Raising Voices

Singing repertoire and practices in Swedish schools

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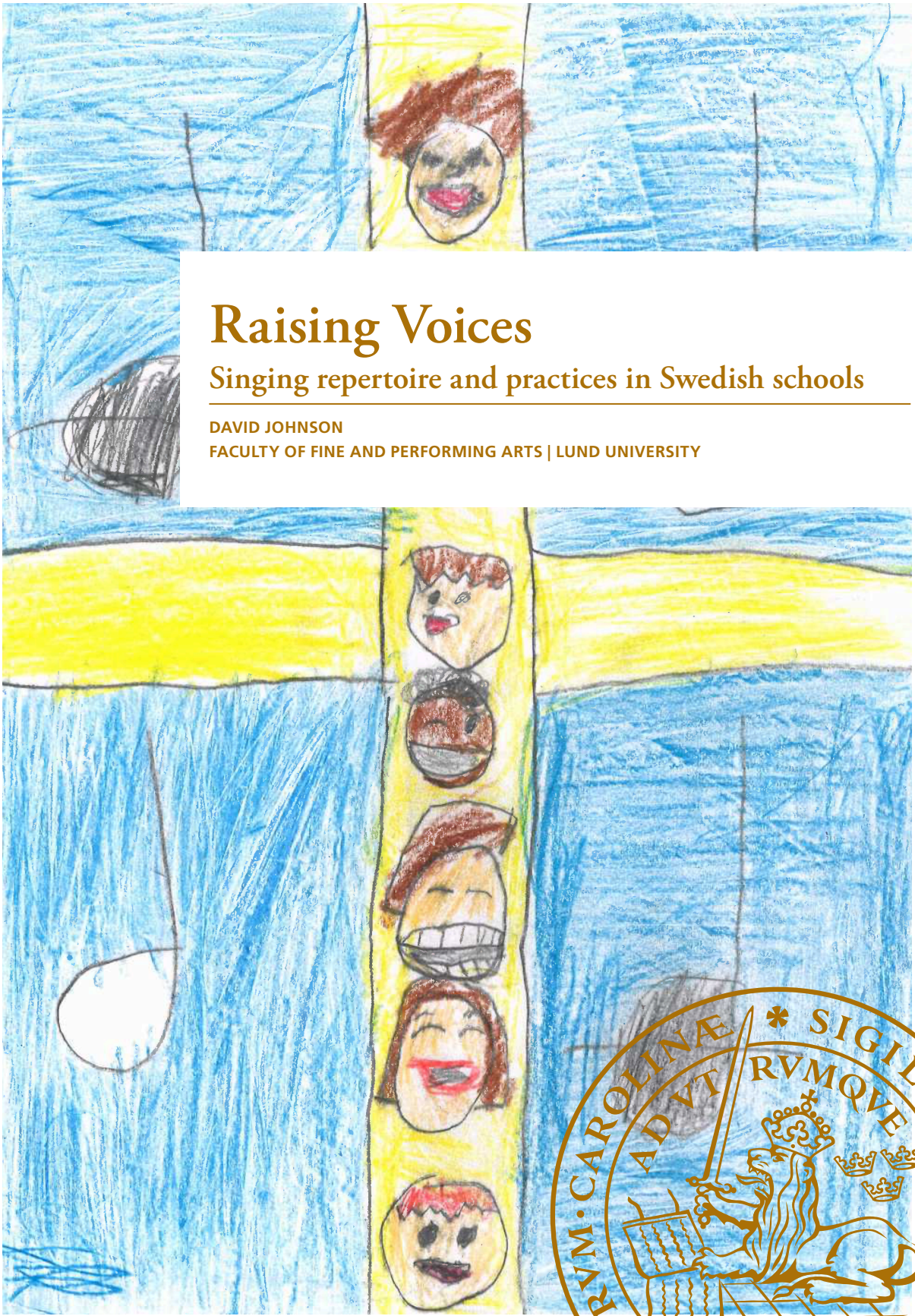

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Abstract

This doctoral study aims to (i) investigate current song repertoire and singing practices in Swedish elementary school music education and (ii) to critically assess what factors may be seen to affect singing practices and repertoire choice. It looks to map out *how much* young students are singing in the general music classroom, *what* they sing, and *how* they sing, and to discuss possible implications for pedagogical practice from an ethnomusicological perspective.

Data was collected through a survey of music teachers, conducted on a national level between May and September, 2016. In a mixed-mode questionnaire, teachers (N=287) provided a complete list of songs sung during the 2015-16 school year with a chosen grade (grade 4), as well as information such as chosen key, sources of repertoire, and other issues surrounding repertoire selection and classroom singing. Questions concerning factors that might potentially influence singing practice such as teacher age, sex, work experience and professional training, and choice of accompanying instrument were also included.The resulting repertoire list of 2,917 songs was analyzed according to such factors as vocal range, genre, age, and country of origin.

Results show singing to be a popular and important element of classroom music education among teachers and students; singing occupied on average just under two-fifths of class time. Student participation in choice of repertoire was found to be the most important criteria for teachers in repertoire selection.
Singing repertoire was found to have a strongly traditional Swedish character in terms of song origin, language, age, and function. The songs tended to be older Swedish music drawn from popular, children's, traditional and singer-songwriter music. Music of minority cultures from within Scandinavia and non-Western popular and traditional musics had a very low prevalence.

Prescribed singing range was found to be somewhat low and narrow in relation to students' expected vocal range. A majority of songs descended below C_4 and did not exceed C_5. While teacher education was found to be associated with wider prescribed singing ranges, even those teachers with relevant training tended to place songs below C_4. This low singing range was employed regardless of genre, with participants transcribing downwards well-known traditional music that did not conform to the low range. The low and narrow tessitura was also found to persist independently of school form and other background factors such as accompanying instrument, teacher age, sex, and professional experience. A dominant school singing style regarding prescribed singing range could thereby be described, with most participants placing music within the lower ranges of their student's voices close to spoken pitch while avoiding the upper or head register. These findings suggest that musical change on the microevolutionary level is occurring in Swedish classroom singing culture.

Key words singing, repertoire, schools, children, survey, ethnomusicology, cantometrics, microevolution

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MADE IN SWEDEN

”Those who do not sing cannot even imagine the joy of singing.”

– G.G. Márquez

”The sung soliloquy is only one of many techniques that the lonely and isolated individual employs to bring other human beings, at least symbolically, into his company.”

– Alan Lomax

Abstract

This doctoral study aims to (i) investigate current song repertoire and singing practices in Swedish elementary school music education and (ii) to assess what factors may be seen to affect singing practices and repertoire choice. It looks to map out *how much* young students are singing in the general music classroom, *what* they sing, and *how* they sing, and to discuss possible implications for pedagogical practice from an ethnomusicological perspective.

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Listen along to music examples cited in this text

Spotify playlist: Raising Voices playlist (on Spotify):

https://open.spotify.com/playlist/1T8N8mJH08QAQMU3qMWZQW?si=kjyDkZR1eLYHPLkvlRAg

"Inte stor nog" (Timbuktu, 2013) performed by children's ensemble: https://www.youtube.com/watch?v=HtrNbubtj6g

"Det kommer bli bra" (Laleh, 2020) performed with children's choir: https://www.youtube.com/watch?v=gyvtLSuiK1M

"Sankta Lucia" (trad./Elmblad, performed by Adolf Fredrik's youth choir, 2014): https://www.youtube.com/watch?v=zbwJe4iV1nk

"Nu grönskar det" *(Lindström/Bach,* performed by Adolf Fredrik's boys-choir, 2014): https://www.youtube.com/watch?v=vY05P6IdJOU

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1. Introduction: Singing in school, singing in society

The place, amount and character of singing in the contemporary music classroom – the focus of this study – has become an increasingly prominent concern in recent years among educators, researchers and policy makers in Sweden and internationally, with several voices in music education describing the state of singing in schools in terms of a crisis (Djupsjösbacka, 2018; Ashley, 2014; Chapman, 2006; Finney, 2000). These concerns may be summarized into three main, possibly interrelated issues: (i) that singing is a less prominent aspect of contemporary music education than in previous generations, (ii) that traditional singing repertoire is being phased out in favor of popular music, and (iii) that this in turn may be detrimentally affecting the way in which students and especially pre-pubescent students learn to sing. As the present study has been undertaken as a response to these concerns, I begin here with a brief introduction describing this perceived crisis in vocal music education, followed by an outline of the overall structure of this thesis, its scope, its questions, and its aims.

1.1 The place of singing in the classroom

The latest national evaluation of compulsory music education conducted by the Swedish National Agency for Education (Skolverket, 2015) suggested that singing was not a prioritized area of study in Swedish upper school. Grades 6 and 9 were chosen for evaluation, with a total of 400 schools included in the study.[1] The evaluation's conclusions however were largely based on a small follow-up observation study of chosen schools rather than on results from the evaluation's larger, comprehensive national questionnaire-based survey. Indeed, a weakness of the national survey which the authors themselves note in their final report was that none of the questionnaire's 58 questions specifically addressed singing education. Nevertheless, the authors found the results of the follow-up study sufficiently alarming to warrant mention and further research:

[1] A similar study was not undertaken by the National Agency at the elementary school level.

> In light of the follow-up study, a survey question [regarding the prominence of singing] should have been included, because if the schools visited in this study were to be considered representative of the country on a whole then singing has a very weak presence. (Skolverket, p. 70, my translation)

Concern over singing's waning role in the classroom led the Royal Swedish Academy of Music to announce plans in June, 2019 for a national initiative targeting music education for students in pre-school and primary school. In the project's well-publicized manifesto, the Academy director stated, "There are many of us who worry that children are no longer given the opportunity to develop their voices" (Rydén, 2019). The project aims to "make Sweden once again a singing nation" (Rydén, 2019). This sentiment is echoed by a reference group within the Swedish church musicians organization (Michelin et al., 2020) who warn that traditional music such as hymns which used to be a central element in classroom education are no longer taught in schools. They write, "Now it is up to us to save our national musical heritage", continuing:

> We in the church have to take responsibility for singing, to help people learn to and dare to sing. In this age where the dominant image of singing is based around television contests, solo singing and celebrity, the church has a unique position through church musicians to strengthen children's song development. (my translation)

Swedish authorities are not alone in questioning the changing place of singing in classroom music education. In England, researchers such as John Finney and Martin Ashley have warned that singing education is in "crisis" (Ashley, 2014) and has been relegated to "a twilight existence and marginal role" in the classroom (Finney, 2000, p. 203). Chapman (2006) has bemoaned the "tragic loss of school-based singing during the past three decades" (p. 1). In response, several European countries in recent years have launched initiatives to support singing in schools, including Norway's *Krafttak for sang* [A force for singing] and *Sangens hus* [Home of Singing] in Denmark. The most ambitious and well-known of these projects has been England's massive *Sing Up* program, a 40 million Pound, four-year national initiative that aimed to make high quality vocal music education a part of every school day for all school-aged children in England. The designs of the current Royal Swedish Academy of Music initiative and the Norwegian one are both based in part on elements drawn from the *Sing Up* program. In sum, a need to defend the place of singing in schools has been expressed both in Sweden and internationally. In light of these concerns, a detailed picture of current classroom practice such as the present study aims to provide may be a useful point of reference for music education researchers, policy makers and teaching professionals in discussing singing's place in current classroom practice.

1.2 Singing repertoire

Apfelstadt (2000) argues that choice of repertoire is "the single most important task that music educators face" (p. 19). Beyond the question of *how much* we are singing with children in music classrooms today, this issue of *what* we are singing with them is also contentious. One of the central aims of the "Save Children's Song" [*Rädda barnsång*] project[2] was to counter a perceived loss of traditional children's song repertoire. The initiative, which included national conferences, workshops and book publications, stressed the importance of singing traditions and traditional repertoire as a cornerstone of children's singing development. In a "Save Children's Song" publication, Ekberg et al. (2007) state:

> The Swedish people are a singing people. In our melodious Swedish language, we have a priceless treasure: songs waiting to be sung, melodies waiting to be hummed, nursery rhymes to be chanted. But what does the future hold? How do we preserve this living heritage in these times of rapid change, how do we care for this birth right? (p. 14, my translation)

Gunnel Fagius –who led the *Rädda barnsång* initiative– has argued that songs are "like relay batons – they have to be passed along" (Fagius, 2007, p. 83, my translation).

In Sweden, choice of repertoire has long been up to individual teachers and students; the last curriculum to prescribe repertoire in a significant way was that of 1969,[3] replaced in 1980 with a short and broadly formulated curriculum focusing on the role of music in society and for the individual. With no standard music textbooks or specific curricular guidelines, there is a potential for wide variation between schools in terms of singing repertoire and practices:

> Since the 1990s, a decentralized education system has been introduced. This means that teachers can teach in a variety of ways based on centrally defined criteria. Thus, there can be a great deal of variation in music education between schools. (Georgii-Hemming & Westfall, 2010, p. 23)

Some music educators contend, however, that the product of this discretionary freedom has not been greater diversity and representativity in the music chosen for classroom music learning, but rather "a new form of school music based on easy-to-

[2] "Save Children's Song" [*Rädda barnsång*] project was a joint initiative of the Uppsala University Choral Music Center and national youth choral organization UNGiKÖR launched in 2003.

[3] The current curriculum (2011) does give a handful of examples of songs or types of songs to be used in singing education, including the Swedish national anthem. This formulation has proved controvertial and is currently being reconsidered. ("Ilska mot Skolverkets förslag om nationalsången", *Aftonbladet*, November 7, 2019)

play pop and rock songs" (Georgii-Hemming & Westfall, 2010, p. 24). There are also concerns that the music of national minorities such as Sweden's indigenous Sámi culture are excluded from the classroom, despite recent curricular reforms supporting their inclusion (Skolverket, 2011).

If a narrow canon of school song repertoire continues to exist in Swedish schools – whether it be a traditional song heritage or a newer popular music one – it would be in defiance of the ever-increasing possibilities for personalized online access to music and the "playlist" form that have come to dominate music consumer tendencies in the first decades of the new millennium. Digital platforms have revolutionized music listening in a short time, rendering even recent theories and conceptions in Music Education and related fields obsolete. Consider for example Grove Music Dictionary's (Sadie, 2001) definition of "playlist" published just 20 years ago:

> Playlist (definition): a selection of popular songs guaranteed air time on a given radio station. (p. 914)

Times have changed, and most readers would probably regard the above definition from Grove's as hopelessly out of date. In 2001, the same year that Oxford University Press published the latest edition of the authoritative Grove Dictionary reference work, the Apple computer company launched a new portable listening device called the "iPod". Four years later, Chad Hurley, Steve Chen and Jawed Karim created the American video-sharing website *YouTube*, and three years after that, the music streaming service *Spotify* was released by 25-year-old Swedish entrepreneur Daniel Ek. These platforms have become so ubiquitous and central to our music culture that it is difficult for many to imagine a time without them. Indeed, most of the ten-year-old students entering the grade 4 music classrooms depicted in the present study will have known nothing else, and, for them, a playlist would have only its digital connotation: an ephemeral loop of songs chosen by the listeners themselves, often from digital sources like *Spotify*, offering a seemingly infinite catalogue of titles unbound by time, place, or sometimes even cost. Some have argued that the significance of recent rapid changes in how music is distributed, experienced, and produced on digital and online platforms has fundamentally changed our music culture, the ways in which music is perceived, and even ourselves, ushering in a new age, the "era of information saturation" (Hebert, 2014, p.117). Hebert and Ruthmann (2012) have argued that digital and online resources may support the development of greater cultural and musical diversity in the classroom.

And yet, traces of older musical media and culture persist, preserved in language that remains strangely and stubbornly attached to the obsolete technology of another generation. We are still unable to talk about music without reference to the vinyl recording: grooves, tracks, sides. Rappers release "mixtapes", though not on analog cassette, and "DJs" lay down beats, with or without actual discs for jockeying. And, returning to the first-named example, we still listen to *playlists*, but seldom those

curated by taste-makers on the radio. Indeed, one might argue that the meaning of the term has drifted as far as to almost mean its opposite: from a small, stable canon chosen by an elite, to an ever-changing pastiche emerging from a community of listeners, limited and regulated by the consumer's whim alone, although often mediated by the insinuating assistance of digital metadata algorithms that invisibly frame users' listening options.

If there are, then, at least two distinct definitions of "playlist", the question is which kind – the old or the new, or something in between – best describes the music getting "air time" in today's Swedish music classroom. To some extent, we might expect to find classroom music changing to reflect current music trends and tendencies that dominate music outside the classroom; we might, however, just as well anticipate finding another kind of music in the classroom that conforms to other ideals and traditions in opposition to commercial forces and technological advances. Mantie (2017) states, "The ways in which we discuss music learning and teaching today are not appreciably different from the way they were discussed 50 (if not 100) years ago" (p. 340). He argues that music education needs "new conceptual and metaphorical ways of thinking" (p. 340) to truly assimilate and adapt to new technology. The presence and effect of streaming and other digital sources on school song repertoire has not been previously measured in Swedish schools.

To gain a better understanding of these issues, it is essential to have a clear, empirically-based assessment of song repertoire selection: what is being sung, what resources are used by teachers in finding repertoire for their lessons, and what factors may influence choice of repertoire. With such an assessment, it becomes possible to consider to what extent current classroom playlists seek to mirror present-day popular music culture for young learners, to what extent they seek to foster an alternative, and why.

1.3 Singing practices

If traditional children's music is in fact losing ground to popular music, it could be important from a Music Education perspective to consider what may be lost and what might be gained from this evolution in teaching practices. Of particular concern for many within the Swedish choral music world and notably by the *Rädda barnsång* initiative is that contemporary pop music vocal ideals may be poorly adapted to young children's developing voices compared to traditional singing repertoire (Fagius, 2007). There is a broadly held perception that chosen singing ranges for classroom singing with young children in Sweden are sinking, and the increased use of popular music as song repertoire is often held up as an explanation for this phenomenon. According to Fagius, "A child's vocal role model today is often a singer who sounds powerful in their lower range with the help of a microphone, something a child's vocal chords can't manage" (Fagius, 2003). Establishing teaching resources and teacher training to support developmentally appropriate singing instruction with young voices is one of the central aims of current Swedish pedagogical initiatives such as *Sjungande barn* (2019) and *Rösträtt* (2020).[4] This study has been undertaken in part to give an empirical basis for this debate and to investigate which background factors may be associated with lower singing ranges in classroom music singing with young voices.

1.4 The place of singing in society

Changes in classroom singing practices may be expected to have an impact on coming generations' singing habits and on the nation's musical life, although as Green (2011) states, this relationship between formal music education and music in society is complex and underresearched. Lindberg (2002) suggests that the *Skolradio* national classroom singing initiative (1936-1969) may have been a contributing factor to the "Swedish Choral Miracle"– the emergence of exceptionally broad participation in choral life and world class Swedish choirs and composers at the end of the 20th century. The Swedish Choral Society estimates that some 600,000 Swedes sing in a choir, making Sweden the nation with the highest *per capita* participation in choral life in the world (Sveriges Körförbund, 2021). The teachers and young students described in the present study represent the next generation in this singing society. A child's first experiences of ensemble singing in school can mark their musical identities for life (Welch, 2017; Knight, 1999), and the choices teachers make when

[4] I have been involved as an advisor, researcher and project developer for both *Sjungande barn* and *Rösträtt* since December, 2018. I also serve as an advisor for Norway's *Krafttak for sang*.

singing with their students in the classroom today will frame singing practices in society for years to come.

At the same time, changes in classroom singing practices may also be expected to reflect and interpret the singing practices found beyond the classroom in society at large. With its close association to collective celebrations, rituals, and events, singing is a social activity laden with social and cultural meaning (Lomax, 1968). From an ethnomusicological perspective – that is, looking at music in terms of its social and cultural context (Farrell, 2004) – singing education brings the child in contact with repertoire and singing practices that express the fundamental "values and tensions" (Nettl, 1995, p. 126) upon which a social structure is built. Elements such as tone, vocal range and register, far from being neutral tools at a singer's disposal, are structural elements bearing cultural meaning (Lomax, 1968). In this regard, students in the general music classroom are not only discovering their own voices but also learning to express themselves within their specific cultural framework. This can be a daunting task. The social and cultural parameters of acceptable singing behaviours introduce an element of risk, where it is not only a question of singing or not singing, but of singing correctly or incorrectly. As Adorno (1992) tersely states, "Music is a succession of articulated sounds… like logic, it can be right or wrong" (p. 1). Lomax (1968) develops this idea further:

> If the singer oversteps the bounds of proper vocalizing in a given cultural context, they rouse feelings of shame, amusement, or anger among the hearers. This is because singing like speech is a language. Therefore, its use of tone, meter and much more must be bound by formal conventions if it is to communicate effectively. (p. 11)

As Lomax suggests, to sing is to communicate within a cultural idiom, and this implies the risk of saying something wrong.

The drama of failing to conform to these "formal conventions" of singing in school was so central to the plot twist of the recent popular Swedish children's TV-program *Mirakel* (Young, 2020) that it may serve as an interesting reference point and introduction to the present study's themes. In a tale of time travel, two school-age girls, Mira and Rakel – one portrayed as a great singer, the other as a terrible singer – switch bodies and eras with each other. The great singer Mira travels to the 1920's, while the terrible singer Rakel travels to the present day. Mira – the girl from the future – begins her first day of school in the 1920's gawking incredulously at her classmates, who start the school day standing at stiff attention by their desks, facing forward and droning joylessly along to *Psalm 176*, "Din klara sol går åter upp". Their teacher accompanies them on organ at the front of the classroom, casting a grave and appraising look over his singers as he plays. The whole production is so ridiculous to Mira that she doesn't even pretend to sing along.

This portrayal of past Swedish classroom practices is accurate in so far as the hymn in question (written in 1814) was sung as a traditional start to the school day for

much of the 1800's and early 1900's. In its original key of C major it has a modest, relaxed range of C_4-C_5. The performance in the episode however places the song a fourth lower to G major, contributing to the performance's tedious and dour impression.

The episode is set at Christmas time, and Mira finds herself in a well-to-do family where the mother insists on parading her daughter in front of family and servants to sing popular carols, unwilling to acknowledge that the assembled audience seem to feel her daughter sings terribly. This time, to everyone's surprise and delight, Mira descends from her room to the piano room, singing the Swedish Lucia festival hymn "Sankta Lucia" in a clear, unwavering tone. The song is placed in C major, showing off Mira's high register from D_4 to E_5. The mother is reduced to tears of joy and a feud between brothers is forgotten in the beauty of the performance. The song saves Christmas.

Back in the future, however, singing gets the other girl, Rakel, into trouble. Rakel loves this school of the future, where her teacher enthuses that she can be Lucia or whatever character she wants to be in this year's Lucia procession, encouraging the class to "stand anyway you like, it looks much better that way!! Don't hold back, now. Sing out!!". The children begin singing gently in two-part harmony, marching into the auditorium where their parents are waiting with mobile phones recording their performance. Somehow, following the impossible logic of a nightmare, Rakel's voice becomes more and more prominent from among the rest of the choir. It is heard breaking and singing out of tune. As it gets more prominent, the rest of the choir stop singing along, leaving Rakel to finish the song solo. Her performance is followed by a beat of silence, before some of the other children start to laugh, followed by some of the parents joining in the laughter. "Wow", says one chorister to Rakel, "that was the worst thing I ever heard!". Rakel runs from the stage. Her exposure as not being able to sing beautifully like Mira potentially ruins the girls' plot to return to their real lives and restore order to the universe. These children representing the school kids of today sing "Sankta Lucia" in $A^{\flat}$ – a third below Mira's rendition from the 1920's. Rakel can't seem to master either version. She is a non-singer in the eyes of both the past and the present.

The example of Mira and Rakel highlights several aspects of contemporary Swedish singing culture that speak to the relevance of the present study. It is a useful illustration of the importance of singing traditions both in school and in the home, and indicates what sort of rules and attitudes are implicitly understood in the popular imagination to govern such ceremonies where singing is involved. These rules and regulations are so well understood that they can even serve as the turning point in a dramatic scenario where the future of the world may hinge on the proper singing behavior. We see the drama underlying the experience of being brought up – raised – within a particular singing culture. We also see how singing range and register are elements that affect the meaning of a performance, and how these elements are

equally well understood so that they are employed – consciously or not – by the filmmakers to set different moods and contrast the old-fashioned from the modern. We see how "raising voices" can change the meaning of the music we sing. Not least remarkable, the episode illustrates a notable ambiguity surrounding the performance key of "Sankta Lucia", arguably the single most important children's song in Swedish culture and the highlight of the Christmas season.

If school singing repertoire and singing practices are changing, it may be necessary to consider the cultural and social significance of vocal ideals as factors underlying pedagogical practices. It is with these considerations in mind that an ethnomusicological perspective is considered in the present study: to provide theoretical frameworks that can explain repertoire selection and the evolution of singing behavior.

1.5 Study aims and questions

Three main issues – *how much* young children are singing, *what* they are singing, and *how* they are singing in compulsory music education – serve as the central areas of interest in the present study. It will describe contemporary Swedish school music singing repertoire and practices, analyze the relationships between teacher, student, musical culture and tradition that give rise to school singing practices, and assess the pedagogical outcomes that stem from this interaction. As many of the current concerns outlined above focus on issues specific to pre-pubescent voices, the study is based on a survey of grade 4, or 10 and 11 year old students. The primary aims of this study are threefold: (i) to determine the place of singing in the Swedish general music classroom, (ii) to investigate repertoire and singing practices, and (iii) to assess what factors may be seen to affect singing practices and repertoire choice. A further aim is to set these findings in an ethnomusicological perspective: that is, to understand study findings in terms of classroom singing within its social and cultural context. The research questions are as follows:

- What is the place of singing in the general music classroom?
- What criteria do teachers employ in the selection of singing repertoire?
- What is the nature of song repertoire and singing practices in contemporary Swedish general classroom music teaching?
- What factors are associated with repertoire choice and singing practices?

