

DEVELOPMENT IN SONG TEACHING FROM THE SELF-REPORTED PERSPECTIVE OF PRE-SERVICE GENERALIST TEACHERS

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Abstract

Our study explores the in-situ practice of ten pre-service generalist teachers (PreGTs) and reconstructs their intentions, self-evaluations and self-judgments regarding their song leading in class. In this paper, we present the qualitative content analysis of the semi-structured questionnaires that the participants completed each year after the internships of their three-year training. The results show, for example, how their self-evaluations became increasingly grounded in the development of music knowledge and skills and how they articulate changes in their development. This study contributes to the understanding of the variety of individual teachers' intentions and attributions and their potential for change.

Keywords: *music education, song teaching, longitudinal study, semi-structured questionnaire, content analysis*

Introduction

In music education, singing is a key activity because through it, children acquire musico-linguistic rules, i.e., they diversify two generative systems between speaking and singing and collectively experience culturally shared rules (Stadler Elmer, 2015). Therefore, teaching songs and leading class singing is a central topic in music education research. Generalist teachers usually are in daily contact with children and therefore, they contribute to the regularity of their encounters with different disciplines. In the context of the institutional system in which they act, teachers are in charge to ensure the transmission of a variety of knowledge and skills, among these, the cultural practice of group singing.

The topic of professional development of generalists is highly important as it is the key position in the education system to enforce measures (Fündeling, 2022). The national and international contexts vary, and this might be since music education systems are normative and value-driven, therefore, require political decisions. Liao and Campbell

(2014, 2016) explored how pre-school generalist teachers teach songs through observations, interviews and field notes. They were among the first who studied directly in the field, whereas previously, research focused on generalist teachers' ill-preparedness for teaching music and on their lack of confidence (Hennessy, 2000, 2017; Jeanneret & Degraffenreid, 2012). Beyond such normative accounts, our research aims to gain knowledge on how pre-service teachers learn to teach songs in class, and, in this training process, how they reflect on their practice. In this paper, we focus on the perspectives of ten pre-service generalist teachers (PreGTs), on how they report on their experience of teaching songs in class during their training, and how they articulate changes in their development.

Our research team longitudinally explored the in-situ practice of pre-service generalists (PreGTs) to reconstruct their intentions, self-evaluations and self-judgments from the perspective of enacting subject-specific skills for leading class singing. To get an overview of the participants' professional development from different perspectives, our overall data collection consists of video-recorded lessons, lesson-based interviews and semi-structured questionnaires. In this paper, we answer our research question: *How do PreGTs report on their perspectives during the three-years training?*

We present and discuss the analysis of the semi-structured questionnaires we administered annually during the three-years professional training, each time after the annually video-recorded lessons and a lesson-based interview. We analysed the semi-structured questionnaires by means of the qualitative content analysis (Mayring, 2021).

In a recent study, Knigge et al. (2021) explored the status of singing in Norwegian kindergartens by an online questionnaire. The aim was to gain psychometric quality of the questionnaire for a future representative study with teachers in kindergartens to describe the situation and characterise institutions and teachers. Interestingly, their questionnaire also addressed didactical issues similar to our study, for instance, on how teachers were singing with the children, or what repertoire they use. Given the divergent aims of the quantitatively oriented study by Knigge and his team and of the present qualitative one, it is obvious that the first one focuses on general and personality factors in relation to the frequency of singing, all 'measured' by ordinal scales as rated by participants or by a selected item out of a predetermined set.

Knigge and his team (2021) conceptualise singing in kindergarten primarily in terms of self-reports based on rating frequency and other attributes, and in relation to factors such as gender, age, level of self-reported expertise, work experience etc. The factors are expected to explain the rated frequency of singing and related attributes. The respondents (n = 660) in the study by Knigge and his team (2021) confirm to sing often, but the self-reported 'musical expertise' remains vague since a common conceptual ground is missing. In contrast to this use of a questionnaire in a quantitative manner to describe national trends on the status of singing in kindergartens, we study a group of ten pre-service teachers over three years and observe their doings and sayings to gain insights into the complex phenomena of singing in kindergarten and elementary school. The aim is not to gain general statements about a population, but rather to improve understanding of the range of individual teachers' intentions and attributions, and their self-reported potentials for change.

The focus of our research is on how pre-service generalists (PreGTs) develop professional skills to teach songs and how they reflect on their practice. Our study on class singing is framed within the theoretical framework of the teacher-content-child didactic paradigm (Stadler Elmer, 2021; Schneuwly, 2021) and the cultural-historical activity theory (Engeström, 1987, 2001). In the next section, we first provide some information on overall data collection. This serves to understand the relevance of the

semi-structured questionnaire within the overarching goals of our research. Next, we describe the structure of the semi-structured questionnaire in detail and explain and justify the method of data analysis.

Data and Methods

Ten pre-service generalist teachers (PreGTs) participated in our three-year longitudinal project. All participants expressed their participation according to European and national ethics. In their training as generalists, the PreGTs participated in a music theory seminar in the first year, while in the second and third year they attended a song leading class seminar, and one-to-one lessons in both singing and instrument. During their curricular internships, we video-recorded one lesson per year during which the PreGTs taught songs and led group singing in kindergarten and primary school classes (4-8 years old). Following each lesson, we conducted an interview in which each PreGT watched the video of his/her lesson with us, and we required him/her to independently pause the recording to comment on their own in-situ practice. A few months after each lesson, we sent each PreGT the semi-structured questionnaire and asked them to fill in one or several parts of it. Table 1 shows that the semi-structured questionnaire includes open-ended questions and then a list of 15 subject-specific topics.

Table 1: Design of the semi-structured questionnaire for the longitudinal study on professional skills development for teaching songs and leading class singing

Semi-structured questionnaire design	
Open-ended questions	
Q1: What comes to your mind about the situation of the first/second/third lesson? What do you remember?	
Q2: What pleasant memories do you have?	
Q3: What unpleasant memories do you have?	
Q4a: What did you do successfully? How do you explain your statements?	
Q4b: What did you do unsuccessfully? How do you explain your statements?	
Q5: What did you learn from this experience in terms of subject-specific topics?	
Q6: How has your song leading changed so far?	
Q7: What would you like to achieve in the next lesson?	
Subject-specific topics	
1. Lesson preparation	9. Song-related interactions
2. Song selection	10. Performance of the whole song (alone or together)
3. Song acquisition (teacher)	11. Letting children sing on their own and giving feedback
4. Working on the melody	12. Giving a signal for singing together
5. Working on lyrics	13. Use of instruments
6. Working on rhythm - pulse and metre	14. Song accompaniment
7. Demonstrating parts (imitation)	15. Verbal instructions
8. Work on parts of the song	

Table 1 shows the total of seven open questions (Q1 to Q7). Each year the PreGTs answered the same questions from Q1 to Q5. We asked the PreGTs to answer questions Q6 and Q7 only in the second-year part of the semi-structured questionnaire. In addition, the part of the questionnaire that the PreGTs received after the third-year lesson contained a list of 15 different subject-specific topics. Our research team selected

these topics as shown in Table 1 based on musico-didactic considerations framed within our theoretical framework, e.g., children's song grammar and working on the three song components - melody, lyrics, and meter. We asked the PreGTs to comment on a minimum of four topics, and to do so three times for each year, for the first, second- and third-year lessons respectively. The total number of responses and comments from the ten questionnaires is 373.

We consider the questionnaire as a single documentation because each time the PreGTs received the questions, they also received their previously completed parts. The PreGTs could read the answers they had given for previous lessons, and this may have been significant in reflecting changes. In this article, we report on the analysis of these semi-structured questionnaires and reconstruct the PreGTs' perspective on the development of their professional skills to lead class singing.

To provide an overview of the professional development of the ten PreGTs, we analysed the semi-structured questionnaires using the qualitative content analysis method outlined by Mayring (2021). The method is hermeneutic in its nature and, consequently, we aimed to maintain the original verbatim and to make the interpretations and verbal abstractions comprehensible using the summarising technique with inductive category formation. The technique of summarising the content analysis consists of four steps that ensure the process is systematic: (a) reducing, (b) coding, (c) explaining and (d) structuring. The first step is (a) the reduction. Here, we paraphrased the original comments of the PreGTs by removing from the original verbatim everything that was not necessary for understanding the essence of the statements. We continued the reduction of the material by (b) coding the paraphrases. In parallel, we began to develop the system of (c) explanation consisting of an example from the original text material, the coding rules for assigning codes and sub-codes, and the definitions created for each category. In the last step, we proceed to (d) structure the codes and sub-codes assigned to the material to the categories that were developed step by step (Hürlimann & Savona, 2022).

The coding rules serve to perform the analysis as a team and ensure both intra- and inter-coder reliability. All five members of the research team worked on the analysis of the questionnaires. Figure 1 shows in its four quadrants how the work within the team was organised and how the tasks were distributed.

In Figure 1A shows the sequence of analysis of the questionnaires. This sequence was by chance, but it is important to fix it because this determined the way we developed the system with the anchoring examples, coding rules and category definitions. The PreGT Lily questionnaire was the first one. Figure 1A shows that researcher 1 coded eight out of ten questionnaires (In Figure 1A: Lily, Ruth, Laura, Florence, Martha, Sarah, and Viky). Researcher 1 is me as the first author of this article. Having completed the analysis of Viky's questionnaire, I passed the coding system I had developed on to one other team member, namely researcher 2² (Figure 1B). Thereafter, I (researcher 1) and researcher 2 analysed Verena, Carmen and Lily's questionnaires separately (Figure 1B). Here it is noticeable that researcher 2 analysed Lily's questionnaire for the first time, while researcher 1 coded it for the second time. Thus, we obtained a first level of comparison between the coding of Lily's questionnaire at the beginning of the system development and the final coding after the analysis of all other questionnaires. Figure 1C shows that, at the end of this analysis, researcher 1 and researcher 2 compared their codings. The total number of answers and comments from the questionnaires of Verena, Carmen and Lily is 147 (out of the total of answers and comments = 373). So, 39.40 % of the total material was analysed twice, namely, separately by two researchers. The

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reliability check resulted as follows: the consensus on the coding of the questionnaires of Verena, Carmen and Lily is 89.36 %, hence, the disagreement 10.64 %.

