Introduction to Digital Feedback in Research and Teaching: The Project, the Conference, the Current Book

Jennifer Schluer

Abstract *This introductory chapter serves three purposes: first, to present the aims and scope of the project "Pedagogical Guidance for Using Digital Feedback" as well as its main product, the "Digital Feedback Map" (DFM); second, to report about the contents of the conference "Digital Feedback in Research and Practice" that took place from June 29 to 30, 2023, in hybrid format; third, to provide an overview of the chapters that are part of this volume. The conference and this book demonstrate the thematic breadth and practical relevance of digital feedback in education, consider both technology-generated and technology-mediated feedback, and provide insights into teaching practices and research projects around the globe. A distinctive feature of the conference and this edited volume is that it combines three types of contributions: (1) papers on empirical studies or research projects; (2) reports on teaching practices or reflections on pedagogical designs; (3) descriptions of teaching ideas for feedback activities. This way, the book underscores the importance of continuous dialogues between scholars and practitioners to enhance pedagogical designs and open new avenues for future research.*

Keywords *digital feedback; pedagogical design; higher education; research project; international conference*

1. Introduction

Technology-enhanced and technology-generated feedback processes have become increasingly important in recent years, not the least due to the proliferation of online and hybrid teaching since the Covid-19 pandemic as well as due to the rapid developments in the field of Artificial Intelligence (AI). Already before the pandemic, I have been active in the field, and due to the increased relevance of digitalization I published the book *Digital Feedback Methods* in 2022. I have been granted a Digital Fellowship by the Saxon State

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Ministry for Science, Culture and Tourism[1] and a fund for the project "Pedagogical Guidance for Using Digital Feedback: Digital Feedback Map" (DFM) by the *Stiftung Innovation in der Hochschullehre*[2].

Despite the remarkable technological developments, recommendations for teaching practice have remained rare, especially those that are supported by empirical findings. The DFM project, the *Digital Feedback* conference, and this volume contribute to filling this gap. In the DFM project, different digital feedback methods were implemented and researched in order to derive empirically-based recommendations for the use of digital feedback in teaching. Section 2 will go into more detail about the project aims and its main product, the "Digital Feedback Map" (DFM). Another means to strengthen dialogue between researchers, teachers, and students was the international and interdisciplinary *Digital Feedback* conference that was hosted by the TESOL section of Chemnitz University of Technology, Germany, from June 29–30, 2023. The brief conference report in section 3 demonstrates the rich variety and relevance of digital feedback in education. Several presenters also seized the chance to submit a paper for the current volume, which intends to combine the insights gained from the DFM project and from the conference. Additionally, it aims to sketch avenues for future research and teaching practice based on recent developments. In that regard, section 4 will outline the book contents before this chapter will close with a short reflection. Altogether, the results from the DFM project and the external contributions serve to provide mutually enriching perspectives.

2. Aims and Output of the DFM Project

This section will explicate the aims of the project "Pedagogical Guidance for Using Digital Feedback" and introduce its major product, the "Digital Feedback Map" (DFM).

2.1. Objectives of the DFM Project

The project was driven by several factors. First, ever since Hattie's (2009) meta-analysis of educational research, the importance of feedback has been increasingly recognized and the interest in researching it has widely grown. This had resulted in a fundamental reconceptualization of the feedback construct, from unidirectional delivery of (corrective) information, typically by teachers to students, towards feedback dialogues that are actively co-constructed by all agents within specific socio-material and socio-cultural environments (see the reviews by Schluer, 2022, pp. 16–17; Schluer et al., 2023).

Indeed, there are various feedback media and technologies available that can unfold their distinct benefits if they are used adequately. This means that not only the quality of feedback in terms of its content is important, but that feedback methods should be

1 Full project title: "DigiFeed – Digital feedback to help you move forward in your academic career"; project duration: 07/2021-12/2022.

2 Full project title: "Didaktische Orientierung für digitales Feedback (Pedagogical guidance for using digital feedback): Digital Feedback Map (DFM)"; project ID: FRFMM-181/2022; project duration: 09/2022-11/2023.

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used appropriately with regard to the learning goals and needs of the learner as well as other contextual factors (cf. Schluer, 2022). Such a pedagogically motivated use of digital feedback methods can help to improve feedback and learning processes, boost students' motivation, enhance the quality of teaching and increase students' learning gain. However, research on adequate pedagogical designs for effective feedback exchanges is scarce, especially with regard to the affordances and effects of different digital tools.

In line with contemporary conceptualizations, the active involvement of students (learner feedback literacy) and teachers (teacher feedback literacy) is of central importance (see e.g. Boud & Dawson, 2023; Carless & Boud, 2018; Carless & Winstone, 2023; Winstone & Carless, 2020). Therefore, the DFM project aimed to explore and evaluate the use of digital feedback methods by involving teachers and examining students' perspectives. Seminars were redesigned with digital feedback processes that aimed to foster students' feedback literacy while they engaged in specific tasks (see chapter 2 by Schluer in this volume for details). In that respect, appropriate task formats had to be created that allowed students to solicit feedback, provide it, obtain and discuss it, as well as evaluate and implement it as needed. To this end, the lecturers (as well as the participating preservice teachers) also had to develop a basic understanding of feedback as dialogue and continuous learning support, to become familiar with different design options for digital feedback, assess the benefits and limitations of different technologies and to utilize digital feedback themselves. Both teachers and learners thus need to negotiate a common understanding of feedback (feedback as learning support and continuous dialogue to achieve learning goals), cultivate awareness of the benefits (why should I use digital feedback?) and potential areas of application (when should I use digital feedback?) as well as develop the required skills for their effective use (how can I use digital feedback?).

This complex change management project comprised several concrete steps to reach the overall goals in an iterative process. These included

(1) the incorporation of digital feedback methods in the TESOL seminars (and beyond);
(2) research about the effectiveness of their implementation from learners' and teachers' perspectives;
(3) continuous communication about the project and attracting interest among a growing group of relevant stakeholders, e.g. within the institute, the faculty, the rectorate and other universities or educational institutions;
(4) the organization of specific events to deepen and broaden the discourse as well as exchange of best practices and research findings, such as through an international and interdisciplinary conference and workshops with teachers;
(5) the creation of an online platform, the "Digital Feedback Map (DFM)", to assist teachers and learners in using digital feedback within their unique educational contexts.

