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# Teaching song leading – a conceptualization of strategies

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Teacher educators play a key role in the training of generalist music teachers by imparting both musical and didactic knowledge about music teaching. The purpose of this article is to conceptualize and empirically document the strategies employed by an experienced music teacher educator when modeling song teaching for and with preservice teachers. Following an initial interview, we filmed the teacher demonstrating the teaching of two songs. Based on microanalyses of the teacher modeling song teaching, we identified five strategies: *goal-directed continuity*; *working with examples*; *modeling, monitoring, and fading*; *generative elaboration*; and *striving for aesthetic form*. Some of these teaching strategies are not clearly defined concepts but are rather prototypical and domain specific. By conceptualizing and empirically documenting the phenomena, we emphasize the need to expand and differentiate the technical terms generally used for teaching methods and strategies and to consider the specificity of the subject matter.

## KEYWORDS

teacher education, teaching strategies, song, music didactics, microanalysis, modeling

## 1 Introduction

Formal song transmission plays an important role in music education. Teachers are expected to be professionally trained to lead songs in class and to introduce children to singing as a cultural practice. Teacher training in music education takes place in student classes with heterogeneous musical backgrounds and under unfavorable conditions (Fündeling, 2022). However, music teacher educators show student teachers how to teach songs, and they expect them to experience and understand their song-leading demonstrations in two ways: as the learning of a new song and as a model of teaching that they should later practice themselves. Hence, the process of teaching song leading is a model for their future professional activity. The goal of our research project is to describe and understand how experienced music teacher educators execute the double task of song leading and of teaching how to lead songs. This topic falls within the discipline of didactics, as it involves the dynamics between the teacher, subject matter, and learners (e.g., Schneuwly, 2020, 2021). Singing in class pursues curricular goals, unlike choral singing, in which a group of people practices polyphonic singing with the goal of a performance.

Research concerning song leading in class and teaching song leading is rare. While many researchers have examined neighboring areas, such as common problems in generalist music education (Fündeling, 2022), experts' teaching to groups of children (Liao and Campbell, 2016; Hedden, 2020), the training of choral conductors (Bell, 2002; Chandler, 2012), pedagogical content knowledge (Ballantyne, 2006; Sætre, 2014) or the development of the song-leading capacity in preservice generalist music teachers and expert teachers' song leading (Savona, 2021; Hürlimann and Savona, 2022; Hürlimann, 2024), no one studied the role and contributions of teacher educators. The studies that focused on teacher educators (Kleinen, 2006; Chandler, 2012; Sætre, 2014; Joseph, 2015; Hennessy, 2017; Kastner et al., 2019) worked exclusively with interviews and surveys. Verbal data, as known from research in other domains, such as moral education (see, e.g., Blasi, 1980), is often inconsistent with observed actions.

This also applies to the domain of music education (see, e.g., Wiggins and Wiggins, 2008). To understand the professional situation of generalist music teacher educators, we consider it important to account for both verbal reports and systematic *in situ* observations of professional actions, and to combine them in a hermeneutic manner.

Our aim in describing and understanding a music teacher's singing lessons is epistemological. Formal teaching at school is a social practice that implies rules, norms, and customs (for profound treatment of norms and normativity, see von Wright, 1963; see also: Rouse, 2007; Stadler Elmer, 2021). Our focus lies on making explicit some of the norms and values in the ways in which teacher educators carry out their professional work. Through systematic observation and comprehensive description of their practice, we gain insights into relevant actions. Through interviews, we get to know the actors' intentions and goals. This methodology provides the necessary hermeneutic foundations for interpreting and understanding a person's actions and intentions (e.g., Hoyningen-Huene, 2013) without evaluations and judgments, as far as possible. Epistemological research serves to gain new hypotheses and improve and clarify concepts for theorizing. However, it *can* serve as a basis for gaining criteria for the evaluation and judgment of teaching quality.

Teachers' ways of teaching a particular content are conceptualized in different ways. As the title of our article suggests, we prefer the term 'strategy' to focus on the actions teachers perform in implementing tasks in their class and in pursuing their intentions. Our use of the term *teaching strategy* needs further clarification, as we noticed that the terminology used in the literature to refer to teachers' ways of facilitating learning is inconsistent and unclear. In educational science, common technical terms describing teachers' ways of facilitating learning new content are, for instance, *teaching methods*, *instructional methods*, *teaching techniques*, or *teaching strategies*. When we refer to *teaching strategies*, we denote the approaches a teacher employs to structure the content – here, a song – and how he organizes the content to convey it to students. Thus, *teaching strategy* connotes a level of deliberate intention and a pursuit of goals, whereas 'method' usually refers to the way of enacting teaching only (e.g., White et al., 2010). In our understanding, a *teaching strategy* consists of various actions that serve to pursue the intention to pass on specific content in class and to reach a goal. The meaning is therefore oriented toward a specific content, as opposed to a pedagogical action or teaching technique independent of the learning object. Our focus is, first, on teachers' ways of facilitating students' learning *of and with* the specific content (i.e., the teaching strategies), and hence, not on general teaching competencies like classroom management or adaptation toward the students.

An influential terminology for facilitating learning was established by Collins et al. (1989). Elaborated mainly in reading, mathematics, natural sciences, and language learning, the best-known terms are "modelling, scaffolding, coaching, guiding and advising, collaborating, fading, and using cognitive tools and resources" (Choi and Hannafin, 1995, p. 61). Among these terms, *scaffolding* has become the general term for the various kinds of support that teachers provide to help students (e.g., Collins et al., 1989; Kardoust, 2023). In the literature, *modeling* – the presentation of live or recorded examples to be imitated – can be found both subsumed under scaffolding and treated as a phenomenon in its own right. The scaffolding process is assumed to encompass *fading* – that is, a gradual withdrawal of support until students are on their own (e.g., Collins et al., 1987; Choi and Hannafin, 1995).

It is remarkable that the theorizing on teaching methods or strategies has primarily focused on core subjects (mathematics, languages, and sciences), whereas the musical domain has been marginalized (Rosenshine et al., 2002). Rosenshine et al. (2002) note that despite the prominent role of modeling in music teaching, there is little systematic research on this topic. Studies on the effectiveness of teaching, on teacher-student interaction, and descriptive 'time and frequency' studies have contributed to establishing common tenets (Sink, 2002). Sink (2002, p. 315) reports on the concept of 'direct instruction in music' "as a three-step sequence in which (1) the teacher presents a task, (2) students respond to the task, and (3) the teacher provides feedback to students in a manner that stresses positive learning experiences." It is noticeable that (a) results are presented as lists of observed teacher behaviors and (b) models and general principles are proposed in the form of advice on how to improve music teaching and increase effectiveness. In contrast to this concept of 'direct instruction in music,' we systematically explore and explain the social practice of teaching by accounting for the domain specificity and for the temporal organization of the teachers' activities throughout the lesson.

## 1.1 Objectives

Therefore, our research question is how to empirically identify and conceptualize the ways in which a teacher educator teaches a song to and with student teachers. Our aim is to first identify the facilitations practiced by music teacher educators and then to conceptualize the teaching phenomena to obtain empirical descriptions of the strategies related to the specific subject matter. The pursuit of these two goals requires a third goal, namely, to theoretically clarify what is special about teaching music. Only in this manner can teaching strategies be determined with reference to the subject matter. The next section therefore deals with the question of what is specific about teaching music.

## 1.2 Specificities of the domain of music teaching

Key features of the specificity of music as a subject at school can be summarized as follows: Musical activities are first and foremost physical – or, in other words, sensorimotor – as voice and body movements are used as expressive means, and, simultaneously, perceived (auditory, kinesthetically, visually). Thus, hearing, singing or vocalizing, and body movements – with or without tools – are elementary musical activities (Stadler Elmer, 2000). These activities make it possible to participate in cultural musical practices from early on in ontogeny and to cultivate these expressions in cultural-specific ways, including achievements such as music literacy, aesthetic feeling, and judgment. Moreover, through universal elementary musical activities, it is possible to create and express infinite patterns. This is because music, like language, is generative in that infinite pattern variety is produced by the combination of finite means (Merker, 2002; Merker et al., 2015). Hence, with every song or piece, we teach and learn to follow the musico-linguistic rules that constitute the social practice of singing and music making. Since singing is an elementary and universal musical expression, songs are important in music

education. They are complex products of human cultural evolution, and they are transmitted between generations. Merker et al. (2015, p. 1) postulate a “universal propensity of humans to gather occasionally to sing and dance together in a group.” This hypothesis is consistent with Baumeister and Leary’s (1995) need to belong. Merker et al. point to a motivational basis that is inherent in our biology, which also applies to the human vocal learning capacity to “reproduce by means of the voice that which has been heard by ear” (Merker, 2012, p. 215, original emphasis). “Vocal learning for song accordingly presents us with paradigmatic examples of ritual culture in animals, i.e., forms of imitative learning that faithfully duplicate its model to result in the lasting acquisition of a formally patterned behaviour as an integral part of a cultural tradition with ritual characteristics.” (Merker, 2012, p. 221, original emphasis). Last, the human capacity to synchronize one’s own movements to isochronous auditory patterns, and thus to “keep time” to rhythmic stimuli – called entrainment (Clayton et al., 2004) – plays an important role in music. Altogether, the evolutionary theory on the origins of music by Merker et al. (2015) with its five constraints – generativity, cultural transmission, vocal learning, social motivation, and entrainment – is a useful and seminal source for determining the specificities of music.