Figure 1: Summary of the intra- and inter-coder reliability of our research team’s qualitative content analysis of the semi-structured questionnaires

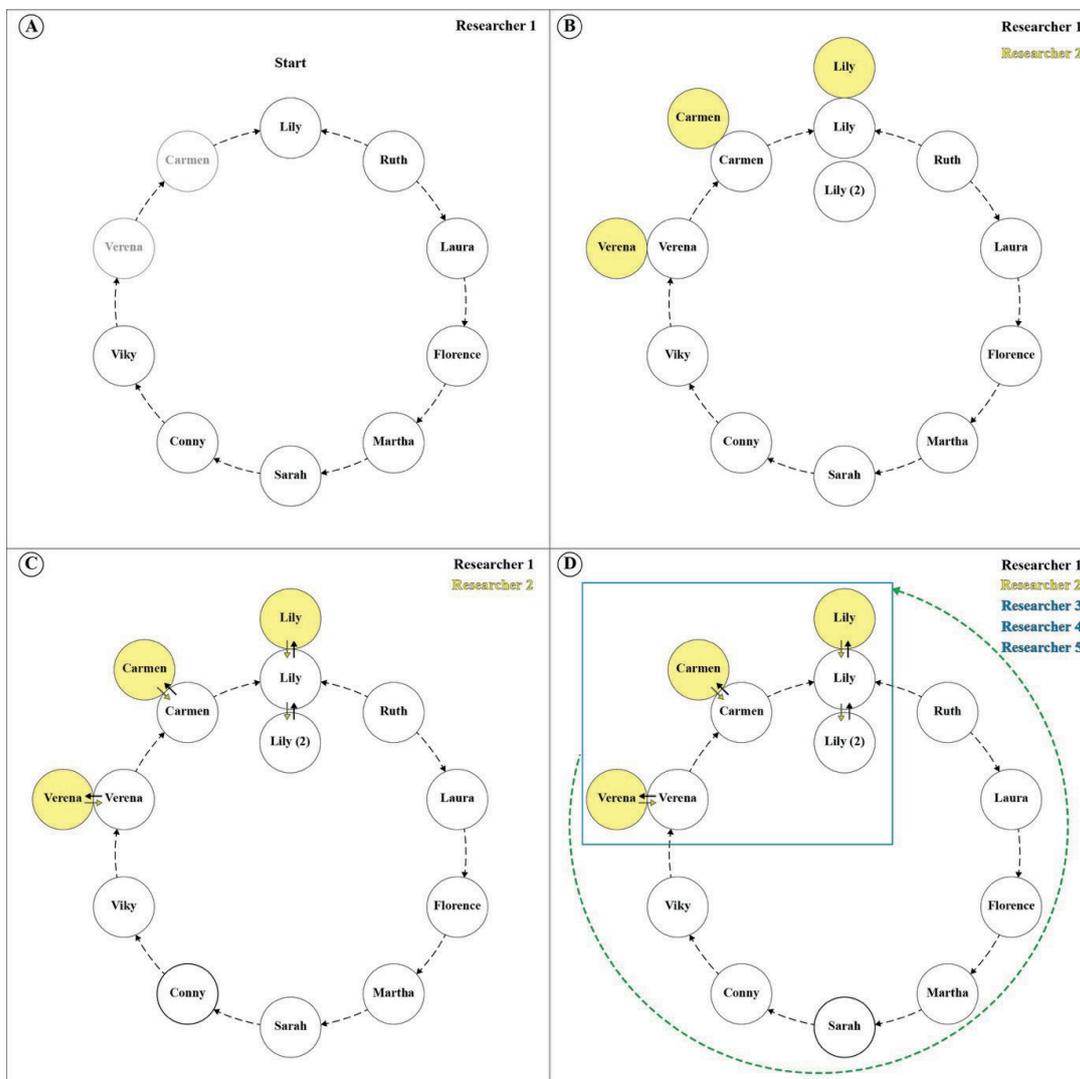


Figure 1D shows the last step of the collegial agreement check. Researcher 1 and researcher 2 discussed the results with the other team members³. Researchers 3, 4 and 5 (Figure 1) ensured consistency of analysis with respect to the system of anchor examples, guidelines and category definitions developed. In the next section, we present the results of our content analysis of the ten semi-structured questionnaires.

Results

In this section, we first present an overview of the categories developed from the analysis of the ten semi-structured questionnaires. Then, we show the results of the answers to each open-ended question and the comments on the specific topics that the PreGTs selected independently from the list provided. Table 2 shows that the qualitative content analysis generated a total of 25 overarching categories. In brackets, the figure indicates the number of times we have generated a certain category from the analysis.

³ Stefanie Stadler Elmer, Gabriella Cavasino and François Joliat.

Table 2: Overview of the 25 overarching categories developed from the qualitative content analysis of the semi-structured questionnaires

<p>Enacting subject-specific skills (27)</p> <p>Enacting subject-specific skills (8/27) Song selection criteria (4/27) Demonstrating and imitating (1/27) Song segmentation (2/27) Work on the lyrics (1/27) Work on the melody (1/27) Repetitions (1/27) Working with semantic gestures (1/27) Use of musical instruments (2/27) Use of audio devices (1/27) Singing starting pitch (1/27) Start signal for singing (2/) Teacher's performance (1/27) Children's performance (1/27)</p>	<p>Managing the situation (5)</p> <p>Preparation (5)</p> <p>Preparation time (1/5)</p> <p>Co-leading (4)</p> <p>Self-evaluation of co-leading (2/4) Preparation for co-leading (1/4) Performance during co-leading (1/4)</p> <p>Difficulties (4)</p> <p>Difficulties in song selection (1/4) Difficulties in song acquisition (1/4) Difficulties in letting the children sing alone (1/4) Difficulties in accompanying (1/4)</p>
<p>Tools (15)</p> <p>Tools for the lesson (6/15) Tools for the interactions (2/15) Tools for song acquisition (1/15) Tools for song acquisition (teacher) (1/15) Tools for working on the lyrics (1/15) Tools for demonstrating (1/15) Tools for working on parts (1/15) Tools for children to perform on their own (1/15) Tools for performance (1/15)</p>	<p>Song acquisition (4)</p> <p>Song acquisition (teacher) (3/4) Song acquisition (children) (1/4)</p> <p>Lesson planning (4)</p> <p>Children singing along (3)</p> <p>Motivating children (3)</p> <p>Transmission (3)</p> <p>Children's participation (2)</p>
<p>Professional experience (10)</p> <p>Working ways (6)</p> <p>Ways of song acquisition (teacher) (1/6) Ways of working on the melody (1/6) Ways of working on the lyrics (1/6) Ways of demonstrating (1/6) Ways of working on parts (1/6) Ways of performance (1/6)</p>	<p>Conditions (2)</p> <p>Conditions for children's independent performance (1/2) Conditions for accompanying (1/2)</p> <p>Parts of the lesson (2)</p> <p>(Independent) interaction children-song (1)</p>
<p>Focus (5)</p> <p>Focus during the lesson (2/6) Focus during the performance (1/6) Focus on the melody (1/6) Focus on the lyrics (1/6) Focus on rhythm (1/6)</p>	<p>Memories (1)</p> <p>Personal benefit (1)</p> <p>Rearrangements (1)</p> <p>School level (1)</p>
<p>Goals (5)</p> <p>Goals for the lesson (1/5) Goals of the preparation (1/5) Goals of song selection (1/5) Goals of the song-related interactions (1/5) Goals of and for the performance (1/5)</p>	<p>Unexpected events (1)</p> <p>Undetermined or no professional benefit (1)</p>

In Table 2, we can see that many of the 25 overarching categories have specific denominations. For example, we identified the category 'tools' 14 times in the analysis, but according to the research question, we distinguished the category with ten different terms, such as 'tools for the lesson' and 'tools for song acquisition'.

Before presenting the specific results for each question, in Figure 2 we show an example of how to read the tables presented in this section. To facilitate the understanding of the analysis and the discussion, we display the results of some questions in a comparative way. For example, in Table 4 we present the results of the analysis at Q1 ‘What pleasant memories do you have?’, and at Q2 ‘What unpleasant memories do you have?’. In Table 5 we present together the results of Q3 ‘What would you do successfully? How do you explain your statements?’ and Q4 ‘What did you do unsuccessfully? How do you explain your statements?’. In Figure 2, we illustrate an example of how to read these tables with the results of two questions together.

Figure 2: Fictional example for reading the tables with the results of the qualitative content analysis of the semi-structured questionnaires

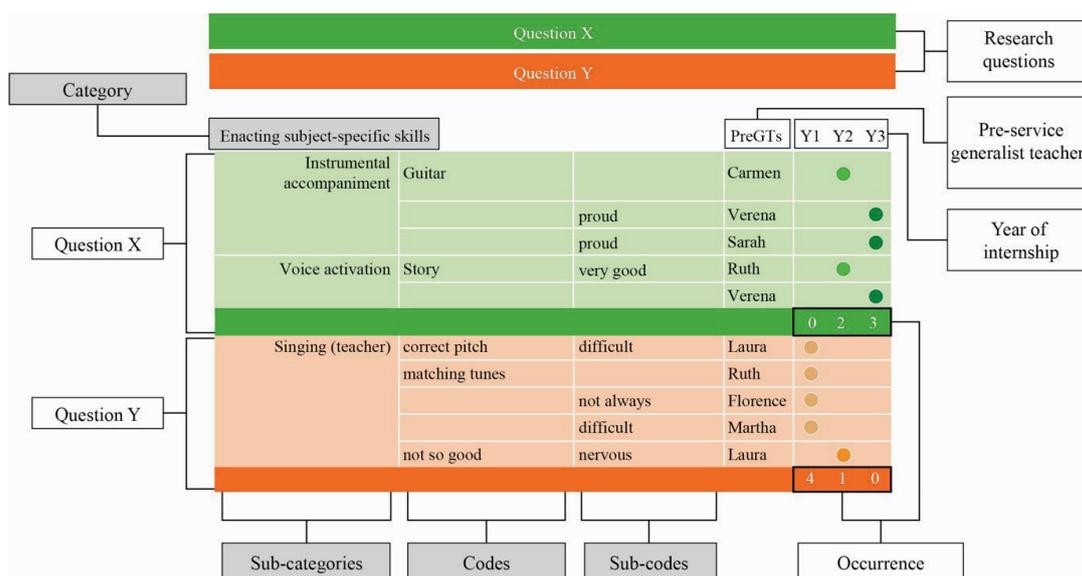


Figure 2 shows as a fictional example to illustrate the results of the answers to two questions QX (green) and QX (orange). The grey-coloured boxes show the categories, sub-categories, codes and sub-codes. Each table provides information on the PreGTs, the year of internship and the occurrence of the coding. We read the table by narratively reconstructing the coding hierarchy. The category indicates the general topic we have defined. Sub-categories indicate the specificity of the topic, while codes and sub-codes enrich the information with additional layers of detail.

The method of content analysis (Mayring, 2021) enabled the original material to be structured in a form that makes it possible to account for different levels: (a) at the level of the case studies, it shows the responses of the individual PreGTs; (b) at the level of the entire group of participants, it shows trends within the group, and (c) along the temporal scale of the three years, changes in in-situ practices during undergraduate teacher training can be reconstructed. We refer to the individual PreGTs by using the abbreviated wording Name-1, Name-2, and Name-3, where Name is respectively the pseudonym of the PreGT and 1, 2 and 3 indicate the year of internship. Expressions framed in inverted commas indicate categories we constructed, and also words we want to emphasise, whereas expressions framed with quotation marks indicate literal utterances by the PreGTs. The content analysis of the answers to Q1 ‘What comes to your mind about the situation of the first/second/third lesson? What do you remember?’ shown in Table 3, produced 12 categories. The question was general and aimed to explore what memories the PreGTs had of their lesson done a few months earlier.