Figure 1 provides an overview of the various stages and sub-goals:

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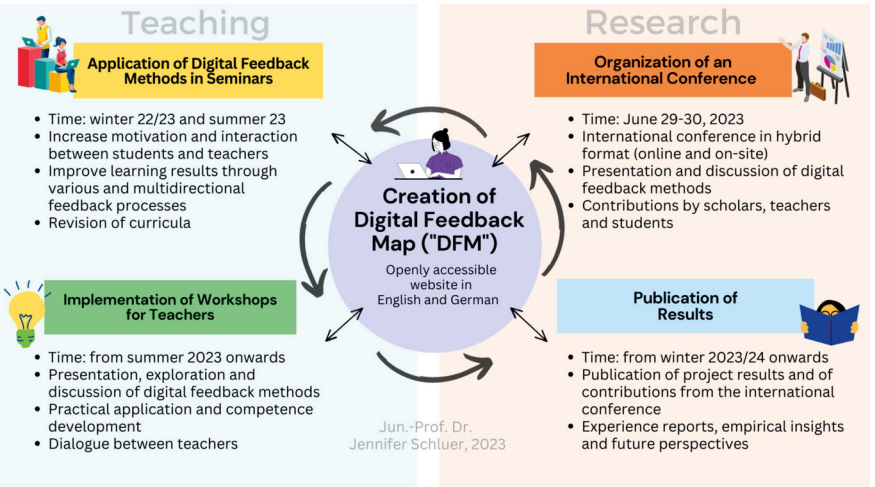
Figure 1: Aims of the DFM Project



Regarding point 1, the application in seminars, all TESOL courses were redesigned with digital feedback procedures as part of the project as well as a few further seminars within the English department. A detailed description is given in chapter 2, which also outlines ideas for further modifications based on the insights that were gained from the analysis of questionnaire data, feedback products and lecturer perceptions. To create sustainable effects, the degree program was revised in a collaborative effort by the institute members. As a result of this process, the new module "Digital Skills" was anchored in the official curriculum with the two courses "Digital Learning" and "Digital Teaching".

Second, an international and interdisciplinary conference was held to facilitate a wider exchange and to share as well as discuss the knowledge gained. Further details are described in section 3 below. Several chapters in this volume also emerged from that conference, testifying to the sustained interest in the topic of digital feedback. For further networking and dissemination, the project head and/ or a research assistant participated in external events, e.g. workshops and conferences. Moreover, the participation in the "Digital Change Agent" program (organized by the Higher Education Didactics Center of Saxony) proved to be useful for professionalizing the project further and for increasing its interest among higher education staff. Further channels for project-related communication were the project website, project videos, press releases and social media posts.

Overall, the aim was to achieve a "first-order change", i.e. an optimization within the existing contextual conditions, while supporting further expansion incrementally and thus continuous change over time (Schmidt, 2022). This goes along with the constantly evolving technological possibilities, which demand continuous critical reflection. In that regard, also the main product of the project is to be understood as open-ended. The "Digital Feedback Map" (DFM) platform was created to provide teachers and learners with comprehensive information about digital feedback methods and to inspire their use. To this end, extensive literature searches were carried out and several digital feed-

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back methods were implemented in the seminars. This main product will be described in greater detail below.

2.2. The "Digital Feedback Map" (DFM)

The "Digital Feedback Map" (DFM) is a comprehensive online platform that has been designed to support teachers and students in exploring and implementing a variety of digital feedback methods. It maps the terrain of digital feedback methods that educators and learners can navigate by entering https://tinyurl.com/DigitalFeedbackOverview in their web browser (Schluer, 2023). For creating the DFM, the application Genial.ly was chosen as it allows for an interactive linking of various elements, thus helping to effectively represent the manifold connections and possibilities that digital feedback offers. A screenshot of the start page is given in Figure 2.

Figure 2: Start Page of the Digital Feedback Map (English Version)

With its interactive features, the DFM seeks to empower educators and learners to incorporate feedback practices effectively in the digital age. By clicking on "Start", the users will be directed to the "Table of Contents" from which they can access a general overview or retrieve specific information via different filters, including feedback directions, modes, timing, and assessment criteria. This classification allows users to conveniently compare different digital feedback options, select the most suitable ones and align them with their learning environments and teaching objectives.

Altogether, the scope of digital feedback methods has grown from fifteen (as depicted in the book by Schluer, 2022, p. 55) to nineteen during the DFM project, as shown in Figure 3.