Against this background, we argue that it is necessary to consider domain specificity as is done when theorizing didactics in mathematics (e.g., Brousseau, 2002), literacy (e.g., Krogh, 2012; Ronveaux and Schneuwly, 2018) and other domains (Krogh et al., 2021) and when empirically examining teachers’ activities in relation to the specific subject matter – here, the teaching of songs. A song is an immaterial, mental entity, an ephemeral event vocally produced, based on musico-linguistic rules to varying degrees, a tool for conveying and sharing affects (Vygotzky, 1971; Valsiner, 2020), and it is about aesthetic feelings and form, etc. Hence, theorizing about teaching music in schools requires a revision of teaching strategies and an account of domain specificity.

We provide two further reasons for highlighting the importance of considering domain specificity. The first concerns the role of verbal instruction during song teaching. In both informal and formal education, as well as in teacher training, song teaching and learning essentially present a musical activity as a model, in part or as a whole, followed by learners’ imitation. Unlike many other areas of teaching and learning, this process – modeling songs – functions with little or no verbal conversation. Studies show that experienced teachers differ from less experienced teachers in that they minimize their verbal conversation (e.g., Goolsby, 1996). In teacher education, however, it is not enough to teach and learn songs, as didactic knowledge about how to organize this practice needs to be explicated and discussed. Therefore, demonstrating how to teach a song in a professional way and making explicit how to guide this process both have an important function in the training of future teachers.

The second issue concerns the concepts used to describe the actual teaching activities in a lesson. As mentioned, *modeling* is one of them, and it needs to be clarified and adapted to music. Primordially, teaching music is predominantly *modeling*, and the meaning of the concept of *fading* must be closely linked to *modeling*. For instance, after modeling the target song (or music piece), *fading* could mean that the teacher educator gradually omits parts of the song and lets the students sing the song more and more on their own. Thus, *modeling* and *fading* are examples of teaching strategies that cannot be transferred from other domains without domain-specific

modifications. In general terms, more precise or new terms for teaching strategies need to be considered in order to account for empirical phenomena and in relation to the specificity of the subject matter.

### 1.3 Five teaching strategies

In this study, we introduce the concepts of five teaching strategies we developed iteratively in an attempt to summarize the patterns we identified and to better explain how a teacher educator teaches song leading: (1) *goal-directed continuity*; (2) *working with examples*; (3) *modeling, monitoring, and fading*; (4) *generative elaboration*; and (5) *striving for aesthetic form*. These teaching strategies reflect the distinct approaches observed and documented in two cases of song teaching. They provide a conceptual framework for analyzing and interpreting teachers’ approaches across song leading, revealing patterns in how they address challenges.

1. *Goal-directed continuity*: The teacher uses characteristics of the learning subject, the song, to direct the students’ actions and create a collective mood. One such characteristic is the inherent temporal frame of a song or piece of music, which can be used to create a collective entrainment: simultaneous and synchronous motor production on an endogenous basis, typically a steady pulse or meter (Clayton et al., 2004; Merker et al., 2015). The regular periodicity of the entraining signal makes it possible to predict the timing, to continue moving, and to ignore other stimuli. A strategic use of entrainment is possible where regular micro-timing is an inherent property of the subject matter (Merker et al., 2015), as is the case in music, song, dance, and some sports. A second such characteristic is the ‘earworm’ (Beaman, 2018) or ‘haunting melody,’ the phenomenon in which a melody is memorized and urges repetition. Induced entrainment and ‘haunting melodies’ are used to keep the shared activity going, to make the micro-timing predictable, to ensure continuity, to maintain attention, and to achieve a goal.
2. *Working with examples*: Every musical piece or song consists of rules concerning pitch and timing – a melody – and lyrics. As mentioned above, music, like language, is generative (i.e., it produces infinite pattern variety by the combination of finite means) (Merker, 2002; Merker et al., 2015). Hence, song teaching and learning centers on the following of musico-linguistic rules. The whole and its parts exemplify the general rules. Parts can be selectively elaborated on as each part is a subset and represents the underlying grammatical rule.
3. *Modeling, monitoring, and fading*: First and foremost, teaching song is *modeling*, and learning songs is imitative vocal production. *Monitoring* involves controlling and observing the process of both teaching and learning the target model. On the teaching side, it also means to select, repeat, or recombine features or parts of a song in order to improve the observed reproduction. On the learning side, monitoring means comparing one’s own production with the model and making adjustments. The concept of *fading* is also associated with *modeling* and means that the teacher gradually omits parts of the song or withdraws accompanying support (e.g., piano,

pulse-keeping) and tries to let the students sing the song more on their own.

4. *Generative elaboration*: In song, both generative systems – language and music – are represented by melody and lyrics, which are grammatically combined. The key feature of generativity is the combinatorics of its elements – the grammar of songs – which result in infinite variety (Stadler Elmer, 2021). Therefore, when teaching songs, teachers have a certain freedom to play with the elements and rules. We have already mentioned that they can omit parts. They can also substitute words, notes, beginnings, endings, etc. Teachers decide the types of variations they wish to explore and elaborate on with their students while still adhering to the grammar of the song.
5. The fifth strategy centers on the overarching goal of *striving for aesthetic form*. Both the generative nature of songs and the rule-following – bearing the potential for playful variations – are prerequisites for producing well-formedness. This concept has its origin in linguistics (e.g., Meyer, 2009) and refers to grammatically correctly formed utterances or sentences. Yet, the achievement of well-formedness by rule-following is not identical to aesthetic form. The notion of ‘aesthetic’ is complex, since it implies subjective aspects that are neither determined nor predictable. Thus, when teachers strive for aesthetic form, they create grammatically correct forms, primarily concerning the intonation of the melody, the articulation of the lyrics, and the timing. However, the concept of *striving for aesthetic form* goes beyond grammatical well-formedness as it includes other expressive dimensions, such as timbre and the dynamics of intensity and tempo. *Striving for aesthetic form* also concerns the teachers’ modes of teaching: the ways of presenting the target song, monitoring the process, playfully elaborating parts and the whole, and presenting and conveying an affective state (Vygotsky, 1971).

Each of the five concepts for song teaching strategies is an abstract summary of the empirical phenomena we document using detailed descriptions. The concept meanings overlap, and in the cases of *generative elaboration* and *striving for aesthetic form*, they are even superordinate. We propose to think about these concepts in terms of central exemplars or prototypes (see, e.g., Rosch and Lloyd, 1978; Sternberg and Horvath, 1995) rather than clear-cut categories. Before presenting the empirical analyses, we introduce our research methodology, a microgenetic analysis of how an experienced teacher teaches two different songs. The microanalyses of these two song transmissions empirically demonstrate the five strategies.

## 2 Materials and methods

To empirically study the song teaching of experienced teacher educators, we conducted case studies by combining semi-structured interviews with systematic observation through videos. We then analyzed the video recordings by applying microgenetic analysis. All our case studies start with an interview, which allows us to gain information about the teacher educator’s professional situation, personal goals, and vision. Then, the participants gave us their permission to videorecord selected professional actions they considered relevant.

## 2.1 The microgenetic method

Microanalysis, or the microgenetic method, has a long tradition (e.g., Vygotsky, 1978; Catán, 1986; Wagoner, 2009). The two terms are often used synonymously, as their general aim is to describe temporal phenomena that have not yet been studied in detail, typically a person’s strategies to solve a problem or create something new. Conducting microanalyses requires systematic observation with or without tools, making distinctions by identifying and recognizing phenomena, denoting them by concepts that are clear and concise, and representing the findings with symbols (incl. numbers), icons, graphics, etc. This process requires the researcher to detach an event from its temporal course, identify segments, locate relevant activities, consider the teaching object, and characterize and abstract elements and components in detail. This is not a sequential process, but iterative in going back and forth while unfolding the timing, reconstructing and conceptualizing the process. As such, it is a hermeneutic approach, circularly interpreting individual parts, such as specific actions, and the context as a whole, in a repeated feedback loop aiming at refining understanding and conceptualization. Since teaching songs is a very densely organized activity, microanalysis allows us to reconstruct teaching strategies and document them empirically. To understand how the teacher educator acts as a professional, we also included his statements about his own actions. Hence, we combined the microanalysis with his verbal statements from the interviews. To gain a hermeneutic understanding of this complexity, a combination of these two methods is essential (e.g., Hoyningen-Huene, 2013). Using microanalysis in didactic situations allows us to unfold the timing of the musical activities that happen in rapid succession. As ephemeral phenomena, they require a breakdown of temporal dimensions through visualization and abstraction.

## 2.2 Interviews

The initial semi-structured interview lasted about an hour, and we analyzed it using thematic analysis (Braun and Clarke, 2006, 2019). In this article, we refrained from going into detail but chose to integrate only issues with clear references between the teacher educator’s statements and actions as part of the hermeneutic analysis.