1.6 The orientation of the present study within Music Education research

This study falls within the framework of Music Education research due to its object of study: that is, the relationships between teachers, students, and music. As Keith Swanwick (2004) argues, Music Education research keeps these relationships ”in the center of the frame” (p. 242). Swanwick continues:

> Whatever our focus, terminology or theoretical frame, the illumination of musical transactions surely is an important credential for any research in music education. It is by this touchstone that we decide what questions are important in the field of music education. (p. 242)

Furthermore, as a study in the field of Music Education research, and in conformity with guidelines for doctoral studies in Music Education at the Malmö Academy of Music, Lund University, a guiding motivation for this research is to contribute useful knowledge to music educators. Singing has long been regarded as a cornerstone of music education in the general music classroom, and a firm basis in well-grounded and valid empirical research findings in this subject can serve as a basis for increased understanding, development, and learning resources for music educators and students.

The question of song repertoire selection can be a fruitful starting point for researching and understanding contemporary musical education on many levels. It is the crossroads where teachers attempt to follow curriculum guidelines, curate a repertoire of musical culture considered of value, engage with students' musical cultures and ambitions and, not least, try to make music together. As such, it can provide unique insight into how contemporary musical culture finds expression and how it is being interpreted and experienced in the classroom. With these goals in mind, this study has been undertaken to capture a clear and focused snapshot of the vocal music repertoire and singing practices in Swedish compulsory education today, and to assess the repertoire according to criteria that may affect learning outcomes.

1.7 Structure of the thesis

This doctoral thesis is written in monograph form with seven chapters:

Chapter 1 provides a general introduction to the themes, aims and questions to be addressed, plus a disposition of the work as a whole.

Chapter 2 serves as a background to establish the significance and scope of the issues underlying the present study with reference to previous research in the field.

Chapter 3 presents the theoretical perspectives that have been considered relevant for understanding and discussing the present study's results.

Chapter 4 presents the methodology and methods used in this study's data collection and analyses.

Chapter 5 reports the study's results. Findings such as genre analysis of song repertoire, percentage of class time devoted to singing, prescribed singing range, and associated factors are presented.

Chapter 6 presents a discussion of the main findings in relation to previous research and theory.

Chapter 7 closes the thesis with directions for further research and concluding remarks.

2. Background: Singing in and out of school

This background chapter will present previous research relevant to the subject of singing practices and repertoire for young voices in schools. Questions pertaining to singing both within formal education and also outside of the classroom in society will be addressed. The chapter begins by considering some of the ways in which singing has been seen to have a special nature or *primacy* among instruments in Western musical culture as well as singing's position within music education. It will present research and perspectives on the historical development of singing in Swedish schools and discuss factors such as nationalism and evolving pedagogical philosophies. Previous research pertaining to singing repertoire in Swedish schools will be presented as a background to the results of the present study's mapping of current song repertoire. Factors such as changing curricular demands, demographic shifts, evolving consumer habits, and vocal ideals will be addressed. Finally, as a background to the present study's inquiry into how current vocal repertoire is used, the chapter maps out current voice research relevant to vocal pedagogy with young voices.

2.1 The voice

The voice is almost certainly humanity's oldest musical instrument and singing is a near universal, central element in most known musical cultures past and present (Bithell, 2014; Dalla Bella, 2014). Potter and Sorrell (2012) stress how difficult it is to form an accurate picture of singing practices and vocal ideals from musical eras preceding the Late Romantic and Modern periods, let alone gain an understanding of the pre-history of singing. Nevertheless, they argue that there are strong grounds for the assumption that singing has been a defining and significant social behavior of our species from the earliest forms of human social organization. These ancient origins of singing are widely accepted in the fields of ethnomusicology and voice research; Dalla Bella (2014) describes singing as "a widespread likely biologically rooted human activity" (p. 356), arguing that "singing and vocalization, far from being a mere

cultural frill, likely played a role during evolution" (p. 356). Dalla Bella (2014) continues:

> It can be observed across cultures that people enjoy singing in particular when acting in a group. Favouring group cohesion is one of the reasons, together with sexual selection and mood regulation, why music may have had some adaptive value during evolution. (p. 356)

The ancient origins of singing and group singing may be seen as giving the voice a special primacy among musical instruments: an instrument that has possibly played a decisive role in natural selection and the evolution of the human species and been integral to social cohesion. As such, it could be argued, singing is in many ways a fundamental part of human nature. Indeed, some research suggests that singing is even more universal than this, arguing that important aspects of human singing behavior connected to the communication of emotion may be observed in other species as well (i.e., the field of Biomusicology). Coutinho et al. (2014) write, "Emotion and vocal expression of emotion are not only common to all human cultures but even widespread (at least in rudimentary forms) among many other species, especially mammals, particularily in species where social life is based on complex interactions among individuals" (p. 298). In short, singing is an ancient and universal musical behavior, serving the vital purpose of non-verbal communication. Through song, emotion can be shared within a group.

Coutinho et al. (2014) argue that singing can be seen as involving not only the communication of emotion but also to some degree the actual experience of emotions themselves by the singer. To understand this distinction, voice researchers differentiate between "push-effects" – the ways in which singers' physical experience of emotion affects their vocal production, and "pull-effects" – the conscious and discursive altering of the voice to convey emotion to the listener (Coutinho et al., 2014; Juslin & Laukka, 2003). Coutinho et al. (2014) write:

> 'Push-effects' are produced by the physiological changes that accompany emotional arousal and that consequently change the voice production mechanism in stereotypical ways (e.g., increased tension of the laryngeal muscles, in addition to subglottal pressure and other factors, will lead to the production of a higher fundamental frequency of the voice). Pull effects, instead, are independent of the internal physiological processes of the organism. Their origins are found in external factors, such as ritualized or conventionalized acoustic patterns of communication. In most cases, the acoustic structure of a vocalization, particularly in humans, is determined by both types of effects: the effects of emotion-related physiological changes internal to the organism, and effects of external constraints or social target patterns. Given the difficulty of disentangling the two types of effects, most studies so far have not differentiated between push and pull effects. (p. 299)

Although it may be difficult to differentiate between push and pull in experimental settings (Coutinho et al., 2019), singing can be seen to consist both of lived and performed emotions communicated by the singer: a mix of push and pull. Juslin and Laukka (2003) argue that ”vocal expression of emotions typically involves a combination of push and pull effects, and it is generally assumed that posed expression tends to be modelled on the basis of natural expression” (p. 774). This is a performance mode arguably unique to the voice, as the instrument requires of the performer some of the physiological changes associated with heightened emotional states in order to achieve certain musical effects. Coutinho et al. (2014) conclude, ”Singers’ physiologically determined emotional states are certainly a powerful factor in determining a large number of vocal characteristics and, in some cases, may be necessary to operationalize affective intentions” (p. 302). Singers are to some degree expressing their lived emotion through song.

To sing, then, is both to communicate and to feel emotion, giving vocal music a ”special role”, being ”the most likely candidate to evoke strong emotional feelings” (Coutinho et al., 2014, p. 298). The ability for listeners to consistently identify intended emotion in sung performances based on factors such as pitch, loudness, frequency contour, and variation has been shown to be cross-cultural and to develop in early childhood (Friedman et al., 2018; Juslin and Laukka, 2003; Laukka et al., 2014; Sundberg, 2017; Truesdale, 2018). A metastudy of listeners’ understanding of vocal emotional cues found that people consistently identify certain vocal behaviors with specific emotional states; high fundamental frequency was associated with joy, anger and fear, while low was associated with sadness and tenderness. Higher arousal level was associated with higher mean frequency and range (Coutinho et al., 2014; Weusthoff, 2013). Kamiloğlu et al. (2020) conclude, ”The voice conveys emotional states, each characterized by a unique acoustic profile” (p. 237). What the singer feels, is heard; as Truesdale puts it, ”The worst keeper of secrets is one’s own voice” (Truesdale, 2018, p. 124). In other words, aspects of vocal performance such as pitch and range carry with them an expression of the singer’s inner state.

Just as singing probably has been humanity’s first musical instrument, it is also the first instrument of musical expression for the child. Singing behavior is observable already in the first year of life and preceding speech, arguably making singing our first mode of communication (Dalla Bella, 2014; Welch & Preti, 2014). Current theories of childhood musical development posit that connections between voice and emotion are likely already first established before birth in the last trimester of pregnancy when the unborn child is able to listen to the mother’s voice while simultaneously experiencing changes in her hormonal levels:

> Mothers’ musical pleasure (expressed vocally and hormonally) will be communicated to her foetus … thus the child enters the world with an emotional ’bias’ towards certain sounds, linked to their earliest acoustic and affective experiences of the maternal vocal pitch contour. (Welch & Preti, 2014, p. 375)

Singing or song-like behaviors are observable from three months (Dalla Bella, 2014), and research on early childhood language development supports the view that children focus first on the interpretation and imitation of the prosody or "melody" of speech before attempting to build meaning with words; Welch and Preti (2014) state, "The prosodic envelopes that define spoken phrases are thought to be essential perceptual building blocks in the infant's developing comprehension of language" (p. 370). In other words, we learn "the tune before the words" (Welch & Preti, 2014, p. 371). Singing comes first.

Singing abilities in children have been shown to follow established developmental phases (Dalla Bella, 2009; Heddon, 2012; Leighton & Lamont, 2006; Rutkowski, 1990; Welch, 1986; Welch, 2000). There is an established body of research on song development in young children based on large samples and accepted developmental frameworks such as Welch's (1986) and Rutkowski's (1990) that evaluate children's singing abilities according to a developmental model based on age rather than earlier deficit models that regarded singing inability as evidence of underlying pathology (Mang, 2006; Leighton & Lamont, 2006). Since the 1980's, Welch's and Rutkowski's research in particular has been instrumental in advancing the perspective that "singing is a developmental skill, rather than an ability with which people are either genetically endowed or not" (Mang, 2006, p. 162) and in establishing models of vocal development where singing behaviors may be categorized into stages along a developmental continuum. Welch et al. (2014) state that singing competences are a function of "developmental processes that are mediated by maturation, experience and socio-cultural context" (p. 4). Children, then, can be expected to learn to sing, following known developmental stages, but at a pace that will be affected by both internal and external factors.

To summarize, voice research tends to support the idea of the primacy of the voice as a musical instrument in several important respects: its universality and antiquity, its connection to social function and communication of emotion, and its early and structured development in childhood. Dalla Bella (2009) argues that these three factors taken together support the thesis that singing can be seen as a species-defining trait that has served an important function in evolutionary terms through the process of natural selection: "With universality, early emergence, and orderly development, singing may fulfil some of the classic criteria for a complex human adaptation" (p. 70). In other words, singing is a unique and universal medium for human expression.

Because of its important role in human expression, singing may be expected to be a significant aspect of interpersonal communication, social well-being, and social life. These elements of vocal behavior will be considered in the following two sections.

2.1.1 Singing, identity and well-being

Both the close association between song and language and the unique fact of the vocal instrument being a sounding expression of our bodies themselves contribute to making the singing voice an important part of our identity and identity-creation (Björck, 2011; Borgström Källen, 2014; Hentschel, 2017; Leijonhufvud, 2011; Welch, 2017). The singer's body is itself the instrument: that is, ”The phonic corresponds to the somatic” (Feldman, 2014, p. 653). This renders the vocal instrument ”uniquely inside and outside our bodies” (Feldman, 2014, p. 660). As Brown (1996) explains, “Your voice is as unique as your face” (p. 2):

> Each individual has his or her own “voice print” – as distinctive as one's fingerprint. This should give you a sense of how very special you are – one of a kind – and explain why it is so important that you develop an awareness of what your voice feels and sounds like without imitating any other voice. (p. 3)

The singer's throat, face and facial expressions are broadcast in the act of singing as they are important elements in the vocal apparatus; in song, then, we intimately reveal ourselves in a sounding reflection, a sonic image of that part of our body most closely associated with personal identity. This connection between body, emotional communication and sound makes singing ”the most personal form of music expression available to human beings” (Rutkowski, 1990, p. 354). Welch and Preti (2014) state that ”voice is an essential aspect of our human identity: of who we are, how we feel, how we communicate, and how other people experience us”. As such, learning to sing can be seen as a ”metaphor for self-discovery” (p. 6). The voice is an important part of who a person is and how they understand themselves.

Possibly due to the connections between voice, emotion, identity, and self-expression, singing and especially group singing has been shown in multiple studies to positively affect well-being and foster social cohesion. Welch and Preti (2014) state, ”The connection between singing and improvement of mood, social interaction, health-related quality of life, mental health, and well-being has been consistently reported in the literature” (p. 382). A large-scale evaluation of the impact of England's *Sing Up* program which measured both singing skill and non-musical factors such as social inclusion and sense of self found a significant association between singing abilities and feelings of well-being and inclusion (Welch et al., 2009). The report concluded: ”In essence, the higher the normalized singing development rating, the greater the positive sense of self and social inclusion that was reported by the child” (Welch et al., 2009, p. 50). Welch et al. (2014) hailed these results as illustrating singing's potential social-psychological impact and cite the study results as ”evidence that singing can be beneficial in creating a sense of community” (p. 9). Singing thus has a potential to improve young learners' sense of self and feeling of well-being. Welch and Preti (2014) conclude, ”When provided with an appropriately

nurturing environment, developing singers are likely to increase their range of vocal behaviours, improve their self-image, and generally feel better" (p. 378). In sum, these results might suggest that the more one sings with others, the better one feels.

A further mode of singing behavior research has identified as significant in terms of the development of communication skills and maintaining a sense of social well-being is singing to oneself. Beginning in early childhood and often persisting on into adulthood, an important mode or use of singing is not for others but rather for ourselves. Welch and Preti (2014) use the term "intra-personal" communication to differentiate this important singing behavior from "interpersonal" performance with others. They state, "As the human develops social awareness and communicative vocal skills there is a shift from communication that is biased toward the intrapersonal to the possibilities of interpersonal communication in singing, but the former will always be present" (Welch & Preti, p. 377). The contention is that singing to ourselves serves a separate and significant function that begins in early life and continues throughout adulthood:

> Even less skilled singers may sing alone and to themselves, either as an accompaniment to another activity (such as showering, housework, driving, deskwork, gardening) or just for its own sake. This is further indication of pleasurable intra-personal musical communication, first evidenced in infancy, and of the interrelated nature of singing, emotion, and self. (Welch & Preti, 2014, p. 378)

The thrust of this research serves to further deepen our understanding of connections between singing, communication, and social well-being. Beyond a mode of self-care, intra-personal singing – like all singing – can still be regarded as having a communicative element. As Welch and Preti (2014) state, to sing is to communicate. Based on his cross-cultural study of diverse singing cultures, Lomax (1968) concludes: "The sung soliloquy is only one of many techniques that the lonely and isolated individual employs to bring other human beings, at least symbolically, into his company" (p.15). In other words, singing, like speaking, may be said to always imply a listener.

In conclusion, current research has established the unique role of the singing voice in language acquisition, communication, and sense of self, making singing a significant factor in the development of personal identity and a sense of social and emotional well-being.

2.1.2 Singing abilities in the general population

Singing deficiencies and disorders – both acquired and congenital – have been widely researched for more than a century, but systematically studied only recently (Dalla Bella, 2009; Peretz, 2002; Tillmann et al., 2016). Peretz (2002) has proposed the term "congenital amusia" to replace colloquial labels such as "tone deafness", with the

term ”amusia” intended to encompass multiple forms of music disorders that may contribute to a person’s inability to sing. The prevalence of amusia in the general population has recently been found to be around 1.5% (Peretz & Vuvan, 2017). This is significantly lower than previously thought (Peretz, 2004). Meanwhile, research shows that factors underlying singing abilities such as pitch-matching and pitch memory are ”more widespread than currently believed” (Dalla Bella & Peretz, 2007, p. 1188). Levitin (1994) and Frieler et al. (2013) have found that memory for absolute pitch is also widespread, and Van Hedger (2018) found that most individuals have reliable long-term memories for the pitch of music recordings. Bartlette (2015) and Dalla Bella and Peretz (2007) found that while absolute pitch is rare, the ability to recognize and reproduce the pitch of well-known music without reference to musical labels – the ability called ”latent absolute pitch” – is common.

While disorders interfering with the ability to sing affect fewer than 2% of the population, a considerably higher number of people consistently self-identify as unable to sing – or as ”non-singers” – in studies spanning the past 30 years (Cuddy & Peretz, 2006; Dalla Bella, 2009; Knight, 1999; Peretz, 2004; Pfordresher & Brown 2007; Richards & Durant, 2003; Rutkowski, 1990; Welch, 2017; Whidden, 2010). Rutkowski’s (1990) landmark research reported that 18% of children in elementary school were labelled as ”problem singers”. A survey by Cuddy and Peretz (2006) found that 17% of university students felt they could not sing proficiently, while 60% of university students in a study by Pfordresher and Brown (2007) self-reported that they could not imitate a melody by singing. In a survey by Knight (1999) some 43% of participants in a population of young adults self-identified as ”poor” or ”non-singers”. Knight’s reflection on the study’s results summarizes succinctly some of the concerns raised by these findings in the context of the present discussion:

> Being able to sing is an important human function. That singing is not only integral to all human cultures, but is expressive of the relationships within those cultures points out how basic to our human nature is the need to sing. It is as basic as our need to belong to our culture, which is the way we understand ourselves. Therefore, that people should spend their whole lives not singing because they believe they cannot, when in fact they probably could, is a very troubling issue. (p.145)

In light of the considerable scientific evidence showing singing to be a species-defining behavior with important adaptive functions, it may be cause for surprise and concern that a significant proportion of the population in Western cultural contexts underestimate their singing abilities or consider themselves unable to sing. Welch (2017) notes ”the demonstrable and generally consistent trend for participants to underrate their singing competence” (p. 546), adding, ”Why some adults should adopt a negative singing identity, despite actually being able to sing approximately in-tune when tested, is not clear” (p. 546). The rich diversity of different labels and slurs used over the years to describe singing inability – droners, grunters, growlers,

monotones, backwards singers, tone dumb, tone deaf, poor pitch singers, non-singers, inaccurate singers, *onchi* (Japanese, literally meaning ”tune idiot”) (Mang, 2006; Welch, 2017) – seems in itself suggestive of a longstanding social phenomenon of particular significance.

In her early study of so-called ”non-singers”, Knight (1999) found that her participants' belief in their inability to sing could often be traced back to a negative singing experience from early childhood, usually involving an authority figure such as a teacher or choirmaster in an ensemble situation. Knight (1999) reported cases where a single negative experience in school or extra-curricular choir contexts could be shown to have multi-generational effects. During the course of her research, Knight discovered that the majority of the children with singing difficulties participating in her study had parents who had been ”silenced as singers in childhood, all in ensemble settings at school” (p. 145). These parents described how they refrained from singing around their children, ”for fear of 'contaminating' their children's chance of singing” (p. 145). Several studies of non-singers cite cultural factors, specifically elitist and exclusionary aspects of music-making and music education in Western societies, as the cause of negative misperceptions concerning one's ability to participate actively in singing (Knight, 1999; Richards & Durant, 2003; Whidden, 2010). Peretz (2004) writes that there is a general understanding among many researchers and educators that self-labelled ”amusics” are not amusical at all but rather ”dropouts of music education systems that favor the musical elite” (p. 356). This conclusion is echoed by Richards and Durant (2003), who write:

> It is a commonly held belief in Western society that we are not all born with the ability to sing. In the often musically elitist context of Western society it is often assumed that singing is something that you either can or can't do. (p. 78)

If many young singers are taught in formal music settings that they can not sing, it might explain what Welch (2017) identifies as the apparently ”paradoxical” observation that ”as children grow older and become more competent at singing, they tend to become more negative about singing in school” (p. 553). Welch decries the ”inappropriate and adverse comments from teachers that can dissuade children from singing activities” (p. 554), adding that such comments ”significantly hinder their singing development and thus create a negative singer identity” (p. 554). He suggests that teacher insecurity about their own abilities to sing and effectively teach the subject of singing may be an underlying factor:

> Such experience may derive from a tendency for elementary teachers to feel less confident about leading music in their classes, often because they are reported to believe that they lack appropriate music subject knowledge and have limited faith in their own musicality. (Welch, 2017, p. 554)

In these instances, a similar multi-generational transmission of negative singer identity as that first described by Knight may be seen to be at work, tragically in these cases, in an environment intended to nurture and encourage learning. As an indication of negative singing experiences in formal music education, Welch (2017) cites a 2005 study of children aged 9-10 years that found that 64% of participants enjoyed singing at home, but only 36% enjoyed singing at school.

To summarize, while research strongly indicates the near universal human ability and need to sing, a significant proportion of the general population believes they cannot. Furthermore, it has been argued in research on ”non-singers” over several decades that negative experiences of ensemble singing in schools and other formal educational settings may contribute significantly to the perpetuation of negative singing identities.

2.3 Singing in Swedish schools

The intimate association between identity and voice can be seen to have played an important role in shaping the historical development of singing in national education in Europe, as well as singing's complex ties to national ideals and ethnic identity (Bohlman, 2010; Hoegaerts, 2014). Bohlman (2010) writes that ”It was through song that the music of one nation came to be different from that of another” (p. 28) during the formation of the modern European nation state. Pioneering Swedish music educator Hjalmar Torell described group singing as a ”spiritual national service” in 1937, saying that, ”only a strong nations sings, a weak one, never” (Lindberg, 2002, p. 194). Considering the voice's primacy and intimate connection to language and group identity, it is hardly surprising that singing has traditionally been held as a fundamental aspect of music education, in Sweden and throughout Europe (Flodin, 1998; Johnson, 2020; Lindberg, 2002; Netterstad, 1982; Paulsson, 2006), especially during the period of the establishment of national educational systems during the 19th and first half of the 20th century.

Bohlman (2010) argues that the establishment of national folk music styles or national music canons and the creation of national education systems should be seen as interrelated processes fundamental to the building of modern European nation-states. The idea that music and music education could express the distinct “soul” of the emerging nation was grounded in German Idealist thought, especially that of Johann Gottfried Herder (1744-1803), who saw the *volkslied* as a cultural expression that reconciled the individual and the group, the universal and the specific:

> For the eighteenth-century philosophers and political leaders alike, music increasingly contributed to the capacity of the nation to achieve its beginnings – not music in

> general, but rather song as the highest and most collective form of language. The nation was to be a collectivity articulated through song. (Bohlman, 2010, p. 27)

In Sweden, as in other European countries, the drive to collect regional folk songs during the 19th century could be seen as an attempt to "sound the nation into being" (Bohlman, 2010, p. 62), lending credibility to the assertion of national sovereignty by offering an image of a musical unity that predated the nation, signifying the nation "even before there is a nation to signify" (p. 62). The expanding national education system at the same time served to instill a sense of national identity and belonging through a shared and standardized set of practices, experiences, knowledge and culture that sought to eliminate regional differences and establish a musical culture representing an imagined, homogeneous Swedish identity (Flodin, 1998; Lindberg, 2002). Lindberg (2002) writes, "The same cultural and social currents that lay beneath the creation of institutions of mass education for the people were those that drove the exploration of folk songs and melodies that began in the 1810's" (p. 45). Consequently, school singing was at its origins based around an emergent national(ist) repertoire with a clear, nation-building imperative: "Singing repertoire in public schools was already early on intended to develop general moral attitudes and prepare the child to become a useful citizen in Swedish society" (p. 45). This "tradition-heavy ballast of songs for proper moral and fosterland upbringing" (p. 45) maintained an important place within the school repertoire tradition long into the 1900's.

An explicit and to contemporary ears perhaps quixotic attempt to perpetuate the 19th century penchant for nationalist song in music education long into the 20th century was the "Core Songs"[5] (*stamsånger*) initiative of the *Society for Unison Singing* (*Samfund för Unisonsång*). The *Society* was a national organisation founded in Sweden in 1905, in the shadow of Norway's secession from Sweden. It had the stated goal of "marshalling and uniting our people and to strengthen their love of country", and was responsible for the collection and inclusion of what became known as the *stamsånger* in the national school curriculum of 1919 (Lindberg, 2002, p. 194). This list of 13 songs was given a royal mandate and expanded to 20 in 1946, including the national anthem and popular Christmas hymns. The initiative enjoyed an enduring presence in classroom education; by the King's decree, all Swedish school children were to learn to sing all of the *stamsånger* by heart, a practice which was official policy until 1969. Another highly influential Swedish singing initiative from the first half of the 20th century – the *Skolradio* national music program (1934-1969), a sing and listen-along recordings series run by Sweden's national broadcaster – also aimed in part to perpetuate the process of nation-building and moral upbringing through school

[5] This is my translation which tries to capture the sense of the Swedish word "stam" which can mean tree trunk or clan. Nordstedts Swedish/English dictionary translates "stamsång" as "well-known traditional song".

singing (Lindberg, 2002, p. 124). Despite some of the radical developments in singing pedagogy and song repertoire that the *Skolradio* program eventually engendered, it was originally established to have a "unifying roll as a tool to polish away the worst varieties of regional dialects and to spread a repertoire of songs that sounded the same over the entire country" (Lindberg, 2002, p. 217). As such, it served to establish a majority culture and acculturate minority cultures through formal music education.

Dedicated as it was to fostering national unity and model citizenship, the school song repertoire in Sweden of the pre-WWII era remained largely devoted to Christian moral and nationalist themes, with little music written specifically for children or with pedagogical goals in mind (Lindberg, 2002; Paulsson, 2006). Indeed, it was not before the turn of the 19th and 20th centuries that children's music began to be seen as a distinct genre of music, beginning with the so-called "golden age" of Swedish children's music led by composers such as Alice Tegnér,[6] Felix Körling, Emmy Köhler,[7] and Emil Sjögren (Paulsson, 2006). Lindgren (2002), however, argues that Tegnér's music was intended for, and had a more significant impact on, music-making in the home, rather than in formal education, at least initially, where children continued to sing music originally written for adults. School children were treated long into the 1900's as "grown-ups, only smaller" (p. 48), and were assigned older, traditional, adult-oriented music with nationalist and religious themes. In her survey of instructional school songbooks from the years 1842 to 1972, Netterstad (1982) found that the most frequently published songwriters of her study period by a wide margin were the poet and teacher J. L. Runeberg (who wrote Finland's national anthem, *Vårt Land* (Our Country) in 1847), Zacharias Topelius (writer and poet born 1818), and C. M. Bellman, the Enlightenment musician considered to be Sweden's poet laureate. In her study of Sweden's *Skolradio* repertoire, Lindberg (2002) found children's music songwriters Lennart Hellsing (1919-2015) and Britt G. Hallqvist (1914-1997) to be the most frequently performed composers over the 35-year program, but stresses the dominance overall of older music, noting that the most frequently sung *Skolradio* songs were mostly written before 1900. Some 45% of the *Skolradio* repertoire was Swedish folk music, with lyrics that tended to be backwards-looking, presenting a pre-industrial rural life as the norm and city life "as something alien" (Lindberg, 2002, p. 226). In sum, school song repertoire tended to be older, traditional Swedish music with an orientation towards the past.