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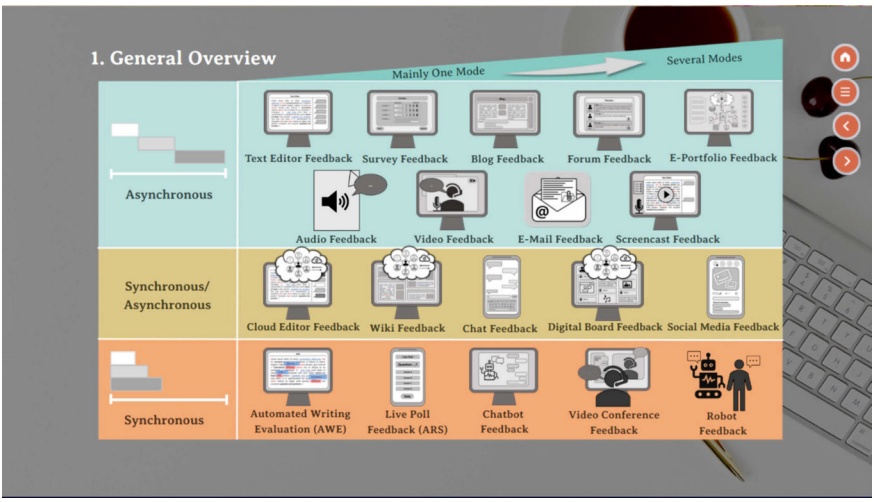
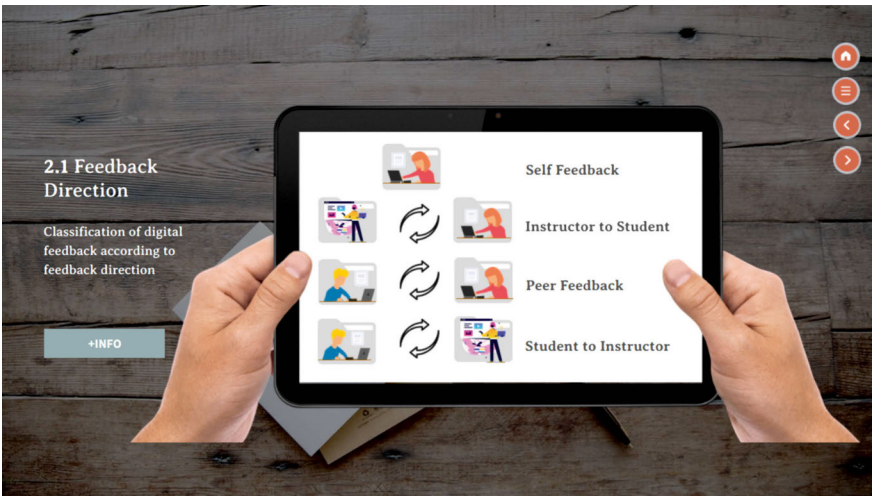
Figure 3: General Overview of Digital Feedback Methods Included in the DFM (Screenshot)



The four newly added digital feedback methods are feedback on social media, on digital boards, via chatbots, as well as robot-assisted feedback. Previously, feedback on digital boards was contained in the category of cloud-based feedback (Schluer, 2022), but since it was found that cloud-editors (e.g. *Google Docs*) and digital boards (e.g. *Padlet*) can enable or restrain feedback processes in quite different ways, it was decided to treat them separately on the DFM.

Aside from the general overview page, the different digital feedback methods can be accessed via specific filters, such as the ones in Figure 4.

Figure 4: Screenshot of the Filter Page "Feedback Direction" from the DFM



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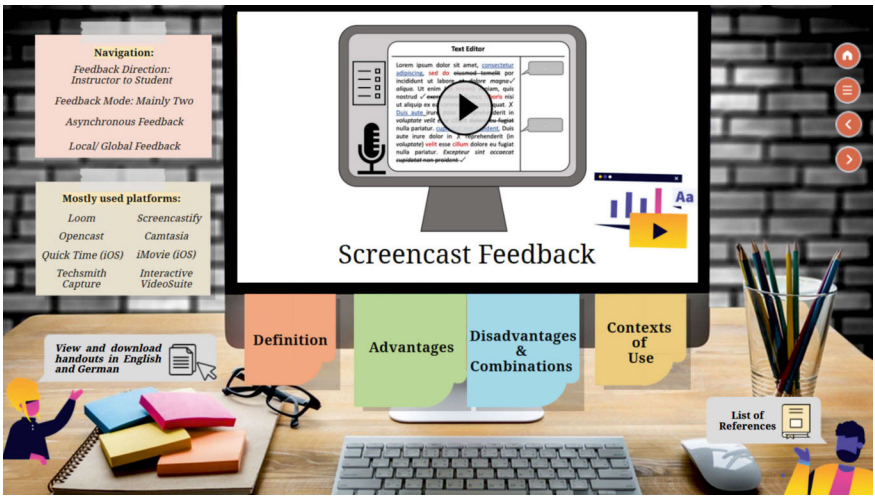
Users can click on each option to obtain further information and suggestions for possible digital feedback methods. When choosing a specific method, users will access a dedicated page that provides a comprehensive description of it, including its definition, its advantages and disadvantages as well as potential combinations with other feedback methods. Through these combinations, users can amplify the strengths or mitigate the weaknesses of single feedback methods. A sample screenshot of a method's main page is provided in Figure 5.

Figure 5: Sample Main Page of a Digital Feedback Method on the DFM



As can be seen, the page additionally contains a feedback navigation section, together with the most used tools or platforms for that method. Owing to its interactivity, teachers and students can visit these platforms by simply clicking on their names. Users can also access handouts in both German and English that summarize the key points about each method, together with tasks for knowledge testing and reflection. These handouts can readily be used in teacher education or teacher training, e.g. in workshops or seminars, as well as in the classroom to familiarize students with the designated digital feedback method.

Especially for educators and prospective teachers, the contexts of use section is particularly interesting. It provides them with guidance on how to apply each feedback method. For each of them, suitable learning objectives, learner groups, subjects/disciplines, learning environments, and assignment types are elaborated on this page. Additionally, users can download sample tasks as well as access video manuals which serve as "how to" tutorials. Two sample pages are given in Figure 6 and Figure 7, respectively.

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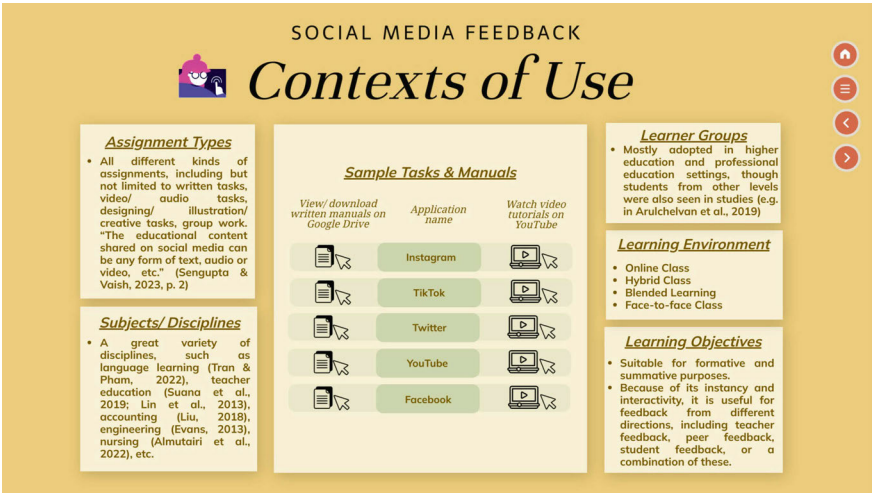
Figure 6: Contexts of Use Page for Cloud-Editor Feedback (Screenshot from the DFM)