## 2.3 Data analysis process

We employed an iterative (i.e., hermeneutic) process to analyze the videos, beginning with the broad categories provided by the *Lesson Activities Map* (LAMap, Savona et al., 2021). The LAMap is a transcription methodology based on systematic observations of teaching songs and on representing the activities primarily by symbols and icons. This graphic transcription methodology results in a visual overview of the temporal course of the teaching activities that constitutes the teaching-learning practice. During the transcription, we progressively refined and adapted the symbols and icons through multiple rounds of analysis, and we invented new ones to capture certain phenomena. The transcription process simultaneously transforms the temporal dimensions into de-temporalized media. The goal of this step is to reduce complexity without losing the details that are essential for representing and understanding the process (see

*trained judgment* by [Daston and Galison, 2007](#)). To make certain that the analysis was reliable, accurate, and valid, we discussed and cross-checked the assignment of symbols and icons and ensured that the technical terms were appropriate and grounded in the observed phenomena.

During the iterative analysis process, we divided the temporal course of the event into segments according to the properties that signal boundaries (i.e., beginnings and endings of units).

The graphic overview of the temporal course of the teaching given by the LAMap serves to identify and contextualize episodes, crucial moments, or single activities that may be of interest for further detailed analysis. In the process of transcribing observed activities and creating a LAMap, we deliberately selected those activities from the video recordings that constitute song teaching. Thus, we had to exclude others that are not recorded or difficult to trace, such as facial expressions, positions and movements in the room, or eye contact. Nevertheless, the selected foci provide an overview of the teaching process. The combination of systematic observation and detailed description (i.e., microanalysis) with the verbal statements of the participants is particularly valuable for increasing our understanding of an experienced music teacher educator's practice. Microanalyses provide rich, detailed descriptions of the teaching process, its complexities and nuances, and how the phenomena occur over time. To reduce complexity, we iteratively identified patterns and developed concepts to denote distinct strategies. The developed conceptualization of the strategies makes the analysis more abstract and communicable. The concepts contribute to theory building by providing empirically grounded constructs that can be integrated into broader theoretical frameworks.

## 3 Results

### 3.1 Case studies with experienced music teacher educators

We interviewed and filmed five experienced music teacher educators. Every case is unique and interesting. Eric gave us insights into various professional contexts of his teaching, including several modelings of song teaching. These attracted our attention and curiosity as researchers.

#### 3.1.1 The case study with Eric

Eric is a generalist music teacher educator working at an institution in Switzerland. He has more than 20 years of professional experience in this field. In an initial step, he was interviewed, stating his opinions, goals, and strategies for teaching preservice generalist music teachers. Next, he identified two specific settings for us to videorecord, which he thought would provide us with the necessary observations to document his strategies and goals. In the first setting, a course during which the students were supposed to expand their practical abilities and theoretical knowledge, we video-recorded three song introductions, two of which we chose to analyze and present in this article. In these samples, Eric mostly taught by modeling what he thought was a good way of transmitting songs.

#### 3.1.2 The interview with Eric

In the interview at the beginning of the study with Eric, our intention was to learn about his conception of song leading, to find

out what was important to him, and how he described his goals and tasks. Eric mentioned several problems that are well-known among the researchers of generalist music teacher education (e.g., [Hennessy, 2017](#)). One main problem is the lack of time in training. He emphasized that time and continuity elicit closeness – “you have to know each other in order to sing [together].” There is not enough time for auditory training, (vocal) improvisation and improving the singing voice, or for gaining authority and confidence in teaching. Eric reported that he touches on these issues briefly but that the preservice teachers never achieve a “competent approach in everyday teaching situations.” Another vital point is the lack of musical qualification of the students when they enter teacher education. He “should be able to assume,” he says, that his students have actually found a connection to music, that they bring a foundation, that they have already mastered the basics of their singing voice before starting their studies. These expectations are not met.

Eric wishes for the students to have gone through stages in their lives in which they experienced their singing voice as “something joyful.” It is his goal to share the joy he feels when he sings, and that is what he wants his students to aim at.

Eric stated that a lesson is successful when he walks out feeling happy. “If I leave happy, maybe they do [, too]. I think so.” He is also happy when the group achieves a certain sound and when he feels that “music was made.”

When asked about his song-leading strategies, Eric stressed his natural ability to transmit, which he says is not concept-based, but emerges naturally out of him. “It just flows out of me, period. [...] I can count on that; it's an instrument I always have within myself.” Furthermore, we identified the following topics in the interview: he (a) intends to expand the students' song repertoire; (b) wants the students to practice the leading role, to experience and reflect various approaches to songs and their functions; and (c) aims to create affective states of playfulness, joyfulness, and open-mindedness with songs.

Eric did not mention the work on the students' lack of basic musical competencies (voice training, rhythm exercises, music theory), but supposedly integrates this in the abovementioned topics. Creating joyful experiences with song proves to be his main goal.

Eric was concerned with the question of whether he is choosing the right content for the few lessons available. “Where should I even start? What is really the most important thing?” He was not sure if he works on the most relevant aspects, and he also feared that he has too high expectations due to his own musical biography. He estimated the sustainability of his teaching to be low (“nothing moves”). He further expresses feelings of frustration in viewing his teaching activity to be a bit stagnant and “frozen.” However, he also states that he has developed a lightness and takes things less seriously (including himself).

If Eric had the opportunity to change the music training at his institution, he would make sure that the students had “a realistic or real situation to work with children,” meaning, for instance, in a training school setting. Singing, he says, would need to be part of every phase of practical training in the placement schools, and the students would need an adequate interest to “want to deal with their own voice.” Furthermore, he would launch a discussion about a stronger selection, or a change of the proper generalist system by giving the generalist teachers the possibility to exclude certain teaching subjects from their repertoire. Again, he mentions his goal to

“create moments in which we gain an experience with song” and that he aims to empower his students to create musical experiences for their respective students and “amaze” them.

### 3.1.3 Microanalyses of Eric modeling song teaching

Although Eric allowed us to videorecord several of his teaching activities, we only present our microanalyses of two teaching events that concern his demonstration of song teaching here. These two situations are sufficiently rich for studying his strategies. Both times, he selects a song and uses it as a target for teaching specific musical and didactic aspects. Thus, the target songs Eric selects are important subject-specific objects, which he uses as a framework and source for elaborating his musical and didactic intentions.

## 3.2 Microanalysis of how Eric acts as a model for teaching the song *Begrüssung*

In this section, we present our analysis of Eric modeling the teaching of a first song, and empirically demonstrate the five teaching strategies we theoretically conceptualized in Section 1.3. Both our empirical and theoretical research stem from cyclical and iterative processes consisting of observation, identification, denotation, and negotiation of appropriate wordings, symbols and icons. In the next section, we present the analysis of Eric teaching song-leading with a second song. Both of our microanalyses draw on previous microanalytic research methods on song transmission (Savona, 2021; Hürlimann, 2024), yet they are new in the field of teaching song leading in teacher education.

### 3.2.1 The target song 1: *Begrüssung* (greeting)

*Begrüssung*, depicted in Figure 1, is a two-voice round consisting of four two-bar phrases. The score includes suggestions for gestures related to the semantic content of the song (greeting gestures). The tune is in C major and has a range of one octave. The German lyrics are in poetic language and show two rhyming couplets and an iambic

and trochaic meter. The stress pattern of the lyrics is well matched with the meter of the melody. However, the translation into English does not generate a proper stress pattern; it would take some effort to achieve this. We offer a non-metricized translation as follows: We all stomp our feet and want to greet each other like this today, snap along loosely, then clap one, two, three.

### 3.2.2 Overview of the course of teaching of the first song

First, we created a transcript of the lesson using the LAMap transcription methodology (see Sec. 1.3). Eric spent 18 min and 46 sec teaching the song *Begrüssung*. The entire LAMap transcript encompasses several pages, and its representation would exceed the format of this article. Nevertheless, the LAMap in its entirety serves two purposes: first, to gain an overview of what happened during the lesson, and second, to select and contextualize excerpts to empirically substantiate certain aspects of Eric’s teaching. Table 1 provides a verbalized overview. It consists of nine segments that we identified on the basis of Eric’s handling of the song, as visualized in the LAMap. Of these nine segments, we subsequently present and comment on several excerpts of the LAMap in detail. They serve to empirically demonstrate the five strategies identified in Eric’s teaching of song leading.

In the next sections, we use these segments to empirically analyze Eric’s teaching activities in detail. We conceptually connect them with the five teaching strategies outlined in Section 1.3.

### 3.2.3 Example of Eric’s goal-directed continuity (strategy 1)

Figure 2 shows an excerpt of the LAMap covering the initial approximately three and a half minutes (Segment 1 in Table 1) of the lesson, during which Eric modeled the teaching of the song *Begrüssung* (see Figure 1). In Figure 2, this target song is represented as an eight-part grid, with each column representing a phrase. Each phrase is subdivided in half, representing melody (above) and lyrics (below). Figure 2 shows that during the first few minutes of this lesson, the phrases were always produced as a whole (i.e., with melody and lyrics).

FIGURE 1

Target song 1 *Begrüssung* (Hering, 2021, p. 9). The song is a two-voice round with eight bars subdivided into four phrases, each consisting of two bars. The first two phrases, A1 and A2 (first line), are metrically symmetric, as are B1 and B2 (second line).

TABLE 1 An overview of Eric modeling the teaching of the song *Begrüssung*, segmented into nine units on the basis of the video recording and the LAMap (columns 1 and 2). In column 3, we describe Eric's activities, while in columns 4 and 5, we assign intentions and teaching strategies.