Table 3: Results of the content analysis of PreGTs' answers to Q

RQ1: What comes to your mind about the situation of the first / second / third lesson? What do you remember?			
PreGTs Y1 Y2 Y3			
Enacting subject-specific skills			
Important things	forgotten		Lily ●
Supervisor's suggestions			Sarah ●
Playing (instrument)	tremble		Martha ●
	first time		Florence ●
	Accompaniment with chords	Orff instruments	Conny ●
Singing (teacher)	not good		Conny ●
	inhibited		Conny ●
	singing on one syllable		Laura ●
	more confident		Florence ●
Seminar music didactic			Ruth ●
Song selection	familiar song	old song	Ruth ●
	theme specific		Ruth ●
	Supervisor's suggestions		Ruth ●
Song acquisition	listening	very often	Florence ●
			5 3 8
Managing the situation			
agitated			Lily ●
			Sarah ●
			Viky ●
uncomfortable			Florence ●
nervous			Florence ●
			Martha ●
	less		Florence ●
	less		Sarah ●
	Needed to overcome		Conny ●
particular	Unknown class		Martha ●
	large group		Martha ●
at best			Laura ●
in a good mood			Sarah ●
more relaxed	getting used to		Viky ●
			7 2 5
Tools for the lesson			
Pictures			Laura ●
	Visualising the lyrics		Ruth ●
	Visualising the lyrics		Sarah ●
Objects	Sleigh	Staging	Sarah ●
	Figures	Staging	Sarah ●
	Dressing up		Verena ●
	Snow (polystyrene)		Verena ●
Audio devices	Playback (no target song)		Laura ●
Musical instruments	Guitar		Florence ●
	free movements		Laura ●
semantic gestures			Laura ●
story			Verena ●
			5 7 2
Children's engagement			
Fun			Viky ●
			Laura ●
			Carmen ●
very tired			Laura ●
Joy			Ruth ●
motivated			Lily ●
			Sarah ●
	Bringing in own ideas		Verena ●
active			Verena ●
	always		Carmen ●
	all children		Carmen ●
irritated	Research setting		Viky ●
			3 5 5
Preparation			
very good			Lily ●
much investment	early considerations		
	motivating children		Martha ●
			1 0 1
Professional experience			
Not so experienced	Important things		Lily ●
			Martha ●
			Laura ●
	not so much		Lily ●
several song introductions			Verena ●
			Lily ●
			4 2 0
Lesson planning			
do some things differently	very dry		Carmen ●
	not child-friendly		Carmen ●
much from the subject didactics seminar	Lack of playfulness		Conny ●
Teacher-centred			Conny ●
	good		Conny ●
	structured		Conny ●
	planned through		Conny ●
not so active			Sarah ●
	Too many children		Sarah ●
	Teacher unknown to children		Sarah ●
	classroom too small		Sarah ●
			3 3 4
Children's participation			
good			Laura ●
not so good			Laura ●
very good			Laura ●
energetic			Lily ●
			2 1 2
Self-evaluation of co-leading			
good			Martha ●
			Sarah ●
			0 2 0
Children singing along			
Notes not hit			Ruth ●
sehr gut			Lily ●
			1 0 1
Unexpected events			
Song known (children)			Ruth ●
			1 0 0
Ways of working			
Group work	semantic gestures		Verena ●
Variations			Verena ●
Repetitions	content of the verses		Carmen ●
	playful way		Carmen ●
			1 1 2

The PreGTs' memories were rather related to the emotional involvement of the children, as shown in the category 'children's engagement'. In general, in the first year, the PreGTs' interest was mainly oriented towards their initial work experience (see the coding of Lily, Martha and Laura in the category 'professional experience' the first year, or they focused on the way they dealt with the situation.

The most noticeable change between the categories is that the comments on subject-specific skills became more and more specific, and the third year PreGTs also focused on 'song acquisition' and 'song selection'. In 'singing (teacher)', Conny-1 commented that she was inhibited, and on the other side, Florence-3 commented that she remembered feeling more confident. There are only a few elements in this table that remain consistent over the three years. The only aspects of continued focus on some memories

of in-situ practice occur in Sarah-1 and Sarah-3 in the category ‘tools for the lesson’, where her focus was on the use of objects to enact the content of the lyrics.

In the category ‘children engagement’, there was consistency in Carmen-2 and Carmen-3’s answers that the children were active during the lesson, and in Laura-1 and Laura-2’s answers that they both evaluated the quality of the children’s participation as “good”. In the category ‘ways of working’, comments were coded from Verena and Carmen whose memories focused on the way they worked in a classroom (see Table 1).

Below, Table 4 shows the results of the answers to questions Q2 and Q3. With these questions, we aimed to obtain information regarding what were the pleasant and unpleasant moments for the PreGTs during the class singing lessons. This is a follow-up to the previous question, Q1, which was formulated in a general way to explore what the PreGTs remembered.

In Table 4, the results of the two compared analyses show that some categories consist only of comments of pleasant memories (in Table 4, green coding). These are the categories ‘children singing along’, ‘self-evaluation of co-leading’, ‘preparation’, ‘tool for the lesson’ and ‘ways of working’. All other categories shown in Table 4 report both, comments to pleasant memories and comments to unpleasant memories (in the table, orange coding).

The category ‘managing the situation’ shows considerable changes over the three internships. The first year, the PreGTs commented and self-evaluated themselves on how they managed the situation in a mainly unpleasant and negative way. For example, “a torment”, “nervous”, “agitated”, “not so good”. Only Conny commented positively with “comfortable”. In the second year, Carmen and Lily reported to have managed positively, Lily said that the class was “manageable” and Carmen that it was “relaxed” and that the lesson “run well”. In the third year, comments were mainly positive, for example “comfortable”, “not nervous”, “not so worried anymore”, and “confident feeling”. We see an interesting change in Florence, who in the first year had commented “bad to hear oneself”, in the second year “really bad to hear oneself”, and in the third year “not so bad anymore”. The “routine” code of Florence’s comments shows that having more in-situ experience had contributed to her managing the situation differently.

In the category ‘enacting subject-specific skills’, Conny reported accompanying of the children with xylophones as a negative moment, self-evaluating her instruction. She had given the children “too many tunes” to play. In contrast, a pleasant memory for Conny was the way she used the xylophone herself to give the children the starting pitch of the song. The moment was pleasant for her because she had “found the correct tunes” to do this.

All PreGTs in the three years commented on the children’s involvement in the lesson as a pleasant memory, for example, that the children were “enthusiastic”, “motivated”, and showed “joy” and “fun”.

Table 1 already showed that the focus of the PreGTs’ comments was more on themselves than on the children. In Table 4, we formed the category ‘focus during the lesson’ based on unpleasant memories only. For example, Martha-1 commented that it was an unpleasant memory that she focused only on herself. For Ruth-3, an unpleasant memory was the fact that she focused “only on some children” when they were “humming along” or when the children sang along. For Conny-3, it was unpleasant that she had focused only on “carrying on the leading”. In the category ‘lesson planning’, Conny-3’s unpleasant memory of a “teacher-centred” lesson is confirmed. Even in Q1, the generic one on lesson memories, Conny-3 had commented that lesson planning was “teacher-centred” and there was a “lack of playfulness” (see ‘lesson planning’ in Table 3).

Table 4: Results of the qualitative content analysis of PreGTs' answers to Q2 and Q3

		Q2: What pleasant memories do you have?				
		Q3: What unpleasant memories do you have?				
Memories		PreGTs	Y1	Y2	Y3	
(Only) pleasant		Verena	●	●	●	
		Sarah	●	●	●	
		Viky	●	●	●	
		Carmen	●	●	●	
		Ruth	●	●	●	
	Research setting	attractive for children	Lily	●	●	
(Only) unpleasant		Carmen	●	●	●	
			1	0	1	
Managing the situation		PreGTs	Y1	Y2	Y3	
comfortable		Conny	●	●	●	
		Viky	●	●	●	
manageable class		Lily	●	●	●	
run well		Carmen	●	●	●	
relaxed		Carmen	●	●	●	
not so bad anymore		Florence	●	●	●	
routine		Florence	●	●	●	
not nervous		Martha	●	●	●	
confident feeling		Conny	●	●	●	
not so worried any more		Conny	●	●	●	
			1	3	6	
Torment		Florence	●	●	●	
	bad	Florence	●	●	●	
	really	Florence	●	●	●	
	really	Laura	●	●	●	
nervous		Laura	●	●	●	
	unknown class	Florence	●	●	●	
agitated		Sarah	●	●	●	
not so good		Conny	●	●	●	
agitated	Research setting	Carmen	●	●	●	
difficulty with the song		Carmen	●	●	●	
some unknown children		Martha	●	●	●	
			6	5	1	
Children's engagement		PreGTs	Y1	Y2	Y3	
motivated	semantic gestures	Verena	●	●	●	
		Lily	●	●	●	
		Carmen	●	●	●	
		Sarah	●	●	●	
very enthusiastic		Lily	●	●	●	
great engagement		Martha	●	●	●	
children liked it		Martha	●	●	●	
Fun		Ruth	●	●	●	
		Laura	●	●	●	
		Viky	●	●	●	
		Verena	●	●	●	
Joy		Ruth	●	●	●	
		Carmen	●	●	●	
		Viky	●	●	●	
very enjoyed	different than with class teacher	Lily	●	●	●	
gave their best		Lily	●	●	●	
active	very	Florence	●	●	●	
		Carmen	●	●	●	
			5	7	8	
tired		Laura	●	●	●	
distracted	Research setting	Verena	●	●	●	
			2	0	0	
Children's participation		PreGTs	Y1	Y2	Y3	
very good		Laura	●	●	●	
		Viky	●	●	●	
good		Carmen	●	●	●	
		Ruth	●	●	●	
given the best		Lily	●	●	●	
			1	2	4	
no longer right		Laura	●	●	●	
Parts of the lesson		PreGTs	Y1	Y2	Y3	
Beginning		Laura	●	●	●	
		Carmen	●	●	●	
End		Carmen	●	●	●	
		Laura	●	●	●	
			1	1		
Beginning		Viky	●	●	●	
			1	1	0	
Focus during the lesson		PreGTs	Y1	Y2	Y3	
only on some children	Humming along	Ruth	●	●	●	
	Sing along	Ruth	●	●	●	
End	Carrying on the leading	Conny	●	●	●	
			0	0	3	
themselves		Martha	●	●	●	
Teacher-centred		Conny	●	●	●	
			3	1	0	
Lesson planning		PreGTs	Y1	Y2	Y3	
consistent		Carmen	●	●	●	
			0	0	1	
not attractive		Verena	●	●	●	
difficult	unknown class	Sarah	●	●	●	
very unsettling	unknown class	Sarah	●	●	●	
			1	3	0	

Children singing along			
good		Ruth	●
		Conny	●
very good		Viky	●
		Sarah	●
		Laura	●
			3 1 1

Self-evaluation of co-leading			
good		Martha	●
			0 1 0

Preparation			
very good	Seminar music didactic	Martha	●
			0 0 1

Rearrangements			
"Standard German instead of Swiss German"		Lily	●
Accompaniment with xylophones	not enough hits	Conny	●
			0 2 0

Tools for the lesson			
Pictures	successful	Ruth	●
	worked well	Martha	●●
Semantic gestures	Bringing in children's ideas	Verena	●●
	Bringing in children's ideas	Laura	●
Musical instruments	Guitar	Martha	●●
Audio devices	Playback (not target song)	Laura	●
Objects	Puppets (staging)	Sarah	●
	Cork	Children's spontaneous idea	Verena
Story	successful	Carmen	●
			4 3 4

Ways of working			
Group work	good	Verena	●
			0 1 0

Professional experience			
low		Lily	●
Insufficient knowledge		Ruth	●
First song leading lesson		Sarah	●
			3 0 0

Concerning the use of ‘tools for the lesson’, Table 4 shows a certain consistency among some PreGTs. For example, in Verena-1’ and Verena-2’s comments, semantic gestures were a pleasant memory for taking in and integrating the children’s ideas. In Martha-2’ and Martha-3’s - the use of pictures that “worked well”, and in Martha-1’ and Martha-3’s - the pleasant memories of using the guitar.