Figure 7: Contexts of Use Page for Social Media Feedback (Screenshot from the DFM)



By now, the DFM contains a total of 38 comprehensive handouts (19 German, 19 English), 51 task manuals and 27 video tutorials for the 19 digital feedback methods. However, since technologies are constantly evolving, the DFM will also be updated continuously. Notably, this pertains to rapid advancements in the field of AI (see section V of this volume) and robot-assisted feedback, but also feedback processes on social media and other platforms that deserve further exploration and empirical testing in dialogue with teachers and learners (see section IV). As with any innovation and established practice, critical reflection on their usefulness is essential. Readers are therefore invited to seize the DFM as a portal to understanding, comparing, and selecting the most suitable dig-

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ital feedback methods for their unique educational contexts, testing their effectiveness, and modifying existing practices as needed. The conference and chapters in this volume were and are meant to facilitate and encourage such transformative practices, as will be detailed next.

3. Report on the Digital Feedback Conference

From June 29 to 30, 2023, the first international conference on "Digital Feedback in Research and Practice" took place in a hybrid format at Chemnitz University of Technology, Germany. Participants were able to join the event online in BigBlueButton or on-site in Chemnitz.

The conference was organized by myself, Assistant Professor Dr. Jennifer Schluer, and supported by my team at the TESOL section in the English department. The call for abstracts and the conference attracted wide interest among researchers, students and teaching staff from different disciplines and educational institutions.

3.1. Overview of Scope and Procedure

At the two-day conference, 28 presentations underscored the thematic breadth and practical relevance of digital feedback in education. In addition to the conference opening and conference closing speech, there were 19 presentations reporting about research projects and teaching practices, 5 pitch presentations of teaching ideas, and 4 poster presentations. The presentations were organized into six thematic sections, offering mutually enriching perspectives:

(1) Audio-Visual and Multimodal Feedback
(2) Automated Feedback and Automatic Corrections
(3) Open AI, iCALL & Robot-Assisted Feedback
(4) Digital Feedback Literacy: Teacher and Student Perspectives
(5) Pedagogical Feedback Designs and Teaching Reports
(6) Interdisciplinary Insights on Digital Feedback

The presenters either joined the conference online or presented on-site in the lecture hall. Some had recorded their presentations beforehand to ensure that their contribution would be played despite unstable electricity and internet availability (notably from Ukraine and South Africa).

Altogether, the presentations dealt with technology-mediated and technology-generated (automated) feedback, including written electronic feedback as well as audio-visual and multimodal feedback. They explored a variety of tools that can be used for feedback purposes and presented possible pedagogical designs as well as suggestions for their meaningful integration in teaching. The contributions offered insights into teaching around the globe, not only in English language teaching, but also from a number of other disciplines, such as literature studies or media psychology. They contributed to the understanding of various digital feedback tools and methods from diverse perspectives,

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including both learners and teachers in face-to-face and online learning environments. In that regard, they incorporated empirical data from teaching implementations, survey research or feedback product analyses, to name just a few. They discussed course designs and methodological frameworks to foster students' and teachers' feedback literacies and suggested practical ideas for teaching in a variety of educational settings.

More precisely, the program offered rich insights into research and teaching practices by presenters from Turkey, Ukraine, Iran, China, Palestine, Russia, Singapore, South Africa, India, the United States, as well as Germany, Austria and Switzerland. Furthermore, the hybrid format enabled audience members from around the world to engage in lively discussions with other online participants or on-site attendees. The following sections will provide more information about the thematic scope that was discussed at the Digital Feedback conference[3].

3.2. Contents of the Thematic Sections

In the thematic section of **audio-visual and multimodal feedback**, the first group of presenters exemplified the utilization of screen-capture feedback for the development of writing skills in the EFL (English as a foreign language) classroom (Detlef Eichner), explored the effects of self- and peer-annotated video feedback for the improvement of metacognition (Sumeyya Sarikaya), and analyzed error frequencies and (non-)corrective feedback provision in two types of videoconferencing, i.e. studio-based and desktop videoconferencing (Julia Lankl).

The second group of presenters in the thematic section of **automated feedback and automatic corrections** drew attention to the affordances and limitations of technology-generated feedback from teachers' and students' points of view. The presenters explored writers' cognitive, behavioral and emotional engagement with technology-generated feedback (Ralf Gießler), and discussed learners' emotional perception of feedback in mobile language learning apps, including issues of accuracy and audiovisual effects (Jennifer Wengler). In addition, video-recorded audiovisual translation was explored as a means of immediate feedback for foreign language learners (Nataliia Saienko & Ganna Sozykina).

In the third thematic section of **Open AI, iCALL & robot-assisted feedback**, the presenters showcased the utilization of ChatGPT for the generation and application of assessment rubrics on students' writing (Kemal Gönen), discussed the strengths and weaknesses of a variety of intelligent computer-assisted language learning applications with regard to personalized feedback provision (Bushra Ahmad & Mohammad Rizwan Khan), and suggested research avenues for using different feedback modes of humanoid robots to improve the learning of ADHD students (Mina Raeisi Nafchi).

In the fourth section, the focus was set on the **digital feedback literacy of teachers and students**. The presenters highlighted the important role of teachers in encouraging students to express their feedback needs (Annika Brück-Hübner), provided insight into digital teaching and feedback processes in large classrooms (Verbra Pfeiffer), and

3 The full program and book of abstracts can be accessed at the conference website: https://www.tu-chemnitz.de/phil/english/sections/tesol/digifeed2023.php.

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emphasized the importance of various facets of learners' and teachers' digital feedback literacies, for example with regard to languages for specific purposes (Olivia Rütti-Joy).