The school song repertoire of the first half of the 20th century lacked diversity and pedagogical sophistication. This may have been an important negative contributing factor to the enjoyment and quality of children's singing education, which by available contemporary accounts was dreadful (Hentschel, 2017; Lindberg, 2002). In

[6] Tegnér's songbook *Sjung med oss, Mamma (Sing with us mummy)* was first published in 1892.

[7] Composer of "*Nu tändas tusen juleljus*", one of the *stamsång*

an editorial to a teachers' magazine in 1904, voice teacher Anna Bergström described singing in school as "a directionless, mechanical drill lacking in both formal and material educational value, resulting in ignorance of music, raw and ruined voices, sore throats, fear and loathing of school singing and depraved musical tastes" [en planlös, mekanisk dressyr utan vare sig formellt eller materiellt bildningsvärde, och resultaten äro okunnighet i musik, förråade och förstörda röster, sjukliga halsar, ringaktning af och förskräckelse för skolsång samt depraverad musikalisk smak] (Lindberg, 2002, p. 137). Lindberg (2002) contends that this attitude was typical and prevailed well into the 1930's. A national Swedish commission on music in education reported in 1946 that despite an almost exclusive focus on singing, music education was not making Sweden a singing country, with students' singing abilities left undeveloped in school (Hentschel, 2017, p. 14). A contemporary report from a Norwegian national commission in 1951 presented similar findings for that country (p. 14). Bengt Olof Engström, a host in the *Skolradio* series during the 1950's decried school singing's commonly "horrifying tone [that is] incompatible with unison singing" (Lindberg, 2002, p. 203). Indeed, the *Skolradio* program was consistently rated as very popular among classroom teachers throughout its 35 year existence, with many reporting that it was a valuable teaching resource to improve singing pedagogy in the classroom since the teachers often felt themselves to be unqualified to effectively teach the subject (Lindberg, 2002).

2.3.1 The emergence of child-centered singing pedagogy

Lindberg's (2002) and Netterstad's (1982) studies both map a gradual, but pronounced, shift in orientation during the mid-20th century, from a singing repertoire oriented towards citizenship and nation-building concerns, to a more diverse, child-oriented repertoire. In her study of school song textbooks, Netterstad (1982) found that while songs about day and night, nature, and the changing seasons represented a relatively stable proportion of sung music over the course of the previous century, songs with content related to fatherland and religious themes declined progressively and dramatically. Meanwhile, children's songs and songs based around movement and games rose from having almost no representation in 1840's to dominance in the 1970's (pp. 239-241).

In her study of *Skolradio* repertoire (1934-1969), Lindberg (2002) argues that the initiative became increasingly progressive in its second and third decade, commissioning several children's operas from established composers and launching the careers of notable innovative children's songwriters such as Lennart Hellsing and Britt G. Hellqvist (Lindberg, 2002). Lindberg (2002) found that 45% of song repertoire could be classed as folk music, 21% as art music, 33% as "light classical" ("*mellanmusik*"), with just 1% made up of contemporary popular or commercial music (p. 92). Popular music enters the program's repertoire only towards the last

decade of its existence in the 60's, with songs such as "Yesterday" and "Yellow Submarine". Influential *Skolradio* host Annie Pettersson was stridently against the inclusion of popular music in children's song repertoire, slowing the inclusion of pop music in the program and calling efforts of reformers such as Knut Brodin to diversify repertoire with familiar commercial music "the height of poor taste and more than anything harmful for the moral upbringing that is the underlying purpose of singing and music education" (Lindberg, 2002, p. 181). In Pettersson's opinion, the primary aim of singing instruction was to "ennoble the voice and body posture" (Lindberg, 2002, p. 181). Ryner (2004) sees the opposition between progressive and traditional singing instruction in the Sweden of the first half of the 20th century as irreconcilable discourses fighting for the right to define what constituted good music and proper education.

The explosive talents of composers such as Hellsing and the increasingly progressive stewardship of the *Skolradio* program mirrored a changing perception of childhood and childhood development fed by new trends in psychology and pedagogical research. These progressive views slowly eclipsed more conservative voices such as Pettersson's (Lindberg, 2002). Research from the 1960's and onwards through the last half of the 20th century both in Scandinavia and worldwide sought increasingly to study and highlight children's singing behaviors and cultures on their own terms rather than in reference to adult musical culture. As Sundin (1997) writes, this represented a move away from studying "how well children could perform according to adult standards" (p. 1) in order to focus on children's music making and creativity as distinct from other life stages. Welch (1979) succinctly captures the aim of this pedagogical outlook as seeking to "match our educational programs to the capabilities of the children we teach" rather than the other way around (p. 13). This represented an important shift from earlier pedagogical practices and research that regarded children as either musically gifted or deficient. Leighton and Lamont (2006) write:

> Prior to the 1970s, researchers typically attempted to assess children's musicality through batteries of tests, thereby differentiating between 'musical' and 'unmusical' children. Where these tests were used in school, children who sang out of key were often assumed to be 'unmusical' and unlikely to be offered further musical training such as singing in choirs and learning to play musical instruments. (p. 312)

The focus in singing research and pedagogy shifted in the latter half of the 20th century from "deficit to development" (Leighton & Lamont, 2006, p. 311), with an increasing emphasis on children's development and behaviors in informal singing contexts. In this spirit, several studies from this period examined the "spontaneous" singing and vocal behaviors of children outside of formal learning contexts (Bjørkvold 1991; Hargreaves, 1996; Moog, 1976; Sundin, 1997; Welch, 1979). Taken together, these studies supported the view that singing was a natural behavior exhibited by most

children and called into question pedagogical practices that did not take children's informally acquired singing abilities into account. Several studies investigated ties between spoken pitch frequency and vocal range in informal singing, finding that both were significantly lower than previously thought and lower than prescribed song range in most printed textbooks (Goetz et al., 1990). Welch (1979) concluded in his research review that "speech and song have the same natural pitch center" (p. 24), and posited that instructional music should be sung in lower ranges to help with pitch matching, a method developed as "speech-to-song" by Rutkowski (1990) and others. Leighton and Lamont (2006) write that "an increasing awareness of all children's innate capacity to develop their singing voice was accompanied by pedagogical research and practices that encouraged singing in a range that was nearer children's fundamental speech frequency and lower than much published children's song repertoire" (p. 312). In sum, a new pedagogical tradition with focus on the unique qualities and capabilities of the child's voice took shape during this period.

Beyond issues of appropriate singing range, research from this period also began to measure the importance of engaging students with repertoire that appealed to their age and interests by allowing students themselves to participate in repertoire selection (Goetz et al., 1990; Gould, 1969; Welch, 1979). Goetz et al. (1990) concluded that the "motivation to sing" (p. 19) was the most important factor in singing education with children, listing psychological inhibitions, children's attitudes toward singing, the teacher and/or the choice of song material as central aspects associated with pupil motivation. This attitude has prevailed, with Hedden's review (2012) finding that "Interest in the literature is necessary … the literature selections that teachers make can affect the quality of singing and motivation to participate" (p. 52). Concerning student choice, she continues "Allowing them to make decisions and have some ownership in the process may increase interest and motivation" (p. 52). In other words, student interest and involvement in repertoire selection has emerged as a pedagogical dimension of central importance.

Research gains in understanding children's voices and development at the end of the last century signaled a paradigm shift in how singing aptitude and children's singing behavior was viewed in music education. In Bjørkvold's (1991) notable formulation, this emerging philosophy took on a tone suggesting emancipation of the child and their individual voice: "Sing your song! It is a question of taking charge of your own life with your own voice" (p. 10). This perspective can be seen as a potential counterforce to older elitist attitudes about singing, ushering in a new, modern, and much more inclusive perspective on singing education, succinctly summarized by Rutkowski (1990):

> The assumption that the ability to sing is an innate talent rather than a trainable skill is suspect. If one can speak, one can sing. (p. 354)

Rutkowski's formulation is echoed by her contemporary, Brown (1996), who writes, "The question of monotones is frequently raised. My answer is that there is no such thing" (p. 69). Common to all of these researchers' perspectives is the underlying philosophy that (i) all children can and should learn to sing in school, and (ii) teachers and researchers should seek out pedagogical strategies that successfully engage all students to achieve their singing potential. Freer (2009a) uses Csikszentmihalyi's theory of flow and Meyer's theory of scaffolding (Freer, 2009b) to conceptualize target learning zones where student interest is optimized by repertoire, singing tasks, and lesson structures that consistently find the right balance between challenge and achievement. By systematically studying those factors that cause some students to drop out of singing activities, research such as Freer's aims to develop singing education to encourage the broadest possible "participation and persistence" (Freer, 2010) of children in singing.

The progressive and inclusive pedagogical philosophy described above can be seen as the current paradigm within singing education as expressed in recent Swedish research in Music Education (Hentschel, 2017; Kullenberg, 2014; Leijonhufvud, 2011). In her doctoral study of young adults from a phenomenological perspective, Hentschel (2017) states that the participant teachers in her study begin from the premise that all their students can learn to sing and to transcend their limitations through singing instruction (p. 229). The task of the teacher, then, is to nurture the child's "innate capacity to develop their singing voice" (Leighton & Lamont; 2006, p. 312). Kullenberg (2014) goes further, arguing for expanding our understanding of children's natural singing abilities beyond the "maturationist" perspective to include an appreciation of the socio-cultural context of learning. She calls this a "dialogical" grounding for pedagogical research and practice. In other words, research such as Kullenberg's encourages us to see the cultural context of children's singing practices.

Changing attitudes towards singing and singing pedagogy in Sweden in the second half of the 20th century can also be found reflected in the compulsory school music curricula from this period. While these documents show a broadening of the subject matter to include greater diversity of repertoire, they also reveal a shifting attitude towards the prominence of singing within music education. An analysis of singing as presented in the written curricula is laid out in the following sections.

2.3.2 The place of singing in schools: curricula from the modern era to the present

In Sweden's first compulsory national curriculum for music in 1955, the authors state, "Singing is and always shall be the central study of music education" (*Kungliga Skolöverstyrelsen*, 1955, p. 135). Several studies have noted the prominence singing has enjoyed historically as a central element of musical instruction in the general music classroom of the modern era, in Sweden, Europe, and in Western music

education more broadly (Bohlman, 2010; Flodin, 1998; Hoegaerts, 2014; Lindberg, 2002; Ryner, 2004). As Lindberg (2002) points out in *Våra glada visor klinga*, before music became a compulsory school subject in 1955 it was simply called ”Song”. Arguments for giving singing a central place in the modern music classroom have often appealed to the arguments for singing’s primacy as outlined in the first part of this chapter: that is, the unique and intimate relationship between the singing voice and the self. England’s *Music Manifesto* (2006), for example, hails singing as ”the most direct route” to music-making for young people, calling it ”the most elemental form of music-making” (Music Manifesto 2, 2006, p. 8). Small (1998) calls the voice “the center of all musical activity” (p. 212). A study by Johnson (2020), however, shows how the relative prominence of singing in the Swedish national music written curriculum has shrunk dramatically and progressively over the past 70 years (see Figure 1):

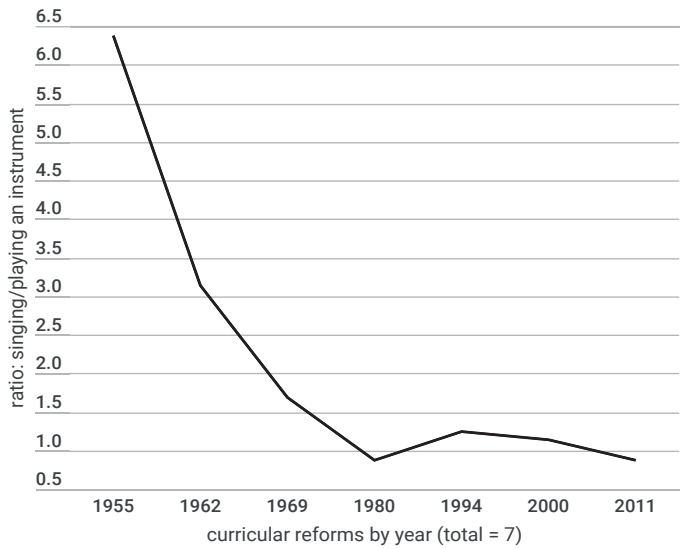


Figure 1
Relative Prominence of Singing

Since music first became a required school subject in 1955, there have been seven written national curricula (including lpo 2000, a revised version of lpo 94) put forward by the federal government: the first five (U-55, Lgr 62, Lgr 69, Lgr 80, Lpo 94) published by the Ministry of Education, the latter two (Lpo 2000, Lgr 2011) by the Swedish National Agency for Education (*Skolverket*). Comparing the prominence of singing to playing an instrument, Johnson’s study found that singing’s relative prominence fell 6-fold, from more than 6:1 to less than 1:1 in the latest curriculum of

2011. Johnson (2020) also noted a loss of detail in the description of singing tasks. The study concludes:

> The relative prominence of singing has shrunk dramatically in the guiding documents in question and singing can be said to have moved from the center towards the periphery in Swedish compulsory music education. In more recent curricula there are fewer mentions of singing relative to non-vocal music-making, singing aims are described in less detail, and several non-vocal music elements increasingly vie for space (Johnson, 2020, p. 234).

At the same time as singing's prominence has declined, a clear movement towards expanding music teaching repertoire to include music of diverse genres and cultures can be discerned. These two elements – the changing place of singing and the increasing focus on cultural and genre diversity – will be looked at in more detail in the short summaries of the written curricula that follow.

U-55

The first national curriculum for *Music* from 1955 puts singing in the forefront of music education, stating that the goal of music education is "to develop students' musical abilities, primarily through singing" (Kungliga Skolöverstyrelsen, 1955, p. 132). It also sets explicit limits defining what music should be sung. Singing material – referred to as the "repertoire" – was to consist of Nordic folk songs, children's songs, canons, *visor,*[8] Swedish chorales and music from the Swedish Mass: a repertoire that could be said to be entirely nationalist in character. Furthermore, all school children were required by royal decree to learn the *stamsånger*, referred to as "national favorites" (Kungliga Skolöverstyrelsen, 1955, p. 137); the curriculum states that all students shall commit these songs to memory, "both words and music" (Kungliga Skolöverstyrelsen, 1955, p. 137). Apart from these directives, the curriculum states that teachers should strive to use repertoire that is "melodically and rhythmically appealing", and that music is to be seen as an integral part of school life even "outside music class", with songs and *visor* as "a part of school throughout a student's school years" (Kungliga Skolöverstyrelsen, 1955, p. 137). Music from countries or cultures outside of Sweden are mentioned as appropriate material to "enliven" other subjects, such as second language instruction and geography (Kungliga Skolöverstyrelsen, 1955, p. 137).

A considerable amount of attention is granted to specific elements of singing instruction in U-55, including aspects of children's voice development, appropriate singing ranges, timbre and vocal ideals, warm up and tone-building exercises, breathing exercises, and suggestions for the inclusion of canons and part-singing. Strikingly, special attention is accorded to students who may have difficulty pitch

[8] *Visor* is a Swedish genre category denoting a national singer-songwriter tradition.

matching. Teachers are encouraged to listen to students' voices to determine their singing ranges and to transpose music accordingly. There is also a suggestion that students sing in smaller groups to afford those with lower or narrower ranges the chance to sing songs in accessible arrangements:

> Particular care should be taken with those children who have difficulty singing in tune. They often sing in a lower range than normal, in some cases higher. Such children are often unjustly labelled unmusical. Many of them can sing a simple song if they are given the opportunity to perform it in a range they can master. By transposing upwards or downwards children's ranges can be widened and often grown to such a degree that they are able to sing within the ranges most children's songs require.

> Särskild omtanke bör ägnas de barn, som av olika anledningar inte sjunger rent. Ofta sjunger de inom ett lägre tonomfång än normalt, i enstaka fall inom ett högre. Sådana barn blir ofta med orätt bedömda såsom omusikaliska. Många av dem kan sjunga en enkel visa rätt, om de beredes tillfälle att sjunga den inom det tonomfång som de behärskar. Genom att visorna transponeras till högre, respektive lägre tonarter, kan barnens röstomfång vidgas och ej sällan bringas till den omfattning, som de gängse barnvisorna kräver. (Kungliga Skolöverstyrelsen, 1955, p. 134).

Such considerations of vocal range and variation in vocal development prefigure the developmental paradigm in children's singing education by several decades, indicating a robust awareness of developmental variation and remedial techniques. The authors recommend a narrow prescribed singing range in the earliest grades, "mostly between five -six tones in grade one up to an octave in grade two (Kungliga Skolöverstyrelsen, 1955, p. 134). It is recommended that sound quality and tone production be practiced in specific exercises, with teachers encouraged to use their own voices, recordings, or student examples to illustrate good tone. Tone in sung performance "should be grounded primarily in appropriate expression of the given song's feel and character" (Kungliga Skolöverstyrelsen, 1955, p. 134). In sum, great detail can be found in this document, covering fundamental aspects of learning practices for singing.

Music is afforded an allotment of space in the curriculum text comparable to other core subjects; the chapter on music runs to five pages, while math, for example, is given six pages.

Lgr 62

The Lgr 62 curriculum can be seen to essentially maintain the core traditional repertoire of U-55, while adding a dimension of "youth culture" and "folk songs from

other countries" (Kungliga Skolöverstyrelsen, 1962, p. 301): what may in this way be considered an *additive* approach. The "stamsångerna" are still a compulsory element of music education, and canons, children's hymns, Swedish folk music, *visor* of a traditional nature as well as songs connected to the Church's major holidays are recommended as standard repertoire (Kungliga Skolöverstyrelsen, 1962, p. 302). Celebrated Nordic composers such as Edvard Grieg and Carl Nielsen are proposed as listening examples. There is, however, reference to "young people's music interests in our time" and "the cultural life of today"; the authors suggest that modern students are primarily interested in "instrumental music" (Kungliga Skolöverstyrelsen, 1962, p. 302) and propose that teachers organize classroom activities to respond to this orientation. Some class time is to be devoted specifically to "music of our time" (Kungliga Skolöverstyrelsen, 1962, p. 302).

Also similar to U-55 is the description of music's important role and function as a part of school life: "From morning assembly, to end of term festivities and other holidays, music and song is always a natural part of school life" (Kungliga Skolöverstyrelsen, 1962, p. 297). The importance of music "inside and outside school" is once again invoked.

In this curriculum as in its predecessor didactic concerns specific to singing education such as timbre, vocal range, and voice development during puberty are discussed in detail. Descriptions are somewhat briefer and less detailed compared to U-55, but still manage to touch on most of the elements taken up in the earlier guiding document. Teachers are told to "try out the best possible ranges for different songs paying attention to students' vocal ranges and through transposition develop their voices upwards and downwards (Kungliga Skolöverstyrelsen, 1962, p. 298). A "soft and beautiful singing tone" (Kungliga Skolöverstyrelsen, 1962, p. 298) is named as a vocal ideal; the authors write, "A song should never sound unpleasant" (Kungliga Skolöverstyrelsen, 1962, p. 298). Teachers are instructed as in U-55 to illustrate good tone production either with their own or with student voices as examples.

Music in this curriculum is afforded a much smaller relative space than other compulsory subjects; music takes up 12 pages, while math and Swedish are afforded 26 and 39 pages, respectively. At the same time, music is afforded approximately twice as much space in absolute terms as U-55, indicating the widening of the subject in terms of content.

Lgr 69

The school reform of 1969 may also be characterised as additive; a "common repertoire" is to include "folk dances and songs" and "hymns and chorales", while also admitting music that is "meaningful and contemporary": "Yesterday" is listed as an example (Kungliga Skolöverstyrelsen, 1969a, p. 146-9). In a large supplement, representative music from many diverse countries and cultures are listed as "music of

other nations" (Kungliga Skolöverstyrelsen, 1969b, p. 149). Singing maintains a central position.

Interestingly, the same formulation as the previous curricula of music's importance inside and outside school is adopted in the phrase "to enrich students' lives inside and outside school" (Kungliga Skolöverstyrelsen, 1969a, p. 146). Singing is however for the first time not accorded a separate section within the document; it is included first under the heading, "Singing and playing" (Kungliga Skolöverstyrelsen, 1969a, p. 146). Nevertheless, singing's centrality is noted in the second paragraph, which states:

Singing is the most natural form of musical expression. Teaching should therefore primarily aim to keep the desire to sing alive throughout the student's school years.	Det naturligaste musikaliska uttrycksmedlet är sången. Undervisningen bör därför i första hand inriktas på att genom hela skoltiden hålla lusten att sjunga levande. (Kungliga Skolöverstyrelsen, 1969a, p. 146).

Song-specific considerations such as care of the voice, voice change in puberty and appropriate singing ranges are addressed. In some instances, suggestions of how to incorporate singing and learning to play instruments are provided. Singing is accorded fewer mentions and less detail than in previous curricula, with both playing instruments and listening emerging as rival areas of focus. Indeed, this curricula has the largest focus on listening of all the guiding documents, at one point stating that "In the widest sense, all music education is built upon listening" (Kungliga Skolöverstyrelsen, 1969a, p. 148). Instruments are still primarily presented as "support for singing" (Kungliga Skolöverstyrelsen, 1969a, p. 147).

Music is afforded a roughly equal amount of space as other compulsory subjects.

Lgr 80

The reform of 1980 strikes a change in tone and focus from its opening lines, citing music's ”different styles, forms, and cultures" (Skolöverstyrelsen, 1980, p. 108) as central to the subject; a turn towards diversity appears to have been effected. Popular music genres are named specifically for the first time (”jazz" and ”pop"), and the curriculum proposes that song repertoire be ”drawn from the student's daily life" (Skolöverstyrelsen, 1980, p. 108). At the same time, it preserves a formulation reminiscent of Lgr 69, describing diversity in terms of a range of music from ”Sweden and the Nordic countries and other countries and cultures" (Skolöverstyrelsen, 1980, p. 109). Also interesting to note is the outlying mention of music categories to be avoided or prevented, referring to ”stereotyped" music of a ”passivizing" nature (Skolöverstyrelsen, 1980, p. 110).

The Lgr 80 reform marks a sharp shift in the amount of detail and focus afforded to singing both in relative and absolute terms. Johnson (2020) writes:

> From the 1980 curriculum on singing is no longer considered on its own in any significant way but rather most often in the context of other musical activities which are accorded equal importance. Furthermore, any descriptions of singing as having a special or prioritized position also disappear with this reform. (p. 232)

Singing has now moved from the center to the periphery in these guiding documents. Aspects such as cultural and genre diversity, listening, and playing instruments increasingly vie for space.

In Lgr 80, the music subject overall is afforded a very small relative space; while math is given 10 pages, music takes up just five.

Lpo 94

Echoing the previous formulation, music is once again presented from the first introductory paragraph of Lpo 94 as a phenomenon defined by diversity and cultural context, with ”varying forms and traditions” that are ”deeply rooted in the individual and in our culture” (Utbildningsdepartementet, 1994, p. 36). Apparently a reference to domestic multicultural development, the text cites ”increased diversity” (p. 36) as a consideration in music education. Even this iteration can be seen to be additive, describing the music instruction as ”having its starting point in national as well as international music culture” (Utbildningsdepartementet, 1994, p. 36). It shall be a mix of ”Swedish tradition” and ”Swedish cultural heritage” plus ”other cultures and genres”, with a ”multicultural and international perspective” (Utbildningsdepartementet, 1994, p. 37).

Language from Lgr 80 is echoed in Lpo 94; music is to be anchored in ”students’ daily life and music interests” (Utbildningsdepartementet, 1994, p. 37). Once again, music is defined as having an important role in the cultural life inside and outside of the school. The subject is afforded an amount of space similar to other compulsory subjects.

Lpo 2000

The written music curriculum of Lpo 2000 defines music from the first sentence as diverse: ”Music is deeply rooted in human nature and is interwoven in rich and varying forms in all cultures” (Skolverket, 2000, p. 42). In this iteration, students are to ”gain knowledge of music’s forms of expression, functions, and traditions in different cultures” and be cognizant of ”cultural differences” (Skolverket, 2000, p. 44). And yet, learning goals are still expressed in an additive fashion; students are to learn about ”other” cultures while at the same time learning about music as ”a part of our cultural heritage” (Skolverket, 2000, p. 42).

References to Swedish multi-culturalism from Lpo 94 are expanded in this subsequent text; music is said to be ”a boundary-breaking language that can promote understanding and ease integration in school and in society” (Skolverket, 2000, p.

42). It continues, ”Music’s boundary-breaking character can give students the opportunity to work together in common music making regardless of ethnic and cultural background which makes the subject an important social tool in school” (Skolverket, 2000, p. 44).

Lgr 11

The latest curricular reform, the Lgr11 governing course-plan, requires that students graduating grade six be able to recognize and describe defining aspects of popular and folk musics from diverse cultures (Skolverket, 2011). Curriculum goals specify that students learn to use the voice to participate actively in diverse genres or traditions, and examples such as ”yolk” and ”rap” are named specifically.

The Lgr 11 curriculum provides broad guidelines for the form and structure of music teaching in schools; it also provides grading criteria based on students’ musical abilities and knowledge according to a new, North American style five-step grading scale of ”A” to ”E”. The first and common goal of all grading criteria is that students show that they can ”participate in group singing” (Skolverket, 2011, p. 102), following both rhythm and pitch.

Singing is seldom addressed separately in formulations of learning goals in the current curriculum; rather, it is mentioned together with other curricular aims, such as ”singing and playing” (Skolverket, 2011, p. 95) or even music making using ”voice, instruments, or digital tools” (Skolverket, 2011, p. 98).