Some codings of the category ‘professional experience’ in Table 3 are reconfirmed in Table 4. For example, in Lily-1 with the code “not so experienced” in Q1 and the code “low” referring to her level of experience in the coding of the answer to Q3.

In the second and third year, no PreGTs commented on their professional experience as something unpleasant. Table 3 showed that Lily-2’s generic memories included having carried out “several song introductions” (see Q1, Table 3). This shows a change between Lily-1 and Lily-2, as Lily had commented on her professional experience with “not so experienced” and “low” in the first year (see Q3, Table 4), whereas she reported that she had enriched her experiential background with other class singing lessons. This is descriptive information as Lily did not provide any self-evaluation on this. Below, we show Table 5 and describe the results of the analysis of the answers to questions Q4a and Q4b.

Q4a and Q4b were more specific as we asked PreGTs to remember, self-evaluate and justify successful or unsuccessful aspects of their lessons (see questionnaire design, Table 1). These are the categories ‘ways of working’, ‘parts of the lesson’, ‘children singing along’, ‘lesson goals’ and ‘preparation’. In contrast, we formed the category ‘focus during the lesson’ from the analysis of comments on unsuccessful aspects only.

Ruth-1 and Ruth-2 show codings in the category ‘focus during the lesson’. In Ruth-1’s coding the focus was “only on some children” and in Ruth-2 “only on the lyrics”. Ruth self-evaluated this aspect of her practice as unsuccessful. Moreover, this is a persistent aspect in her answers to the semi-structured questionnaire. The Q3 analysis had also shown that for Ruth-3, focusing “only on some children” while “humming along” or while they were “singing along” was an unpleasant memory (see category ‘focus during the lesson’, Table 4).

Here, the category ‘enacting subject-specific skills’ is the most significant one. It includes codings of the PreGTs who commented on actions and activities that are subject-specific skills as unsuccessful aspects of their lessons. Laura-1, Ruth-1, Florence-1 and Martha-1 self-evaluated their singing as unsuccessful (sub-category ‘singing (teacher)’, Table 5). Verena-1, Conny-1 and Laura-1 self-evaluated as unsuccessful the way they gave the signal to start singing or because they did not give the signal at all. Verena-3 and Lily-3

self-evaluated the way they counted before start singing as unsuccessful. This is shown by the codes “incorrect” and “not good” (Lily-3), and “unconfident” (Verena-3).

Table 5: Results of the qualitative content analysis of PreGTs’ answers to Q4a and Q4b

				Q4a: What did you do successfully? How do you explain your statements?			
				Q4b: What did you do unsuccessfully? How do you explain your statements?			
Song acquisition (teacher)				PreGTs	Y1	Y2	Y3
unknown song	entire	proud	Verena			●	
listening	a thousand times		Florence		●		
					0	1	1
Song acquisition	not yet successful		Martha	●			
					1	0	0
Enacting subject-specific skills							
Instrumental accompaniment	Guitar		Carmen		●		
			Verena		●		
		proud	Sarah		●		
Voice activation	Story	proud	Ruth		●		
		very good	Verena		●		
Working on the melody	good		Ruth		●		
Trying musical instruments	all children		Conny		●		
Pitch level			Viky		●		
Singing (teacher)			Florence		●		
			Carmen	●			
Picking up the starting pitch	Guitar		Viky		●		
many things			Conny		●		
Simplification			Verena	●			
					5	5	7
Singing (teacher)	correct pitch	difficult	Laura	●			
	matching tunes		Ruth	●			
		not always	Florence	●			
		difficult	Martha	●			
Start signal for singing	not so good	nervous	Laura	●	●		
	none		Verena	●			
			Laura	●			
	too little		Conny	●			
	signal not fixed		Conny	●			
Instrumental accompaniment	none		Verena	●	●		
Repetitions	poor		Ruth	●	●		
Singing together	difficult		Laura	●	●		
Beginning together	unsuccessful	Children started first	Viky	●	●		
Counting	incorrect		Lily	●			
	not good		Lily	●			
	unconfident		Verena	●			
Working on the melody	poor		Ruth	●			
	to the own individual taste		Sarah	●			
Song selection	only theme specific		Sarah	●			
					8	5	7
Tools for the lesson							
semantic gestures			Verena	●			
	supplement pictures		Verena	●			
			Laura	●			
Objects	Sleigh	Attraction	Lily	●			
Audio devices	CD (not target song)		Laura	●			
Pictures			Martha	●			
	supplement semantic gestures		Lily	●			
			Laura	●			
Story	voice activation		Ruth	●			
	framing	second language children	Martha	●			
			Viky	●			
					2	9	3
Audio devices	CD (target song)	fast	Verena	●			
			Laura	●			
					0	1	1
Lesson planning							
Making a lot	little material		Viky	●			
A lot packed in			Conny	●			
					0	1	1
Different new elements	too many		Viky	●			
Frame structure	not active		Carmen	●			
	not engaging		Sarah	●			
			Sarah	●			
					2	2	0
Managing the situation							
very confident			Lily	●			
motivated			Carmen	●			
satisfied			Martha	●			
self-confidence			Sarah	●			
					0	2	2
Class was loud	CD (target song)	fast	Conny	●			
chaotic	many unknown children		Martha	●			
					0	2	0
Song acquisition (children)				PreGTs	Y1	Y2	Y3
successful			Lily	●			
			Martha	●			
Text			Ruth	●			
			Martha	●			
quite well by heart			Sarah	●			
					2	2	2
Children singing	different	known song	Martha	●			
	unsuccessful	not easy	Sarah	●			
Rhythm	not always right		Viky	●			
					1	1	1
Children's engagement							
great			Martha	●			
Fun			Lily	●			
			Viky	●			
Joy	Research setting		Lily	●			
motivated			Lily	●			
					2	2	1
Not joyful			Ruth	●			
			Conny	●			
					1	0	1
Motivating children							
Bringing in children's ideas			Laura	●			
			Lily	●			
active			Sarah	●			
			Lily	●			
simple song			Lily	●			
Piano			Lily	●			
good			Viky	●			
Attentiveness			Ruth	●			
Semantic gestures			Laura	●			
	tissue paper		Laura	●			
Objects	"magic chair"		Martha	●			
					3	0	7
not yet ideal		a lot of action	Conny	●			
Partially unsuccessful	only some children	Language barriers	Ruth	●			
					1	0	1
Transmission							
Lyrics			Ruth	●			
	Objects	Pictures	Ruth	●			
Perspective	Joy instead of didactic perfection		Conny	●			
					1	0	2
Not joyful	inventing semantic gestures		Conny	●			
			Conny	●			
not appropriate for children	loud-soft		Carmen	●			
					3	0	0
Ways of working							
Group work			Verena	●			
	inventing semantic gestures	show to each other	Ruth	●			
Variations	loud-soft	teach to each other	Ruth	●			
			Carmen	●			
			Verena	●			
Repetitions			Florence	●			
					3	3	0
Parts of the lesson							
Beginning			Laura	●			
End			Martha	●			
whole lesson	good		Ruth	●			
					1	2	2
Children singing along							
successfull			Martha	●			
					1	0	0
Goals of the lesson							
achived			Martha	●			
Formulation	clear		Lily	●			
					1	0	1
Preparation							
good			Carmen	●			
appropriate transitions	early considerations		Carmen	●			
Contingency adaptations	early considerations		Carmen	●			
					0	1	2
Focus during the lesson							
only on some children			Ruth	●			
not on the lyrics			Ruth	●			
					1	1	0

Other PreGTs self-evaluated as unsuccessful such aspects as not having accompanied on an instrument (Verena-1, Verena-2), not having worked on the melody (Ruth-3), and their criteria for song selection (Sarah-3). It is significant that the skills 'counting', 'working on the melody' and 'song selection' were only identified in the third-year comments and never in the first- and second-year comments. The category 'enacting subject-specific skills' also shows many skills successful as self-evaluated. These include 'instrumental accompaniment', of which Verena-3 and Sarah-3 were "proud" to have achieved this. In the first and second year, Verena had self-evaluated not having accompanied with the instrument as unsuccessful (In Table 5: Q4b, 'instrumental accompaniment', Verena-1 and Verena-2), but in the third year she commented on the first experience of enacting this successful competence.

Two significant changes in the coding of the category 'enacting specific-skills' concern the skills 'singing (teacher)' and 'working on the melody'. Florence self-evaluated 'singing (teacher)' in both the first and third year. Here, it is significant that for Florence-1 it was unsuccessful because she did not "always matched the tunes", while Florence-3 self-evaluated it as successful, without giving further details.

Table 4 shows that all comments referring to the use of 'tools for the lesson' were only pleasant memories (Q2). However, Table 5 shows that the use of some 'tools for the lesson' was self-evaluated as unsuccessful, i.e., the use of the audio device, commented by Verena-2 and Laura-3. Only Verena-2 justified this by adding that the CD recording was too "fast".

Table 5 shows that the focus of teachers' comments shifted from 'motivating children' to more specific skills, such as 'song acquisition'. The codings for the category 'song acquisitions (children)' are consistently distributed between the first, second and third year. Ruth and Martha self-evaluated the way the children acquired the lyrics as successful.

Among the categories in which comments were only coded as successful is 'ways of working'. The coding of answers to questions Q1, Q2 and Q4a showed significant considerable consistency in Verena's comments. The Q1 results on the general memories the PreGTs had of the lessons (Table 3), show that Verena-1 and Verena-2 commented on the variations and group work with semantic gestures. Table 4, showing the results of Q2, shows that group work was a pleasant memory for Verena. Finally, the results of Q4a, which are shown in Table 5, also confirm that group work was successful for Verena.

For the results of questions Q1 to Q4a and Q4b (Tables 1 to 5), we grouped all subject-specific skills as sub-categories with the category name 'enacting subject-specific skills'. With the analysis of the answers to question Q5, we refined the category system to structure the skills individually (compare Table 2 where the overall total coding of 'enacting subject-specific skills' is 27. Eight times used as an umbrella term and 19 times with individual naming of subject-specific skills). Table 6 shows that we developed 15 categories from the Q5 analysis. The categories 'professional experience', 'undetermined or no professional benefit' and 'personal benefit' summarise codings in which the subject-specific skill could not be identified.

We identified the 'song selection' category in the answers of three PreGTs, namely Carmen-1, Martha-3 and Sarah-3. In particular, Sarah-3 stated that she learnt that song selection should not be based only on "teachers' preferences" and consideration of "appropriate lyrics" for children, but rather on "song analysis". For Sarah-3, this is a "necessary" condition, since making "good considerations" about the characteristics of the song when selecting it ensures that the children can learn it.

In Table 6, the category ‘teacher’s performance’ was never coded in the first-year lessons, whereas Ruth paid much attention to the self-evaluation of her performance of lyrics in the second and third year. Ruth concluded that presenting the lyrics “without playback” enabled the children to acquire it (Ruth-2), and in the third year she self-evaluated the same specific skill as “quite good” (Ruth-3).