Segm.	Time	Activity	Assigned intention	Strategies used
1	2'35"	Eric introduces the song by singing each part and using greeting gestures (though not always the suggested ones) and a continuing stomping (walking) movement, then repeating it until the students are able to join in. After each part, he repeats the previous parts and puts them together.	Getting to know the song	Goal-Directed Continuity (1), Modeling, Monitoring, & Fading (3)
2	1'08"	Eric makes the students perform the gestures of the song as a two-voice round while the stomping provides the beat.	Variation (gesture round)	Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
3	1'30"	Eric works on the first phrase (A1).	Working with examples	Working with Examples (2) Modeling, Monitoring, & Fading (3)
4	1'05"	Eric repeats the whole song, and thereafter adds the second voice to complete the round.	Repetition + Variation (two-voice round with voice & gestures)	Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
5	4'30"	Eric shows the sheet music via projector and sings the song again, accompanying it on the piano, asking the students to now use the suggested gestures. He sometimes interrupts and corrects.	Variation	Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
6	50"	A student draws attention to the fact that Eric's singing of the last phrase in the introductory phase was not correct. Eric agrees and subsequently works on the third phrase, correcting the rhythm which hitherto did not correspond to the template.	Exemplary work proposed by student	Working with Examples (2), Modeling, Monitoring, & Fading (3)
7	2'30"	Eric repeats the whole song, instructing the class to show the pitch relations with hand gestures. This is suggested in the educational materials.	Repetition + Variation (pitch relations)	Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
8	35"	The students sing the song as a two-voice round, Eric accompanies it on the piano.	Repetition + Variation (two-part canon with piano)	Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
9	3'18"	Eric asks the class to invent other suitable body sounds (variation). He takes up the few student suggestions and shortly demonstrates one possible continuation of his work with this song.	Variation	Modeling, Monitoring, & Fading (3), Generative Elaboration (4)

In the middle of the LAMap in Figure 2, the 'speaking line' separates the figure into two parts: the teacher educator's activities are represented in the upper part, and the students' in the lower. The two hands stand for the use of gestures relating to the song context (in this case, stomping, snapping, clapping), and the hand that embodies attention symbolizes the use of gestures relating to the song proceeding (e.g., rolling fists around each other, signaling repetition). Further icons are explained in the legend in Figure 3. The timing of the activities is indicated in the top and bottom lines, and the marked time segments correspond to how we understand Eric's organization of units. This excerpt of Eric's lesson activities – represented as a LAMap in Figure 2 – shows that the song is the main activity in this lesson and that speaking is rare.

In the lined sections of the speaking line, Eric matches his speaking tone to the pitch level of the song, thereby providing a pitch cue to ensure continuity and to prevent interruptions.

In Figure 4, Eric's permanent monitoring of student performance is palpable. After each phrase, he has a decision to make: repeating the phrase, giving a verbal instruction, giving a gestural instruction, moving on to the next phrase, or repeating from the beginning.

Eric is making these decisions and communicating the course of the activity while continuing to perform and monitor the song. To avoid interrupting the steady pulse and thus maintaining entrainment, he has to anticipate the course of the lesson and provide instructions

at precise moments. Also, Eric's decision-making and actions are processed very fast, and thus function at an intuitive, habitual, and automatized level (see System 1, Kahneman, 2011). Hence, Eric displays his own musical competence, his diagnostic expertise, and a high level of leadership skills to maintain the students' attention and motivation while he conveys the messages in time [i.e., before the metric restart (the start of the next bar)]. Altogether, this event is very densely structured since Eric's actions and decisions happen in fast sequences or even simultaneously. It appears to us that he was guided by the properties of the song. We connect this on-going decision-making, the stomping movement to create entrainment, and the intonational speech with Eric's verbatim interview statement of "getting into a flow."

In Section 1.3, we designated this strategy *goal-directed continuity*: the use of musical means to maintain continuous engagement with the song, for example through entrainment, thus also avoiding interruptions.

### 3.2.4 Example of Eric working with examples (strategy 2)

After constructing the song *Begrüssung* step by step and instructing the students to gesticulate the two-voice round as a whole, Eric starts working on the first phrase (see Figure 5). How does he do this, and what do the analyses reveal about his intentions?





(Stadler Elmer, 2021). This metrical deviation requires special attention because it is (a) unfamiliar and (b) occurs twice, for it is repeated in phrase A2.

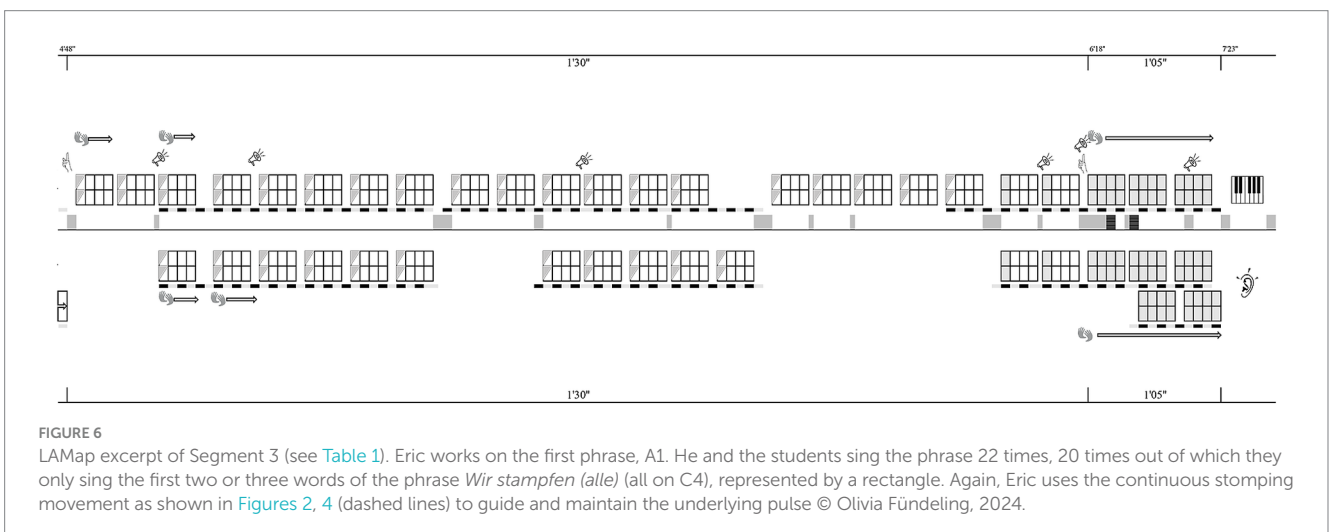
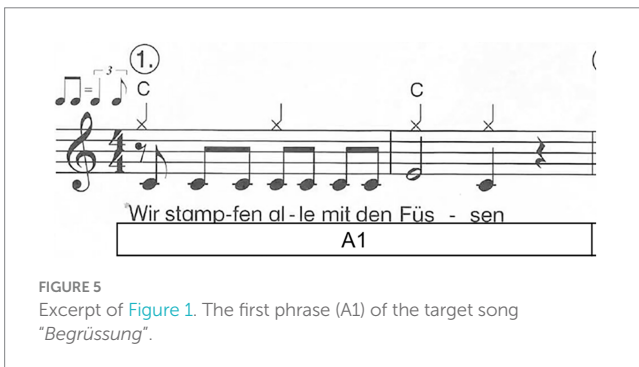
Apart from the continuous pulse-keeping that we interpret as characteristic of strategy 1, *goal-directed continuity* (see Sec. 3.1), in this teaching segment, we discovered a second strategy we call *working with examples*. This strategy differs from the first in that Eric has chosen a key feature of the target song – the metrically unusual phrases A1 and A2 – to work on. Figure 6 shows the LAMap excerpt of Segment 3 (see Table 1). He and the students sing the phrase A1 22 times, 20 times out of which they only sing the first two or three words of the phrase *Wir stampfen (alle)* (all on C4), represented by a rectangle. Again, Eric uses the continuous stomping movement as shown in Figures 2, 4 (dashed lines) to guide and maintain the underlying pulse. Whereas his first strategy, *goal-directed continuity*, proceeds almost without spoken words, in *exemplary work*, Eric now organizes his verbal instruction differently. We demonstrate this difference empirically by contrasting Figure 7, a summary of what he says in Segment 1 (*goal-directed continuity*), with Figure 8, a compilation of his instructions in Segment 3 (*working with examples*).

As seen in Figures 2, 7, Eric steers the course of the lesson, particularly the consecutive parts of the song, mainly with gestures and short commands. We interpret this to mean that the song should

be introduced as a common basis for action, adding detailed instructions later (see also Figure 5).

In this first approach to the song, Eric keeps his instructions to a minimum (*goal-directed continuity*; Figure 7). In our view, he has two goals: either to change something (modification) or to steer the course of the song (proceedings). The gestures he uses are exclusively proceedings related (e.g., circling the hands around each other to indicate repetition). In contrast, while *working with examples*, his manner of instruction has a different quality, as demonstrated in Figure 8.