2.4 Cultural diversity and traditional repertoire

As noted above, the Lgr11 governing course-plan specifies that students become familiar with aspects of popular and folk musics from diverse cultures (Skolverket, 2011). This directive makes explicit a desire in both Western Europe and North America for increased inclusion of non-Western or so-called *world music* in the classroom since the 1990’s that has been widely noted (Green, 2008). The emergence of this reforming trend can be traced back at least as far as the Tanglewood Convention of 1967 (Hebert & Shehan Campbell, 2000). An analysis of the evolution of the Swedish music curricula reveals an early tendency towards including music from other cultures, although this can be seen to be added on to existing goals that continued to encourage the use of music repertoire associated with Swedish cultural traditions. To these already somewhat conflicting directives was also added the study of popular music, as can be seen represented in Figure 2:

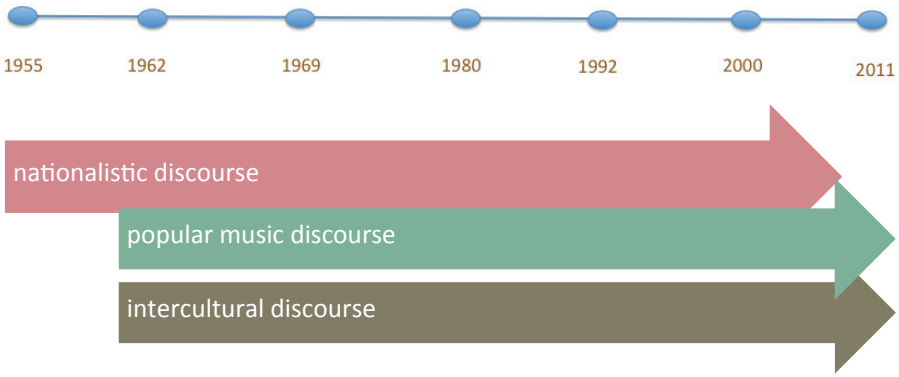


Figure 2
Conflicting Additive Discourses in Swedish Curricula, 1955- Present.

2.4.1 Cultural diversity and intercultural learning

As Ericsson and Lindgren (Skolverket, 2015) note in their National Evaluation, the latest curriculum in music (Lgr 11) can be said generally to have a greater focus on cultural diversity and diversity between music genres compared with previous curricula. For example, curriculum goals specify that students learn to use the voice to actively participate in diverse genres or traditions, with ”yojk” and ”rap” named specifically. Students are to learn about and feel comfortable in different musical cultures and contexts both as listeners and as performers.

Efforts to bring in a broader range of music cultures from around the world can be seen as a turn towards intercultural learning, a pedagogical perspective that has become increasingly established in Music Education research in recent decades (Westerlund & Karlsen, 2017). In their book, *Intercultural Learning*, Lorentz and Bergstedt (2016) define intercultural learning as educational contexts where ”different cultures, norms, values, knowledge and thinking of individuals from diverse ethnic or cultural backgrounds, though social interaction and intercultural communication, can influence subjective understandings of diverse types of knowledge-making in the world around us” (p.31). Intercultural pedagogical practice is meant to influence both learning materials and learning attitudes in order to foster student social and communication skills. Intercultural practice is also intended to promote mutual respect between students with diverse cultural backgrounds, teach tolerance, and deepen understandings about knowledge and about ourselves (Lorentz & Bergstedt, 2016).

Lorentz and Bergstedt (2016) attribute the emergence of the intercultural pedagogical movement to fundamental changes to the global geopolitical structure following the Second World War, where large scale displacement of people

challenged the 19th century-idea of nation states composed of homogenous ethnic groups. This new world order has led to globalization and internationalisation, and had profound trans-national effects on how sovereign states form educational policy. Lingard et al. (2005) stress the ”global character” of contemporary policy streams ”under the increasing influence of international agencies like the World Bank, OECD and UNESCO” (p. 759) and propose the concept of an ”emergent global policy space in education” (p. 759) to explain curriculum development in diverse national contexts.

In the case of intercultural pedagogy, its inception can be traced in Sweden to the 1974 U.N. Recommendation for Education for International Understanding (Lorentz & Bergstedt, 2016); this U.N. proposal minted the term ”intercultural” and proposed to ”advance the study of diverse cultures and their reciprocal impact on each other” (Lorentz & Bergstedt, 2016, p. 14). The stated aim was to encourage peaceful relations within and between nations: ”to foster mutual respect and use cultural heritage as a means to support international and intercultural understanding” (Lorentz & Bergstedt, 2016, p.14). It was in the spirit of this U.N. mandate and similar proposals from the Council of Europe that the Ministry of Education in Sweden in 1981 initiated a task force to assess teaching and integration of new immigrants in what was called the Language and Cultural Heritage Report (SKU). The report focused on mother tongue instruction and Swedish as a second language as necessary resources for immigrants, but stressed that intercultural practices were intended to enrich the learning not only of non-native Swedish speakers but of all students: ”(SKU) has taken the intercultural perspective for education as a starting point in an attempt to bring forward those principles we feel ought to be a shared framework for all children in school” (Utbildningsdepartement, 1983, p. 4).

Nearly 20 years ago, Sæther (2003) cited Volk’s arguments for teaching a broader range of music cultures as being necessary for Sweden to meet the challenges of 21st century nationhood: increased understanding of others, “bi-musicality” or the ability to play in two or more cultural idioms, a broader palette for composition and performance, and a more accurate representation of modern society, which is by its nature multi-cultural. She noted that this last factor was of specific relevance “when monocultures are substituted by multicultures”, as is increasingly the case in Swedish classrooms (Sæther, 2003, p.111). Statistics Sweden (2021) reports that the total number of foreign-born residents in Sweden rose to 25.9% in 2020, compared to 14.3% a decade earlier. School and after-school based music education integration initiatives such as El Sistema have been adopted in recent years in cities such as Malmö in part as a response to these dramatic demographic shifts (Sæther, 2008; Sæther, 2019). As Folkestad (2005) expresses it, when cultural diversity in countries like Sweden increases, “issues regarding world music and cultural diversity in music are likely to be increasingly important in music education at all levels” (p. 27). He continues:

> As a result of the globalised world in which the global and the local interact, particularily in the music learning of young people, music educators need to focus not only on the formal and informal learning in western societies and cultures but to include the full global range of popular, world and indigenous musics in their studies. (p. 27)

Kertz-Welzel (2018) argues that the forces of globalization call for a radical departure from traditional music education: an imperative to ”globalize music education” (p. 12). Globalization and internationalization have transformed education ”from a national to an international endeavour” (p.18). The rise of internet connectedness, international standardised testing, and English as a dominant academic language have served to blur national borders and homogenize formerly distinctive national schooling systems:

> Education and education systems were formerly thought of as being national, rooted in distinctive values and traditions. Particularily the learning outcomes presented a national ideal and corresponded to the national necessities of a respective country … school systems were originally the product of a distinctive national history, promoting certain national educational values. (Kertz-Welzel, 2018, p. 18)

Kertz-Welzel (2018) argues that in light of these developments, music education needs to globalize to ”reconnect music education with the needs of students” (p. 5).

A further argument for inclusion of other cultures' music in the classroom is to preserve and protect traditional musics. Huron (2008) likens traditional folk-musics of the world to endangered species, and the loss of cultural diversity to the loss of bio-diversity. Some recent research in cultural diversity in music education has developed this perspective, proposing a so-called ”ecological” approach to understanding musical culture. This metaphor, as Schippers (2017) expresses it, proposes to view musical culture as a complex, living environment – an ecosystem – where the whole is dependent on each part for the system to flourish and survive. In *Sustainable Futures for Music Cultures*, Schippers (2017) adopts the analogy of *sustainability* to describe ”the condition under which music genres can thrive, evolve, and survive” (p.7). In Sweden, these considerations are highly relevant with regards to efforts to embed Sámi musical practices in formal music education. Sámi singing, the yoik, is considered the oldest living vocal practice in Europe, and is recognized as highly endangered (Hilder, 2017; Kallio & Heimonen, 2018).

Several researchers have questioned whether the desire for more focus on diverse cultures' musics has in fact led to their greater inclusion in the classroom. Ilari et al. (2013) state, ”Even if the rhetoric in music education has shifted in favour of multiculturalism, most of the practice has remained eminently mono-cultural” (p. 210). Savage (2019) writes: “The world's musical diversity is woefully underrepresented at all levels of education” (p. 6). From the Swedish context, Georgii-Hemming and Westvall (2011) write that “few teachers actively work

towards teaching in a way that reflects several cultural and musical fields" (p. 24) and that song repertoire in Swedish schools is dominated by a "new form of school music" (p. 24) culled from recent and classic pop and rock hits. There is evidence that teacher education programs have been slow to shift focus from traditional Western art music to music from diverse cultures. Wang and Humphreys (2009) found that more than 90 percent of music education students' coursework in an American music teacher education program was focused on Western art music, with less than one percent devoted to traditional or popular music from other cultures. A study by Chen (2018) found that teachers struggle to broaden ther repertoire to include other cultures. Sæther (2008) writes that while there has been "much debate on how best – if at all – to implement multicultural music teaching on a classroom level" (p. 34), teacher trainees in Sweden "have not been sufficiently prepared in multicultural contexts" (p. 24). The relative prominence of Sámi and other minority singing cultures within school singing repertoire in Sweden and the Nordic region has not been previously studied.

2.4.2 Tradition in classroom singing repertoire

Recent studies suggest that a canon of national song repertoire may continue to find expression in today's music classroom, both in Sweden and internationally. In her doctoral study, Holmberg (2014) found that fostering a familiarity with a national canon of music was a significant but implicit aim in Swedish pre-schools. Bevers' (2007) comparative study of music examples used in national music exams in four European countries found that in each case the tests showed an overrepresentation of composers and musicians from the nation in question, and that this overrepresentation could not be explained by curricular goals. Instead, he posited that the phenomenon was evidence of a "hidden pedagogy" (p. 396) of national chauvinism. A Canadian study (Bartell et al., 1999) found that teachers and guiding documents gave priority to Canadian music to a high degree. A recent study of Finnish music education by Kallio (2015) investigating school music repertoire found that teachers' choices could be understood as being constrained within a "school censorship frame" (p. 73) grounded in shared cultural assumptions.

Singing has often been placed in the service of nationalist ideals throughout Europe's modern history, and continued evidence for the patriotic aspects of singing in school in songbooks, curricula and guiding documents has been noted (Hebert & Kertz-Welzel, 2010). Bohlman (2010) writes, "When the moment has arisen to put the European nation on the musical stage … there was little doubt who received the role: the chorus" (p. 71). As Johnson's (2020) analysis reveals, the transmission of music representing Swedish national traditions has remained a prominent curricular goal throughout the modern era to the present in guiding documents. Music from other cultures has simply been added on as a curricular demand, along with popular

music. The inclusion of popular music as singing repertoire will be addressed in the following sections.

2.5 Popular music in the classroom

Popular music has long been a central force shaping modern music education. Non-classical music has had an important presence in Swedish classrooms since at least the reforms of 1969 (Georgii-Hemming & Westvall, 2010), and as early as the 1930's school reformers like Knut Brodin were calling for schools to "open their all-too narrow gates for the music of the times" (Fagius, 2007, p. 77). Green (2008) notes that Scandinavian countries have been in the vanguard for bringing popular music into the school curriculum. Folkestad (2002) has suggested that popular music could serve as a unifying element in the increasingly diverse classrooms of today, writing, "Global youth culture and its music, because it is the same regardless of the national, ethnic or cultural heritage of the context in which it operates, might have a non-segregating and uniting function" (p. 160). Danielsen (2012) theorizes that mainstream pop and rock can be understood as a "supra-genre" representing a spirit of togetherness in pure musical pleasure. Popular music may thereby be considered as a common cultural reference point for students and teachers: the music "we listen to without meaning to, the songs we know without knowing how we know them" (Frith, 2001, p. 104). British rock performer Pete Townsend states, "If you believe in pop music, at its most fundamental level it brings people together and they lose themselves and get to a place of community and wholeness" (McCormick, 2015). At its best, then, popular music may serve as a useful common denominator and shared culture for classroom music.

2.5.1. Student as consumer

School-age children are increasingly independent consumers of popular music at an increasingly young age, due in large part to a powerful and highly consolidated entertainment industry, affordable digital music technology, and increased affordable access to the internet (Green, 2001). Folkestad (2006) argues that this means that young students and teachers bring popular music into the classroom with them as an already learned and often sophisticated musical culture, independently of the material chosen to be formally studied. Thus, "The question of whether or not to have... popular music in school is irrelevant: popular music is already present in school, brought there by students and in many cases also by the teachers, as a part of their musical experience and knowledge" (p. 136). The question then becomes how these

distinct genres of music interact and affect each other to shape singing practices in the classroom environment.

In the UK, Green (2011) argues that popular music has become dominant as school repertoire. She states:

> Not only curriculum content but also the values and attitudes of many teachers have undergone an apparent transformation. For example, whereas research conducted in England in 1982 suggested that school teachers regarded classical music as unquestionably the most important in the curriculum, by 1998 a parallel sample of teachers indicated that the most important area of the curriculum was popular music, with classical and "world music" in almost equal second position. (Green, 2011, p. 211)

In Sweden, Ericsson and Lindgren (2010) have written extensively on popular music in classroom music teaching. They examine how popular or ”market-driven” musical culture and students' musical cultures and backgrounds find expression in music education in Swedish compulsory education, concluding that popular music was presented ”as a sort of canon similar to the canon of art music that is predominant in the teaching of history of music at school” (p. 15). The authors again compare the popular music used in schools to a ”kind of popular music canon” in the National Evaluation, finding a ”total dominance” of pop and rock music as repertoire used in music education reflecting in most cases teachers' – not students' – musical tastes and backgrounds (Skolverket, 2015, p. 71).

Many researchers have suggested that the emergent popular music repertoire or "canon" used in schools is homogenous and limited in scope: a ”lowest common denominator” (Ericsson, 2002, p. 45) of putatively shared musical tastes and sensibilities. A study of choral directors in the US (Forbes, 2001) found that choral director background was associated with repertoire choice. Those choir leaders with less experience tended to have greater focus on pop music, while those with greater experience chose classical, folk and jazz music instead of pop. Ericsson and Lindgren (2010) argue that music in Swedish classrooms has become dominated by a media-driven or ”market-based aesthetic”, and that inclusion of students' own ”daily life” listening habits is sometimes done uncritically. Georgii-Hemming and Westvall (2010) question whether music education in Sweden has become "too limited in relation to repertoire, content and teaching methods" (p. 22). Paradoxically, then, efforts to engage students with music considered popular and approachable may lead instead to a new form of ”school music” that is limiting and exclusionary. Kallio (2015) describes this tendency as a ”school censorship frame”. She notes, ”In excluding, or marginalizing particular popular musics, in turn, so are those young people who enjoy and identify with such musics excluded from and marginalized in school music education” (p. 143). Thus, she argues, the reflective work of repertoire

selection is ethically charged and a condition for fostering inclusive values in education.

2.5.2. Formal and informal music learning

The use of current popular music in school is often motivated by the desire to increase student involvement and engagement. Stålhammar (1999) writes that students often feel alienated by content and method in traditional music education; teachers need to ask themselves, "What is music today and how do children relate to it?" (p. 38). Green (2008) stresses, however, that while popular or "informal" styles of music have increasingly affected music education content, "this new content was largely approached through traditional teaching methods" (p. 456). She thus makes a distinction between informal music and informal learning. Folkestad (2006) characterizes informal learning as being non-sequenced, self-chosen, and interactive, and points out that today's students are learning music outside the classroom in "informal musical practices". Georgii-Hemmings and Westvall (2010) and Green (2001) lament that while contemporary popular music may find a place in today's classrooms, it is still largely taught according to unvarying, formal methods; they conclude that students therefore remain unmotivated and alienated from music as a school subject. As Folkestad (2005) concludes, "The most important issue might not be the content as such, but the approach to music that the content mediates" (p. 283). In other words, teaching method and repertoire are not necessarily bound together, and the former may well be more significant for learning outcomes than the latter.

2.6 Developmentally appropriate pedagogy (DAP) and young voices

Beyond the issue of formal and informal learning strategies, contemporary popular music presents other specific challenges as educational material for young voices. It might be argued that Developmentally Appropriate Pedagogical practices (DAP) are especially relevant when considering contemporary popular music and how to sing with young children. Pre-pubescent voices differ significantly from the adult, with a distinctive timbre and a wide but high singing range predicated on the small vocal instrument. This places demands on teachers to find or adapt appropriate repertoire in ranges they themselves may find uncomfortably high. It is therefore relevant not only to consider what is being sung in the classroom, but also how the repertoire is being used with regard to prescribed singing ranges and young students' voices, and what affects different genres can be seen to have on singing range.

Several researchers and practitioners have suggested that the range we use to sing with children has been progressively sinking in recent decades (Fagius, 2007, Trüün, 2020). Trüün (2020) considers how accompaniment can be a contributing factor:

> Why are there so many songs in C major? There are pragmatic reasons for this, which completely disregard the child's natural vocal range. The focus of attention is on a simple accompaniment on the recorder or guitar.

Recent studies in the United States have found that many American music teachers did not know or take into consideration students' vocal range (Pribuisiene, 2011). A study of singing activities in Swedish pre-schools suggest that teachers often sing in ranges that their students were physically incapable of reproducing (Jillefors & Schein, 1999). While the phenomenon of low transpositions may be related to the nature of the specific song material chosen, to the choice of accompanying instrument, or teacher training, a systematic study of these associations has not previously been undertaken.

Beyond issues of range, modern pop recordings and live performances also typically use a variety of amplification and digital manipulation which can make the sound of singers' voices difficult and even harmful to try to imitate. Indeed, Frith (2001) argues that "the most revolutionary moment in pop's history was undoubtedly the development of the microphone" (p. 97). Beginning in the 1920s and 30s, the microphone era ushered in new singing styles that took advantage of the feeling of intimacy achieved through quieter, nuanced vocal styles enabled by amplification. As Frith states, "In pop terms the microphone's importance was not that it enabled people to sing loudly but that it let them be soft" (p.98). This in turn has engendered songwriting that is intended for microphone performance.

Brown (1996) argues that children learn to sing primarily through listening and imitation, which he warns is a blessing or a curse, depending on the material they choose to imitate. Trüün (2020) states that if teachers consistently use chest voice to lead their students, for example, children will develop vocal strain trying to imitate what they hear. She argues that this can lead to loss of head voice register, and even diminished fine listening skills.

2.6.1. The child's voice and prescribed singing range

Due to physiological differences including lung capacity, size of the vocal apparatus, and degree of vocal fold closure, the child's voice has a quality that can be readily discerned as distinct from the adult male or female voice; the timbre is generally described as typically clear and light, somewhat breathy for girls, but otherwise almost identical between genders (Welch, 2006). Brown (1996) characterizes the child voice as typically "light, lyric, and sometimes by nature a bit breathy" (p. 94). As Welch and Preti (2014) summarize, "Although development occurs across childhood, the

child's vocal apparatus is significantly different in size and structure from that of the adult and produces a relatively distinctive vocal timbre" (p. 379). Children's singing ranges are also constrained by the small size of the vocal folds, which approximately double in length when they mature through puberty into the adult singing and speaking voice (McAllister & Sjölander, 2013).

Basic research to study and define normal singing ranges for young voices can be said to be incomplete and inconclusive, due in part to how separate studies define singing and measure range in divergent ways (Hedden, 2012; Kim, 2000; Goetz, 1990; Welch, 1979); Schneider et al. (2010) writes, "Only limited data on normal vocal constitution and vocal capabilities of school-aged children are available" (p. 153). Children's unchanged voices may have a remarkably wide range, extending several octaves up into a "flute" register above C_6 , with an average comfortable singing range between A_3 and F_5 for boys and between $A^{\#}_3$ to A_5 for girls (Welch, 2006). Goertz et al.'s (1990) review of children's singing voice research cites studies placing boys and girls ages 8-11 within a range of between G_3 and $G^{\#}_5$. In their study of 7-10 year olds, Schnieder et al. (2010) found that all participants reached a voice range of about two octaves: from A_3 to G_5.

While children's singing ranges tend on average to be at least two octaves wide, several studies have noted that the range children use tends to be much narrower, both when singing for themselves or when performing assigned singing tasks (Flowers & Dunne-Sousa, 1990; Hedden, 2012; Leighton & Lamont, 2006;). Flowers and Dunne-Sousa (1990) found "there is certainly a discrepancy between the pitches that a child is capable of producing and those that are generally sung" (p. 104), noting that "children simply modulated whenever a song required a pitch higher or lower than their range limitations or self-imposed pitch parameters" (p. 104). Taking children's mean spoken pitch and "self-enforced" singing range as a reference point, several researchers suggest a relatively low and narrow prescribed singing range from approximately C_4-C_5 in the spirit of Rutkowski's "speech-to-pitch" strategy (Goetz, 1990; Leighton & Lamont, 2006; Rutkowski, 1990). Hedden (2012) writes, "An area of concern is that range can be imposed by the literature, creating unhealthy situations for children in which they strain and force sounds outside their comfortable range" (p. 53). Some researchers and practitioners, however, have suggested that this practice is unnecessarily limiting and should be reconsidered (Goetz, 1990; Kim, 2000; Trüün; 2020). Goetz (1990) writes:

> Vocal register and, thus, range can be affected by the presence, pitch, and quality of the vocal model. Those studies suggesting that children's voices are lower than previously thought should be reconsidered in view of vocal registration. In addition to information about vocal registration, teachers need techniques for assisting children in finding and using the head voice. Attention to registration, which may result in extending the children's vocal range, may allow teachers to use song material with wider and higher vocal ranges. (p. 31)

While Kim (2000) acknowledges the importance of understanding the limits of the child's vocal instrument, she argues that DAP-thinking in singing pedagogy has resulted in an overly narrow range. This can limit students' development by "underrepresenting their potential" (p. 159). Invoking Vygotski's theory of *Zone of Proximal Development*, Kim (2000) maintains that children require effective instruction in order to develop their full singing range, rather than remaining confined by observed singing behaviors (p. 157). In contrast to Welch (1979), Trüün (2020) states that speech and song should not be taken to have the same pitch centers, arguing that the lower limits of prescribed singing ranges for young voices should be several tones higher than spoken frequency.

A source of narrowly prescribed singing range may be printed instructional materials and songbooks, which Kim (2000) states often hold themselves to within a range of D_4 to A_4. Evidence of this tendency may be found in current Swedish teaching materials such as *Elefantboken* (1994) (average range: B_3 to $B^{\flat}{}_4$) and *Låtar Året Runt* (2004) (average range: C_4 to B_4). In popular music with children's singing, evidence of low and narrow singing style can also be found. Recent examples of prominent Swedish commercial performances featuring children's ensemble singing within these low and narrow constraints can be cited, such as *Inte stor nog* by Timbuktu (2013) (B_3 to B_4)[9] or *Det kommer bli bra* by Laleh (2020) ($C\#_4$ to A_4).[10] These performances of children's ensemble singing in commercial recordings may be said to reflect a similar vocal ideal in so far as they both are characterized by a low, narrow singing range with an attendant highly heterogeneous sound with poor vocal blend, and speech-like singing tone.

A dominance of low and narrow tessitura in instructional repertoire may be seen as significant in a Swedish context since notable pieces within the children's song repertoire traditionally associated with school year celebrations exceed these limits to use the higher, "head register". Most prominently, the "Sankta Lucia" song to celebrate the December 13th saint's day is customarily sung in $D^{\flat}$ in national broadcasts and similar prominent performances (range: $E^{\flat}{}_4$ to F_5). To take another example, "Nu grönskar det" – a summer hymn and well-loved end of term song – is customarily performed in F (F_4 to F_5).

The emergence of lower, narrower singing practices may be considered as having a potentially important musical and cultural significance. Research indicates that pitch is an independent bearer of musical meaning and expression, processed separately in the brain from other relevant musical elements such as melody and lyrical content (Sundberg, 2017; Peretz, 2002) and it has been shown in multiple studies to be associated with emotional expression, both in music and in speech (Friedman, 2018; Huron, 2007; Juslin & Laukka, 2003; Stolarski, 2020; Truesdale, 2018; Weusthoff,

[9] "Inte stor nog": https://www.youtube.com/watch?v=HtrNbubtj6g

[10] "Det kommer bli bra" with children's choir: https://www.youtube.com/watch?v=gyvtLSuiK1M

2013). Juslin and Laukka (2003) conclude that low pitch is commonly associated with sadness whereas high pitch is associated with happiness in vocal expression (p. 796). Friedman (2018) showed that changes in pitch altered listener's perceptions of music's expression. Both Weusthoff (2013) and Truesdale (2018) found that high pitch and wide range are measures of greater emotional arousal (p. 214). Friedman (2018) suggests that these associations between pitch and emotion "elicit empathic response" and that such "emotional contagion" may be a "principal means by which music influences listeners' feelings" (p. 518). Juslin and Västfjäll (2008) also found pitch height to elicit an empathic response with listeners, arguing that we "catch" the emotions of the performer in part through the sung pitch: that is, where "the perception of an emotional gesture in another person directly induces the same emotion in the perceiver" (p. 565). In other words, pitch is an element of vocal behavior, both sung and spoken, that communicates and affects specific emotional responses in performer and listener.

If pitch is an independent and significant bearer of musical meaning and structure as research suggests, then it may be assumed to play an important role in musical culture. A study by Olthof (2015) sought to explore whether songs were memorized and transmitted over time and geographical location based on their absolute pitch height, finding that "absolute pitch memory plays a significant role in the oral transmission of folksongs" (p. 161). In other words, the stability of a song's performed pitch over generations and geographic spread may be a constituent factor in successful transmission of oral culture. Rice (2014) notes that pitch was considered so fundamental in dynastic China that "when a new dynasty took power, it would reset the fixed pitches of music to new levels" (p. 12). Based on his extensive examination of singing practices across diverse cultures, Lomax (1968) identifies pitch as an important meaning-bearing aspect of singing styles. His study found that high singing or low singing was strongly associated with divergent social structures: the low associated with egalitarian and inclusive societies, the high with hierarchical, repressive social organization. In sum, differing choral behavior implies different social behavior within a society, with pitch being recognized as a significant element for the communication of musical meaning and emotion. As such, changes observed in the prescribed singing ranges of traditional songs would be of interest for research.

The research outlined above shows that pitch is an important shows that pitch is an important bearer of musical meaning with structural significance within musical cultures. This may be relevant for the present study in considering current singing practices, traditional repertoire, vocal ideals and prescribed singing ranges.