Table 6: Results of the qualitative content analysis of PreGTs’ answers to Q5

Q5: What did you learn from this lesson in terms of subject-specific skills?															
PreGTs					Y1	Y2	Y3	PreGTs							
Song selection		Expanding the repertoire		Seminar music didactic		Carmen	●								
		unknown song		better		Martha	●								
		Not recommended		based on teachers' preferences only		Sarah	●								
				based on a appropriate lyrics only		Sarah	●								
		Song analysis		necessary		Sarah	●								
		good considerations		Ensuring song acquisition		Sarah	●								
								1	1	4					
Singing starting pitch		longer		Allow all children to join in		Verena	●								
				Can be combined with counting		Verena	●								
								0	0	2					
Start signal to sing		important				Laura	●								
		Agree on a signal with the children				Laura	●								
				in advance		Conny	●								
								0	2	1					
Demonstrating and imitating		effective				Lily	●								
		speaking (teacher)		louder		Lily	●								
								2	0	0					
Song segmentation		Introduction of the verses		not all together		Lily	●								
								1	0	0					
Work on the lyrics		before working on the melody				Martha	●								
		Pictures		important		Laura	●								
		Semantic gestures		important		Laura	●								
		do not neglect				Ruth	●								
								1	3	1					
Work on the melody		after working on the lyrics		not all together		Martha	●								
								1	0	1					
Repetitions		important				Martha	●								
				Children's confidence		Lily	●								
				Children's unfolding	better	Lily	●								
								1	2	1					
Working with semantic gestures		important		Tool for the lesson		Viky	●								
				Tool for the lesson		Verena	●								
								2	0	0					
Use of musical instruments		Accompaniment		Piano	good	Ruth	●								
				Piano	good	Lily	●								
		motivates the children		very		Viky	●								
		Guitar		Tool for the the lesson		Verena	●								
		Focus on "beautiful" sounds		Production of chords		Conny	●								
		Letting children make music		important	even if chaotic	Conny	●								
		Picking up the starting pitch		important	encourage children	Viky	●								
				spontaneous by the children	consequen-tial playing	Viky	●								
								4	2	3					
Lesson planning		End		let the song stay	"not continuing with old song"	Conny	●								
		Ideas for the beginning		Gestures		Viky	●								
				Mimic		Viky	●								
		Many possibilities		playful planning		Verena	●								
		Considering children's contribution		Bringing in own ideas		Carmen	●								
		do not pack too much in		better	semantic gestures	Conny	●								
		Idea development		early preparation		Carmen	●								
				enough time		Carmen	●								
								1	4	3					
Professional experience		more aware		Seminar music didactic		Carmen	●								
								1	0	0					
Undetermined or no professional benefit		Teacher does not remember				Sarah	●								
				not much		Florence	●								
				nothing		Florence	●								
								2	2	0					
Personal benefit		Running the "show"				Florence	●								
				very much		Florence	●								
				confidence	more	Florence	●								
				inhibition	smaller	Florence	●								
								0	1	3					

With “song analysis”, Sarah-3 implicitly referred to the structural components of the song, defined by the categories ‘working on the lyrics’ and ‘working on the melody’. Another component of the song is the meter, which is the common component of both music (melody) and text (lyrics). We identified the category ‘working on the lyrics’ in the comments of Martha-1 and Martha-3, Laura-2 and Ruth-2, while we identified the category ‘working on the melody’ only in Martha-1 and Martha-2. Altogether, we identified these categories in the answers of a few PreGTs (4/10 PreGTs) as specific competences of which they learnt at their lessons. However, it is even more significant

that only one PreGT (Martha) mentioned the competence ‘working on the melody’. In this category, we coded Martha-1 and Martha-3 in the same way, i.e., that working on the melody “follows working on the text” in order not to work on “all together”.

The categories ‘use of musical instruments’ and ‘use of audio devices’ show that five different teachers commented on the use of musical instruments over the three years while only Ruth commented on the use of audio devices. In terms of acquiring specific skills in using these tools, it is remarkable that Ruth stated that she learnt to distinguish when to use the CD, i.e., to use it if the melody of the original song is sung correctly and not to use it if she cannot provide the children with a correctly sung model of the song. Letting children use musical instruments is one of the specific skills Conny said she learnt in lessons. For Conny-2 this is important “even if chaotic”. Conny-2 remembered letting the children produce chords with xylophones. In this regard, Conny-2 learnt that she should focus more on making the children produce a “beautiful sound”. Viky-3 is the only one who reported having learnt to use the musical instrument to carry out a key action in song singing, namely, to play the starting pitch of the song in advance. Viky-3 found it important to encourage children to pick up the starting pitch directly at hearing it played on the guitar. She then stated that she learnt that playing the starting pitch consistently each time before singing, results in the children starting to sing it spontaneously and correctly.

Viky-3 reported on the starting pitch of the song played on an instrument, but PreGTs also stated they learnt “singing starting pitch”. In this case, we refer to the starting pitch sung *a cappella*, without the support of a musical instrument. This skill was reported only by Verena-3. It is significant that both Viky and Verena stated that they learnt this skill commenting on the third-year lessons and that in the coding of the answers there is no statement about this skill in the first- and second-year lessons. Concerning the skill of giving the ‘start signal to sing’ (see category Table 6), Laura-2 stated that this is an “important” skill. Laura-3 said that she learned that the signal must be agreed on with the children. Likewise, Conny-2 had also stated the same but added that the signal must be agreed on “in advance”. Table 6 shows the results of only one question, Q5. Below, Table 7 displays the comparison between the results of the answers to Q6 and Q7.

We asked the PreGTs to answer questions Q6 and Q7 only in the second-year part of the semi-structured questionnaire, in addition to questions Q1 to Q5 (see Table 1, section 2). In Table 7, we display the results of the analysis of Q6 and Q7 in side-by-side (Q6 on the left, Q7 on the right). This is because the two questions explore PreGTs’ perspective on their own development in song leading in a complementary way, that is, regarding the goals already achieved and those yet to be achieved in the future. In Q6 ‘How have your song leading skills changed so far?’ we intended to collect information on the PreGTs’ self-reported changes after the second-year lessons. We expected them to report on changes they interpreted as goals they had already achieved. With Q7 ‘What would you like to achieve in the next lesson?’ we intended to explore what goals the PreGTs still wanted to achieve in the third-year lesson which they might not have achieved in the first- and second-year lessons.

Table 7: Results of the qualitative content analysis of PreGTs' answers to Q6 and Q7

Q6: How have your song-leading skills changed so far?				Q7: What would you like to achieve in the next lesson?			
PreGTs				PreGTs			
Managing the situation				Managing the situation			
more confident			Lily	Perform confidently			Martha
			Conny	Coming out of oneself	more		Lily
	Performance		Sarah	2			
more direct			Lily				
more self-confident			Viky				
fear	less		Ruth				
inhibition	less		Ruth				
Primary level instead of kindergarten	less nervous		Martha				
	successful		Martha				
10							
PreGTs				PreGTs			
Enacting subject-specific skills				Enacting subject-specific skills			
Singing	difficulty	less	Ruth	Instrumental accompaniment	various instruments		Lily
	somewhat better	Seminar music didactic	Ruth		Guitar		Verena
		Supervisor's suggestions	Ruth	Start signal for singing			Laura
	more joy		Florence		counting		Ruth
	hitting notes	not yet all	Florence		counting		Verena
		supported through additional sing classes	Florence	Signalling	good		Ruth
	louder		Conny	Work on the melody	more		Viky
	improved		Viky	Everything as correct as possible			Viky
15				8			
PreGTs				PreGTs			
Enacting ideas				Enacting ideas			
	Inputs collected	helpful	Laura				
		engaging	Laura				
	Seminar music didactic		Verena				
	Seminar music didactic		Carmen				
	Supervisor	worthwhile tips	Verena				
	more		Verena				
	more		Viky				
4							
PreGTs				PreGTs			
Professional experience				Professional experience			
more			Viky	Perspectives	Motivating children		Carmen
			Ruth		undetermined		Florence
learned a lot	Seminar music didactic		Carmen	2			
	own experience		Carmen				
4							
PreGTs				PreGTs			
Lesson planning				Lesson planning			
	engaging	less nervous	Laura				
		successful	Sarah				
	varied	successful	Sarah	3			
3							
PreGTs				PreGTs			
Transmission				Transmission			
	Song selection		Martha				
	Semantic gestures		Verena				
	Singing on the chairs		Laura				
	Group presentation		Laura	4			
4							
PreGTs				PreGTs			
Motivating children				Motivating children			
Joy	Singing		Ruth				
	Singing		Conny				
	Making music		Conny				
				Lily			
	semantic gestures		Ruth				
	objects		Ruth				
6							

Table 7 shows that the analysis of answers to the two Qs produced common categories, namely 'managing the situation', 'enacting subject-specific skills' and 'professional experience'. In contrast, Table 7 shows that the categories 'lesson planning', 'transmission' and 'motivating children' were only generated by the analysis of the answers to Q7. The changes that the PreGTs stated when answering question Q6 were about "confidence" with the situation. We have structured these comments within the category 'managing the situation'. This was the case for Lily, Conny, Vicky and Sarah, as shown in Table 7. Lily stated that she managed the situation in a "more direct" way, while Vicky reported being "more self-confident". Ruth stated that she had "less fear" and "less inhibition", while Martha said that she was "less nervous" when she taught at the primary school compared to when she taught at the pre-school. The results regarding Q7 show that changes in 'managing the situation' no longer were a main goal of the PreGTs for their last lesson. While 7 out of 10 PreGTs stated changes in 'managing the situation' in Q6, only Martha and Lily set goals in this regard for the third-year lesson. Respectively, Martha had the goal of "performing confidently" and Lily of "coming out of oneself".

In their responses to Q6, PreGTs reported changes in the category 'enacting subject-specific skills'. Respectively, Ruth stated that in her practice, singing is "less difficult", while Florence wrote "hitting notes" referring to her improvements in producing a stable and correct melody, although "not yet all". Florence added details about the reasons for the change. She independently decided to attend one-to-one singing lessons in addition to her lessons in her undergraduate professional training. Vicky self-evaluated the change in her singing as "improved". Regarding 'enacting ideas' what changed for Verena and Vicky was that they had "more" ideas to enact. In addition, Verena specified that attending the music didactics seminar of her training programme helped her to collect ideas.

The category 'enacting subject-specific skills' for Q7 is varied. The PreGTs individually named skills that they did not mention in their answers to Q6. The goals they set themselves for their third internship lesson concern skills they have not yet experienced or skills they intend to further explore or improve.

In contrast to the skills 'singing' and 'enacting ideas' which we identified in the analysis of Q6, the skills named in the answers to Q7 look more sophisticated. By this we mean that, 'singing' is the core skill for song transmission and enacting ideas for transforming and adapting teaching content is an integral part of every teacher's practice, in every subject. The skills of 'instrumental accompaniment', giving the 'start signal for singing', and 'working on the melody', on the other hand, are specific to the singing practice. Their occurrence in the PreGTs' responses as goals set for the next lesson indicates the PreGTs' emerging professionalism. For example, 'working on the melody' is work focused on an individual song component that requires different skills than working on the lyrics.

The category 'professional experience' shows that Carmen has set the goal of motivating children in her future lessons. In their answers to Q7, Martha, Verena and Laura explicitly stated some of their third year 'goal for the lesson'. These are, for instance, the "group presentation" of the song and making the children sing while standing on chairs (Laura). In her comments, Laura did not explain why she had set these goals.

