in the foreground for tutors as an important motivational factor. Thus, a targeted qualification can be derived as a measure to add the corresponding didactic competencies to the joy of teaching:

- Demand-oriented qualification,
- Professional and human involvement of full-time teachers in the qualification in order to emphasize importance and import professionalism (e.g.: "leading calculation exercises") as well as
- Clarify degrees of freedom for tutors in their work.

On the last point, there was an interesting finding in the survey of tutors: Some tutors are not aware of their degrees of freedom in designing the tutorials. In some cases, they also said that they had no degree of freedom. Six out of 29 tutors interviewed said they had neither organizational nor content-related degrees of freedom. Only half of the respondents stated that they could freely design the tutorial (for degrees of freedom in design: Figure 2).

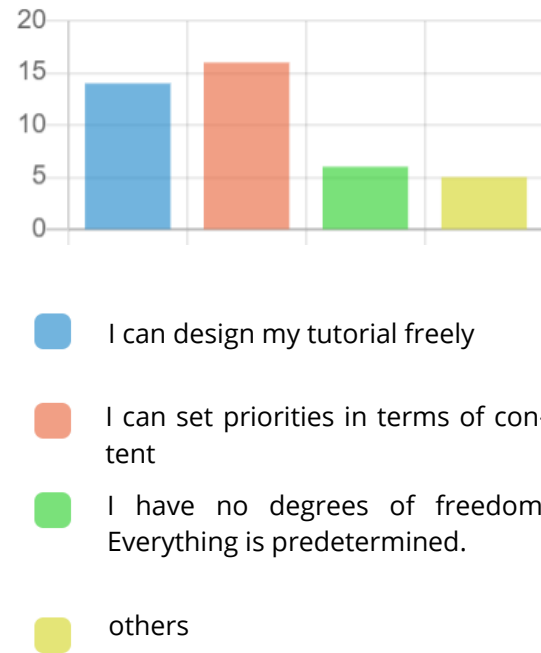


Fig. 2: Result of the survey of tutors (carried out in Dec. 2021 - January 2022) question about degrees of freedom in design

All of the supervisors interviewed, on the other hand, stated that there were certain degrees of freedom in terms of content. In the pandemic semesters, especially in the summer semester 2020, completely new design options opened up. For example, choices existed regarding a suitable tool for conducting an online tutorial or in designing a digital computing exercise with breakout rooms. This discrepancy could be bridged through good communication: Tutors directly ask for design leeway and, on the other hand, supervisors clearly communicate the organizational and content-related degrees of freedom.

6. How can the lessons be used for the post-pandemic period?

Metatutors as part of the qualification

In the pandemic and beyond, the constant change of needs in tutorial work was and is cushioned more than before by the involvement of experienced tutors in the qualification: Tutors act as metatutors, peer experts, and idea suppliers. They help other tutors in collegial case consultation, describe teaching designs and make them available. They give

workshops or lectures in the basic modules. Here, too, the peer effect takes hold and enables agile and target-group-oriented further development of the qualification offerings. Tutors also contribute unconventional and original ideas that sometimes help other tutors more than pedagogically and psychologically sound assistance. This is illustrated by the following example of a tutor: sticking googly-eyes next to the camera in the online tutorial directs the tutor's gaze more frequently to the camera. Thus, students at the home laptop on the other side feel more addressed in the online tutorial (see Figure 3).

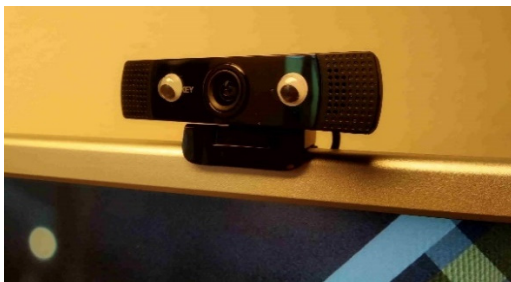


Fig. 3: Tutor promotes his look into the camera with googly-eyes.

The metatutor concept also serves to meet emerging needs in the post-pandemic period - for example, when switching to face-to-face mode (predominantly face-to-face + digital supplement).

Tutors as multipliers in teaching development

Tutors are multipliers for students' needs because of their proximity to them. This role was very significant in the pandemic for the development of qualification offers of TUTORING. There is often speculation about what students actually need in teaching, what would actually help them. In some cases, this discussion is based on surveys of students. Rarely is there an opportunity to develop concepts for needs-based teaching based on extensive surveys. Tutors are important sources of information here and should be included in brainstorming and conceptualizing new teaching ideas.