2.6.2 ”The soaring sound of treble voices”: socio-cultural factors and vocal ideals

As discussed in this chapter, the child singing voice has a distinctive sound, deriving in part from the nature of the child’s vocal apparatus. Within the physical constraints of the child’s vocal instrument, however, is a wide range of possible timbres, registers, and singing styles, and vocal ideals for children’s voices may be seen to be as much determined by aesthetic choices premised on socio-cultural factors as by physiological limitations (Day, 2018; Hall, 2011; Kim, 2000). As Harrison (2014) states, this socio-cultural dimension governing vocal ideals is much more difficult to research and is poorly understood:

> Research still has established little concerning the relationship between singing, vocal ideals and the society it originates from; what has remained largely undocumented are the environment, the culture, and the society in which vocal and musical preferences exist, and the bearing these influences have on the sound qualities of the voice and the techniques used to develop them. (p. 6)

Scholars such as Potter (2006) have written studies attempting to establish links between the evolution of certain aesthetic trends in singing practice and larger socio-historic patterns. Potter’s study mapped how the use of portamento in classical music performance was dominant but went into sudden decline following WWII while its use at the same time became a defining element of popular singing. Potter argues that the sudden change in vocal style was used to mark differences in class and high/low brow art. Potter’s (2000) research has also sought to show how the architecture of larger music halls affected singing pedagogy in opera performance at the end of the 18th century.

The well-blended, clear, unstrained, light timbre most commonly associated with singing in a church setting and epitomized by English cathedral boys-choirs such as King’s College (Ashley, 2014; Bithell, 2014; Hall, 2011) or, in Sweden, by the nearly century-long choral tradition upheld by the Adolf Fredrik music school in Stockholm, is a well-established vocal ideal of the late 20th century, defining excellence in children’s ensemble singing performance. Bithell (2014) describes this vocal ideal as defined by “purity of tone, precise enunciation, and ethereal quality” (p. 46). In some regards this classical vocal ideal for children’s voice may be understood as sharing criteria for beautiful ensemble singing performance with Swedish adult elite choral singing, which has been described as translucent and precise, with focus on pure intonation and exactitude in rhythm (Fagius, 2009)[11]. Ashley (2014) states that the ”common association between the boy voice and the angelic” (p. 136) is due to

[11] Hedell (2009) argues that pioneering Swedish choir director Eric Ericsson’s early exposure to the English boy’s choir tradition was a formative experience for his vocal ideals.

the well-blended, pure tone of the head voice. He argues that this association is not ungrounded:

> There is a reason for this [association with the angelic]; the chorus effect of multiple, blended voices dissociates sound from its individual sources and endows it with an "independent" existence. This kind of choral singing is not about the "me" culture of individuals and their bids for stardom, riches, or "personal fulfilment": something akin to "folk religion". (p. 136)

This otherworldliness is also described by Bithell (2014), who writes that the "clean, dissembodied head voice of the Western classical world … reaches its epitome in the prepubescent treble of the English cathedral choir" (p. 46). She argues that the "ethereal quality" of the chorister vocal ideal gives the illusion of a voice "disconnected from any base physicality" (p. 46). Day (2014) argues that contrary to popular conception, the King's College vocal style is not based on a long tradition of vocal pedagogy. He sees the chorister sound as a recent and thoroughly modern aesthetic influenced by shifting socio-economic factors and changes in compulsory education in England in the first decades of the 20th century. Day's description of the chorister ideal echoes Ashley's above, although a more critical tone can be inferred:

> The ensemble is perfectly disciplined: consonants are clearly enunciated and synchronized with unerring precision. The timbre is unforced and violent changes in dynamic are avoided; even in forte there is no sense of strain, or indeed of drama, or at least not of any emotional outpouring. Expressive gestures are intense but subdued. Tempos are almost invariably steady. (p. 806)

Rather than symbolizing the angels of our nature, Day (2018) attributes this vocal ideal to a vocal identity reflecting "a very narrow social stratum" (p. 813) and argues that the "blend and impersonality" of the style could be seen as a musical performance of the British upper class ideals of athleticism and military service: the sound of "gentlemanly boys with pure voices" (p. 810). Here, the head voice is associated with the upper class ideals of gentlemanliness, restraint, order and obedience, with a culture of selection, elitism, and exclusivity that this would imply. As an anecdotal example of this, the legendary King's College children's choir director David Willcocks was said to have auditioned boys for the choir by lining them up against a wall and looking them over, claiming he could tell a good chorister by sight. In sum, the high, angelic child's voice has an association to singing practices such as the British chorister tradition which in turn is associated with a specific culture and social class. A study by Parkinson (2018) examines to what degree adult ensemble singing may also be seen to be an exclusive passtime associated with a homogenous ethnic and social background. To the degree that school singing is meant to prepare students for future participation in adult singing culture, issues of diversity and

inclusivity in choral life outside of school may affect how certain singing styles and their attendent vocal ideals are perceived and practiced in the classroom.

Where Day (2018) examines the link between high voices and bourgeois values, Hoegaertz (2014) investigates the historical association between children's head voice singing and patriotism. He states that, "The importance of singing within nineteenth-century (patriotic) education can hardly be overestimated … the practice of collectivity through singing in harmony or in unison would become routine" (Hoegaertz, 2014, p. 18). From this time, the "soaring sound of treble voices" (Hoegaertz, 2014, p. 16) became closely associated with nationalism. Hebert and Kertz-Welzel (2010) argue that these historic ties between music education and nationalism are still little understood and identify a pressing need for further research in this field.

Regardless of possible cultural associations with the angelic, the bourgeois, or national chauvinism, recent research based on pedagogical initiatives involving English cathedral boy's-choir traditions indicates that these elite singing practices can be successfully integrated into the general music classroom and significantly improve singing development in children from diverse backgrounds. The Chorister Outreach Program (COP) which ran as a part of England's Sing Up national singing initiative (2008-11) involved enabling choristers and choir leaders to work with primary school-age children and their teachers to develop a shared repertoire of songs to be later performed together in concert (Saunders et al., 2011). An external evaluation after one year found that participants had achieved a level of singing development that was statistically identical to the cathedral choir singers themselves: "Primary aged [7-11] children in COP projects had a mean normalized singing development rating that closely resembled that for cathedral choristers", regardless of factors such as participants' gender or socioeconomic background (Welch et al., 2009 p. 75). Welch et al. (2009) conclude, "It may be inferred … that the provision of expert singers (whether adults, children, or both) as role models in collective, interactive and focused singing activities is likely to impact positively on children's singing development" (p. 49). Several studies have also examined the recent successful integration of girls into the chorister tradition (Ashley, 2014; Welch, 2002). In sum, efforts such as these indicate that elite choral practices may be successfully integrated into the general music classroom with positive results. As Goertz et al. (1990) and Kim (2000) have argued, singing in the register above that proscribed by speech frequency may be successfully undertaken with all children contingent on an appropriately nurturing educational environment. Hedden (2012) states, "A mechanism is in place, but we must teach children how to properly develop and use it" (p. 354). To summarize, wide participation in singing traditions emphasizing a wide and high vocal range have been shown to be within reach of diverse students in the general music classroom, given the proper pedagogical context.

If singing in the upper register can be shown to be feasible within appropriate learning conditions for all children, and if the upper register may be seen to have a significant place within Swedish children's choral music culture, it is of interest to investigate possible mechanisms or underlying factors that may be seen to be responsible for avoiding high singing in formal music education. Kim (2000) writes, "The philosophical question of why pitch-matching ability is important should be understood as a component of a value or belief system, which is affected by cultural context" (p. 158). This is a research orientation that looks to understand the importance of cultural context in young children's singing behavior.

Dalla Bella (2009) reports that by the time a child is five years old, they are familiar with a broad repertoire of songs from their own cultures which they are not yet able to perform themselves, suggesting the degree to which children's singing is from a young age culturally situated. In a study examining cultural context and song learning among elementary students, Kullenberg (2014) observed that participants spontaneously employed teaching methods drawn from their experiences of formal music learning when charged with leading each other in singing tasks. Indeed, research indicates that defining aspects of musical experience are already culturally coded even before birth; according to Welch and Preti (2014), vocalization is probably already culturally determined in between the third trimester and the first months of life:

> The acoustic features of the maternal voice and her immediate sonic environment are socially and culturally located, such that the initial generic plasticity demonstrated by the neonate for the discrimination of differences in any group of sounds is soon shaped toward a biased detection of the particular distinguishing features of salient local sounds. (p. 8)

These modern research findings cast a novel light on Kodály's (1957) well known dictum that music education should begin nine months before the child is born. However, the cultural significance of specific aspects of children's singing performance such as singing in formal versus informal situations, prescribed range, and vocal ideals are areas of study that are still underdeveloped. In some respects these questions can be seen to transcend the scope of empirical research, requiring a theoretical framework in which to understand and interpret these aspects of the present study's inquiry that attempt to understand the social and cultural meaning of different vocal styles. These questions of a theoretical nature linking singing practices to musical meaning, values, social structures, and culture will be discussed in the following chapter.

2.7 Summary: the need for an empirical survey of classroom singing

It is in light of the issues raised in this chapter that the current study has been undertaken. Singing has been seen to be a vital and unique musical skill with particular social significance, but research has not assessed the current singing repertoire and singing practices of Swedish compulsory education on a national level. Nor have previous studies addressed how the repertoire is being used, how much teachers are singing with their students, and why. It is in the context of this previous research that the present study seeks to map out current song repertoire, to analyze factors that influence repertoire selection and singing practices, and to ground an understanding of classroom singing practices in an ethnomusicological perspective.

3. Theoretical perspectives on singing

The present study in music education draws on theoretical concepts from the fields of ethnomusicology and popular music studies as a framework for understanding and relating current school song repertoire to its time and place. Theory – a ”set of explanatory principles” (Hebert & McCallum, 2014, p. 85) – is intended here to be an explicit conceptual framework to provide insight into the processes at work in repertoire selection and singing practices. As Gross (2009) states, ”Theory is needed to establish new and fruitful conceptual vocabularies for thinking about problems, to identify previously unrecognized social processes and dynamics [and to uncover] hidden social mechanisms” (p. 375). Harrison (2014) has argued that a better understanding of the relationship between ”singing, vocal ideals and the society it originates from” (p. 8) is integral for singing pedagogy, requiring further elaboration in both empirical and philosophical research. In light of the present study's scope and aims, a theoretical framework is presented here to contextualize these questions in terms of ethnomusicological theories of music and its function within society, with a focus on the ethnomusicology of the voice in particular.

The voice may be seen to be shaped by a combination of ”cultural, historical, and physiological forces” (Latham, 2016, p. 1). The aim of this chapter is to introduce relevant theoretical understandings of vocal ideals, where the social and cultural significance of different forms of vocal performance and vocal qualities relevant to the present study are considered. Several conceptual analytic tools and theories drawn from popular music studies, ethnomusicology and their related fields may be useful in the task of describing and understanding current school song repertoire and practices in relation to social structures. The concept of *exclusion* as a constituent element in Western musical cultures will be addressed, and a conceptual understanding of *musical change*, *musical evolution*, and *acculturation* will be developed. The idea of *data saturation*, *music as data,* and the concept of the digital-human voice or *humachine* will be considered as useful concepts for understanding contemporary repertoire and singing practices in the digital music age. The chapter begins with a brief consideration of ethnomusicology as it pertains to music education.

3.1 School music in and as culture: an ethnographic approach

Farrell (2004) defines ethnomusicology as ”the study of music in culture and as culture” (p. 265), that is, studying music in its social, cultural, and historical contexts. He stresses the centrality of musical learning and music education to ethnographic research, writing that ethnography is ”often the detailed study of music learning, or to put it another way, of music education (p. 265)”. Nettl (2010) argues that the two fields of ethnomusicology and music education have moved closer to each other in recent years as they face similar questions and challenges, and Sæther (2017) has described the two disciplines as having a symbiotic relationship. Ethnomusicology, like music education, is often transdisciplinary in its approach, “dependent on borrowing theory from anthropology and other fields” (Rice, 2017, p. 165). This, Farrell (2004) argues, is a ”crossover point between the ethnomusicological method and music education research” (p. 240).

While there is much convergence between the fields of music education research and ethnographic research, Farrell (2004) and Nettl (2010) note that little ethnomusicological research has been done in school music settings; application of ethnomusicological methods and theory is unusual but may ”fruitfully inform music education research” (Farrell, 2004, p. 265). Green (2008; 2002) has in her research in music education employed ethnomusicological methods and theory in her studies of informal music learning among popular musicians and her analysis of formal music education in the Western context. Sæther (2017) cites her own and several other recent Swedish examples of research into music learning as lying in a “borderland” between the two disciplines. Nettl (2010) argues that the two fields have converged in their respective *foci* in recent years and face similar challenges as they each grapple with modern academic conceptions of group identity, culture, and discourse: ”Ethnomusicology has moved towards assessing and understanding music in terms of beauty; educators have moved towards understanding music as an expression of culture … increasingly they find that they learn about people through their music” (p. 2). In sum, the fields of ethnomusicology and music education both have music, music learning and culture as their object of study and are both transdisciplinary in their approach.

In the present Music Education study it has been deemed useful to consider an ethnomusicological approach to understanding how changing classroom singing practices may be seen to reflect musical culture, social structures and behavior. This approach is similar to that described by Ilari et al. (2013) in *Singing and cultural understanding: a music education perspective*, where the authors develop theoretical perspectives based on the premise that ”songs are passed down so as to transmit sociocultural values and customs to new generations” (p. 204). In considering singing

in terms of social significance, the authors stress the close connection between speech and singing, concluding that due to singing's unique relation to speech and text, it may be particularly revealing of social structure. Lomax (1968) makes a similar argument for the unique position of song in human cultures and its subsequent significance as a bellwether of social structures and values. In other words, once again, the prominence and unique status of the vocal instrument and singing is invoked as a key to understanding its role in music and society:

> The prime function of song and music appears to be group-organizing. As a relatively rare communication, song turns up most frequently at the ritual points of human experience when groups of people must agree on a minimal program of feeling and action. In the rites of the life-cycle – at christenings, marriages, and wakes, the community-building, the culture-perpetuating needs of a society are dramatized. Behavioral norms crucial to a culture are then set forth and reinforced in such terms that the whole community can accept them and join in their restatement … this is why we have found high correlations between norms of song performance and patterns of social interaction. (Lomax, 1968, p. 15)

It is based on this theoretical understanding of song's place in society that Lomax (1968) conceptualizes the relationship between song style, shared values and social structure. This relationship is of interest in the present study to better understand the significance of school singing practices.

3.2 Ethnomusicology in theory and practice

The relatively young field of ethnomusicology emerged from the older academic disciplines of musicology and anthropology in the second half of the 20th century (Merriam, 1964; Nettl, 2005; Rice, 2014). Originally called "comparative musicology", the name "ethnomusicology" was coined by comparative musicologist Jaap Kunst in 1950, and is defined in a broad sense as "the study of music in culture" (Merriam, 1964). Rice (2014) suggests a more specific definition: "the comparative study of human musical diversity based on musical ethnography" (p. 3), in part to make explicit the discipline's origins in colonial and cultural chauvinistic academic discourses. Since the 1980's, "the comparative impulse of early ethnomusicology has receded into the background" (Rice, 2014, p. 26) with "the search for homologies and coherences … short-circuited by a move to poststructuralism" (p. 56). Rice (2014) suggests, however, that the cross-cultural comparative methods of earlier ethnomusicological studies may be experiencing a revival. Nettl (2010) argues that this return to comparative studies is a healthy one for the discipline, stating, "It would be a mistake to give up studying the music of the 'other'… as scholars, a balance of

the insider's and outsider's perspectives gives us the most balanced picture of the world's musics" (p. 8).

Rice (2017) argues that ethnomusicology can be seen as having an ambivalent attitude towards theory and use of theoretical perspectives, stating that "ethnomusicological theory, despite its name and despite the fact that it in some ways permeates our field, has yet to take firm root in our disciplinary imagination" (p. 161). Theory is not always explicitly formulated as such, but is often implicit in ethnomusicological methodology and discussion, leading some both within and outside the field to regard it as a "derivative discipline" that borrows theories from the other social sciences such as sociology and linguistics (p. 165). Rice (2017) asserts that this is a misconception:

> Ethnomusicology has made extraordinarily important contributions to understanding the nature of music through the writing of ethnomusicological theory beyond the local. Its principal and most important intervention has been a sustained argument over more than a half century against the notion, purveyed in most Western scholarship, that music is only or primarily an art form made for its own sake, mystically transcendent in its effects and with little or no social or civic significance. (p. 175)

Instead, ethnomusicological theory has advanced the idea that "musical structures reflect cultural and social structures" (Rice, 2017, p. 175). As Blacking (1973) states, "No musical style has 'its own terms': its terms are the terms of its society and culture, and of the bodies of the human beings who listen to it, and create and perform it" (p. 25). Lomax (1962) states the drive of ethnomusicology is to "turn aside… from the study of music in purely musical terms to a study of music in context, as a form of human behavior" (p. 425). This is for Nettl (1995) the central theoretical question of ethnomusicology: "why a particular society has its particular music and musical culture" (p. 8). He argues that the relationship is complex, however, as music plays several sometimes contradictory roles within society as: (i) part of culture, creator of culture, (ii) a microcosm of culture, and (iii) a commentary on culture. Rice (2014) notes that music can be a resource to unify society but can also "challenge powerful social institutions" (p. 48). In part because of these complexities, overarching theories of how particular aspects of musical culture reflect the societies from which they emerge remain elusive for the discipline. Blacking (1973) concluded: "Ethnomusicologists have yet to produce systematic cultural analyses of music that explain how a musical system is part of other systems of relationships within a culture" (p. 25). In other words, while studies within ethnomusicology have tended to advance theories concerning the relation between music and social structures, general theories have yet to be systematically tested and firmly established.

Emerging as it did from cultural evolutionary paradigms of the first half of the 20th century, much ethnomusicology, like anthropology, initially espoused theories of universal cultural evolution, seeking to place diverse living cultures along a

continuum of progress, with Western culture taken as the most advanced pole of the spectrum. This model of cultural evolution played a central role during the formation of academic musicology but went out of favour in the second half of the 20th century (Savage, 2019). As Blacking (1973) states:

> Musical styles cannot be heard as stages in the evolution of music. Each style has its own history, and its own present state represents only one stage in its own development; this may have followed a separate and unique course. (p. 56)

In the place of cultural evolutionary theories, more recent ethnomusicological theories of musical change have sometimes looked to derive general laws on analysis of contact between cultures and historical changes, although many of these analyses have focused on the macrolevel rather than an understanding of how small variations in musical practices – "microevolutionary change" (Savage, 2019, p. 5) – take place and drive change over time.

3.3 Alan Lomax and Cantometrics

A notable though controversial attempt to derive general theories concerning the meaning of song in culture is American folklorist Alan Lomax's *Cantometrics* from 1968. A massive decade-long undertaking by a multidisciplinary team of researchers led by Lomax, the Cantometric project collected and analysed musical examples from 200 different musical cultures spanning the globe, taking the ethnographic atlas of world cultures proposed by Murdock (1967) as a template. Lomax's ultimate ambition was to map connections between the emotional expression of certain singing cultures and the social structures that gave rise to such musical expression:

> When a distinctive and consistent musical style lives in a culture or runs through several cultures, one can posit the existence of a distinctive set of emotional needs or drives that are somehow satisfied or evoked by this music. If such a musical style occurs with only a limited pattern of variation in the similar cultural setting and over a long period of time, one may assume that a stable expressive and emotional pattern has existed in group A in area B through time T. Thus we might look forward to a scientific musicology that could speak with some precision about formative emotional attitudes pervading cultures and operating through history. (Lomax, 1962, p. 425)

It was with the aim of collecting data systematically for cross-cultural comparison that Lomax devised a standardized, computer card rating system for the judging and cross-cultural comparison of song materials based on 37 different criteria. These criteria included size and social structure of the music-making group, type and degree of integration in the music-making group, type and degree of melodic, rhythmic, vocal

embellishment in a sung performance, and qualities of the singing voice such as tonal blend, volume, rubato, register, nasality, raspiness, accent, consonant enunciation, and degree of vocal relaxation (Lomax, 1968). Song style in Lomax's conceptual system is defined as the sum of the 37 Cantometric measurements. Lomax and his team concluded that Cantometric data and analysis offered evidence for clear associations between dominant singing styles and social forms, stating, "The principle discovery in Cantometrics is that a culture's favored song style reflects and reinforces the kind of behavior essential to its main subsistence efforts and to its central controlling institutions" (Lomax, 1968, p. 133). Lomax's theory of song style rests on the hypothesis that song structure's close mirroring of social structure derives from its near universal and unique role in collective activities such as rites, ceremonies, and celebrations. Due to its close association with shared rites and fundamental social values, a given society tends to have a limited number of song styles, often one and no more than three, according to Lomax's research (Lomax, 1962). Generally, one style was found to be more common than the rest, or dominant, and resistant to musical change.

Lomax's theories were poorly received by the academic community and have been challenged by later scholars (Averill, 2003; Tarasti, 2002). Averill (2003) notes methodological shortcomings and latter day charges of orientalist pre-conceptions evinced by Lomax's broad descriptions of some of the included cultures. Savage (2019) argues that Cantometrics suffered from a level of superficiality as a "grand theory", a project "more interested in the macroevolutionary relationships between cultures/genres than in microevolutionary relationships among songs within cultures/genres [making it difficult] to reconstruct the precise sequence of small microevolutionary changes that may have given rise to these large cross-cultural musical differences" (p. 5). Nevertheless, Averill (2003) states that "Despite the many objections that scholars have raised [to Cantometrics] many of his central conclusions have been widely disseminated and can be considered a part of conventional wisdom on global musics" (p. 242). She concludes that while little research is currently taking place within the framework of Cantometrics, "future moves in the direction of global comparative study will have to engage seriously" (Averill, 2003, p. 242) with Lomax's legacy. Rice (2014) states that Lomax's theoretical framework linking structures of song performance to general social relationships has gained wide acceptance:

> While ethnomusicologists today might disagree with Lomax that relationships between song style and social style are predictable, they do tend to believe that music is a social behavior and that structural homologies between it and other social behaviours can be demonstrated through careful ethnographic work. (p. 53)

As Rice (2014) suggests, while Lomax's Cantometrics has not gained widespread acceptance as a method, the theoretical perspective behind it has proven resilient and remains a touchstone for the ethnomusicological study of singing cultures.

3.3.1 Cantometric measurement

Lomax (1968) found that the degree of vocal relaxation in sung performance – a parameter called ”vocal width” in cantometric analysis and recorded on a 13-point scale – displayed a clear and consistent association with social forms concerning gender equality and hierarchical structures. Lomax (1962) writes, ”A high degree of choral integration is always linked with a relaxed and open manner of vocalizing” (p. 437). He presents the Pygmy and Bushmen cultures of Central Africa as epitomizing this relaxed vocal style:

> The Pygmy voice is generally low, lacking in nasality and rasp, relaxed, with a slurred … yodelling tone. This extraordinary degree of vocal relaxation, which occurs rarely in the world as an overall vocal style, seems to be a psycho-physiological set, which symbolizes oneness, non-repressiveness, and an unconstricted approach to the communication of emotion … These stone-age hunters normally express themselves in a complex, perfectly blended, contrapuntal singing at a level of integration that a Western choir can achieve only after extensive rehearsal. (p. 437)

This style is correlated to the Pygmy way of life, which may be seen to lie at the extreme end of the spectrum of human cooperative organization. Pygmy society is considered acephalous, that is, lacking any leadership organization, where all tasks, property, and activities are equally shared among all members of the society. This social structure is then expressed by what Lomax refers to as extreme “vocal empathy” to match the cooperative style of the culture:

> The choruses of these hunting-gathering peoples sit in a circle, bodies touching, changing leaders, strongly group-dependent. Even their melodies are shared pleasures, just as are all tasks, all property, and all social responsibilities. (p. 438)

The Pygmy singing style scores at the lowest extreme, then, of the “vocal width” scale, as well as the lowest end of the “register” scale denoting pitch level assessed as being closer or further away from spoken pitch. Low, relaxed singing was found to be associated with societies where men and women had equal status, what Lomax (1968) dubs “complementary societies”: where men and women have complementary, more or less equal interactive relationships. The opposite end of this spectrum, associated with high pitch, constrained singing, are male-dominated societies, where women are consigned to “more passive” or “socially inert roles” (p. 200). The phenomenon of “vocal solidarity” – the ”spontaneous and delicate tuning together of voices so that the overtone series of a group of individuals blends together in a unified stream of organ-like purity” (p. 201) – was found to be strongly associated with complementary societies like the Pygmies and ”seems to be a function of bodies long trained to move in unison, not only in dance, but in work and everyday life” (p. 201). Lomax (1968) concludes:

> Counterpoint was once believed to be the invention of European High culture. In our sample it turns out to be most frequent among simple producers, especially among gatherers, where women supply the bulk of the food. Counterpoint and perhaps even polyphony may then be very old feminine inventions. (p. 200)

Finally, as a corresponding musical expression of Pygmy egalitarian social structure, almost all singing is performed in ensemble, with solo song existing only as lullabies between mothers and children, a binary cantometric category of solo/ensemble (Lomax, 1962). In contrast, Lomax (1962) describes Western European singing as dominated by solo singing, with high register and narrow width:

> Voices are from middle range to falsetto, with strong characterizers both of throat and nose and a clear enunciating pattern. The connection between voice type and the degree of integration in group song is reflected in unison singing with poor tonal blend and poor to moderate rhythmic coordination. We may think of the singing of a Rotarian meeting, a football crowd, a regiment on the march in World War II, or a pub group in Britain. Each of these situations is a gathering of extremely individualized specialists, each singing in his own normal tone of voice and uncompromisingly independent of others at the level of vocal empathy. (p. 339)

The solo form is here – even when performed in groups – associated with the domination of the singer as leader over the passive audience: ”a principle model for conduct in Western European culture” (Lomax, 1962, p. 440). This measure of domination versus egalitarian participation is also assessed by the Cantometric scale of explicitness in lyrical meaning, rated on a five-point scale measuring the ratio of nonsense syllables to wordiness in sung material: ”Wordiness and precision form the compound variable of explicitness which also shifts with the level of social complexity [indicating] the increasing specialization of roles and growing complexity of the technical and social demands made on the individual” (Lomax, 1968, p. 131). This interpretation asserts that a wordier composition implies narrower participation in performance. In sum, Cantometric measurement assesses the dominant Western European singing culture to be essentially non-participatory, specialized, and passivizing, exemplified by the conductor of a national symphony orchestra or the solo bard:

> As society grew more complex and leadership more exclusive, the solo bard began to hold the center of the stage. He pre-empted the communication space as the priests and kings seized and held the wealth and power of the human community. The bard, exercising exclusive dominance and enforcing passive attention through long songs, represented the dominant leaders and helped to train the audience to listen for long periods without replying. (p. 134)

To what extent the contemporary solo singer-songwriter conforms or diverges from the bard archetype is an area where Cantometric theory may be considered to account

for contemporary expressions in Western singing cultures. Lomax (1968) contends that African-American rhythm and blues music only gained widespread acceptance and popularity when it was successfully adapted by singer-songwriters in the 1960's. He cites the music of Bob Dylan and John Lennon/Paul McCartney as examples of musicians whose complicated lyrics moved the cantometric measure of explicitness in rock music from nonsense toward wordiness, thereby making the formerly taboo genre acceptable within the dominant singing style. The singular impact on popular music culture by figures such as Woody Guthrie and Bob Dylan in the United States or Cornelis Vressvijk in Sweden should make the issue of their place within contemporary singing culture one of special interest for research.