Table 7 concludes the presentation of the results regarding the answers to Qs 1 to 7. In the next section, we present the results of the analysis of the subject-specific topics that the PreGTs autonomously selected from the list we provided them with (see design of the semi-structured questionnaire, section 2). On each of the three times, we asked the PreGTs to select at least four topics from this list and comment on each, respectively

once for each year’s lesson. We highlight that none of the PreGTs commented on topic 15, i.e., ‘verbal instruction’.

In Table 8, we present the results of topic 1, ‘lesson preparation’. Within this topic, we identified seven different categories. We structured the category ‘song acquisition (teacher)’ as a more specific component of the class singing lesson preparation. The coding only concerned Martha’s comments that she had acquired the new song by repeating it often and with the guitar.

Table 8: Results of the qualitative content analysis of the subject-specific topic ‘lesson preparation’

Topic 1: Lesson preparation													
PreGTs					Y1	Y2	Y3	PreGTs			Y1	Y2	Y3
Preparation													
Important things	not so many ideas			Sarah		●							
according to your own thoughts				Martha		●							
Getting tips				Sarah		●							
detailed planning	worthwhile			Carmen			●						
structured				Carmen			●						
easy				Sarah			●						
early preparation	good			Carmen			●						
					3	2	2						
Preparation for co-leading													
Exchange				Martha				●					
Planning	good			Sarah				●					
Finding ideas				Sarah				●					
great help				Sarah				●					
									0	4		0	
Song acquisition (teacher)													
repeated often	unknown song			Martha				●	2	0		0	
Musical instruments	Guitar			Martha				●	2	0		0	
Self-evaluation of own preparation													
not good				Carmen				●					
better				Carmen				●					
good				Martha				●					
very good				Carmen				●					
detailed				Carmen				●					
					1	1	3						
Preparation time													
long				Sarah				●					
Effort required	worthwhile			Martha				●					
	not always possible			Martha				●					
very good	more confident			Sarah				●					
					1	0	3						
Professional experience													
none yet				Martha				●					
no input	before internship			Carmen				●					
									2	0		0	
Preparation goals													
Considerations	Ways of teaching			Carmen				●					
no input	Ways of learning			Carmen				●					
									0	2		0	

The category ‘preparation’ consists of the PreGTs’ comments on their general considerations. For example, Sarah-1 tried to collect ideas because she did not have many, while Martha-1 prepared according to her personal considerations. Carmen-3, considered the “detailed planning” to be “worthwhile” and that the lesson should be “structured”. The preparation was self-evaluated by Carmen-1 as well as by Carmen-3. Whereas Carmen-1 self-evaluated her preparation as “not good”, Carmen-3 self-evaluated it as “very good” and “detailed”. In the category ‘preparation’, we see that Carmen-3 considered it as “good” in combination with “early”. This could be the justification for the successful preparation of her third-year lesson. In the category ‘preparation time’, the most noticeable coding is that Martha-3 considered the effort required in terms of time to prepare the lesson “worthwhile”. However, Martha-3 noted that to make such an effort is “not always possible”. Below, Table 9 shows the results of topics 2 and 3 compared, i.e., ‘song selection’ and ‘song acquisition’.

Topics 2 and 3 show some overlap between the categories we have identified. This can be justified by the fact that ‘song selection’ and ‘song acquisition’ occurred during the preparation and therefore the two topics crossed over when the PreGTs commented on them separately. The PreGTs commented on ‘song acquisition’ referring significantly also to the song selection.

In topic 2 ‘song selection’, the most varied category is ‘song selection criteria’, where it is evident that the song selection was based on a theme in all three years. Ruth-1 reported that she selected a song she knew from her childhood, and Lily-1, selected a song to motivate the children. In the second and third year, the selection criteria were enriched by musico-linguistic considerations of the song. It is significant what we

identified in Verena-2's comments that both the lyrics, melody and language used in the song should be "simple", or according to Lily-2 and Lily-3, that they had taken into consideration the "short" length of the song. Compared to the selection of the song to motivate the children (Lily-1), in Lily-3, the criteria for song selection also involved the use of the piano to accompany and to create an atmosphere.

In the category 'self-evaluation of song selection', Martha-1 and Martha-2 self-evaluated as unsuccessful the selection of a song that the children already knew. For Martha, the reason for this 'failure' was the children's "powerful singing along". We interpret this self-evaluation as Martha's challenge to classroom management. The children sang powerfully because they already knew the song. In contrast, Martha-3 self-evaluated the song selection as a success and justified this self-evaluation by the fact that she had selected a song that the children did not know (topic 2, 'self-evaluation of song selection', Table 9). This Martha's comment on her third-year song selection can be interpreted as related to her previous experiences in her first- and second-year lessons.

The category 'difficulties of song selection' (topic 2, Table 9), shows that Martha-1 and Ruth-3, reported that when selecting the song, they considered that if it was "new" to them, it would also be difficult to learn it. Ruth-3 commented that to acquire the song "self-confidence was necessary". This is interesting if we consider that, in the category 'song selection criteria', both Ruth-1 and Ruth-2 stated that they selected a song they knew from their childhood.

In topic 3, that is 'song acquisition', we structured the category 'song selection' into two sub-categories: 'known song' and 'unknown song'. In her three internship lessons, Lily always selected a song she knew. However, Lily-3 also considered enacting another subject-specific skill she was developing, namely piano accompaniment. Lily-3 commented that she selected the song by sorting it from her piano repertoire. By 'known song' Lily-3 had presumably meant a song she knew because she had learned it in her instrumental lessons.

Regarding the selection of a 'known song' or 'unknown song', the coding of Verena-1's comments shows that the decision for the one or the other is related to class management as well. For Verena-1, selecting a song she knew was a way to offset her feeling "unconfident" in managing the class. Verena-2 also selected a song she knew previously, whereas Verena-3 selected an 'unknown song' and stated that she was "confident" to maintain the 'focus on classroom management'. In topic 3, we identified the use of different 'tools for song acquisition (teacher)', namely 'musical instruments', 'audio devices' and 'MuseScore'. Lily-1, Florence-1, and Florence-3 used *MuseScore* (MuseCore, n.d.) for song acquisition. This is a writing software that also enables audio playback for listening. The PreGTs had started their individual instrument lessons in the second training year. Already in the second year, Sarah used the guitar to acquire the song, while Florence and Verena did so for the first time in the third year. In Table 10, we present the results relating to three complementary topics: 'working on the melody', 'working on the lyrics' and 'working on the rhythm'.

Melody, lyrics and rhythm are three structural song components, and it is therefore important to consider how the PreGTs work on them separately. In Table 10, the topic 'working on the lyrics' was one of the most commented on. Both topics 4 and 5 display the categories 'ways of working on the melody' and 'ways of working on the lyrics' but no PreGT commented on 'working on the rhythm'. For the category 'professional experience', which is only coded for the topic 'working on the melody', Carmen-1 commented that she had not had any input into working on the melody yet, and Carmen-3 planned to consider this in the future.

Topic ‘working on the lyrics’ is the only one in which we developed the category ‘tools for working on...’. This is significant since the PreGTs did not comment on the use of any tools for ‘working on the melody’ and ‘working on the rhythm’. However, in the topic ‘working on the rhythm’, Carmen-2, stated that she let the children play. We coded this comment by Carmen with ‘enacting subject-specific skills’ because in fact, Carmen did not mention musical instruments as tools. The ‘tools for working on the lyrics’ are several. This category shows interesting changes between the tools used by the PreGTs in the first and second year, and those used in the third year, respectively pictures, drawings, and free movement, and then games (Florence-3), and the staging of the lyrics, e.g., with objects (Viky-3, Sarah, 3).

Table 9: Results of the qualitative content analysis of the subject-specific topics ‘song selection’ and ‘song acquisition’

Topic 2: Song selection							
		PreGTs			Y1	Y2	Y3
Song selection criteria							
thematic			Lily			●	
			Viky			●	
	Saison		Martha	●			
	Saison		Lily	●	●		
	Saison		Verena		●		
	Saison		Conny			●	
	Joy		Martha			●	
known song	own childhood		Ruth	●	●		
Motivating children	active		Lily	●			
provided	instrumental classes		Conny	●	●		
	instrumental classes	differently realised			●		
semantic gestures			Lily		●		
			Verena		●		
			Martha		●		
unknown song			Viky			●	
			Verena		●		
Lyrics	easy		Verena		●		
melody	easy		Verena		●		
language	easy		Verena		●		
it can be visualised			Verena		●		
	song length	short		Lily	●	●	
Consideration of the school level	Adaptation of teacher's goal		Lily		●		
manageable for the children			Lily			●	
Inclusion in daily routine			Martha			●	
Use of musical instruments	Accompaniment	Piano	Lily			●	
	Atmosphere	Piano	Lily			●	
				5	13	11	

Topic 2: Song selection							
		PreGTs			Y1	Y2	Y3
Self-evaluation of song selection							
unsuccessful	long		Lily			●	
	difficult		Lily			●	
	difficult to remember	wrong singing (children)		Lily		●	
	known song (children)	powerful singing along (children)		Martha	●	●	
successful	unknown song (children)		Martha			●	
					3	1	1
Difficulties in song selection							
Song acquisition	new song		Martha		●		
	new song	self-confidence necessary		Ruth		●	
Known song (children)	Children unaccustomed		Martha			●	
				1	0	2	
Song acquisition (teacher)							
autonomously			Martha		●		
				1	0	0	
Tools for song acquisition							
Audio devices	playback (target song)		Ruth		●		
				1	0	0	
Tools for the lesson							
Musical instruments	guitar		Conny		●		
				1	0	0	

Topic 3: Song acquisition							
		PreGTs			Y1	Y2	Y3
Song selection							
Known song			Florence		●		
			Lily		●		
			Lily		●	●	
			Florence		●		
			Verena		●		
			Sarah				●
			Verena		●		
Focus on classroom management	unconfident		Verena		●		
	Advantage		Sarah		●		
Unknown song			Florence		●		
			Lily		●		
	Sheet music available	differently realised		Lily		●	
	Audio recording available			Lily		●	
	Not confident enough			Verena		●	
Self-confidence			Verena		●		
Focus on classroom management			Verena		●		
Sorting	Piano repertoire		Lily			●	
				4	6	8	
Tools for song acquisition (teacher)							
Music software	MuseScore		Florence		●	●	
	MuseScore		Lily		●		
	MuseScore		Lily		●		
Musical instruments	Peer-Support		Florence			●	
	Guitar		Verena			●	
	Guitar		Sarah			●	
Audio devices	Playback (target song)	unconfident	Verena			●	
				3	2	3	

Topic 3: Song acquisition							
		PreGTs			Y1	Y2	Y3
Ways of acquisition (teacher)							
Repetitions			Sarah		●		
	Team preparation		Sarah		●		
	Listen	memorise it well		Verena		●	
Playing	Independently	fast acquisition		Florence		●	
				Lily		●	
				1	3	2	
Difficulties in song acquisition (teacher)							
Lyrics			Lily		●		
Internalisation	Lyrics	Effort		Sarah		●	
	Melody	Effort		Sarah		●	
Song finding	Thematic song		Verena			●	
				3	0	1	
Goals of song selection							
To feel confident	Melody		Verena		●		
	Lyrics		Verena		●		
Transmission	No wrong knowledge		Verena			●	
				2	0	1	
Tools for the lesson							
Without instrument			Florence			●	
Without instrument	Piano		Lily			●	
				0	0	2	

children to sing it. Verena-3 reported on the possibilities of “adapting” and “simplifying” the melody.