In his first approach to the song, as depicted in Figures 2, 7, Eric maintains the students' singing seamlessly from one repetition to the next. We interpret his actions to signify that he wants to give them the chance to (self-)observe and come to terms with the instructions given before, and try them out for themselves without his help. In contrast, however, in Segment 3 (see Figures 6, 8), we find new types of interventions: *explanations* (lines 32, 39, 44) and *evaluations* (lines 37, 40) in addition to the abovementioned two categories of *modification* and *proceedings*. Eric no longer just passes on the basic structure of the song to enable the students to find their way through it, but he has selected a specific part that he considers important – the unusual beginning of phrase A1, which appears again in phrase A2. Our careful listening to the audio files showed that the onset of the first note was sung inaccurately by the group. To guide his students to succeed in starting together and on time, he connects the eighth rest with a specific body movement and breathing, making the students aware that they are not, in fact, resting but filling the time both with the first stomp and an inhale. He never mentions the word *rest* or verbalized any other aspect of this technical challenge. Eric then evaluates the students' actions by giving feedback to the class (line 37) and asking them if they can “feel it” (line 40). *Working with examples* (i.e., with a short specific part of the song only) seems to evoke an even more complex and multi-layered monitoring of the evolving situation, which is reflected in Eric's manner of speaking. In Segment 3 (see overview in Table 1), Eric's aim is to achieve a specific improvement of quality, in this case a rhythmically precise entry on the starting note C4. For this, he needed to verbalize concepts more accurately than before. The detailed analyses of Eric's instructions in Figures 7, 8 show the difference: while



Instr.	Verbatim	Icon	Goal
1	We'll do it together in a minute. We all stomp our feet.		
2	Set aside your speedy (kids' harmonica), set aside your shaker (sung).		modification
3	I'm standing, you're standing, too (sung). And now (spoken)...		modification
4			proceedings
5			modification
6			proceedings
7			
8			
9	again (sung)		proceedings
10	beginning (spoken)		proceedings
11	beginning (spoken)		proceedings
12			
13	with both hands (sung)		modification
14	again (sung)		proceedings
15			proceedings
16			
17	again (spoken)		proceedings
18	intensification (spoken)		proceedings/ modification
19			
20	again (spoken)		proceedings

**FIGURE 7**  
Eric's instructions (Instr.) in Segment 1 (see Figure 2). Each row indicates the moment between two renditions of a phrase. Eric works with sung (striped rectangle) and spoken (gray rectangle) instructions, as well as gestures (hand symbol, use of a gesture as a signal to, e.g., sing from the beginning or to repeat the phrase). Gray rows indicate actions without verbal or gestural instructions (e.g., by eye contact or pulse-keeping). The numbers in the first column indicate the consecutive segments and allow referencing.

Eric almost exclusively used direct instructions for action in Segment 1 (Figure 7), in Segment 3 (Figure 8), when he *worked exemplarily*, he used more verbal statements and specific instructions than in Segment 1 – that is, explanations and evaluation/feedback.

This microanalysis demonstrates how Eric works with an example. He chooses a specific property of the song that appears twice, and he guides the students with technical means – stomping, breathing, and entrainment – to improve their performance. Thus, this is an empirical example of the teaching strategy *working with examples*, as proposed in Section 1.3.

### 3.2.5 Examples of Eric's modeling, monitoring, and fading (strategy 3)







The LAMap excerpts in Figures 9A–D demonstrate the strategy *modeling, monitoring, and fading* (see Sec. 1.3) as used by Eric during his teaching of the song *Begrüßung*.

Figure 9A shows how Eric – after two joint renditions – lets the students sing the beginning of the phrase alone before singing it to them again. Presumably, he wanted to show it once more because the students' rendition was not yet adequate in his opinion. In Figure 9B,

Eric leads a “gesture-only” round. After setting the students on the right track (i.e., singing the beginning to facilitate their orientation in the song and secure a smooth start), he withdraws and leads the two-voice round with gestures only. Figure 9C shows that, at a certain point, Eric no longer sings along, but rather chooses to accompany the two-voice round on the piano. This gave him the opportunity to control the tempo and stabilize the key in a less intrusive way than if he were singing along. Not singing along also makes it easier for him to monitor. In Figure 9D, the students sing the song alone twice. The second time, Eric suddenly sings along in the third phrase, supporting the students. It stands to reason that he feels the students need support for the third phrase but not for the other phrases. These four examples show how the general terms *modeling, monitoring, and fading* manifest in the specific subject matter of song teaching.

### 3.2.6 Examples of Eric's generative elaboration of the song (strategy 4)

In the interview, Eric emphasized his aim to create affective states of playfulness, joyfulness, and open-mindedness with the songs in his lessons. In his teaching activities, he used the song to demonstrate

Instr.	Verbatim	Icon	Goal
24	Now, we'll do it aloud.		modification
25			
26	Let's try, everyone.		modification
27			
28	again		proceedings
29			
30			
31			
32	So, when do we stamp and when do we sing, hm? One after the other. So, the foot walks completely regularly and walks left, right, left, right and then...		explanation
33			
34	Let's walk (mutter "left, right, left, right") and then comes the beginning.		modification proceedings
35	again		proceedings
36			
37	Now it's working!		evaluation
38			
39	Try to inhale when stamping (demonstrates). In order to do something. And then we are already prepared.		explanation
40	Can you feel it?		evaluation
41	And inhale through your mouth!		modification
42			
43			
44	You can walk for a bit and you see, when I open my mouth without the mask <sup>1</sup> then I am inhaling... AND		explanation
45	again		proceedings
46	continue ...AND		proceedings
47	No, continue! (he is guiding the students with the movements)		proceedings
48	Start again.		proceedings
49	imitation (sung)		proceedings

<sup>1</sup> This lesson took place during the COVID-19 pandemic.

FIGURE 8

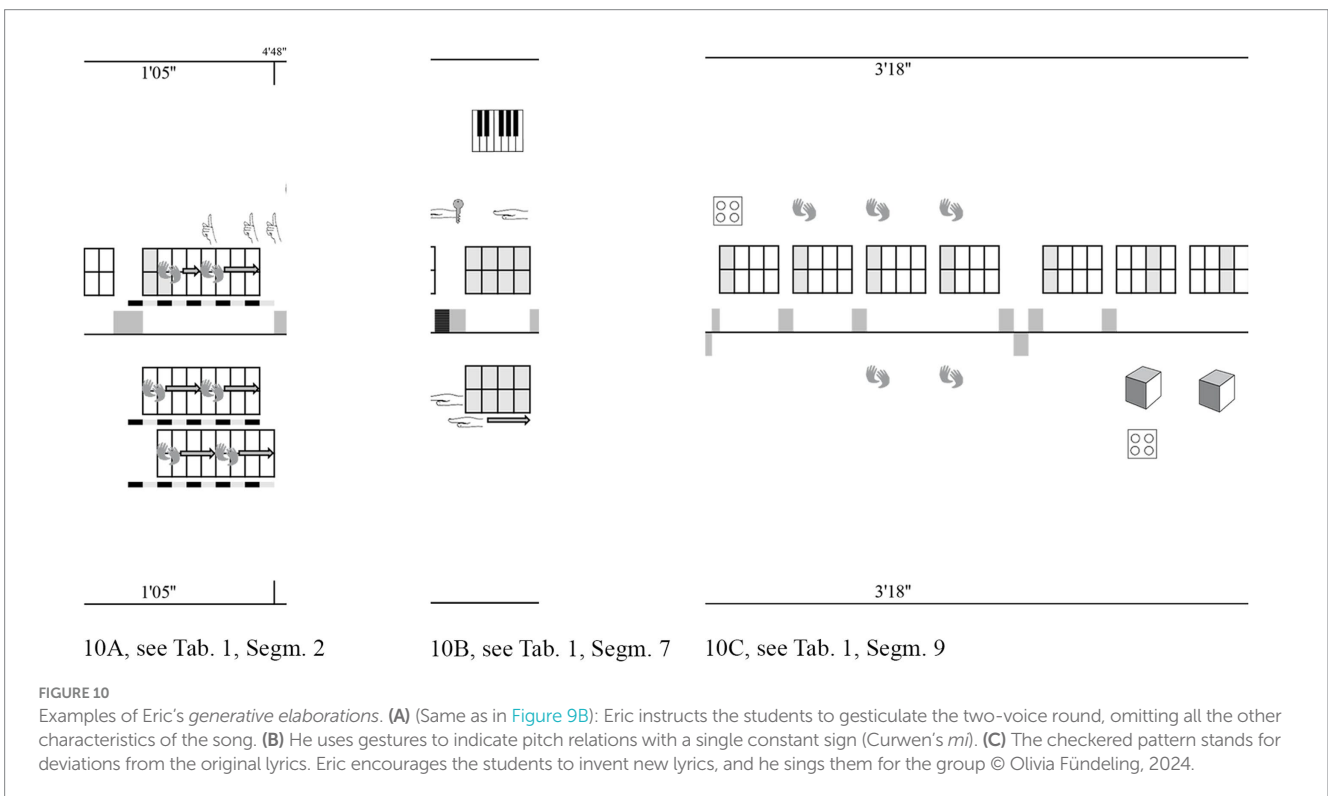
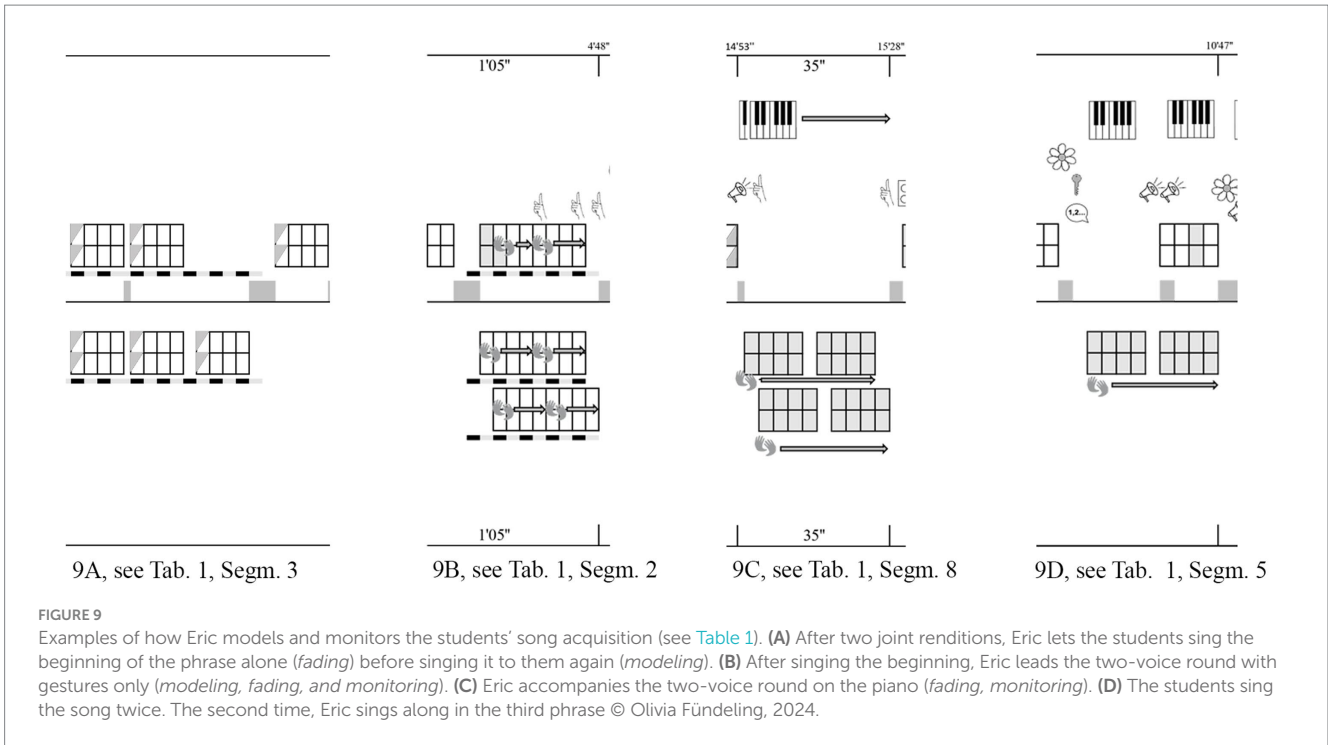
Eric's instructions (Instr.) during Segment 3 (see Figure 5 and Table 1). Here, gray rows indicate actions without verbal or gestural instructions. In addition to the categories in Table 1 (modification and proceedings), Eric offers explanations and evaluations.