Compressed basic qualification

In the course of the pandemic, the basic qualification was repeatedly modified shortly before the start of the semester and adapted to

the special conditions of the respective pandemic phase. The qualification conducted in March 2022 in an online format with 20-minute short impulses related to the number of participants was one of the most frequently attended qualifications to date, with over 40 participants. The following aspects were particularly well rated: "The short and regular breaks were great (this is otherwise far too often forgotten)" and "I think it's good that the individual topics are not "picked over" for too long, but that many topics are dealt with in short blocks".

The tutors thus had enough time to discuss with each other and deepen the topics even between the content-related impulses.

This was followed by longer themed workshops in the afternoon. In-depth content was offered for engineering, economics and the humanities - in some cases by full-time lecturers from the departments.

The participants were able to organize the program freely and according to their needs, which was evaluated positively, as also confirmed by the following feedback: "good choice of (the) program points (in) the afternoon".

90% of the participants saw their expectations of the event in the final evaluation as "Rather fulfilled" to "Very fulfilled".

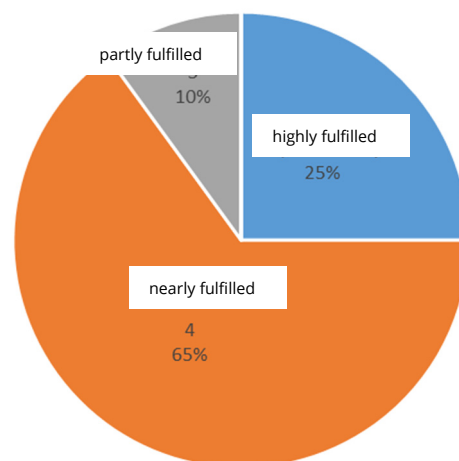


Fig. 4: Result of the evaluation of the basic qualification March 2022 of tutors - question about the fulfillment of their expectation of the event.

The basic qualification should also be implemented in this concise, very effective form in the coming semesters.

Online/hybrid tutorial workshops

The potential that arose from the difficult conditions of the pandemic semesters flowed directly into the course offerings of the TUTORING qualification program and will continue to be offered in order to be ready for all eventualities: continuing education courses on online topics, face-to-face events and hybrid formats are in demand.

In the context of the SARS-CoV-2 pandemic, the following offerings emerged within days and weeks:

- Facilitate online tutorials,
- Work with interactive online tools,
- Promote interactions online,
- Design and lead hybrid tutorials and
- Presentation workshops on the theme "Back to Teaching in Presence".

Hybrid teaching will continue in the current summer semester and beyond. Students will be confronted with a mix of online and face-to-face offerings. They can use this positively for themselves, choose well and familiarize themselves with a wide variety of working tools and styles. Tutors can also support them in this.

Appreciation and visibility

In the course of the pandemic, TUTORING has shown appreciation to tutors and their work through different formats and has noticed how much the tutorial work at TU Dresden benefits from appreciation. Potentials can be recognized and understood if they are reported again and again. The TUTORING staff has published interviews and teaching designs and launched a monthly TUTORING newsletter [8]. They also award the best tutorial once a semester and repeatedly make the work of tutors the focus of discussions at TU Dresden on various levels (meetings of qualifiers, talks with the Prorektorat for Education, workshops on the teaching mission statement, etc.).

In addition, the "Let it work" format for instructors was developed, which addresses how tutors can be involved in the teaching team and integrated in the best possible way to relieve their own areas of responsibility.

Empower tutors to engage students socially

In a study program that began in the anonymity of online courses and the corresponding social isolation, in the post-pandemic period there is a need for people who facilitate access to the actors of the university (teachers as the 'face' of the university) and to its culture. Tutors are predestined to take on this role because, on the one hand, they have a head start in terms of experience, have already been able to establish themselves in the university context and are in contact with teaching staff, and, on the other hand, act at eye level with their students, linked by the same status.

7. Conclusion and outlook for TUTORING

At best, the TUTORING qualifications will be supported by permanent positions on the part of the rectorate in order to prevent the current project character and the associated loss of knowledge due to fluctuation. TUTORING also aims to expand the qualification of tutors in the coming months. Hybrid formats and online educational resources should address a variety of topics. On the one hand, the subject institutes need thematic and content-related input for the subject specifics, in that tutors and full-time teachers help to shape content and clearly communicate expectations. On the other hand, structural support is needed, e.g. qualification times are equal to working hours and are paid or otherwise recognized. Thanks to its extensive experience to date, TUTORING remains flexible in its choice of face-to-face or digital offerings.

The qualification will also be supplemented in the future by the individual offers presented above. TUTORING staff members are also constantly furthering their own qualifications and are committed to the TU Dresden's accreditation, which is recognized throughout Germany, within the framework of the "Netzwerk Tutorienarbeit an Hochschulen" (Network for Tutorial Work at Universities).

Acknowledgement

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