The next Table 11 shows the results of topics 7 and 8, ‘demonstrating parts’ and ‘working on parts of the song’, respectively. These two topics are closely interconnected. For children to acquire the song, demonstrating it in parts and working on those parts individually are key skills in the formal song transmission. By ‘parts’ we mean two aspects of the song’s musico-linguistic structure. Firstly, its three components - melody, lyrics and rhythm - as already shown in Table 10. Secondly, in terms of longer or shorter phrases also structured in terms of bars. Only Lily commented on topic 7 ‘demonstrating parts’ in the second year, while only Ruth commented on topic 8 ‘working on parts of the song’ for each year.

Topic 8 ‘working on parts of the song’ shows that we only coded a different category from topic 7 ‘demonstrating parts’, which is ‘song segmentation’. Ruth-1 and Ruth-2 reported segmenting the song into verses. In Table 10, we had shown that we identified tools in the PreGTs’ comments only in topic 5 ‘Working on the Lyrics’. The occurrence of these two categories for topics 7 and 8 suggests that the PreGTs referred to the demonstration and working on the parts of the song in terms of working on the lyrics and not the melody or rhythm. This is also evidenced when Lily-2 reported that she demonstrated parts of the song by “reciting words” (category ‘ways of demonstrating parts’, topic 7), while Ruth-2 and Ruth-3 reported that the children worked in groups with semantic gestures on the parts of the song (category ‘ways of working on parts of the song’, topic 8).

Table 11: Results of the qualitative content analysis of the subject-specific topics ‘demonstrating parts’ and ‘working on parts of the songs’

Topic 7: Demonstrating parts					
Tools for demonstrating			PreGTs Y1 Y2 Y3		
Gestures (hands)	good		Lily	●	
semantic gestures	Supervisor		Lily	●	
pictures	Work on the lyrics	no limit	Lily	●	
				0	3 0

Topic 8: Working on parts of the song					
Song segmentation			PreGTs Y1 Y2 Y3		
individual verses			Ruth	● ●	
				1	1 0

Tools for working on parts			PreGTs Y1 Y2 Y3		
pictures			Ruth	● ●	
semantic gestures			Ruth	● ●	
				1	2 1

Ways of demonstrating					
Reciting words			PreGTs Y1 Y2 Y3		
good			Lily	●	
				0	1 0

Ways of working on parts					
Group work			PreGTs Y1 Y2 Y3		
semantic gestures			Ruth	● ●	
singing			Ruth	● ●	
				0	2 2

Table 12 shows the results of the analysis of the particularly controversial topic 9 ‘Song-related Interactions’. Here, some PreGTs intended the children’s independent interaction with the song, while others intended the overall dynamic teacher-song-child interaction.

The category ‘(independent) children-song interactions’ is structured into two sub-categories, based on whether the PreGTs reported that there was an interaction or not. Thus, Table 12 shows that PreGTs reported skills such as ‘bringing in ideas’ (Laura-1 and Laura-2), and ‘demonstrating-imitating singing’ (Laura-3) to enact interactions. Lily-2 and Lily-3 let the children interact with physical contact with each other. Conny-1 let the children interact with with the song independently. The children played and interacted in pairs. In contrast, Conny-2 stated that there were no ‘song-related

interactions’ in the lesson. The interpretation of this statement is difficult following the controversial interpretations of this topic mentioned above. In the category ‘tools for the interactions’, some tools are the same as those we had coded in the answers to the open questions (Q1 to Q7), e.g., pictures, semantic gestures and objects. Here, Lily-3 justified the use of pictures for the interaction as support for the lyrics. Laura-1, Laura-2 and Laura-3 reported free movements as tools for interaction.

Table 12: Results of the qualitative content analysis of the subject-specific topic ‘song-related interactions’

Topic 9: Song-related interactions						
Tools for the interactions			PreGTs	Y1	Y2	Y3
Pictures			Lily	●		
			Laura		● ●	
	very much		Lily	●		
	Support of the lyrics		Lily			●
semantic gestures			Laura	●	●	
			Lily	●		
			Carmen			●
	Support of the lyrics		Lily			●
	partly		Carmen	●		
free movements	pupil-oriented		Lily			●
	Application controlled		Lily			●
			Laura	● ●	●	
Objects	Sleigh		Conny	●		
	Sleigh	suitable	Carmen			●
audio devices	Playback (target song)		Laura			●
				7	3	10

(Independent) interaction children-song						
			PreGTs	Y1	Y2	Y3
Yes	many		Viky	●		
	Less is more		Viky			●
	Listen		Laura	●		
	Bringing in ideas		Laura	● ●		
	Singing together		Laura	●		
		on a syllable	Laura			●
	Reciting together		Laura			●
	Demonstrating-imitating singing		Laura			●
	Playing in pairs		Conny	●		
	Interacting in pairs		Conny	●		
	Distribution of roles		Conny			●
	Focus on lyrics	semantic gestures	Carmen	●		
	Group work	active	Verena			●
		Change tools	Verena			●
	Repetitions	lost focus	Lily			●
	Many changes	use only one tool	Lily			●
	Physical contact with each other		Lily			● ●
	self-activation	Children	Carmen			●
	No		Conny			●
					8	9

Goals of the song-related interactions						
Involving children		Song memorisation	PreGTs	Y1	Y2	Y3
different ways	active		Lily	●		
	active		Verena	● ●		
	active	important	Verena			●
	accepting children's ideas		Verena			●
successful	implementing children's ideas	Kindergarten level	Verena			●
	active involvement					●
Fun	self-activation		Carmen	●		
			Verena			●
				2	2	5

Professional experience						
Small input			PreGTs	Y1	Y2	Y3
Seminar on music didactic			Carmen	●		
Inputs	Supervisor		Verena	●		
Perspectives	Creativity	no limit	Verena	●		
	Let the children stage the activity		Viky			●
	Using material	absolutely	Carmen			●
	Asking the children		Lily			●
				3	0	3

The category ‘goals for song-related interactions’ shows the relevance of involving the children in different ways. For example, this was a recurrent goal for Verena-1, Verena-2 and Verena-3 as they considered it “important” that the children were “active”. The category ‘professional experience’ shows a noticeable difference between the first- and third-year comments. In the first year, Carmen and Verena’s comments referred to the music didactic seminar (Carmen-1) and the supervisor (Verena-1), thus a professional experience related to the training. In the third year, Vicky’s, Carmen’s and Lily’s perspectives refer to their future as in-service teachers and are more concrete, e.g. ‘let the children stage the song’ (Viky-3) and “absolutely use materials” (Carmen-3). The next table shows the results of the analysis on topics 10 and 11, ‘performance of the whole song’ and ‘letting children sing alone and giving feedback’ (see semi-structured questionnaire design, section 2). With these two topics, firstly, we aimed to explore how the PreGTs comment on the performance of the whole song because of the (assumed) previously organised work on the parts. Secondly, we wanted to explore how PreGTs comment on the essence of the class singing lessons, i.e., the successful transmission of the song as an abstract cultural model to the children.

The two topics in Table 13 have one category in common which is the use of tools. Comparing them, Ruth-1 stated that she “always” used an audio device (CD) for the

performance, while Martha-2 reported on her use of the guitar when she required the children to sing alone. Martha justified the use of the musical instrument as “more motivating than without instrument” and “more motivating than with CD”. Furthermore, the regular use of musical instruments is a vision in her future as an in-service teacher (in Table 13, category ‘professional experience’, Martha-2).

Table 13: Results of the qualitative content analysis of the subject-specific topics ‘performance of the whole song (alone or together)’ and ‘let children sing alone and giving feedback’

Topic 10: Performance of the whole song (alone or together)										
				PreGTs	Y1	Y2	Y3			
Tools for performance										
semantic gestures			Ruth	●	●					
			Verena		●					
			Laura			●				
audio devices	Playback	always	Ruth	●						
Bringing in ideas (children)			Ruth	●	●	●				
objects	Characters		Ruth			●				
				3	3	3				
Ways of performance										
Group presentation			Ruth	●	●					
			Verena		●					
Together (children and teacher)	Gender division	always	Laura	●	●					
			Verena		●					
Repetition	Characters		Ruth			●				
				0	4	4				
Goals of and for the performance										
Putting parts of the song together			Ruth		●					
Stimulating the senses	visual		Verena		●					
	auditory		Verena		●					
	kinestetical		Verena		●					
				0	4	0				
Managing the situation										
Lost thread				mistakes	Trouble	Sarah	●			
Mistakes in singing				not bad		Sarah		●		
Dealing with the children				more relaxed		Sarah		●		
Being responsive to the children				better		Sarah		●		
							1	0	3	
Focus during the performance										
not on the children						Sarah	●			
on the children				good		Sarah		●		
on their own singing						Sarah	●			
							2	0	1	
Performance during co-leading										
Confidence				more		Sarah		●		
Focus on the children				better		Sarah		●		
Performing spontaneous ideas				better		Sarah		●		
							0	3	0	

Topic 11: Let children sing alone and giving feedback										
				PreGTs	Y1	Y2	Y3			
Tools for children to perform on their own										
Musical instruments	Guitar	more motivating than without instrument	Martha		●					
		more motivating than with CD	Martha		●					
				0	2	0				
Difficulties in letting the children sing alone										
Target level	Kindergarten	needs support	Martha		●					
				0	1	0				
Conditions for the children's independent performance										
Song well practised						Martha		●		
				0	1	0				
Enacting subject-specific skills										
Playing	Guitar	more confident	Martha		●					
				0	1	0				
Professional experience										
Perspectives	Use of musical instruments	regularly when in-service	Martha		●					
				0	1	0				

From the analysis, we developed two new categories. The one is ‘difficulties in letting the children sing alone’, which for Martha-2 depends on the target school level because kindergarten children “need support”. The other category is ‘conditions for the children’s independent performance’, which for Martha is that the song is “well-practiced”.

In topic 10, the category ‘managing the situation’ shows a significant change in the comments of Sarah-1 and Sarah-3. At the first lesson, Sarah had difficulties because she made “mistakes” and “lost the thread”, while at the second lesson she stated that the “mistakes while singing” were no longer “so bad” and that she dealt with the children in a more relaxed way. Ruth-2’s statement “putting the parts of the song together” is significant in the category ‘goals of and for the performance’. The category ‘ways of performance’ shows consistency in the “group presentation” in Ruth-1’s and Ruth-3’s comments.

The last two tables reporting the results of our study show the PreGTs’ perspectives on ‘give a signal for singing together’ (topic 12), ‘using instruments’ (topic 13) and ‘song accompaniment’ (topic 14).