ways of playing with elements and rules. He elaborates with them, and simultaneously uses the elaborations as a source for monitoring the students' performance and gaining insights into the status of their skills. His elaborations of the song always relate to the generative principle of music and language and thus, implicitly, to the grammar of children's songs (Stadler Elmer, 2021). This means that he chooses certain elements, properties, or parts and makes them more prominent through repetition, variation, simplification, and exaggeration. These manners of processing have been conceptualized by Dissanayake (2000) as *artifying* and have the potential to make something special out of an ordinary experience. In other words, Eric works with a song

in terms of its generativity (i.e., by playing with the inherent infinite pattern variety based on elements and combinatorial rules; see Sec. 1.3). In the songs he models for and with the preservice teachers, he continually crafts new and varied versions from the material at hand. He leverages the song's generativity to create *ad hoc* exercises or experiences, providing students with a variety of options.

Figures 10A–C demonstrate some of Eric's *generative elaboration* of the song *Begrüßung*.

We use Figure 9B once again as Figure 10A to exemplify a conceptual overlap, in this case concerning *modeling*, *fading*, and *monitoring* as well as *generative elaboration*. After Eric's first



construction of the song *Begrüßung*, he instructs the students to gesticulate the two-voice round (see Figure 9B), depriving them of acoustic cues as to the further progress of the song. Since the gestures are related to the lyrics and melody, Eric derives information about the students' orientation in the song from them. By omitting the singing

of the melody, he emphasizes the other parts – lyrics and timing – and, thus, he varies the whole song without breaking the grammatical rules of the song. In Figure 10B, we see Eric using gestures to indicate pitch relations similar to Curwen's solfège hand signs, but with a single constant sign (Curwen's *mi*). Here, too, we assume that he can draw

information from the outlined melody shown by the students. Figure 10C illustrates how Eric encourages the students to invent new lyrics and sing them for the group. One group then suggests singing “rustling” instead of “snapping.” Since the lesson takes place in autumn, Eric has brought a paper bag full of autumn leaves with which the students can make rustling noises while singing “rustling” instead of “snapping.” The cubes on the lower right stand for the use of non-musical materials – in this case, the leaves. Changing the lyrics while still following the rules is a typical example of *generative elaboration*.

### 3.2.7 Examples of Eric’s striving for aesthetic form (strategy 5)

For an illustration of a prototypical case for *striving for aesthetic form*, we start with the LAMap excerpt given in Figure 9D. The flowers represent Eric’s verbal request for the students to pay attention to their own doings and to consider whether they are following the rules. Thus, after modeling and monitoring, he asked the students to increase self-monitoring and self-control and to focus on a crucial moment in the song. This event stands for *striving for aesthetic form*, as it concerns Eric’s explicit demand to accurately follow the rules. Yet, as emphasized in Section 1.3, rule-following is an integral part not only of this teaching strategy but of all five. Transmitting the rules of a song with various strategies is constitutive of song teaching as a formal practice at school. However, we interpret Eric’s explicit demand for accuracy as going beyond teaching rule-following through mere actions, as seen in strategies 1 to 4. The new quality here is Eric’s verbal attempt to increase the students’ awareness of their manner of rule-following. A more prototypical example for strategy 5 will be presented in Section 3.3, where we demonstrate how it extends beyond mere rule-following with our analysis of Eric teaching another song.

In a nutshell, in the LAMap excerpts in Figures 2, 3, it is visible that Eric is very actively and intensively involved in teaching the song within a short period of time. He acts and reacts *in situ*, with high frequency, and he keeps the steady pulse of the song well beyond several times the duration of the song itself (see Figure 2). The 22

repetitions of the first phrase within 90 s shown in Figure 6 imply high attention and swift decision-making (one decision every four seconds!). In other words, Eric transmits the new song with high intensity and at a high speed. The pace of his actions is very fast and thus requires intuitive and fast decisions and high expertise.

In the following, we present another example of Eric teaching song leading to empirically demonstrate and validate the conceptualization of the teaching strategies outlined in Section 1.3.

## 3.3 Microanalysis of how Eric acts as a model for teaching the song *Hej, hello*

In this second example, we proceed in a similar way to the first song. The second example serves to validate our concepts in relation to a different song with its own challenges. The leading question in both examples was how Eric proceeded when modeling song teaching and whether it was possible to identify the same strategies in his modeling of a new song.

### 3.3.1 The target song 2: *Hej, hello*

The second target song Eric selected for modeling teaching is, again, a greeting song in the form of a round (Figure 11). It has three phrases, each of which has a different rhythm and melody within the frame of the two-beat measure and the key. The lyrics consist of ten short greeting acts in six different languages, without poetic features, such as rhyme or meter, but with word repetition. The stress patterns of the words match well with the binary meter of the melody. The tune is in F major and covers the range of a sixth. The ending is not the usual root note, but the dominant, underlining the round character. An unusual passage is to be found in the third phrase, in the transition from bar one to two, with two consecutive quavers moving up a fourth, the second of which falling on the stressed part, followed by a dotted quarter note. As shown in Figure 11, this pattern is repeated. Although this unusual passage does not violate the grammar of children’s songs (Stadler Elmer, 2021) as it is not a syncope, it may be more challenging than other passages.

The figure shows a musical score for a three-voice round. It consists of three staves, each representing a phrase. Each phrase is four bars long. The key signature is one flat (F major), and the time signature is 2/4. The chords F and C7 are indicated above the notes. The lyrics are: 1. Hey, hel - lo, bon - jour, gu - ten Tag! 2. Wel - come, wel - come, wel - come, wel - come! 3. Bue - nos di - as, bue - nos di - as!

FIGURE 11

Target song 2: *Hej, hello* (Gorschlüter, 2011, p. 29). This is a three-voice round with 12 bars, subdivided into three phrases each consisting of four bars. The song is special in that the text consists of words of greeting in six languages, without poetic features, such as rhyme or verse measure, but with word repetition.

### 3.3.2 Overview of the course of teaching of the second song

In this section, we present two different overviews over the course of teaching of the second song, *Hej, hello*: the LAMap (Figure 12) and an overview of the different segments with verbal descriptions (Table 2), corresponding to the one provided in Table 1 concerning the first song.