3.3.2 Singing style, acculturation and musical evolution

As a global comparative method, Cantometrics was not intended as a tool for analyzing change within a musical culture, but rather for mapping the deep structure of prevailing musical behaviors and social structures: as Savage (2019) calls it, the "macroevolutionary" perspective. Lomax argued, however, that this understanding of the deep structure was required in order to make sense of the microevolutionary level of musical change brought about through contact between distinct musical cultures: the concept of *acculturation* (Lomax, 1959, 1962). He states, "The usefulness of Cantometrics is, perhaps, most quickly apparent in relation to the troubling problems of musical acculturation" (Lomax, 1962, p. 431). Whether the cause be social changes, migration, or new media, Lomax felt he could point to several instances in his research where a singing culture's Cantometric profile could be used to understand the process of acculturation, providing an explanation for why certain elements of a musical culture were adopted and other parts rejected in the meeting between contrasting singing styles.

As we have seen, Lomax's Cantometric studies found that musical cultures tended to include a limited number of singing cultures and that these tended to be heavily ritualized, resistant to change, and superordinate over function. In this analysis, most societies are seen to have only one to three dominant singing cultures, generally with one that was much more dominant than the rest. These Lomax identifies as a singing culture's "style": those elements which are seen to be stable and consistent over time. Style is understood as stable because it consists of those elements most closely associated with social structure and values: as Averill (2003) explains, "that part of the music which expresses the social or collective identity of its performers and listeners" (p. 238). Lomax (1962) states, "A musical structure stands for a social adjustment, for the fulfilment of a commonly felt emotional need" (p. 439). Since singing styles tend toward stability and are resistant to change – just as the underlying social structures they are seen to mirror – Lomax argues that singing styles only borrow those aspects of other cultures or styles which are consistent with the underlying emotional

expression of their own singing culture. This is the process of acculturation according to Lomax's use of the term (Lomax, 1959, 1962); he offers as an example the emergence of verse format in blues music in the United States as the incorporation of a consonant, foreign element within an otherwise unchanged African singing style:

> Negro singers, coming to the New World, were impressed by the European strophic form and added to it their musical reserves, meanwhile keeping their own system more or less intact in other respects. (Lomax, 1962, p. 253)

The resulting mix laid the basis for several new genres of American music – Blues, Jazz, Gospel, Bluegrass, and eventually Rock & Roll – with the "more or less intact" African traditions sublimated or "submerged" (Lomax, 1962, p. 253) into novel forms. In other words, European and African singing cultures merged in the United States by borrowing convenient elements from each other while leaving dominant singing styles intact. Evidence for this process in Lomax's analysis was the resilience of distinct singing styles despite widespread sharing of repertoire between the segregated European and African populations in 1950's America:

> Despite two hundred years of close collaboration, the white folk pattern in America still resembles the familiar folk-song style of Western Europe more than it does that of its Afro-American neighbors. In its turn, the Negro music of the United States still exhibits more traits in common with the musical dialects of the West Indies, South America, and West Africa than it does with those of backwoods white musicians in the nearby South. (Lomax, 1959, p. 931)

Singing styles evolve and develop, then, by incorporating new elements from contact with other styles. In this regard, Lomax sees acculturation as generative rather than destructive. This is to say that a new singing tradition is born within a dominant singing style, with both elements – the old and the new – preserved to some degree in the emergent genre. As such, Lomax's use of acculturation is close to Ortiz' concept of *transculturation* (1995), which is meant to describe the creative merging of cultures: in Ortiz' research, that of Afro-Cuban dance.

In Lomax's assessment of acculturation in American music, singing styles are shown to survive the meeting with another culture by appropriating those elements which are consonant with the style's underlying structure. The merging of African-American rhythm and blues music with European ballad traditions via the singer-songwriters of the 1960's as discussed above can be seen as a further case in point. Another example Lomax (1962) offers to illustrate this type of creative merging through acculturation is the sudden adoption of European choral repertoire by Polynesian cultures:

> One of the most notable traits of old Polynesian music is the choral performance in perfect tonal and rhythmic unison of long and complex texts. European singers

> perform mostly in solo. Choral singing is rare in this area and when it occurs it is badly integrated unison. In order to organize a polyphonic chorus, Western Europeans must be drilled to pronounce, attack, and accent each syllable together and in one manner. This ability to chant in perfect unison, which is a precondition for effective Western European harmonic singing, is a normal Polynesian culture trait. (p. 434)

According to this analysis, Western choral traditions were easily acculturated into Polynesian singing culture because the underlying social significance of the indigenous Polynesian style – the oral transmission of long and detailed family histories in song which served a vital ceremonial function – was consonant with the invasive musical elements. Extending Lomax's analysis, the theory would predict that the acculturation of Polynesian choral music into Western European style to be less likely; the organizational principle of precise unison performance would conflict in this case with the putatively dominant Western organizational principles valuing complexity, individual expression, and variation in collective performance.

Savage (2019) and others have borrowed concepts and methods from the evolutionary sciences to analyze and better understand the mechanisms underlying the transmission and reproduction of musical cultures over space and time, arguing that musical change such as acculturation can be conceptualized as *evolution*. In this reading, elements such as individual songs, aspects of musical style, musical instruments, and performance traditions can all be regarded as "variants": qualities which can be seen to be in competition for survival within a given musical tradition. Those variants which are selected by practitioners form the continuing, evolving musical tradition. The study of the actions of individual practitioners or *agents* within a musical culture is the "microevolutionary level" (p. 5) according to Savage (2019). Savage (2019) states that such research shows promise as a valid methodology for ethnomusicological studies to develop theories and empirical data concerning musical change, arguing that its application within song family research has already proven that "musical evolution, like biological evolution, follows some general rules" (p. 6). He concludes, "An evolutionary approach … provides the chance to teach about connections beyond music to other domains in order to understand the ways in which the global distribution of music may be related to the distributions of the people who make it and to other aspects of their culture such as language or social structure" (p. 6). It is in these regards that evolution and microevolutionary processes are seen as relevant conceptual tools in the present study for considering musical change as related to social context.

3.3.2 Musical culture and exclusion in Western society

According to Lomax's Cantometric measurement, Western musical culture is found to be exclusionary and passivizing relative to other cultures' singing styles. Lomax saw

modern Western musical culture as celebrating complexity and hierarchical structures through an elite performing class of expert musicians, in contrast to the "vocal empathy" and collective music-making of pre-industrial societies. This perspective has been echoed and developed by several other ethnomusicologists and music education scholars. Blacking (1973), too, attributes exclusivity and passivity to dominant Western social structures: specifically, the industrial economic model of the West. He argues that European musical culture and consequently Western music education expresses the division of labour and expertise inherent in modern industrial society by limiting musicianship to a professional, literate class:

> Technical development brings about a degree of social exclusion: being a passive audience member is the price that some must pay for membership in a superior society whose superiority is sustained by the exceptional ability of the few. The technical level of what is defined as musicality is therefore raised, and some people must be branded as unmusical. It is on such assumptions that musical ability is fostered or anesthetized in many modern industrial societies. (p.34)

In this light, music education may serve the perverse purpose of teaching students that they can not sing rather than fostering musicality. Blacking's own experiences with the Venda people of Southern Africa where he conducted ethnomusicological field work take the role of Pygmy culture in his account of a people where all members of the society are expected to sing and dance compared to the "oppressive nature of most societies" (Blacking, 1973, p.116). Like Lomax, Blacking theorizes that "surface complexity" and division of labour are prized in Western music-making, reflecting a society that places high value on technological advancement, specialization, and rigid hierarchical organization. A similar theoretical analysis is espoused by Nettl (1995), who formulates the Western fixation on complexity in the following way:

> What this society wishes for most is large amounts of goods and services to consume and complex machinery for life and play, and thus the great composers are most respected when they produce musical work of almost incredible sophistication, complexity and length. (p. 40)

Thus for Nettl and Blacking, like Lomax, complexity, specialization, and hierarchy represent core Western values mirrored in musical contexts and contributing thereby to "anaesthetizing" and exclusionary practices: what Lomax has called the "alienating style of Eurasian high culture" (Lomax, p. 1968, p. 259). Green (2011) makes a similar argument in regards to music education, asserting that "The more highly specialized is the division of labor generally, the more likely it is that music will also become a specialized sphere of action: listened to and enjoyed by many, but practiced by only a few" (p. 206). She suggests that formal music education may contribute to the perpetuation of these exclusionary practices:

> Over the last hundred and fifty years, there has been a gradual expansion in the sophistication, availability, and state funding of formal music education in schools, colleges and universities in many parts of the world. The decline of music making has occurred in tandem with the expansion of music education. Whether this complementary process is a matter of mere irony, whether music education has developed as a response to falling participation levels in music making, or whether it has been a contributory factor in causing that fall is not possible to demonstrate. (Green, 2011, p. 206)

Taken together, it may be said that a theory of exclusionary and passivizing tendencies within Western European musical culture generally and singing culture specifically has been theorized by several prominent researchers within ethnomusicology and music education. A further contention of ethnomusicological theory is that singing practices, intimately connected to group identity and collective practices, mirror deep social structures within a culture. As noted above by Green (2011), the dynamics underlying the relationship between formal music education and musical cultures in contemporary European society remain largely unknown. Such questions can be seen as especially pertinent for Music Education research considering the inverse association Green identifies between increasingly sophisticated music education regimes and the vitality of musical cultures.

3.4 Theoretical perspectives on voice in popular music studies

An emerging scholarship studying trends in popular music, the rapid development of digital music technology and the decline of traditional listening formats in recent years suggests that current music making, marketing and consumer practices represent a fundamental change in our musical culture and the dawning of a new era: what Hebert (2014) dubs ”the age of music as data” (p. 121). He writes:

> When we consider how the present day may look from the perspective of the future, digitization comes to the fore as a critical development in the global history of music … humanity has entered a new era of global music history, one characterized by social data saturation and surveillance, and we contrast ’digital pre-history’ with the present day of video uploads and instantly accessible music streaming services”. (p.36)

In her doctoral thesis, Susanna Leijonhufvud (2018) writes that digital streaming services such as *Spotify* have created a new kind of modern musical experience defined by the interface between human and artificial intelligence, what she calls the “beginning of something new … a musical cyborg” (p. 277). Danielsen (2018) argues that streaming services create qualitatively different experiences of listening, a

personalized consumption she calls ”prosumption” defined by intangibility and overabundance. In her doctoral study, Hagen (2015) found that music-streaming created a new kind of musical meaning that was ”intensely self-referential and personal” (p. 6). In sum, online listening platforms are regarded as having a strong potential to encourage individualized listening practices, challenge shared musical space, and even affect novel kinds of learner identities.

3.4.1 The “Humachine”

In an interview with BBC1 in August, 2016, the hip-hop performer Kanye West declared the Indie singer-songwriter Justin Vernon to be his ”favorite living artist”; that these two musicians – who might seemingly personify polar extremes within the recording industry – have collaborated in the recording studio (on the track “Hold My Liquor”, 2013) lends credence to Danielsen’s (2010) theory that music in the ”age of digitalization” has become radically uncoupled from traditional notions of genre. Danielsen argues that contemporary pop musicians such as Vernon’s use of digital sound-processing tools like Auto-tune and computerized micro-timing software have blurred traditional distinctions between genres by making identity unstable (Danielsen, 2018). Danielsen (2010) argues that digital recording practices have disrupted oppositions of human and machine: the contemporary listener hears the two as part of the whole in contemporary popular music, what she calls the ”humachine”. Notions of “humachines” or “musical cyborgs” give expression to emerging theories of digital music consumption and allow researchers to consider how these technologies may affect musical identities and contemporary musical cultures, both in and outside the of classroom.

3.4.2 Voice as metaphysical concept

New perspectives on the significance of voice in culture may be seen as a radical turn away from long-held associations between the voice and nature, femininity, and immediacy (Latham, 2016). Latham (2016) writes:

> In Western metaphysical and linguistic traditions, voice is the avatar of agency and identity. Derrida’s well-known critique of phonocentrism and the voice dismantles the cohesion of voice as metaphysics, urging theorists to reconfigure agential vocality as critically spaced from its metaphysical status. (p. 2)

Post-structural thought has effectively then deconstructed the traditional association between voice and agency, essence, presence and truth (Latham, 2016). Instead, Feldman (2014) argues, ”Nowadays, the voice is 3D. It transcends the conventional body … the boundaries of the voice are themselves without evident limit” (p. 256).

Here, Latham touches on how the traditional notion of voice as a part of the singer's body is expanded and problematized by new technology, echoing Danielsen's (2010) "humachine" and Leijonhufvud's "musical cyborg" (2018) theoretical constructs. Taken together, these theories imply that digital technology – the rendering of music to "data" (Hebert, 2014) – challenge our understanding of musical identity, voice, and musical cultures in important ways. These concerns may inform the discussion of digital technology's current role in repertoire selection and classroom singing education.

3.5 Summary

Ethnomusicological theory defines singing as a socially and culturally situated practice that reflects social structures and behaviors. Cantometric research suggests that singing styles are resistant to change as they reflect the social structures and values of a society. As such, changes in musical practice may be expected to mirror significant changes in a society. Adaptation through acculturation may be seen to drive musical changes on a microevolutionary level, leading to the evolution of musical cultures over time.

Modern Western European singing cultures have been defined as exclusionary and passivizing compared to pre-industrial musical cultures. Aspects of sung performance such as register and tonal blend have been considered significant elements reflecting dominant social modes by ethnomusicological theorists.

The voice in contemporary Western society as defined in popular music research is seen as unmoored from conventional associations with identity, nature, and musical genre. This destabilizing trend is further enhanced by streaming technologies and the view of music as data.

The nationally representative survey of school singing repertoire and singing practices developed in the present study can be used as a basis to map changes in singing styles and build knowledge about microevolutionary processes underway in classroom singing practices. The study's methods and methodologies will be presented in the following chapter.

4. Methodology, design, and analysis

To address the questions posed in this study, a mixed-mode questionnaire survey was developed and administered January-September, 2016. The present chapter will describe how the questionnaire was developed, tested and implemented according to current best-practices guidelines. The chapter will provide a more general background to contemporary survey methodological concerns and the place of quantitative methods in music education research today.

Responses from the survey yielded diverse types of data that necessitated the employment of several distinct methods of analysis. A genre analysis was performed on the collected song repertoire and the singing range of the songs recorded. Free text responses concerning participants' repertoire choices were coded into categories. Statistical tests were performed to test hypotheses concerning possible associations between teacher background, music genre, and singing practices. The diverse methods of data analysis used in this study will be presented and discussed in the present chapter.

4.1 Quantitative and qualitative scientific methods and traditions

Kazdin (2010) states that the purpose of scientific inquiry is to "establish knowledge through systematic methods of investigation" (p. 1). Within this all-encompassing definition, a broad distinction is traditionally made between qualitative and quantitative research. While the two traditions can employ divergent methodologies and are often defined against each other, they may best be understood as being two useful and complementary investigative procedural starting points. Both traditions rely upon transparent, systematic methodology to collect, analyze, and draw conclusions from observation.

The goal of quantitative studies as defined by Kazdin (2010) is to find correlations between variables and to generalize from the basis of observations by reducing observed phenomena to measurable units. As such, quantitative scientific analysis seeks to simplify and isolate variables in order to uncover relations that "would otherwise go unnoticed or be ambiguous in their full complexity as they appear in

nature" (p. 23). The paradigmatic example of quantitative method is the experimental study, where a "variable of interest" (p. 53) is systematically and artificially isolated in order to study its relation to contingent variables. A survey study may also be said to be quantitative in its aims in so far as it seeks to (i) generalize from study participants to a larger population and (ii) reduce and quantify results.

While a quantitative study aims to generalize from the particular of a case to a larger population or study object, qualitative studies seek instead to describe the variation between variables and the diversity of contexts where they find expression, that is, the "qualities" of a particular case or phenomenon. As such, Larsson (2009) defines qualitative methods as "systematic knowledge of the different ways one may characterise the qualities of things" (p.29). Brinkmann and Kvale (2015) define the qualitative "stance" in this way: "The processes and phenomena of the world should be described before theorized, understood before explained, and seen as concrete qualities before abstract quantities" (p. 15).

While research in Nordic music education in recent decades has been dominated by qualitative methodology (Hebert & Hauge, 2019), choice of method and tradition ought to be dependent upon the aims and objectives of the particular study in question. As Kazdin (2010) writes, "we define and plan a study in light of what we wish to say when the study is completed" (p. 12). Furthermore, qualitative and quantitative studies may in many cases be seen to provide complementary findings, thereby contributing to a more complete understanding of a given research area. In the present study, survey methodology has been used to attain a sample of a large population and to generalize and quantify results with the aim of assessing possible associations between repertoire choice, singing practices, and backgroung factors. At the same time, it seeks to provide a complex, detailed, and specific account of variation between schools, documenting the diversity of song repertoire. The questionnaire also makes use of open-ended answer formats in some of the survey items, which provide rich text data that will be analyzed using qualitative research tools.

4.2 Current trends in survey response rate

There has been a marked decline both in Sweden and world-wide in response-rate to questionnaire surveys in recent years. In a Statistics Sweden (SCB) report, Hörngren (2011) describes a poor "survey climate" due to social changes, new innovations, and other factors such as increased competition for participants' attention both from other surveys and from private advertising. Statistics from international polling firm IPSOS reflect a sharp decline in the last decade. Average response rates have fallen from around 60% in 2008-2009 to around 20% in 2016, meaning that rates have fallen as much in the past five years as they have in the fifty years previous (Nicklas Källbring,

IPSOS, telephone interview, August 15th, 2015). The present survey climate therefore represents a challenge for survey researchers and places added demands on study design to ensure adequate response.

4.3 Mixed-mode surveys

From the mid-20th century to the 1980's, the dominant mode of contact between researcher and participant was face-to-face, with the telephone becoming the most common mode of contact from the 1980's till the turn of the millennium (Dillman et al., 2014). While it is natural to assume that the new dominant mode is now online, Dillman et al. (2014) argue that while the internet has "undergone a rapid transformation as a means of responding to surveys" (p. 10), the picture has in fact become more complex, with no single mode having dominance.

While the internet has become an ever more common mode of contact for surveys as in other aspects of daily life, the effectiveness of internet-only questionnaire surveys has not been conclusively shown (Dillman et al., 2014). A study by Rada (2014) suggested that internet surveys could achieve higher-quality responses than telephone surveys with regard to free-response questions. A large meta-study by Edwards et al. (2008) concluded, however, that separate variables such as survey length, monetary incentives and pre-notification were more significant and had different effects in postal versus online modes.

Dillman et al. (2014) argue that the strengths of the internet as a research tool can also be its weakness: "The technology that makes unprecedented speedy access possible also provides the means of avoiding or ignoring it" (p. 10). Instead, they advocate a mixed-mode approach which "allows us to take advantage of the strengths of certain modes to overcome the weaknesses of others" (p. 13). Dillman et al. suggest complementing electronic surveys with another mode of contact: telephone or mail. By administering contact through several modes, a study increases likelihood of successfully reaching participants. Certain participants may feel more comfortable responding by one mode over the other. A physical letter – addressed, signed, with postage – can also be seen to represent an expenditure of time, money and effort on the part of the researcher which may induce subjects to respond based on the theory of "social exchange" (p. 31) – that is, because they have received something from the researcher, the respondent feels more inclined give their time and effort to participate in the study. Combined, these separate strategies can have an additive effect, boosting survey response (Dillman et al., 2014).

4.4 Questionnaire validation methodology

Artino et al. (2014) recommend a seven-step design process for the development of questionnaire questions (or "items") which has been followed as a model in developing the survey used in the present study. These steps include: (i) literature review, (ii) interviews/focus groups, (iii) synthesis of literature review and interviews/focus groups, (iv) development of items, (v) collecting feedback on the items through an expert validation, (vi) employing interviews to ensure that participants understand the items as intended, and finally, (vii) pilot testing. The aim of this method is to produce questions that "every respondent will interpret the same way, respond to accurately and be willing and motivated to answer" (Artino et al., 2014, p. 464). A questionnaire as a measurement instrument is said to be "validated" when "both evidence and theory support the proposed interpretations of an instrument's scores" (Artino et al., 2014, p. 473).

Independent and systematic review of question content has been shown to substantially improve question quality and representativeness (Artino et al., 2014; Dillman et al., 2014). Therefore, Artino et. al., (2014) propose conducting a validation process with experts and practitioners from relevant and diverse fields pertaining to the study subject both individually and also in groups as expert panels. Groups of 6-10 panellists are suggested (Artino et. al., 2014).

4.5 Survey and questionnaire method

In this section, the methods used to develop this study's questionnaire instrument will be described. The methods used in administering the survey will also be reported. Aspects such as survey population, literature review, question writing and content, modes of contact with participants and response rate analysis will be addressed.

4.5.1 Study population

In order for the survey to be feasible it focused on a single middle-school grade. Appropriate vocal range for pre-pubescent voices was of central interest, as well as the extent to which repertoire was influenced and chosen by students according to their own musical tastes. Grade 4 was chosen as it could assess students who would not yet have entered into pubescent voice change, but be old enough to have fairly developed musical tastes and interests. Possible divergence between "musikprofil" (which begins in grade 4) and normal music education could also be analysed.

A Statistics Sweden (SCB) national database of schools was used to gather initial contact information for potential respondents. All schools offering grade 4 in the

school year 2015-16 (n=3,755) were contacted March 4 by email outlining the study's aims and requesting the name and email address for teachers of grade 4 music. A subsequent reminder email was sent on March 20. This process yielded a total of 675 potential respondents. Of those, 15 responded that they did not teach grade 4 music, 2015-16, and were therefore not included in the study, leaving a total of 660 potential participants representing 203 of Sweden's 290 municipalities, with a homogenous geographical distribution across the nation.

4.5.2 Literature review of Swedish questionnaire studies

The purpose of literature review in the context of the question-writing process is to find and possibly use or adapt questions from a previously validated study (Artino et. al., 2014). For this study, Swedish-language questionnaires dealing with singing or repertoire selection in music education were considered of primary interest.

A literature review found four highly relevant Swedish questionnaire studies that dealt with repertoire: these were (i) *Music in elementary school: a national evaluation of grades 6 and 9* [Musik i grundskolan: en nationell utverdering av årskurs 6 och 9] by the Swedish National Agency for Education (2015), (ii) *Music students in the high school arts program: a study of student background, studies and motivation* [Musikelever på gymnasiets estetiska program: en studie av elevernas bakgrund, studiegång och motivation] by Karlsson (2002), (iii) *Song repertoire then and now* [Sitter ekorren fortfarande i granen - sångrepertoar nu och då] by Kjellander (2005), and (iv) *Difficult enough and fairly trendy: a study of music repertoire in grades 7 to 9* [Lagom svåra och hyfsat moderna: en undersökning av spelrepertoaren i skolår 7-9] by Karlsson and Karlsson (2009). The last two examples were Master's and Bachelor's studies respectively.

Items from the above-named studies were read and considered as models for the development of questions for the present study. A comparison of question formats and formulations between these studies was performed to find common formulations.

4.5.3 Questionnaire development and validation

Following the literature review, items for the present study's questionnaire were developed by the author in consultation with experts within the fields of singing pedagogy and music education research. This stage of development conforms to steps (ii), (iii) and (iv) of Artino et al.'s (2014) method for questionnaire development as described above.

A first draft of the present study's questionnaire was completed in January 2015. At this time, the questionnaire was ready for independent review by a panel of experts

from diverse fields, following step (v) of Artino et al.'s (2014) questionnaire development procedure.

The present study's questionnaire has been reviewed by an expert panel on three occasions during its development, and independently audited in by 6 experts from diverse academic fields including public health, statistics, economics, music education and musicology. Following Artino et al.'s (2014) guidelines, group discussions focused systematically on each question or item individually and also on the format and effectiveness of the questionnaire as a whole. Participants were asked to judge questions according to three main criteria: representativity, clarity, and relevance. The discussions also focused on question order, overall appearance and questionnaire readability.

A description of the doctoral study and a link to the questionnaire were sent to panel members approximately one week before the meeting. Before the discussion, the study was outlined in a PowerPoint presentation.

The first expert panel took place on February 16, 2016, at Lund University in Lund and consisted of 7 members of the Tobias Norrlind Society, a music research group connected to Lund University's Department of Musicology. The second panel took place at the Malmö Academy of Music on February 18, 2016 and consisted of 7 researchers and doctoral students in music education. A third panel of five researchers and doctoral students in music education was convened on February 19, 2016 again at the Malmö Academy of Music.

Follow-up interviews with panel members as recommended by Artino et al. (2014) as step (vi) however was not performed; results of the expert panel discussions were judged to be a sufficient basis for assessing the questionnaire's performance before proceeding to pilot testing.

In line with Dillman et al.'s (2014) recommendations, a survey diary has been kept where all significant events in the construction and administration of the questionnaire survey have been recorded by date. An archive has also been kept of all documentation pertaining to the survey, including printed examples of all communication with participants, screen shots of electronic communication, and all received completed postal questionnaires.

4.5.4 Questionnaire content

The questionnaire sought to address four main questions: what is the current song repertoire, what is the nature of current singing practices, what is the teacher's background, and what is the nature of the learning environment? The questionnaire was constructed in four sections to reflect these themes and give a sense of relevance and coherence for participants. It consisted of 28 questions, including several open-ended questions.