Elaborating on these ideas, the fifth group of presenters discussed **pedagogical designs** to foster dialogic feedback in synchronous and asynchronous digital modes, both in face-to-face and online classrooms (Katja Anderson & Natasha Anderson), investigated the effects of digital feedback activities to foster pre-service teachers' self-efficacy in a curriculum planning course (Yarong Liu), and explored learners' perceptions of criteria-based peer feedback in online DaF (German as a foreign language) exam preparation courses (Ines Paland-Riedmüller & Simone Weidinger).

The final group of presenters provided **interdisciplinary insights** and contributed to understanding the development and enactment of digital feedback literacy further. Notably, they explored the utilization of apps for goal setting and time management to create a more efficient and self-regulated learning experience through feedback on study time (Manuel Schmitz, Jenny Rettstatt, Markus Suren, Daniel Brand, Katharina Jahn, Günter Daniel Rey & Marco Ragni).

Additionally, **pitch presentations of teaching ideas** were held by international PhD and Master's students from Chemnitz University of Technology. The presenters offered myriad ways of integrating technological tools for the provision of feedback, including tandem learning and feedback in videoconferencing (Amanda Chng), digital feedback portfolios on Google Sites (Ola Shakhshir), as well as possible feedback procedures on the platforms Flip (Polina Gantman), TikTok (Erhan Altay) and Instagram (Ezgi Irem Bekci).

The conference also included presentations of initial findings from Jennifer Schluer's research about peer screencast feedback in English language teacher education as well as about the use of synchronous and asynchronous digital feedback methods that were part of the project "Pedagogical Guidance for Using Digital Feedback: Digital Feedback Map" (see section 2 above). Finally, four **poster presentations** provided additional insights into these projects in a bilingual manner.

3.3. Review Process

Each conference abstract was reviewed by two independent scholars who rated the submissions according to their overall relevance and assessed it along the following review questions and criteria:

- Are the abstract contents relevant to the conference theme? Overall score:
  (1) = low compatibility with conference theme
  (2) = intermediate compatibility with conference theme
  (3) = high compatibility with conference theme
- Is the presentation topic important? Will it be interesting for the other conference participants/ the audience?
- **For empirical papers:**
  - Is the research gap & research goal clearly stated?
  - Is there a reference to the previous literature?
  - Are the methods, data collection and analytical procedures appropriate to the research goal? Have they been described in a transparent manner?

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  - Is it original/ innovative work? Does it present new data?
  - Is the analysis completed, or will it be completed before the conference?
  - Are there any results already and are they discussed against the previous literature?
  - Are the results relevant for teaching? Do they state what future work could be done (based on the findings)?
- **For teaching reports and teaching ideas:**
  - Is it new/ innovative?
  - Would it be interesting for other teachers?
- Is the abstract clearly written and well-organized?
- **Further remarks, open questions and suggestions:**
  - E.g., abstract too long, wrong citation style, anything special about the topic?
  - Open questions arising from the abstract.

The abstracts that fulfilled the review criteria with a score of (3) given by both reviewers were accepted for presentation at the conference. Abstracts which received a lower score but appeared promising and innovative had to be revised in order to be accepted. Abstracts that did not fulfill the criteria at all were rejected.

A similar procedure was applied to the paper submissions for the present book. An overview of the accepted chapters will be provided below.

4. Overview of Chapters in this Volume

In the initial call for conference contributions, the presenters and audience members were informed about the possibility to submit a chapter for the conference book after the event had taken place. Thus, not only the presenters at the *Digital Feedback* conference, but also a limited number of additional participants had the chance to submit a paper about a research project, a report about their teaching practice or a teaching idea in order to become part of this book. The possible publication types were as follows:

(1) Empirical papers about a **study or research project**
(2) Reports about **teaching practice or pedagogical designs**
(3) Descriptions of **teaching ideas or teaching units**

The chapter contents did not need to fully match the contents of the presentations that were held at the *Digital Feedback* conference. If authors had published their research project elsewhere already (e.g. Gießler, 2024), they were allowed to change their focus, e.g. by writing a methodological paper, for instance about a teaching practice. As Brück-Hübner and Schluer (2023) observed, this methodological information is typically cut short or left out in empirical papers, even though it constitutes valuable information for follow-up research and for teachers who are interested in implementing that teaching approach. Therefore, papers about teaching practices which explicate the pedagogical design underlying the use of digital feedback were considered a welcome addition to the volume. All in all, the aim of the book was to broaden the depth and diversity of the

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discussions that took place at the conference. In that respect, it also includes findings from the DFM project in several chapters.

Another particularity of the conference and the edited volume is that they not only feature contributions by researchers and teachers, but also by graduate students, i.e. students who have recently passed their master's degree or are in their final year of studies. This way, they had the chance to gain early experiences with academic publishing, which might encourage a research-based reflective stance in their future teaching or pave the way for an academic career.

The next sections will synthesize the scope of contributions that is immanent in the following 16 chapters of this edited book.

4.1. Section II: Pedagogical (Re-)Design

Following this introductory chapter, the subsequent section is devoted to pedagogical (re-)design as an ongoing endeavor to improve teaching and learning in higher education. In the first chapter of that thematic section, I provide detailed insights into the curricular adjustments and course redesigns that were undertaken in recent years in my subject field. It comprises courses such as the Introduction to English Language Teaching, Digital Learning and Teaching, Curriculum Planning and Materials Development, Classroom Observation and Practical Language Teaching, Academic Study Skills and the TESOL Research Colloquium. Overall, the chapter illustrates the necessity to carefully align digital feedback methods with specific learning objectives.

The second contribution in that section concentrates on a curriculum planning course that was conducted and analyzed by **Yarong Liu**. It pursued two purposes: to support preservice teachers in the process of course planning and materials design by employing digital feedback procedures, while simultaneously fostering their digital feedback literacy as future teachers. The chapter describes the course procedures and results as well as provides a reflective account of the outcomes to propose further improvements of the course design. Moreover, it critically engages with relevant theories to advance a revised conceptualization of teacher feedback literacy.