Figure 12 shows the entire LAMap of Eric modeling the song *Hej, hello*. Since this LAMap is shorter than the one of the first target song, *Begrüßung*, we show the whole LAMap. This makes it possible to give an overview of the seven consecutive time segments. Further, we use the LAMap to indicate the five teaching strategies by numbers and icons, thus connecting the observed and described phenomena with our conceptualization. In the overview in Table 2, we use a different

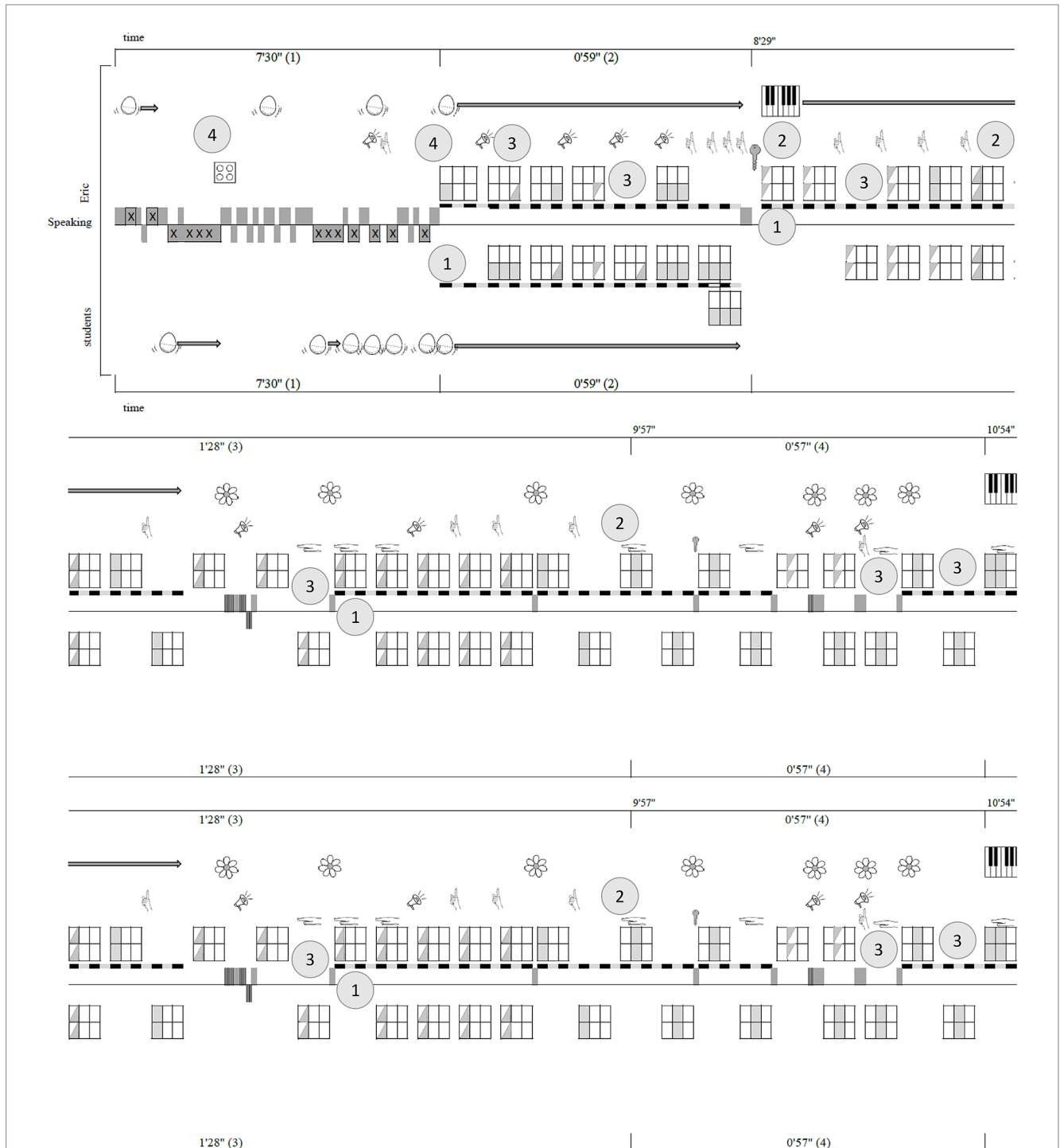


FIGURE 12 The entire LAMap of Eric modeling *Hej, hello*, identifying key occurrences of his teaching strategies. For the legend, see Figure 3. The numbers 1 to 4 are explained in the text. The flower symbolizes strategy 5, *striving for aesthetic form* © Olivia Fündeling, 2024.

TABLE 2 An overview of Eric modeling the teaching of the song *Hej, hello*, segmented into seven units on the basis of the video recording and the LAMap (see Figure 12).

Seg.	Time	Activity	Assigned intention	Strategies used
1	7'30"	Eric shows a variety of greetings in various languages via beamer, among them the greetings used in the song. He asks the students to take their shaker and compile a sequence of greetings while playing the shaker and gives an example himself. The students put together their sequences. Once in a while, Eric interrupts and asks them to reflect on what they are doing, drawing attention to the possibility of, e.g., repetition or augmentation and encouraging them to be as specific as possible concerning the use of dynamics or emotion ("I do not greet everybody equally!"). At the end, two student groups present their results.	Making the students go through a small composition process, rhythm and pulse exercise, working with musical parameters	Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
2	0'59"	Eric introduces the metricized text of the song. He speaks the first phrase, then lets the students sight-read the lyrics of the whole song, metrically supported by the shakers they all use. In the second rendition of the third phrase ("buenos dias"), he joins the students again, correcting the rhythm that they had not succeeded speaking correctly in the first rendition.	Getting to know the (rhythm of the) lyrics, also: getting familiar with the composer's "solution" to the same task	Goal-Directed Continuity (1), Modeling, Monitoring, & Fading (3)
3	1'28"	Eric works on the first phrase, now singing it. He emphasizes the language-immanent phonological differences (e.g., the rather harsh-sounding "guten Tag" versus the rather soft "bonjour").	Learning to sing the first phrase, developing a sensitivity for the different languages	Goal-Directed Continuity (1), Working with Examples (2), Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
4	0'57"	Eric works on the second phrase.	Learning to sing the second phrase	Working with Examples (2), Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
5	0'55"	Eric repeats the first two phrases, now accompanying the students on the piano, then starts working on the third phrase.	Repetition, learning to sing the third phrase	Working with Examples (2), Modeling, Monitoring, & Fading (3), Generative Elaboration (4)
6	0'42"	Eric repeats the whole song twice.	Repetition, Consolidation	Modeling, Monitoring, & Fading (3)
7	4'	Eric combines the greeting sequences the students compiled in the beginning with the song. The greetings are used as verses, the song has a chorus function. In the end, he resumes his work on the third phrase and lets the students sing three additional repetitions of the second part of this phrase ("buenos dias").	Showing the students a way to combine different elements into a meaningful whole	Goal-Directed Continuity (1), Modeling, Monitoring, & Fading (3), Generative Elaboration (4)

mode to represent Eric's teaching process with its seven segments and three out of the five teaching strategies. The fourth and fifth teaching strategies, *generative elaboration* and *striving for aesthetic form*, can only be localized to a limited extent within the frame of these two types of overviews. We also verbally describe some typical activities that demonstrate them in Eric's teaching of this song.

In this process, we found that the strategies (1) *goal-directed continuity*, (2) *working with examples*, and (3) *monitoring and fading* were easy to visualize, whereas the overarching ones, (4) *generative elaboration* and (5) *striving for aesthetic form* require additional explanation.

The LAMap (Figure 12) and the verbalized overview in Table 2 are divided into the same seven segments. As in the previous case, the table supports the reading of the LAMap.

In Table 2, the overview of Eric modeling the teaching of the song *Hej, hello* is segmented into seven units (columns 1 and 2) on the basis of the video recording and the entire LAMap (Figure 12). In column 3, we describe Eric's activities, and in columns 4 and 5, we assign intentions and the teaching strategies we found in these segments.

This second example of Eric's song modeling serves as proof of the concepts and their validity to describe and explicate empirical phenomena. As declared in Section 1.3, the identification of the strategies is hardly possible on the basis of single properties or at a specific point of the LAMap, but rather extends over several activities that often overlap. *Exemplary work* on a specific part of the song, for example, can be rendered with *goal-directing continuity*, with Eric keeping the pulse over several repetitions of the part he focuses on. Therefore, we decided against marking every single point where a strategy occurred. Instead, we marked what we deemed the most striking manifestations – as prototypes – and their beginning points.

In the LAMap (Figure 12), (1) shows *goal-directed continuity* with its characteristic entrainment and the keeping of the pulse over a certain period of time; (2) indicates the starting points of Eric *working with examples*; (3) documents Eric's *monitoring and fading*, that is, moments in which he decides to either fade, leaving the students to master their tasks alone or to take over control after a phase of fading;

(4) *generative elaboration* is only listed twice. There would have been other places to mark this strategy, where Eric combined selected song elements and rules. Indeed, due to the overarching nature of strategy 4, *generative elaboration* (see symbol building block element in Figure 12), and also 5, *striving for aesthetic form* (see symbol flower in Figure 12), the corresponding empirical facts are more difficult to communicate visually compared to strategies 1 to 3 and to locate on the LAMap. For instance, we sometimes note the beginning of one of these two strategies, as they are manifested in the subsequent activities. By selecting specific passages in the song, the teacher expresses that he previously identified an aspect that could be improved and that he immediately decides that this passage needs refinement. *Generative elaboration* differs from simple repetition in that particular emphasis is placed on improving adherence to the rules, which primarily arises from the interaction with the singers and is not planned in advance. It is similar to the overarching goal of song to *strive for aesthetic form*. However, striving for aesthetic form, as explained in Section 1.3, presupposes that the rules are adhered to and also that the teacher requires that further forms of expression are created and refined.