The first section of questions entitled ”Repertoire list” [Repertoarlista] asked respondents to list all songs sung with grade 4 during the school year. The question was constructed as a table, where respondents were also asked to specify the key the song was sung in, whether the song was new or previously used repertoire, who suggested using the song, and where the teaching materials for the song came from. The table allowed space for respondents to fill in up to 18 songs.

The questionnaire's second section ”Some questions about your work” [Några frågor om din verksamhet] asked a broad range of questions about learning environment. Questions dealt with factors such as class size, noise, budget and resources, and preparation time. The participants were also asked to identify their school's municipality. The section ends in an open-ended question that asks teachers to describe the criteria they use in choosing song repertoire for their students. These questions, as well as the questions in section three and four, were included in order to permit statistical analyses of teacher-associated factors and repertoire choice, as well as to provide data for descriptive analyses of the study population. Furthermore, they allow for statistical analyses of teacher-associated factors and factors associated with how singing activities are conducted in the classroom.

In section three, ”Some questions about singing instruction” [Några frågor om sångundervisningen], the focus narrowed to get a detailed picture of how teachers and students conducted and participated in singing activities. The participants were asked to estimate how large a percentage of total class time was used for singing, which instrument they most often used for accompaniment, and how secure they felt teaching singing. Student engagement was assessed through a series of four related and complimentary questions – a so-called *survey scale*, – defined by Artino et al. (2014) as several questions focusing on the same underlying construct. Hu and Kuh (2002) define student enthusiasm as ”the quality of efforts made by students to carry out educational activities for the purpose of contributing to the outcomes desired” (p.555). Following Skinner (2009), component elements of the complex concept such as focus, enthusiasm and energy were addressed in separate questions. The engagement scale included an open-ended option where respondents were asked if they had anything more they wished to add concerning singing with grade 4.

The fourth and concluding section of the questionnaire, “Some questions about you” shifted focus to questions regarding teacher background. The participants were asked to provide answers concerning their age, gender, relevant education, and professional background.

Finally, the participants were asked if they could be contacted again if necessary to answer further questions as part of the same study. Those participants who wished to respond further were asked to stipulate which mode of contact they preferred.

The survey questions were constructed in varying formats and response possibilities. This has been shown to be an important factor in maintaining

participant interest and motivation (Dillman et al., 2014). Answer formats included binary choice (yes/no), Likert-type scales, sliding scales, and free text.

A link to the questionnaire as it appeared online to participants can be found here: https://sunet.artologik.net/lu/Preview/12799

A Swedish language version is available in paper form and attached as Appendix 1.

An English language version can also be viewed online here:
https://sunet.artologik.net/lu/Preview/14190

4.5.5 Pilot testing

A pilot test of the finished questionnaire (or step (vii) of Artino et al.'s (2014) validation procedure) was administered on April 7 with one participant: a music teacher with students in grade classes 7-9. The participant completed the questionnaire using a mobile device. There were no significant technical problems encountered in the pilot test. In a telephone interview the same day following completion of the test, the participant was asked to discuss her experience of answering the questionnaire, focus on specific questions and question groups, and to raise specific concerns or problems encountered. The participant reported that her overall experience of the questionnaire was that it was clear and easy to understand, not too long, and that the questions were interesting and relevant to the stated aims. She also reported that it took about five minutes to complete the survey.

4.5.6 Administering the survey

Contact with participants was conducted online through email and an online questionnaire as well as by post: a so-called "mixed-mode" approach which has been shown to be more effective than traditional single-mode survey technique (Dillman et al., 2014; Statistics Sweden, 2011, 2016).

The online version of the questionnaire was constructed using *Sunet Survey & Report*, an electronic survey development and administration program licenced to Lund University. A printed version of the questionnaire was generated as a Microsoft Word document. While the print version was designed to resemble the online version as closely as possible, certain minor modifications in prompts were necessary: "circle the correct response" was added to the question stem in questions 3-6 and "make a cross on the line" to question 14.

Two weeks before the questionnaire was to be sent, an introduction letter signed by both myself and my main supervisor, Professor Eva Sæther, was mailed from the

Malmö Academy of Music, Lund University to potential participants' schools addressed in the participant's name. An email containing the introduction letter was sent later that night. The introduction letter detailed the aims and scope of the study, explained when the questionnaire would be available and how potential participants could respond. It also contained telephone, email and postal contact information to reach study coordinators with any possible questions or concerns. A link to an instructional video was included in the email and can be viewed online at the link below:

http://www.mhm.lu.se/david-johnson

A copy of the introduction letter is provided separately as Appendix 2.

The questionnaire was made available online on April 25, 2016. The 660 potential participants received an email containing a link to the online questionnaire. The email also provided some brief instructions for the participants on how to fill in the questionnaire, and included a short description of the purpose of the study. The potential participants were reminded that the survey concerned the entire school year; they were encouraged to have their teaching materials on hand to refer to if they thought they might need them in order to remember all repertoire sung during the school year. Teachers who had several grade 4 music classes were asked to report on only one of them, and those teaching in both an music enrichment program [*musikprofil*] and regular music program were asked to report on the former. The instructions also noted that original teacher and student compositions should be included in their repertoire lists.

A reminder email was sent on May 3 to participants who had not yet completed the survey. Subsequent reminders were sent May 10 and May 23.

On June 10, a paper version of the questionnaire was mailed in a letter to the school addresses of the participants who had not yet answered the survey. Included in the letter was a two-page printed version of the questionnaire, a postage-paid envelope addressed to the Malmö Academy of Music, and a one-page letter with instructions and contact information.

A further two email reminders were sent: June 16 and August 22. The final reminder was followed by a short thank you email to all participants. The survey was closed September 13.

4.5.7 Non-response analysis

Two non-response analyses were performed to address issues of systematic non-response bias and better understand the study population and quality of the data-collection methods employed. First, schools which did not respond to the study's

initial request for music teacher contact information were assessed through a telephone survey of school principles. Second, schools which did respond with contact information but had participants who did not subsequently answer the questionnaire were contacted, also by telephone.

A non-response analysis of those schools from the SCB school register who did not answer our initial information request was conducted May 3. A total of 20 schools which did not respond to our contact request were randomly chosen from the SCB school register and contacted by telephone. The analysis did not suggest that schools which failed to receive our contact email or chose not to answer differed systematically from those which did respond. The question script used for the telephone interviews is provided as Appendix 3.

A subsequent non-response analysis of participants which did not complete and return the survey was conducted between September 12 and October 20, 2016. A total of 30 participants were chosen at random (but selected to represent both men and women evenly) from the online Sunet Survey questionnaire database and contacted by telephone. Participants were asked to answer several questions in a telephone interview that addressed the participants' professional training and experience, whether they had received notification of the questionnaire, and possible underlying reasons for not responding. The analysis showed no evidence of systematic non-response bias either as a function of gender, work experience or professional training. The question script protocol used for the telephone interviews is provided as Appendix 4.

4.6 Ethical considerations

This study was designed and performed so as to follow ethical guidelines stipulated by the Regional Ethics Board (EPN) of Lund University and relevant European standards for research practices. Aspects such as informed consent, confidentiality, and secure management of data will be described in this section.

4.6.1 Management of the database

The present study has assembled a database consisting of the participants' teaching materials, reflections on their teaching and student participation, as well as professional and personal information. As such it can be considered personally and professionally sensitive information and must be handled accordingly to respect and protect the rights of both participants and also their students.

The participants names and names of schools are not intended to be included in the completed database. However, all participants who chose to include contact

information could thereby potentially be identified. Names, email addresses and telephone numbers or any other answers which could potentially be used to identify participants are to be permanently removed from the database to render responses anonymous upon completion of the study. Until such time as this information is purged from the database, care will be taken to ensure that the material is handled in a secure and confidential manner. The online questionnaire responses could only be viewed with a personal log-in by myself and the Lund University system administrator, Ola Stjärnhagen, while the survey portal was active. The database is managed on one personal laptop computer secured with a password code. Only the lead researchers in this study – that is, myself and my thesis supervisors Eva Sæther and Göran Folkestad – have had access to the database during the study period. Temporary access was made available to readers for thesis evaluation seminars.

4.6.2 Informed consent

In the introductory letter, the participants were informed that their answers would be handled confidentially and in accordance with Swedish law regarding publication and secrecy (SFS 2009: 400). They were assured that their names and the names of their schools would not be revealed in future publications based on the study. Furthermore, they were assured that the completed database would not contain participants' names or names of participants' schools.

The aims, data-collection methods, and content of the present study were discussed with Ulf Görman of the Regional Ethical Committee in Lund (EPN) in a telephone interview on March 4, 2016. The content of the questions in each of the four parts of the questionnaire was discussed. It was agreed that privacy and confidentiality standards for the participants and their students would be met and maintained by restricting access to the database so long as the participants could be identified by name. Görman concluded that the questionnaire did not require a further formal vetting by the committee; none of the items in the questionnaire underwent significant changes after March 4, 2016.

4.7 Methods for data analysis

This study produced several different types of data and subsequently required diverse methods of data analysis. Methods for the identification of song entries and for generating genre categories, methods for the analysis of singing range for repertoire songs, statistical methods and tools for the analysis of quantitative data, and methods for the coding and analysis of open-ended responses are described in the following sections.

4.7.1 Identifying song entries in the repertoire list

Of the total song entries (n= 3,330) provided by participants, some 2,912 entries could be correctly identified with reasonable confidence from the information provided (such as song title, first line of lyrics, songwriter or performer, chosen key, and source of materials). Ambiguous responses such as those which could refer to more than one published song (e.g., "Summer Song") were not included. The resulting sub-set of 2,912 song entries will be referred to as the *repertoire list* and serve as the basis for analysis of song repertoire characteristics in this study. These 2,912 entries represent 1,345 unique songs (i.e., many songs were reported by more than one participant).

4.7.2 Methodological concerns in genre analysis of song repertoire

The present study sought to assess the relative prominence of different kinds of music within the sung repertoire and to investigate possible associations between singing practices and genre. To this end, genre categories were generated and assigned to each song entry. Such a strategy does not aim to establish genre labels as a fixed quality of a song, but rather adheres to an understanding of genre categories that recognizes genre labels as normative and "highly fluid" (Shuker, 2001, p. 149). Frith (2001) argues that songs that remain popular over several generations often tend to shift between genre categories, with music once considered pop often easily transitioning into a collective traditional repertoire. This tendency may pertain especially to songs which have transitioned from adult to children's popular music (Frith, 2001), a highly relevant consideration for the present study. To address these concerns, the underlying criteria and methods used to determine genre labels have been systematically and transparently conducted.

Genre categories in the present study were derived based on three factors: origin, intended audience or function, and musical characteristics. This method follows earlier Swedish studies of school singing repertoire such as Lindberg (2002) and Netterstad (1982), where genre categories were generated to act as analytical tools measuring the relative prominence of different kinds of music in school repertoire. The present study has chosen not to employ the same genre categories as either of the forenamed studies since the nature of the data collected and aims of the studies are not entirely compatible.

In addition to the question of relative prominence, the present study aimed to assess possible associations between genre and singing practices. To this end, a two-tiered approach to genre labelling was been adopted. Narrowly defined genre labels were employed to assess possible divergence between genre and singing practices. Narrowly defined genre labels distinguishing between different types of music written for children were generated, based on the hypothesis that aspects such as prescribed

singing ranges might be found to vary between commercial children's music, traditional children's music, and children's music intended primarily for classroom use. Similarly, variation in singing practices associated with subgenres of contemporary popular music such as *Eurovision* songs, electronic/dance music, and mainstream pop/rock were deemed of interest. Christmas music was also assigned a separate genre label to map possible variation between it and other kinds of traditional music and to determine the prominence of Christmas celebrations in total singing repertoire. In order to map the relative prominence of different types of music – and in particular to address the relative prominence of traditional, children's, and contemporary popular music – the narrowly defined genres listed above were then merged into broader or "meta-genre" (Shuker, 2016) categories. Ahrendt (2006) refers to these overarching categories as "basis-genres": "music that shares the same basic musical language or originates from the same cultural and or historical period" (p. 5). These mega- or basis- genres were then employed for the analysis of the overall prominence of popular, children's, and traditional music in the repertoire list.

4.7.3 Method for genre analysis of song repertoire

In the present study, genre categories were generated through a three step process. In step one, an abductive analysis of a sub-sample of songs was performed by the author. Each of the 127 songs in the sub-sample were assigned a single genre category grounded in reference to the music's origins, functions, and stylistic aspects, following Lindberg's (2002) definition of genre. Where applicable, music industry standards, definitions, and hitlists were also used as references in considering the correct genre label. After each entry received a genre label, the subsequent list of total genre categories was reconsidered, with the aim of merging overlapping or redundant categories. Then, the shorter list of categories was tested on the sub-sample again to assess whether the broader categories could describe all of the entries. This initial analysis yielded 11 genre categories which could describe and account for all songs in the sub-sample.

The second step in genre analysis was external validation. The categories generated by the sub-sample were validated through interjudge reliability testing, October-December, 2016, following standard best practices (Muñoz Leiva et al., 2006). Responses from four independent experts in music education and related fields yielded an average reliability rate of 0.71, that is, over 70% agreement between the study author's categorising of songs and the independent auditors' responses.

In a third and final step of genre categorization, the remaining songs in the repertoire list were analysed and each assigned to a single category. Several songs considered to belong to additional, smaller genre categories were encountered during the coding process of the complete list. As these additional genre categories were at the end of the coding process found to represent less than 1% of the total songs they

were deemed not significant and were grouped together as ”other”. One of the categories identified as significant in the initial subsample – Swedish folk music – proved not to have a significant presence in the repertoire list as a whole.

The final list of 10 main genre categories are as follows:

1. *Traditional children's music*: Western music with a multi-generational historical persistence within Swedish culture (defined here as being more than 40 years old), often of anonymous, uncertain or mixed authorship, sung primarily by or with children.

   e.g. “London Bridge”, “Hjulen på bussen”, “Alla fåglar”

2. *Children's popular music*: commercial music produced primarily for a child audience in the past 40 years.

   e.g. *“Banankontakt”, “Hakuna Matata”*

3. *School music*: music composed, marketed and used primarily for formal, classroom music education.

   e.g. “Slå ett slag för världens barn”, “Tussilago”

4. *Christmas music*: music commonly associated with the celebration of Christmas and associated occasions (for example, Advent, Sankta Lucia)

   e.g. “Dagen är kommen”, “Tomten jag vill ha en riktig jul”

5. *Traditional music*: songs that are generally well known within the Swedish cultural milieu and commonly considered to be a part of a shared national or cultural heritage, with a multi-generational historical persistence within Swedish culture, often of anonymous, uncertain or mixed authorship.

   e.g. “Uti vår hage”, “Den blomstertid nu kommer”

6. *Pop/rock*: Western commercial music, often produced and distributed by mass media

   e.g. “Goliat”, “We are the World”

7. *Electronic/Dance music*: Western commercial popular beat and groove-centric music whose primary instrumentation is computer or synthesizer based, where traditional song form such as verse/chorus is absent or subverted

   e.g. “Sun is shining”, “Save the world”

8. *Singer-songwriter [visa]*: Swedish popular music written within the national troubadour tradition that is primarily lyric-centric with mostly traditional verse and chorus song forms.

   e.g. “Jag hade en gång en båt”, “Änglamark”

9. *Eurovision Song Contest*: songs competing in the *Eurovision Song Contest* pageant

   e.g. “Guld och gröna skogar”, “Diggiloo Diggiley”

10. *Non-Western music*: traditional, classical, or commercial music originating from cultures and regions considered as lying outside the Western geo-political sphere, performed in non-Western musical styles

    e.g. “Bele mama”, “Hava nagila”

These ten narrowly defined genre categories were reduced for purposes of assessing relative prominence of popular and traditional music into five broader or meta-genre categories. In this broader analysis, traditional children’s music and Christmas music merged with traditional music, commercial children’s music and school music merged into ”contemporary children’s music”, and pop/rock, Eurovision, and electronic/dance music merged into ”popular music”. The shortened list of genre labels for broader genre analysis resulted in the following categories: (i) contemporary children’s music, (ii) traditional music, (iii) contemporary popular music, (iv) singer-songwriter, and (v) non-Western music.

4.7.4 Methods for the analysis of singing range and additional variables

All the songs of the repertoire list were analyzed by the author to derive data where possible for the song’s lowest and highest pitch, transposition relative to a standard published version, songwriter, songwriter gender, song age, mode (major/minor), and country of origin. All these variables were then entered and saved into the database. It was not possible to generate prescribed singing range for original compositions

written by teachers or students, or songs with incomplete or inconclusive key signature information. These were therefore not included in range analysis. It was not possible to provide an age for some songs, for example those of anonymous authorship. These songs were therefore not included in the analysis of song age.

Several sources, both printed and electronic, were used as reference material to date, identify, and analyze repertoire songs. Where possible, sources were cross-referenced to corroborate findings. In Appendix 6 a complete list of sources used in this phase of the study is presented.

The prescribed singing range of each reported song entry was calculated using a numerical scale where E below middle "C" (i.e., C_4) was assigned the number "1" with each subsequent semi-tone receiving a number consecutively (i.e., F=2, $F^{\#}$=3, etc.). This numerical system allowed for descriptive statistical analyses such as calculating central tendencies. A lowest and highest pitch was calculated and then entered into the study database as a variable for every song entry where: (i) song identity could be established, and (ii) where information concerning chosen key allowed for such an analysis to be performed with reasonable certainty.

To investigate which background factors might be associated with low or high prescribed singing ranges, a normative singing range of between C_4 and C_5 was taken as a reference point based on previous research (Goetz et al., 1990; Hedden, 2012). Low singing was then defined as percent of songs sung below C_4 and high singing as percent of songs sung above C_5.

4.7.5 Methods for multivariate analysis and statistics

Continuous variables are presented as means (standard deviation (SD)) when normally distributed and median (inter-quartile range (IQR)) when skewed. Skewness was assessed visually on a histogram. Between-group differences were analyzed using Pearson's t-test for normally distributed continuous variables, the Mann-Whitney U-test for non-normal continuous variables and the Chi2-test for categorical variables. Correlation between non-normally distributed variables was assessed using Spearman's rho. Variance of a continuous variable across categories of a categorical variable was analyzed with ANOVA.

Multivariable models were used to assess the direct, or adjusted, effect of factors such as genre and choice of accompaniment on the probability of high and low singing. These analyses were conducted on an inter-personal level as well as on a song-to-song level. In the first case the odds ratios for a teacher using a high proportion of high and low songs was assessed in a multivariable logistic regression, and in the second case a random-effects logistic model was used. This latter model considers each song as a row or a case, and clustering is applied to each individual to account for the fact that the songs used by the same individual cannot be assumed to be statistically independent. For each analysis pertaining to song-specific qualities, such

as song age, genre or key, the analysis was based on the full subset n for which the particular quality could be ascertained.

4.7.6 Methods for the analysis of open-ended responses

The participants in the present study were asked in several instances to provide open-ended responses: that is, where survey answers were not constrained by a limited number of answer options but instead could be formulated freely in their own words. Open-ended questions were considered advantageous in these cases as they would permit the participants to provide a wider diversity of responses than closed-ended questions, a strength in exploratory studies where research seeks ”a more complete understanding and representation of the underlying issues and considerations of the sample” (Allen, 2017, p. 1716). A disadvantage of open-ended responses is that the data collected can be more difficult to analyze and requires coding analysis in order to understand and present collected results (Allen, 2017; Lavrakas, 2008). Through coding analysis, the rich data from open-ended responses may be reduced to ”a relatively small set of meaningful categories to create new variables” which may then be quantitatively and qualitatively analyzed (Lavrakas, 2008, p. 141).

In the present study a data-driven, open-coding method (Gibbs, 2012) was employed to generate data from the responses to the open-ended question, ”What criteria do you use to chose singing repertoire for grade 4?” in order to develop a qualitative as well as quantitative analysis of teachers’ criteria for repertoire selection. However, such an analysis was not deemed relevant for the responses to the questionnaire’s other open-ended questions. Responses were analyzed in order to gain an understanding of how participants reasoned concerning the framing factors that governed their selection of singing repertoire and to compare responses. All coding was performed by the study’s author. The open-coding method was employed to derive headings for recurrent themes found in responses through several rounds of reading, note-taking, and consolidation of data into coherent, well-defined and distinct categories (Gibbs, 2007).

Prior to the first round of analysis, all the responses to this question were downloaded from the database to a Word document where they could be more easily read, cut and pasted. All responses were then read in order and those factors for repertoire selection mentioned in the responses were noted and written in a separate Word document. Each time a novel factor concerning repertoire selection was found it was added to the list of factors. When factors were found to recur in several responses, these responses were added together within the same bullet point to create emergent headings. For example, responses that included reference to “our cultural heritage” [vårt kulturarv], ”Swedish singing tradition” [Svensk sångtradition] or ”our great song treasury” [vår stora visskatt] were grouped within the same bullet point, thereby providing an initial understanding of the relative importance of different

factors. This first round of reading, note-taking and consolidation of data yielded 39 headings. Next, the notes were reviewed to see if some of the headings overlapped and could be combined, consolidating overlapping themes into distinct categories of interest for analysis and comparison. For example, headings such as ”melody”, ”rhythm” and ”swing” were consolidated into the category, ”musical character”. This step reduced the categories to 12, which were then labelled. The raw data responses were then reread to assess whether the new categories could sufficiently account for all the recurrent factors (those factors that were cited by more than one participant). The categories were found at this time to require some deconsolidation to reflect the relative importance of certain factors. For example, reference to piano and guitar ensemble was taken as a separate category from other non singing-specific musical goals such as ear training due to the former's prominence and potential significance for singing practices. A revised list of 17 categories was then labelled and the categories entered as new variables in the database. Responses were subsequently reread a third time, where each mention of a factor falling under one of the 17 categories was recorded in the database in the row corresponding to the participant in question. A complete list of the final 17 categories is provided in Table 1:

Table 1
Factors Governing Repertoire Selection (Complete List)

- Student choice
- Genre: Swedish heritage
- Potential for use in part-singing
- Potential for use in ensemble
- Potential for learning non music-specific skills
- Musical character
- Lyrical content
- Appropriate singing range
- Teacher's own likes and abilities
- Guiding documents
- School event/performance
- Students' skill level and abilities
- Performed with movement/dance
- Potential for learning non singing-specific musical skills
- Teacher experience
- Forms part of established school repertoire

4.8 Summary of methodology and methods

This chapter has provided an overview of the wide array of methods and methodologies that have been marshalled for the execution of this study. Both

qualitative and quantitative methods have been employed in order to map singing repertoire and singing practices in Swedish schools. A questionnaire survey has been developed, validated, and performed. The results of this survey will be reported in the following chapter.

5. Results: Singing in Swedish classrooms

As described in Chapter 4, a national survey of Swedish music teachers was conducted May-September, 2016 to gather data for the present study. In this chapter, main results of the survey will be presented: the place of singing in the general music classroom, the nature of singing repertoire and criteria for repertoire selection, and an assessment of singing practices.

The chapter begins with an analysis of the study population, followed by a presentation of singing's place, song repertoire, singing practices, and associated factors. Associations between repertoire, singing practices, and teacher background will be described. The chapter concludes with a brief summary of central findings.

5.1 Study population

In this section, the study population will be described according to variables such as age, sex, years of work experience and education. Geographic distribution of participants will also be discussed.

5.1.1 Regional distribution and representativity

A total of 660 teachers were contacted to take part in the questionnaire survey; 287 completed questionnaires were received and included in the study, which represents a response rate of 43.5 %. Mean age was 43.9 years with a broad distribution of ages across the population. Median work experience was 10 years. The overwhelming majority of the participants were permanently employed (84.3%). Approximately three fifths of the participants were women (see Table 2). As a reference point, the National School Authority (Skolverket, 2016) reports that the source population of all classroom music teachers (any grade) in Sweden during 2015-16 was composed of 1618 teachers, of which 1125 were women (69.5%).

In the present study, a total of 13 survey responses (4.5%) came from schools with a music enrichment program (*musikprofil*).

The survey generated questionnaire responses from teachers working in 149 of 290 municipalities (Figure 3). Participants hailed from both the north and south of the country, and small as well as large population centers are represented.

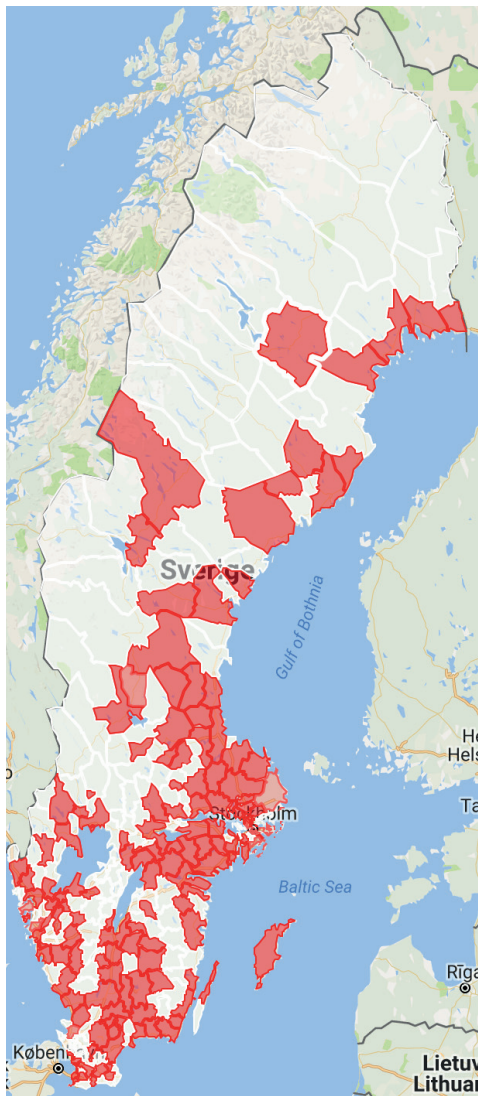


Figure 3
Survey Responses by Municipality.