The third chapter positions the foregoing considerations within a wider frame. It introduces an interactive feedback taxonomy to assist pre- and in-service teachers in the pedagogical planning and redesign process of their own curricula, courses, lessons or tasks. Drawing upon a qualitative scoping review of 135 empirical studies (Brück-Hübner & Schluer, 2023) as well as pertinent literature and practical insights from teacher education, this taxonomy comprises seven major guiding questions which lead to numerous design options. In that chapter, I provide a theoretical and practical frame for feedback design processes at micro-, meso- and macro-levels.

4.2. Section III: Learner Engagement and Teachers' Roles in Feedback Processes

The largest section of this book brings together students' perspectives, teachers' experiences as well as research findings on learners' and lecturers' roles and responsibilities in the digital feedback process, with a particular focus on learner engagement.

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In the first chapter, **Annika Brück-Hübner** builds on the learning theory of interactive constructivism to carve out an understanding of feedback as a co-constructive communicative process in which learners play an active role. In that respect, she delineates students' responsibilities in four phases of the feedback process: initiation, communication, reflection and construction, as well as transfer. Subsequently, she presents findings from an online survey that collected student perceptions and experiences about feedback in (digital) higher education in Germany. Specifically, Brück-Hübner analyzed the roles students ascribed to themselves as well as to the lecturers during the phases of feedback initiation and feedback communication (N=111). She concluded that only one third of the students saw themselves in an active role, notably by asking questions but less so by discussing the feedback further with the feedback provider. This primarily passive role contrasts with the calls for learner agency made in the theoretical feedback literature. Her chapter thus serves as an important reminder to put learners and their needs into the center of any feedback process. Indeed, many of the subsequent chapters deal with teaching practices that seek to foster learners' engagement and could therefore help to raise teachers' and learners' awareness of the actions they could take to enact a dialogic and co-constructive conceptualization of feedback.

In the subsequent chapter, **Anna-Katharina Scholz** reports about her own teaching practices and experiences with live polls in the classroom (Audience Response Systems, ARS). She elaborates on four potential ways of using ARS: as check-ins at the beginning of a lesson to collect feedback on how students feel (affective dimension); as a means to inquire into students' prior knowledge about a particular topic, e.g. as part of brainstorming activities (cognitive dimension); as a tool to support group work and mutual feedback (collaborative dimension); as an assessment of what students have learned or remembered about a particular topic (evaluative dimension). Scholz thus moves through different phases of a lesson or course and presents the student feedback she obtained on her implementations of ARS. She discusses the advantages and challenges of using ARS while concluding that they can be valuable and versatile tools in the classroom to foster students' active engagement.

Speaking from the student perspective, **Sara Wohlschläger** likewise foregrounds the importance of actively seeking feedback from the learners. In contrast to teacher-to-student feedback or peer feedback, student-to-teacher feedback has been elicited and investigated to a much lower extent. In that respect, Wohlschläger emphasizes the significance of student feedback as a possible pupil voice strategy to improve the effectiveness of teaching and learning. Following Hattie and Timperley's (2007) as well as Zierer and Wisniewski's (2019) tri-partite distinction between feed-up, feed-back and feed-forward, Wohlschläger delineates several steps to be considered when incorporating digital student feedback activities in the classroom by using visual feedback via *Oncoo* as an example.

Ralf Gießler and Jana Maria Olejniczak likewise expand on Hattie and Timperley's (2007) classification. Specifically, they recommend using a digital board application (*Padlet*) for the pre-writing or drafting stage of a composition task. Since Padlet allows for the insertion and arrangement of multimodal contents, learners can draw on multiple semiotic resources for (pre-)writing and feedback exchanges. Depending on the students' prior knowledge and experience, teachers might need to create elaborate

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advance organizers on Padlet to facilitate the composition process and the peer feedback exchange. Taking a unit about the American Dream as an example, the authors explain how such a multidirectional and interactive feedback activity could be conducted.

Indeed, dialogue-based approaches to feedback, such as in peer exchanges, have received increasing attention, even in preparation of traditional high-stakes testing. In their contribution, **Ines Paland-Riedmüller, Simone Weidinger and Anastasia Drackert** propose a learning-oriented approach to exam preparation, which includes learners' criteria-based engagement with peer feedback. They report on their iterative development of the feedback procedures in an online test preparation course for the digital TestDaF, which is a high-stake standardized language proficiency test for language admission to higher education institutions in Germany. In the context of German as a foreign language, they compared different feedback methods and evaluated them via online surveys, including automated feedback, tutor feedback and (multiple) peer feedback. The survey results largely resonated with the tutor's perceptions and pointed to students' better understanding of their performance and of the task objectives when peer feedback was utilized. In view of the challenges that were encountered, the authors underline the importance of training students for peer review.

To train learners' feedback skills, **Amanda Yi Chng** suggests a feedback observation activity as part of tandem learning. Tandem learning is a popular approach in foreign language learning, as it can promote language skills, metalinguistic discussions and cross-linguistic awareness. In her contribution, Chng highlights its potential for fostering feedback skills among e-tandem participants. She proposes that four tandem partners join the activity, with two of them observing the corrective feedback exchange of the other two learners, before their responsibilities are changed. By using a videoconference system with multimodal affordances, students are free to choose the modes of their interaction that best cater for their needs.

The purposes, frequency and features of videoconferencing have changed discernibly over the past years, which warrants a close examination to derive recommendations for their purposeful and competent use in educational contexts. In her contribution, **Julia Lankl** focused on two types of videoconferencing and investigated oral corrective and non-corrective feedback processes in the context of learning German as a Foreign Language (GFL). In that respect, she reports on a university project between prospective GFL teachers in Austria and GFL students in Japan and Brazil. By using video interaction analysis, Lankl examined the occurrences of oral errors and subsequent feedback actions and was thus able to expand previously existing category systems. Notably, she discovered that the interlocutors in both settings rarely used corrective feedback after oral errors but frequently employed non-corrective feedback instead, mostly in the form of overlapping listener signals such as 'mhm' and 'okay'. Based on the differentiated findings she obtained, Lankl provides suggestions for improving feedback processes in synchronous computer-mediated communication. This includes a "courage to correct" errors and engage in dialogue with the learners as well as reflection on the teachers' and learners' roles and routines during these feedback exchanges. The study thus fills an important gap that was identified in earlier reviews (e.g. Brück-Hübner & Schluer, 2023). Other under-researched areas pertain to the use of social media and artificial intelligence for feedback purposes. These topics will therefore be addressed in the subsequent sections.