A typical example of Eric's *striving for aesthetic form* is his request to express the different language greeting acts in the lyrics differently depending on the language. He uses metaphors, asks the students to find typical forms of expression for each language and culture, and to exaggerate the pronunciation.

Overall, we confirm to have recognized the five strategies in our analysis of Eric modeling the second song, *Hej, hello*. The second song is also a round, but with a different structure, content, lyrics, and melody. In this example, too, Eric's teaching is strongly guided by the special features of the song and the students' reactions.

## 4 Discussion

To study how an experienced teacher educator teaches songs to preservice students, we combined systematic observation and detailed descriptions – microanalysis – with interviews. The transcription of the video recordings with the LAMap is a first step to break down the temporal dimension of the event and to gain an abstract and microscopic overview of the teacher modeling a new song for preservice teachers. The LAMap methodology proves to be a useful tool, as the system is adaptable. It allows us to identify, denote, and mark constituents of the teaching strategies throughout a lesson and to gain an overview of the entire event in a graphic and abstract manner. In this sense, the creation of the LAMap is the central research activity, as it requires finding suitable technical terms for the empirical phenomena observed on video to gain a detailed and reliable description. Thus, the LAMap is the first result, and in our case, we supplemented it with a verbal description of time segments to get an additional overview. By representing the important activities with icons and symbols, by identifying segments, and by arranging the events graphically according to their chronological sequence, we bypass the original temporal dimension of this ephemeral event. Only this detailed analysis and description of the phenomena makes it possible to discover patterns or strategies of teaching, to identify and label them, and critically discuss the conceptualization of the event.

Indeed, the resulting graphic and verbal representations of Eric teaching two songs are very detailed. However, our

microanalytical findings do not represent reality but are the result of at least two prior selections: first, through the video recording as such, and second, through our selection of terms that denote the components of the cultural practice of song teaching. Video recordings are inherently selective, and microanalysis – including the LAMap – is a reduction of real phenomena to essential constituents. In the latter regard, we had to ignore activities that we considered important for reasons of practicality. We did not, for instance, systematically track and analyze Eric's eye contact, facial expression, and movement in the classroom. Another challenge was finding words for previously unnamed phenomena in this research domain. The importance and power of language in research cannot be overestimated.

In an iterative process with microanalyses of how Eric modeled the teaching of two songs, we elaborated on the conceptualization of five teaching strategies. Each of them summarizes a configuration of features or actions that – like a pattern – we discovered recurrently in both of his lessons. Two teaching strategies – *working with examples* (2) and *modeling, monitoring, and fading* (3) – relate to general technical terms also used in other domains. However, our microanalyses evidence empirical manifestations of teaching strategies in the musical domain that have a specific nature.

By detailing and visualizing the temporal dimension and generativity of song teaching, phenomena such as the effects of entrainment, non-verbal signals, and striving for well-formedness come to light. Our microanalyses show that the teacher uses song-specific features and the five strategies to organize his teaching and to achieve his goals. In this context, however, classroom conversation – often considered a key feature of teaching quality – is almost absent.

We were impressed by the discovery of how Eric recurrently uses musical features to create continuity, to maintain students' attention, and to pursue his goal. Thus, we assume that the strategy *goal-directed continuity* (1) qualifies as domain specific. *Generative elaboration* (4), in its abstract form, applies to other subject matter with generative systems as content, such as languages. In this context, this teaching strategy of following grammatical rules and constructing sentences or even texts from elements and rules may also be identified in other subject matters.

At an abstract level, too, the teaching strategy *striving for aesthetic form* (5) may be identifiable in other artistic domains, such as drama, drawing, creative writing, and three-dimensional design (e.g., architecture). However, our conceptualization first explicates dimensions and rules for the cultural practice of teaching song leading and thus considers domain-specific aspects. Strategies 4 and 5 undoubtedly open up discussions about teaching aesthetic values that go beyond the scope of this article.

The combination of systematic observation and description of the actions with a person's statements provides a valid hermeneutic basis for understanding and explaining Eric's actions and intentions. However, in the interviews, Eric talked much less about his own actions than we expected, likely for two reasons. First, his actions, as well as his decisions, occurred in rapid succession. Which of these many events should he address? Second, Eric is hardly ever asked to verbalize his actions and intentions in as much detail as researchers need to meet scientific criteria, such as systematicity (Hoyningen-Huene, 2013).



In the other contexts in which we were allowed to videorecord, it became clear that presentation was Eric's strongest means of communicating his intentions. In art, presentation is the actual means of convincing and impressing (Langer, 1957; Merker, 2018). Nonetheless, the interviews are revealing and indispensable for understanding his intentions and challenges. Together, the systematic observation, the microanalysis, and the interviews allowed us to look at the song as a learning object and to focus on how the teacher dealt with it. Instead of searching for quantification or asking for judgment or ratings, our methodology produces a conceptual framework for describing a previously unknown field – the modeling of teaching songs in teacher education. This domain-specific conceptual framework is applicable and adaptable to similar situations and, thus, generalizable. However, microgenetic analysis involves a careful balance of reduction of complexity and preservation of details by iteratively refining symbols or descriptive terms and concepts to reconstruct temporally dense events.

## 5 Conclusion

Systematic observations and detailed descriptions of how an experienced teacher educator teaches two songs as a model for preservice teachers allowed us to make three issues explicit:

First, it has been possible to identify a music teacher educator's way of facilitating relevant recurrent actions using systematic observation and microgenetic analysis.

Second, we conceptualized a teacher educator's teaching strategies for teaching song leading and evidenced them empirically by detailed descriptions of two different song teaching modelings.

Third, we characterized the specificities of music teaching and empirically established the close relationship between the teaching activities and the specific subject matter: the teaching of song leading.

All three issues concern the question of the generality and domain specificity in teaching strategies. Generalizing teaching strategies from other school subjects to music poses the problem of oversimplification. We chose microgenetic analysis, which is inherently focused on detailed, context-specific findings, to investigate the complexity of an experienced teacher's teaching practice. The depth and richness of the microanalysis led us to summarize and abstract the teacher's behavioral patterns in song delivery in the form of five strategies. The findings confirm the need to consider domain specificity. In areas where densely structured temporal sequences of actions characterizing the interaction between teachers and learners are involved, previous concepts of teaching methods or strategies have little validity. Classroom discussions, for instance, often considered a key teaching skill, are not as important in song teaching as in other domains. Rather, the teacher's fast timing of decisions and subject-related actions are crucial for reaching the goal of conveying a new song.

Our detailed description of the teaching strategies in Eric's case study shows the value of de-temporalizing the densely organized event through microanalysis and linking teaching activities to the subject matter. This makes it possible to connect the concepts for teaching strategies with the phenomena in a concrete and comprehensible way, to make them communicable, and to account for the domain specificity. We argue that the

domain specificity of song teaching lies mainly in three aspects: (a) the fast and dense timing of teachers' and learners' actions – the inherent *temporality* – concerning simultaneity and synchronicity; (b) the *generativity* of music and language, as manifested in song, implying the production of an infinite variety of patterns with finite means (Merker, 2002) by following combinatorial rules; and (c) the *aesthetics* in connection with the combinatorial rules or grammar, well-formedness, and – beyond that – the refinement of the expressive means.

The conceptualization of the five teaching strategies contributes to filling a gap in research, since the process of teaching song leading by an experienced teacher has not yet been empirically investigated. Our research strategy is time-consuming but advantageous in many respects: (1) The unfolding of the temporal course of teaching a song through microgenetic analysis reveals the complexity of the densely structured event and the close link to the subject matter; (2) de-temporalizing teaching music by describing the phenomena with symbols, icons, and technical terms makes it possible to identify and evidence patterns that are not accessible otherwise; (3) de-temporalization requires researchers to elaborate an abstract representation of concrete phenomena and to identify patterns; (4) the representation of the event through detailed descriptions makes the phenomena comprehensible and supports the conceptualization of the teaching strategies; and (5) the combination of systematic observation and the description of the teaching activities with the person's statements provides a valid hermeneutic basis for understanding and explaining the phenomena.

The five teaching strategies we propose are not of a general nature but contribute to improving the theorizing and understanding of professional actions in the domain of music education by providing a conceptual framework that enables communication about previously hidden phenomena.

## Data availability statement

The raw data used for this article are video recordings. They are not available to ensure compliance with participants' informed consent. Questions regarding the datasets should be directed to Olivia Fündeling, [olivia.fuendeling@phtg.ch](mailto:olivia.fuendeling@phtg.ch).

## Ethics statement

Ethical approval was not required for the studies involving humans in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

## Author contributions

OF: Writing – original draft, Writing – review & editing. SS: Writing – original draft, Writing – review & editing.

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## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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