Table 14: Results of the qualitative content analysis of the subject-specific topic ‘give a signal for singing together’

Topic 12: Give a signal for singing together							
		PreGTs			Y1	Y2	Y3
Start signal for singing							
Yes			Florence				●
	by supervisor		Florence	●			
	almost never		Laura	●			
	little		Laura		●		
	partly		Laura			●	
No	counting		Ruth				●
	unable		Ruth	●			
	ignored		Laura	●	●		
	forgotten		Laura				●
				4	2	4	

		PreGTs			Y1	Y2	Y3
Self-evaluation of the given start signal							
successful	exactly given		Florence				●
	singing together		Florence				●
	children singing along	easy	Laura				●
unsuccessful	unconfident		Laura				●
	not very clear		Laura				●
	Children singing along	difficult	Ruth	●			
	Not loud enough	Children did not paying attention	Ruth				●
					1	2	4

Table 14 shows that only three PreGTs commented on topic 12: Florence, Laura and Ruth. Progresses or changes are obvious in each of them. Florence-3 self-evaluated her starting signal as a success because she gave it “exactly”, while Ruth-3 still self-evaluated it as unsuccessful. Ruth-1 had not given the signal but noted that it was difficult for the children to sing along with her. Ruth-3 gave the signal by counting but stated that it was “not loud enough” and the children did not pay attention to it. Laura’s self-evaluation from the second to the third year changed from unsuccessful to successful. Laura-2 felt “unconfident” and the signal was “not very clear”, whereas Laura-3 found that it was “easy” for the children to sing along with her because of the given signal. For Laura, the frequency of giving signals increased every year: from “almost never”, to “little”, to “partly”. Laura-1 and Laura-2 stated that they did not give the signal because they had “ignored” it, whereas Laura-3 said that she had “forgotten” it. Florence-1 reported that the signal to sing together was given by her tutor, but this changed for Florence-3 because she gave the signal herself.

Next Table (15) shows the results of the analysis of the comments to topics 13 and 14. We distinguished the topics with two designations. By ‘use of instruments’ we intended to explore the use of instruments more generally, e.g., when they are used by children. With the topic ‘song accompaniment’, we intended to explore how PreGTs comment on this specific competence of using musical instruments in class singing.

In topic 13, ‘use of instruments’, the PreGTs commented on when and how they used instruments (Table 15). However, they never commented if and how the children used them. The skill of ‘accompanying’ was also mentioned in topic 13. For example, Martha accompanied the song with the guitar in all three years. Moreover, she stated that accompanying the song with the guitar motivates the children more than using the CD and singing *a cappella*.

The way Martha managed enacting this new skill changed over the three years. Martha-1 stated that she was “nervous” because she did not know the class, while Martha-3 stated that she was “very confident”. Verena did not use musical instruments in her first- and second-year lessons because she felt not “confident” to maintain the focus on the class and group work. However, Verena-3 used the instrument for the first time and successfully self-evaluated it because she was able to focus on the class as well.

The category ‘professional experience’ shows significant changes in Carmen’s comments: “little”, “never”, “more experienced” and “much experienced”. Carmen 1 only had experience in one-to-one instrument lessons, and in internship lessons, she had never sung with children or used the guitar. Carmen-2 had continued with individual instrument lessons and had used the instrument in class singing internships. Carmen-3 then stated that it was “easy” for her to use the instrument

Table 15: Results of the qualitative content analysis of the subject-specific topic ‘use of instruments’ and ‘song accompaniment’

Topic 13: Use of instruments										
Use of musical instruments					Professional experience					
PreGTs					PreGTs					
Y1					Y2					
Y3					Y3					
Yes	Piano	Supervisor		Florence	●					
	Guitar			Florence	●					
		Accompany		Martha	●	●				
		Accompany		Martha			●			
		Accompany	more motivating than with CD	Martha			●			
		Accompany	more motivating than without instrument	Martha			●			
		Accompany		Verena			●			
		Accompany	positive memory easier	Carmen		●				
				Carmen			●			
			successful	Focus on the class as well	Verena			●		
No				Carmen	●					
				Florence			●			
	No self-confidence	Focus on the class		Verena	●					
		Focus on group work		Verena			●			
					4	4	7			
Managing the situation										
nervous	Impression of the children	not noticed		Martha	●					
playful				Martha	●					
not comfortable	Framework conditions	Unknown class		Martha	●					
confident	very			Martha			●			
					3	0	1			

Topic 14: Song accompaniment										
Conditions for accompanying					Difficulties in accompanying					
PreGTs					PreGTs					
Y1					Y2					
Y3					Y3					
Singing (teacher)	without any difficulties			Carmen	●					
	always the same (stable)			Carmen	●					
Self-confidence	play			Carmen	●					
	Lyrics			Carmen	●					
	Melody			Carmen	●					
					0	5	0			
Professional experience										
Perspectives	Use in own kindergarten	regularly		Martha			●			
Use of musical instruments	more fun			Carmen			●			
					0	0	2			

Topic 14, ‘song accompaniment’ shows that we developed two distinctly new categories compared to topic 13. These are ‘conditions for accompanying’ and ‘difficulties for accompanying’. Here, Carmen-2’s comments stand out because she mentions that the condition for accompanying consists of “confidence” about three skills acting simultaneously: confidence about lyrics, melody, and playing.

In the category ‘difficulties in accompanying’, Conny-2’s comments on her difficulty in acquiring accompaniment stand out because she called herself an amateur. Here, it is significant that she expresses implicitly her conception of song accompaniment to be a highly professional skill of specialists. Conny-2 also stated that her difficulty was to demonstrate gestures simultaneously using the instrument. In this comment she mentioned the specific skill of giving a signal to start singing by using the technical term “directing”. In the next section we discuss some key aspects of the results presented in the tables above.

Discussion and Conclusions

In this final section, we discuss the results of the qualitative content analysis of the semi-structured questionnaires and draw some general conclusions. The semi-structured questionnaires the PreGTs completed three times during their training allow us to answer the research question: How do PreGTs report on their song teaching practice during the three-years training? Having analysed their verbatim statements in the questionnaires as a team by following the systematic procedure, proposed by Mayring (2021), we are convinced that the results provide a unique richness into the topics that

arose during the three-year training as a generalist teacher. Our content analyses add an abstract level to the many topics, once, by accounting for the individual persons, then, for the topic's temporal aspects during the training, and last, the didactic context regarding the teacher-object-learner dynamics. Analyses showed that the PreGTs' comments in the first year were mainly focused on their lack of experience, whereas in the second and third year, musico-didactic considerations of practice and long-term priorities and goals started to emerge. In the following, we discuss five key points of the results of our analysis in relation to the theoretical framework of our study, i.e. didactics and activity theory.

1. Over the three-year training programme, the PreGTs' perspectives on the successful and unsuccessful implementation of their actions changed from a oneway linear dimension to the poly-directional, triangular dimension of the teacher-content-child didactic paradigm (Schneuwly, 2021). In first-year lessons, some PreGTs self-evaluated their practice based on the normative context of their training, i.e., they almost rote-implemented the procedures they were learning without taking into account the children's response. On the other hand, other PreGTs self-evaluated the successful or unsuccessful implementation of their skills with respect to the children's emotional states only, e.g., "fun", "joy". This means that the transmission of songs was 'adaptive' from an emotional and social point of view, but not yet from the point of view of the extemporaneous musico-didactic evaluation. This changed in the second and third lessons where the PreGTs increasingly related the self-evaluation of their actions to the self-evaluation of the children's response and achievement in terms of musico-didactic criteria. The goal Viky-2 set for her third-year lesson, namely "to do everything as correctly as possible", exemplifies the prototypical acting of PreGTs in the normative context in which cultural transmission takes place. We interpret this statement both in terms of musico-didactic 'correctness' and 'well-formedness' (Merker, 2009), framed for example, in the rules of the grammar of children's songs (Stadler Elmer, 2015), and in terms of 'adoption and adaptation' of the expectations of the training programme (Güsewell et al., 2016).
2. Our analyses showed that PreGTs tended to self-evaluate their practice more critically and negatively in the third year. This is a remarkable aspect of skill development as the PreGTs' self-evaluations were increasingly grounded on musico-didactic knowledge they were acquiring. For example, Ruth had self-assessed her 'work on melody' as "good" in the second year and "poor" in the third. What, if Ruth had self-evaluated this event in the other way round, i.e., "poor" in the second year and "good" in the third? Presumably, at first sight, we would have interpreted her self-evaluation as an improvement in quality year by year. However, based also on further data collected in our project (video-recorded lessons), we interpret this type of self-evaluation in a different way. In the second-year lesson, Ruth's musico-didactic skills were not yet developed enough to allow her to critically evaluate melody work on a well-founded basis. We interpret her "good" self-evaluation of 'work on the melody' in the second year in terms of having provided enough repetitions of the song model to the children. Whereas we interpret her "poor" evaluation in the third year as a sign of musico-teaching skills and knowledge Ruth had developed over the three years.
3. During the analysis, we paid close attention to the language used by the PreGTs when commenting on their practice. This was sometimes essential in interpreting their statements. For example, many PreGTs, in the first and second year, did not properly use "melody" as a technical term when they reported working on it, for example with repetitions. PreGTs used "melody" rather as a synonym for 'song'

(e.g., Verena-1, Table 10, category ‘ways of working on melody’). It is relevant for the professional development that in the third year increasingly more PreGTs used “melody” as a technical term, indicating by its awareness of an individual component of the song’s musico-linguistic structure (Stadler Elmer, 2015) and reporting that they worked on it, e.g., without lyrics, singing the tune only with one syllable.

4. PreGTs’ comments on the skills of ‘didactic transposition’ (Chevallard, 1991) tended to be made only in relation to the third-year lessons and not before. By ‘didactic transposition’ we refer to the strategies implemented by teachers to reduce the complexity of the target content they intend to transmit, i.e., the song. In the results of the study, we did not only identify patterns in the professional development of the group of PreGTs in relation to their year of training, but also some individual aspects independent of the training year.
5. The analyses showed that the PreGTs’ considerations for selecting the target song are manifold, and the decision is also guided by the difficulties they anticipate for the children and by those they face themselves when learning it. Both, the selection of the song as well as the acquisition by the teacher, are complex processes that need further considerations through research. What are social guidances for the decision, e.g., fashionable media or events, then traditions, prescriptions and suggestions. What are the resources available to expand the own song repertoire? Colleagues, books, media? What are the strategies to learn a new song? By sight reading, instrumental support, a colleague or a course, media? We noticed that many PreGTs considered the length of the song in terms of the number of verses as a selection criterium. Yet, only in the comments of one PreGT, Sarah-3, we identified the development of even more significant musico-didactic considerations. Sarah-3 stated that she learned that song selection should not be based solely on “teacher preference” and consideration of “appropriate lyrics” for children, but rather, that “song analysis” is a “necessary” condition for successful song transmission. These comments are relevant because by “song analysis”, Sarah referred to the normativity that governs the musico-linguistic structure of the song, which should be based on the grammar of children’s songs, i.e., the system of musical and linguistic rules that constitute the structure of songs in this genre (Stadler Elmer, 2015, 2021).

Although this detailed and in-depth study provides a rich insight into the practice of PreGTs and the issues they engage with during their training, it is to say that following the systematic procedure of qualitative content analysis as proposed by Mayring (2021) requires considerable resources in terms of time and teamwork to verify the consensus of interpretations. For the PreGTs, the teaching songs in class during the annual internship, the video-recording of the lesson, the related lesson-based interviews, and the annual completion of the semi-structured questionnaire created an atmosphere of enhanced self-awareness and self-evaluation. Although, according to the ethical informed consent, the ten PreGTs voluntarily participated in our study, none of them ever considered to quit. We believe that the PreGT’s teaching in class, their interview statements, and self-reports in the semi-structured questionnaire were serious and authentic, and therefore, have a high reliability and validity.

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Declaration of interest

The authors report no conflict of interest.

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