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4.3. Section IV: Social Media and Self-Regulated Learning

Social media platforms and apps unite numerous features that can be used beneficially for feedback purposes. While social media have become ubiquitous in everyday life, their utilization in educational contexts is still contested, especially at schools. In the spirit of the book on *Digital Feedback Methods* (Schluer, 2022), the first chapter in this section reviews the advantages and challenges surrounding the usage of social media for feedback purposes. Particular benefits result from the multimodal affordances and creative possibilities as well as the convenient accessibility, which can enhance learner engagement in and outside the classroom. As the utilization of social media might be prohibited in some educational settings, I argue that social media might nevertheless inspire and innovate feedback practices, e.g. by using fake messengers or adapting their features through other tools or platforms. In the chapter, I also provide several concrete suggestions for implementation, e.g. concerning novel video feedback features, hashtags or quick reactions.

Simultaneously, the chapter serves as a bridge to the two teaching ideas that are presented in the ensuing chapters by Erhan Altay and Ezgi Irem Bekci. **Erhan Altay** concentrates on one special feature of TikTok, which is voiceover feedback for student-created videos or slideshows of presentations. He explains the different steps that are needed for its implementation and suggests further utilizations of TikTok for language learning and peer feedback purposes. Notably, he foregrounds students' active engagement that moves beyond the oftentimes passive consumption of social media.

Ezgi Irem Bekci proposes another activity to foster active student learning through collaborative work and peer feedback on social media. She combines the utilization of avatars and story features on Instagram to support students' vocabulary development. More precisely, Bekci describes the steps of creating a virtual avatar, writing dialogues on Instagram stories and exchanging digital feedback via the direct messaging function. She also explains in how far this teaching activity aligns with important theoretical and methodological principles, such as cognitive load theory, constructivism, collaborative learning and authenticity in student-centered learning.

These chapters on social media illustrate their benefits for actively engaging learners in feedback processes. At the same time, they draw attention to common challenges, notably the potential distractions learners might face. The final chapter in this section therefore examines the use of apps that could help students maintain focus by reducing distractions and improving time management skills. **Schmitz, Rettstatt, Suren, Brand, Seemann, Ragni, and Rey** compared three experimental groups, one using the time management app *SuperProductivity*, another one the distraction blocking app *Freedom*, and the third group both apps. The authors argued that automated feedback from these apps might assist students in increasing their productivity and learning progress. However, the researchers did not find any significant differences between the experimental groups and the control groups and discussed several likely reasons for this unexpected outcome. Crucially, students need to play an active part when using these apps, which presupposes clarity about the desired learning outcome. In that respect, the authors also emphasize the importance of prior training, ongoing coaching and regular reflections to support self-regulated learning. The interplay of human competencies and technologies,

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notably digital feedback, thus becomes obvious. Surpassing specialized apps, such as those for time management and distraction blocking, AI-based systems have a rapidly growing impact on educational practices. The potentials of AI-supported feedback are therefore explored in the closing section of this volume.

4.4. Section V: Artificial Intelligence in the Feedback Process

Apart from social media, the utilization of artificial intelligence for feedback processes is an emerging and still under-researched field that has quickly grown in popularity in recent years. When generative AI became publicly available through OpenAI's release of ChatGPT-3 in November 2022, it attracted massive attention and led to vivid debates in society and education. Despite this upsurge in interest, its particular affordances for feedback purposes are still under-explored. In the first chapter of this thematic section, I review the available literature on chatbot feedback with a special focus on ChatGPT. Similar to the introductory chapter on social media and the structure of the digital feedback chapters in Schluer (2022), I discuss the advantages, limitations and possible implementations of generative chatbots for feedback purposes. I argue that generative AI offers enhanced benefits as compared to earlier automatic writing evaluation (AWE) systems, but even more so requires critical evaluative capabilities from the users. More precisely, the chapter demonstrates that chatbots can serve as feedback assistants for both teachers and learners and can additionally play a supportive role in the development of learners' and teachers' feedback literacy.

As developments in the field are rapid, the subsequent chapter explores various AI avenues for future research and teaching practice. It discusses existing possibilities and still-prevailing limitations to promote a responsible and critical use of AI. Extending beyond the preceding contribution on chatbot feedback, this concluding chapter looks at other skill areas, notably AI feedback on speaking skills, text comprehension, presentations, lesson planning, and teaching performance. While significant progress has been made, several challenges remain, which warrant attention in future work. In that respect, the closing chapter offers recommendations for future research and pedagogical practice to harness the potentials of AI for feedback purposes on a wider scale.

5. Reflection and Outlook

Collectively, the contributions in this volume underscore the importance of continuously developing students' and teachers' (digital) feedback literacy. With the ongoing evolution of technologies, curiosity in exploring new teaching and feedback methods as well as critical reflection on their suitability and research on their efficacy become crucial. Teachers and students should engage in continuous learning dialogues and critically reflect on both innovations and more traditional feedback methods to foster a conscious and purposeful use. This critical-reflective competence will become increasingly important, especially in view of the growing impact of artificial intelligence and algorithms (see chapters 16 and 17 by Schluer in this volume). Notably, automated feedback and learning

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analytics could be used in conjunction with various other sources of knowledge for self-reflection as well as with peer assessment and teacher feedback.

The integration of technology does not restrain feedback processes, but rather amplifies and multiplies them. There is good reason to believe that the use of digital methods can make teaching more collaborative, as digital platforms facilitate communication and collaboration between teachers and learners – even beyond their own classroom. They can benefit from the knowledge and ideas of other teachers and peers from all over the world, gaining not only valuable professional but also linguistic and cultural experience. This helps to broaden their horizons and improves their understanding of complex concepts and contexts. Eventually, the interplay of human and artificial intelligence can aid to create customized learning experiences that respond to the specific needs and interests of individual learners and enrich the learning processes. Overall, then, the use of digital feedback can progressively change the way we teach and learn, making education more accessible, engaging and effective for learners and teachers alike.

As these considerations make clear, the so-called "4 Cs of Education" play a pivotal role for developing digital feedback literacies. They include critical thinking, communication, collaboration, and creativity (Partnership for 21st Century Skills, 2009; Trilling & Fadel, 2009). Feedback itself is a form of communication to improve learning and teaching and it likewise thrives from collaboration in numerous ways. This does not only pertain to productive exchanges between students, teachers, scholars and policymakers, but also to inter- and transdisciplinary projects that might shed further light on the complexities of feedback literacy (see Schluer & Meier, 2024; Schluer et al., 2023). We therefore strive to broaden and deepen the knowledge about digital feedback continuously, e.g. by conducting collaborative projects with researchers from other disciplines. In that regard, we plan to expand the "Digital Feedback Map" (DFM), which currently provides an overview of 19 distinct digital feedback methods, including text-editor feedback, survey feedback, blog feedback, forum feedback, e-portfolio feedback, audio feedback, video feedback, email feedback, screencast feedback, cloud-editor feedback, wiki feedback, chat feedback, digital board feedback, social media feedback, automated writing evaluation (AWE), live poll feedback (ARS), chatbot feedback, video conference feedback, and robot feedback. With technology's ongoing advancement and the emergence of new digital methods, we are committed to continually updating both existing and new digital feedback methods on the DFM.

Likewise, this book is to be understood as part of a dynamic process, striving to support teachers and researchers in navigating an ever-expanding digital and digitally enriched universe. We hope that the book contents will give readers inspirations for enhancing feedback processes in their own classrooms, in alignment with the specific learning objectives they aspire to reach. Readers are encouraged to contribute to these ongoing discussions and to explore a variety of additional possibilities in the field of digital feedback, digital learning and digital teaching.

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References

Boud, D., & Dawson, P. (2023). What feedback literate teachers do: An empirically-derived competency framework. *Assessment & Evaluation in Higher Education*, *48*(2), 158–171. https://doi.org/10.1080/02602938.2021.1910928

Brück-Hübner, A., & Schluer, J. (2023). Was meinst du eigentlich, wenn du von "Feedback" sprichst? Chancen und Grenzen qualitativ-inhaltsanalytischer Scope-Reviews zur Herausarbeitung von Taxonomien zur Beschreibung didaktischer Szenarien am Beispiel "Feedback". *MedienPädagogik*(54), 125–166. https://doi.org/10.21240/mpaed/54/2023.11.29.X (Themenheft "Forschungssynthesen in der Mediendidaktik").

Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education*, *43*(8), 1315–1325. https://doi.org/10.1080/02602938.2018.1463354

Carless, D., & Winstone, N. (2023). Teacher feedback literacy and its interplay with student feedback literacy. *Teaching in Higher Education*, *28*(1), 150–163. https://doi.org/10.1080/13562517.2020.1782372

Gießler, R. (2024). EFL writers' cognitive engagement with AWE feedback. *Language Awareness*, 33(2), 428–445. https://doi.org/10.1080/09658416.2023.2269088

Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. Routledge.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, *77*(1), 81–112. https://doi.org/10.3102/003465430298487

Partnership for 21st Century Skills. (2009). *P21 Framework Definitions*. https://eric.ed.gov/?id=ED519462

Schluer, J. (2022). *Digital feedback methods*. Narr Francke Attempto.

Schluer, J. (2023). *Digital feedback map: Overview of digital feedback methods*. https://tinyurl.com/DigitalFeedbackOverview/

Schluer, J., & Meier, M. (2024, February 7). *Transfer transdisziplinär: Digitaler Feedbackdialog zur Unterstützung von Lehr- und Lernprozessen in den Geistes- und Naturwissenschaften*. Landesrektorenkonferenz Sachsen, Arbeitskreis E-Learning, Deutschland. Digital Fellowships für die Digitale Hochschulbildung in Sachsen, Online-Präsentation.

Schluer, J., Rütti-Joy, O., & Unger, V. (2023). Feedback literacy. In T. Philipp & T. Schmohl (Eds.), *Handbook Transdisciplinary Learning* (pp. 155–164). *Higher Education: University Teaching & Research*. transcript publishing.

Schmidt, B. (2022, June 24). *Einen Anfang machen.* Hochschuldidaktik Sachsen. Digital Change Agent Workshop.

Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times* (1st ed.). Jossey-Bass.

Winstone, N. E., & Carless, D. (2020). *Designing effective feedback processes in higher education: A learning-focused approach*. Society for Research into Higher Education (SRHE). Routledge.

Zierer, K. & Wisniewski, B. (2019). *Using student feedback for successful teaching*. Routledge. https://doi.org/10.4324/9781351001960

https://doi.org/10.14361/9783839475713-002 - am 13.02.2026, 07:17:36. https://www.inlibra.com/de/agb - Open Access -

Acknowledgments

I would like to express my gratitude to the *Stiftung Innovation in der Hochschullehre* for providing funding for the project "Didaktische Orientierung für digitales Feedback (Pedagogical guidance for using digital feedback): Digital Feedback Map (DFM)" (project ID: FRFMM-181/2022, project duration 09/2022-11/2023). Moreover, I want to thank Chemnitz University of Technology as well as the *Deutsche Gesellschaft für Fremdsprachenforschung* (DGFF) for their financial support in preparation of the conference "Spotlight on Language Teaching: Digital Feedback in Research and Practice" in 2023. Accordingly, I also direct my thanks to the DFM project staff, notably Natalie Bleyl and Shanqing Gao, for their valuable assistance. Likewise, all student assistants and lecturers who were involved in the project or conference deserve special mention: Yarong Liu and Katharina Maschke (lecturers) as well as Ezgi Irem Bekci, Merve Cakici, Erhan Altay and Mina Raeisi Nafchi (assistants).

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