Note: the municipalities with study participants are marked in red

Table 2
Participant Age, Sex, Work Experience and Professional Training

	All	Men	Women	p
Sex, n (%)	287 (100)	110 (38)	175 (61)	
Age, years mean (SD)	43.9 (10.6)	43.0 (10.9)	44.5 (10.4)	0.22
Years of work experience, median (IQR)	10 (13)	8 (11)	12 (14)	0.007
Participants' education				
Music teacher education program (*Musikhögskola*), %	51.4	45.1	54.9	0.12
Teacher education program (*Lärarhögskola*), %	35.4	32.7	37.1	0.45
Music academy (*Konservatoriet*), %	2.8	1.8	3.4	0.42
None, %	9.5	12.7	7.4	0.14
Other, %	16.8	20.9	14.3	0.15

Note: One per ent of participants did not answer the question of sex; six participants did not answer the question pertaining to years of work experience
SD = Standard deviation
IQR = Inter-quartile range

Just under half of the participants (48.6 %) did not have a degree in music education from a music academy. Of those, 34.5% reported having music education training as part of a university degree program in education, with just under 3% of the participants having music training from a conservatory. The remaining 26.3% reported having no relevant music teacher education, or training which did not fall under the categories provided in the answer choices.

5.1.2 Choice of accompanying instrument

The most popular choice of accompanying instrument was the piano, at 53.9%. There were substantial and statistically significant differences in choice of accompaniment by gender. Two thirds of the female teachers chose piano as the main accompanying instrument whereas two thirds of the men chose guitar as their main accompanying instrument (Table 3). Only 5.1% of the participants reported using recorded material as the main accompanying instrument for singing.

Table 3
Choice of Accompanying Instrument by Sex (%)

	Total	Men	Women	p-value
No instrument	1.0	33.3	66.6	0.8
Piano	53.9	29.1	68.8	<0.0001
Guitar	37.7	62.1	22.9	<0.0001
Other instrument	2.2	2.9	1.8	0.53
Recordings	5.1	4.9	5.3	0.87

5.2 The place of singing in the general music classroom

The participants in the present study were asked several questions relating to the place of singing within their music teaching practice. The place of singing was assessed in terms of its relative prominence compared to other music learning activities, teacher and student attitudes about singing, time and resources allotted to developing song repertoire, and learning environment. Results from participant responses are presented in the following sections.

5.2.1 Singing as percent of class time

The mean (SD) percent of class time dedicated to singing in grade 4, 2015-16 was reported as 41.2% (19%): that is, a little more than two fifths of total general music, with a wide range. The lowest decentile reports singing less than 20% of class time; the highest decentile reports singing 70% or more of class time.

5.2.2 Teacher preparation time spent on developing song repertoire

The majority of the teachers questioned (52.4%) spent between 0-5 hours of preparation time for developing song repertoire over the course of the entire school year. Some 31.8% reported spending between 5-10 hours per year on singing lesson planning, while 15.8% spent 10 hours or more.

5.2.3 Sources for singing repertoire

The most frequent source for song repertoire was found to be printed materials, with 46.0% of reported song repertoire coming from songbooks and sheet music. Approximately one quarter of all repertoire (23.9%) came from online sources. Some 28% of repertoire materials were developed by the teachers themselves, representing both original compositions and their own transcriptions of existing music. The study participants named recordings as their source of singing repertoire in 1.4% of cases.

5.2.4 Learning environment

The participants were asked several questions relating to learning environment, including class size, noise levels, classroom equipment and budget. Some 30.5% taught grade 4 in half-class, while nearly four out of five (79.0%) had access to a classroom reserved and equipped for music teaching. The majority of the participants rated noise levels as moderate; a large majority (67.7%) reported that their school did

not lack any equipment they required for music teaching and that they received a yearly budget (58.6%) for music teaching materials for singing. In sum, the findings of this composite picture of teaching environment are that a majority of the participants report having adequate resources and working environments for conducting singing activities.

5.2.5 Teacher attitudes toward singing

The participants reported having strong confidence in their abilities to lead singing activities. Some 56.8% of teachers rated themselves as ”very secure” in their role as teacher when teaching singing. A further 38.3% rated themselves as “rather secure”. That gives a combined total of 95.1% who considered themselves either ”very” or ”rather secure” in that role. A total of 10 participants (3.5%) rated themselves as “rather insecure”; only 4 respondents (1.4%) rated themselves as ”very insecure” in their singing leadership.

5.2.6 Student engagement

Student engagement in singing has been defined in the present study as a complex concept and broken up into several related questions – a “survey scale” (see section 4.5.4) – in order to gain a complete picture of the underlying phenomenon. Participants were asked to assess student attitudes about singing, report how often students asked questions concerning singing, and to rate student engagement and focus during singing instruction. Participants were also given the opportunity to describe student singing practices in an open-ended question.

Over three-quarters of the teachers report having grade 4 classes that ”love to sing” (76.5%); 91.6% report leading groups that were ”very” to ”rather engaged” during singing lessons. Teachers also reported that their grade 4 classes showed good focus during singing lessons and frequently posed questions related to singing, with results presented in Tables 4a, b and c:

Table 4a
"How would you describe your students' focus in general during singing lessons?"

Very focused	16.25 %
Rather focused	69.96 %
Rather unfocused	12.37 %
Very unfocused	1.41 %

Note: Five participants did not respond to this question.

Table 4b
"How often do students in grade 4 pose questions pertaining to singing?"

Often	14.34 %
Rather often	54.20 %
Rather seldom	27.62 %
Never	3.85 %

Note: Two participants did not respond to this question.

Table 4c
"How would you characterize your grade 4 students' level of engagement in singing activities?"

Very engaged	26.92 %
Rather engaged	65.04 %
Rather unengaged	7.34 %
Very unengaged	0.70 %

Note: Two participants did not respond to this question.

To summarize the findings, the teachers scored a large majority of the students high on all four measures of student engagement – attitude, focus, enthusiasm, and asking questions.

The participating teachers were given the opportunity to add additional comments regarding student engagement in an open-ended question format; these responses in general reinforce the positive picture of student engagement described above. Several of the teachers note that grade four is a "lovely age", with "happy, lovely students that love to sing" [Glada härliga elever som gillar att sjunga] (Participant #178). Students are described as eager to sing in public performances:

> A lovely age. You can get them to open up and express themselves when we have performances for parents and for the school.
>
> Härlig ålder. Det går att få dem till att bjuda mycket på sig själva när vi gör våra framträdanden för föräldrar och för skolan. (Participant #37)

This age group is described by several of the participants as engaged and receptive compared to older students. One respondent writes: "Happy singers. Before anything happens with their voice and their self-esteem. Puberty" [Sångglada. Innan något händer med rösten och självkänslan. Puberteten] (Participant #3). Another states: "It's important to sing a lot with grade 4 while the students are still relatively unafraid and

receptive" [Det är viktigt att sjunga mycket i åk 4 då eleverna är förhållandevis orädda och receptiva] (Participant #136). Students in grade 4 are portrayed in this manner as having stronger engagement in singing than older children. This positive attitude nevertheless is mediated by choice of repertoire; as one respondent states: "Their engagement is dependent on whether they like the song or not" [Deras engagemang är beroende på om de tycker om sången eller inte] (Participant #25). A second respondent elaborates:

> The group dynamic is a defining factor. If a few of them know the song, then they'll all sing along. If no one's heard it before, then it's tough to get the class into it. Very typical of this age group.
>
> Det är mycket gruppdynamiken som avgör hur sången blir. Om några kan och vill så sjunger alla med. Om ingen har hört låten är det svårt att få igång klassen. Väldigt typiskt för just åk 4. (Participant #188)

Even if there is a general high level of enjoyment and engagement, then, careful curation of song repertoire may be required to ensure a good group learning dynamic.

In sum, grade 4 students tended to appreciate singing instruction, enjoy singing at school, and were highly engaged during singing activities. Most participants reported high confidence in their abilities to lead singing activities and satisfaction with their learning environment. Group dynamics and repertoire selection, however, are named as determining factors in successful singing instruction by several participants. Participants favored printed over internet-based resources for song repertoire.

5.3 The teachers' reasoning concerning repertoire selection

Survey participants cited a wide variety of criteria they considered relevant when choosing singing repertoire for use with their students. Most study participants (n= 265, or 92% of total study participants) chose to respond to the question, "What criteria do you use when choosing singing repertoire for grade 4?", and reported on average between two to three factors (median 2.37; standard deviation: 1.40) as relevant for their choice of repertoire. A coding analysis of the collected responses yielded 17 distinct categories representing the most frequently mentioned factors governing repertoire selection, presented in Table 5 and Figure 4:

Table 5
Criteria for Repertoire Selection

Categories	Number of mentions (total number of responses: 265)	Percentage of total responses
Student choice	88	33.2%
Musical character	70	26.4%
Genre: current pop	57	21.5%
Potential for use in ensemble	55	20.1%
Genre: Swedish heritage	53	20.0%
Lyrical content	52	19.6%
School event/performance	50	18.9%
Potential for use in part-singing	43	16.2%
Appropriate singing range	37	14.0%
Students' skill level and abilities	34	12.8%
Potential for learning non music-specific skills	23	8.7%
Guiding documents	19	7.2%
Potential for learning non singing-specific musical skills	19	7.2%
Teacher's own likes and abilities	15	6.0%
Teacher experience	7	2.6%
Forms part of established school repertoire	7	2.6%
Performed with movement/dance	5	1.9%

The most commonly reported criterion was student democracy: allowing the students themselves to propose singing repertoire (33.2%). Consideration of musical character such as tempo, dynamics, and expression was the second most frequently cited factor (26.4). The inclusion of songs representing Swedish cultural heritage (20.0%) and new pop music familiar to students (21.5%) were both cited as criteria by approximately one in five respondents; finding song repertoire that worked well in combination with the students accompanying themselves on instruments such as piano and guitar was also named by a comparable proportion (20.1%). Several other diverse factors such as a song's lyrical content (19.6%), its potential use in performances linked to common school year events such as Christmas concerts and last day activities (18.9%) , and the repertoire's potential for use in teaching singing with several voices (canons and two-part harmony) (16.2%) were further cited as common decisive factors.

Many participants (14.0%) mentioned appropriate singing range as a consideration in their repertoire selection. Taken together with the further 12.8% of responses that name factors related to student's development and abilities more generally, this would indicate a strong focus among participants on crafting repertoire in accordance with Developmentally Appropriate Practices (DAP).

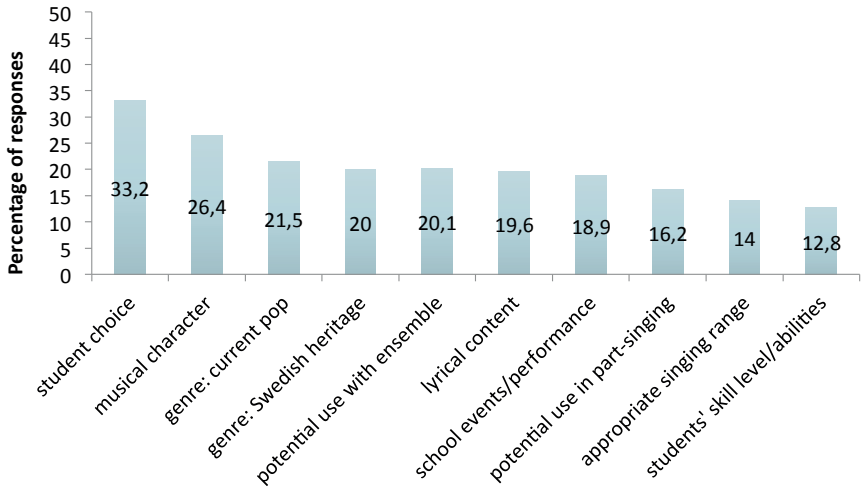


Figure 4
Most Commonly Cited Factors Governing Repertoire Selection

Note. Responses presented above were provided in open-ended form to the question, "What criteria do you use in choosing repertoire for grade 4 students?"; participants could provide more than one criteria in their answers.

5.3.1. Engaging with students' musical tastes

Fully one third of the participants named student democracy as a governing factor in the choice of repertoire, making student choice the most widely shared criterion for repertoire selection by a wide margin. One participant's response to the question of selection criteria stated simply "The students themselves got to request the songs that we sang" [Eleverna har själva fått önska sånger att sjunga] (Participant #159). Other respondents name student choice and curricular demands as their basic criteria for singing repertoire: "Core curriculum content, what the students themselves want to sing" [Centralt innehåll, vad eleverna själva vill sjunga] (Participant #182).

One participant described their process for selecting new music with pupils in this way:

> Ask the students at the start of term for their favorite singer. Then get through as many of their songs as we can.
>
> Frågar eleverna om deras favorit artist i början av termin. Kör sedan så många som möjligt av dessa låtar. (Participant #286)

A frequently stated reason for encouraging students to chose their own repertoire was to encourage participation in singing. In one response, a participant described how a

teacher can be faced with class groups that respond very differently to assigned repertoire:

> The class's attitude about singing plays a big roll in how easy it is to get everybody on board with different kinds of songs. You have to find a way of introducing them so that they get hooked. An example of that is taking songs they themselves want to sing.
>
> Klassens inställning till sången spelar stor roll för hur enkelt det är att få med dem på olika sorters sånger. Det gäller alltså att hitta bra ingångar så att de fastnar. Ett sådant exempel är att ta låtar de själva vill sjunga. (Participant #24)

Another response referred to this process as "selling a song to the students" [att sälja in låten rätt] (Participant #266). One participant noted that if their class shows a dislike for a chosen song they remove it from the repertoire in favour of something new.

Several responses note the potential conflict between students' and the teacher's own musical tastes, articulating in different ways the possible negotiations and considerations that can lead to finding a common ground in repertoire that works for all involved:

> I need to like them. The students need to like them. New songs. Old songs.
>
> Jag ska gilla dem. Eleverna ska gilla dem. Nya låtar. Gamla låtar. (Participant #156)

Several participants noted that they themselves also need to like the repertoire for the lesson to work:

> Good songs, both from a musical and a voice perspective. I have to like it, otherwise it just doesn't work.
>
> Bra låtar, både musikaliskt och röstmässigt. Jag måste tycker om dem annars går det inte. (Participant #38)

The meeting between students and teachers over singing repertoire can generate a "mixed" repertoire: "a mix between what I want for us to sing and what the students want to sing" [en mix mellan vad jag vill att vi skall sjunga och vad eleverna vill sjunga] (Participant #261). Responses varied as to how much of the sung repertoire ideally ought to be sourced from the students themselves, from some participants indicating that the entirety of their repertoire came from student suggestions to others describing student choice as just one of several sources. Several participants stated that they aim for a 50/50 mix between music teacher and student suggestions.

In summary, student choice was found to be an important aspect of repertoire selection for many participants, with many responses delving into considerations of how to best find common ground between teacher and student musical tastes and to successfully adapt repertoire to classroom use.

5.3.2 Balancing popular and traditional song repertoire

When choosing repertoire, participants widely expressed a need to focus on engaging with student musical tastes and preferences, with many responses explicitly associating student preferences with current pop music – what one participant describes as ”songs of today” [sånger i tiden] (Participant #263) – and the use of popular digital music platforms such as *YouTube* and *Spotify* as learning resources. One participant states, ”Sometimes I let the students suggest music. Then we work with *YouTube*” [Ibland låter jag eleverna komma med förslag. Då blir det från *YouTube*] (Participant #273). Another response describes singing with *Spotify*:

> To me it’s important to listen to and respect the students’ music preferences. Sometimes they each get to go up to the whiteboard and write up their favorite song and then we sing them to *Spotify*.
>
> För mig är det viktigt att fånga upp och tillvarata elevernas musikintresse. Ibland får eleverna gå fram till tavlan och skriva upp vars en favoritlåt varpå vi sjunger till *Spotify*. (Participant #188)

Finding music that was new and popular among students was a priority for many participants, and while student-chosen repertoire and student musical taste are not to be taken as synonymous with current pop music, many participant responses linked the two. Some responses were emphatic as to popular music’s dominant place: ”It has to be a hit song. In other words, it should be on *Spotify’s* top 50” [Det ska vara en populär låt. Med andra ord ska den ligga på *Spotify* topp 50] (Participant #230). Another respondent writes, ”Best if it’s a hit song that’s hip right now” [Gärna en populär låt som är inne nu] (Participant #103). Yet another states, ”They should be songs that are familiar to students and fairly recent” [Det ska vara låtar som eleverna känner till och är relativt nya] (Participant #95).

Many participants named current pop music as a useful pedagogical tool because of its familiarity: that students ”have a familiarity with the song” [ska ha någon relation till sången] (Participant #214). Other responses explicitly connect student enthusiasm for singing to the inclusion of pop music of a certain musical character, and more specifically pop with a strong rhythmic drive:

> My fourth graders aren’t terribly interested in music right now, so I
>
> Mina fyror just nu är omotiverade och har inte musik som favoritämne, därför

have tried out some trendier music and some rocking songs with lyrics that are more fun.	har det blivit att jag försökt med något mer moderna repertoar och några låtar som svänger och har lite rolig text. (Participant #165)

In responses such as these, participants reasoned that current pop music potentially engages students not only because of its trendiness and familiarity but also because of certain musical characteristics such as a fast tempo and rhythmic drive. In this manner, considerations of genre dovetail with considerations of musical character, with many responses describing good song repertoire as music that is rhythmically exciting and emotionally uplifting. One participant lists as the only criteria, ”It has to rock” [Det ska svänga] (Participant #112). Another writes, ”It should raise the roof!!” [Taket ska lyfta!] (Participant #76). Descriptive words such as ”groovy” [svängig], ”drive” [fart], ”joyous” [glädjefullt], ”enjoyable” [lustfullt] and ”fun” [kul] appeared in many responses discussing the desired musical character of chosen repertoire.

While many participants argued for the need to include current pop music in singing repertoire, it was most commonly mentioned alongside the need to also include older, traditional material, with responses often pairing pop and traditional music in formulations that suggested a desire to strike a balance between the two:

Try to find interesting songs that the children themselves want to sing and learn. Try to combine old songs with newer ones.	Försöker hitta intressanta låtar som barnen själva vill sjunga och lära sig. Försöker kombinera gamla låtar och mer moderna. (Participant #168)

Several participants employed the term “general education” [allmänbildning] as a motivating explanation for providing a broad palette of musical examples from different eras and music styles; one participant describes this as a balancing act between ”songs representing their own musical tastes” [låtar med koppling till den egna musiksmaken] and the inclusion of older music: “songs related to general education, often a little older” [låtar med koppling till allmänbildning, oftast lite äldre] (Participant #196). A second participant describes this as “a broad repertoire… from Taube to the songs of today” [en bred repertoar… från Taube till dagens sånger] (Participant #150). Another participant writes:

Songs that I think the students will like. Starting to bring in some songs in English. I also try to include some songs from our Swedish song heritage in different genres. A general education in songs (if you can call it that).	Låtar som jag tror eleverna gillar. Börja introducera lite låtar på engelska. Dessutom försöker jag att få in låtar som tillhör vår svenska sångskatt i olika genrer. Allmänbildning i sånger (om man får kalla det för det). (Participant #177)

The formulations pairing old and new common to many responses suggest a perceived need to balance on the one hand new music that engages and interests students and on the other traditional music that imparts cultural heritage: "old songs everyone should be able to sing" [gamla låtar man bör kunna] (Participant #8), in one participant's phrase. Another writes, "Contemporary songs that are 'singable' for us to sing together. Oldies but goodies" [Nutida låtar sånger som 'går' att sjunga tillsammans. Gamla godingar] (Participant #21). While some responses cast the question of genre as a binary one between old and new, others contextualize the inclusion of pop and traditional music within a more general consideration of providing a well-rounded selection of diverse music for students to sing:

Try to get as broad a distribution of styles (genres) as possible. Mix of old and new. I feel that students should get the opportunity to familiarize themselves with different well-known songs from different eras and styles. It's impossible to cover everything.	Försöker att få en så bred spridning som möjligt vad det gäller stil (genre). Blandar gammalt och nytt. Jag tycker att eleverna ska få bekanta sig med olika kända sånger från olika tider och stilar. Det går inte att bli heltäckande. (Participant #212)

The underlying ambition according to one participant is to "give them an education in music history/different genres" [bildar dem i musikhistoria/genrekännedom] (Participant #123). In this perspective, singing repertoire aims to be diverse in order to provide the student with a general education in music and an appreciation of diverse musical eras and genres.

In sum, just as the participants expressed concern with balancing student influence with their own preferred repertoire, responses describe a concern with curating an effective mix of traditional and current repertoire to engage students and provide comprehensive singing instruction. Both pop music and traditional music were considered important and in some cases complimentary elements in a general singing and musical education. Traditional music was often discussed in terms of its educational and cultural value, with newer music framed as being fun and engaging to encourage student participation. Current pop music was also linked to engaging musical qualities such as rhythmic drive and energy.

5.3.3 A broad range of factors governing repertoire choice

Besides balancing old and new music, several other diverse factors such as school performance traditions, focus on guitar and piano instruction, and appropriate lyrical content were seen to vie more or less equally for participants' attention when choosing their singing repertoire. Participants noted that choice of repertoire was often governed by annual school events and traditions where singing has an established role. One response colorfully referred to this as following "the annual spin of the school year wheel" [schemats årliga hjul] (Participant #86). Another describes "traditions around Christmas, spring and soon summer [tradition till jul, vår, och snart sommar] (Participant #160). Several participants refer to such yearly events as "holidays" [högtider], a term that encompasses both school and traditional Swedish/Christian celebrations: "songs associated with our traditions" [sånger med anknytning till våra traditioner] (Participant #136). Frequently mentioned events in the school calendar included Christmas and Lucia performances, Valborg, and end of term celebrations: "songs associated with different holidays" [sånger som anknyter till olika högtider] (Participant #77). Other more recent cultural touchstones such as *UN World Children's Day* and the *Eurovision Song Contest* season were also frequently mentioned by participants. This participant described the annual cycle of festivities in some detail, including reference to *Children's Day*:

> Singing instruction is often related to different performances and so repertoire is chosen according to when it's going to be performed. Lucia, Christmas show, end of term, concert for the world's children, etc.
>
> Sångundervisningen är oftast kopplad till olika framträdanden så repertoaren väljs utifrån vilket sammanhang det ska sjungas. Lucia, Julavslut, sommaravslut, konsert för världens barn o.s.v. (Participant #148)

Beyond the importance of school year events, a further framing factor was ensemble instruction: finding singing repertoire that could be used together with guitar and piano practice. As one participant writes, "Singing is seldom the sole focus during our lessons but rather is studied togther with learning other skills" [Det är sällen jag enbart undervisar i sång de vanliga lektionerna utan sången övas tillsammans med andra färdigheter] (Participant #72). Responses portrayed singing instruction as often coupled to other curricular goals and activities, such as ensemble playing or musical analysis and theory, which can affect how the repertoire is arranged and sung: "Since we start playing guitar in grade four we end up with many songs in keys that work best with playing the chords they've learned" [eftersom vi börjar gitarr i fyran blir det många sånger och tonarter som främst är anpassade till ackord de kan spela] (Participant #23). This strategy is echoed in several responses. One participant writes "I use singing as a tool for learning meter and chords. Therefore I have adapted the key signatures so they can be played with chords that are easy to play on piano and

the open strings of the guitar" [Jag använder sången som ett verktyg för att träna takter och att lära sig ackord. Därför anpassar jag tonarterna så att de kan kompas på ackord som är lätta att ta på klaviatur och med gitarrens ljusa strängar] (Participant #233). Another specifies, "I use many songs with a standard chord progression, for example C Am F G" [Jag använder många sånger som har rundgång t ex C Am F G] (Participant #140).

Guitar, piano, and ensemble playing are mentioned as a framing factor by many participants, with some noting that guitar instruction had taken away time from singing compared to earlier grades: "In grade 4 we work a lot on guitar so there isn't as much singing as we had when they were in grades 1-3" [I åk fyra arbetar vi mycket med gitarr så det blir inte lika mycket sång som när de gick i åk 1-3] (Participant #25). One participant estimated that singing was only about a fifth of the subject to be covered in the written curriculum (Participant #38). Several participants described this as too little place afforded to singing relative to other elements. One writes:

> Unfortunately singing has been overshadowed with our focus being more on other curricular goals in grade 4. The only purely singing instruction I have done has been in conjunction with the summer end of term performances, otherwise the students just sing during ensemble and guitar class.
>
> Tyvärr har sången hamnat i skymundan och jag har mer fokus på andra kunskapsmål i fyran. Den enda renodlade sångundervisning jag har är sången de ska sjunga till sommaravslutningen, annars sjunger de bara i ensemble- och gitarrspel. (Participant #23)

Broad curricular demands need to be met in the general music classroom, giving some participants a sense of too-little time to squeeze everything in. This sentiment is well exemplified in the following response:

> I would have liked to have more time for singing. I feel stressed with everything the syllabus demands that we have to get done. Especially the instrumental instruction side. Often we end up singing the songs that we are learning to play in ensemble lessons.
>
> Jag hade önskat mer tid till att sjunga. Känner mig stressad av att hinna med allt som kursplanen kräver. Då särskilt när det gäller instrumentspel. Ofta är det de låtar som vi spelar i ensemble som blir sången vi sjunger. (Participant #227)

One solution to competing demands for limited time resources was to find repertoire that serves several purposes, for example incorporating dance, Swedish language training, or practicing guitar and piano, while perhaps also fitting into a yearly performance event. Here is an example from one participant who lists three elements

in their response, touching on common concerns such as lyrical content, instrumental accompaniment and musical character:

There shouldn't be too many lyrics so that students who have a harder time reading aren't excluded. It should have a melody that is easy to learn. Good if students can play along with instruments.	Det ska inte vara för mycket textmassa då de lässvaga eleverna blir exkluderade. Det ska vara en melodi som man lätt kan lära sig. Bra om eleverna klarat av att spela något instrument till. (Participant #139)

Here another participant focuses on several curricular goals underlying their choice of repertoire:

Different genres (rhythm, meter), fit in lyrical analysis, fit in musical terms: meter, phrase, different harmonies, intervals, chords, verse, refrain, repeat sign, etc., songs where it works for most of them to play the melody, chords while singing along.	Olika genrer (rytm, takt), få med textanalys, få med musikaliska begrepp: takt, fras, olika harmonier, samklang, ackord, vers, refräng, repristecken etc., låtar där det går att få de flesta att spela melodi, ackord samt sjunga till. (Participant #106)

Most responses listed several criteria when discussing repertoire selection. While some responses describe managing diverse factors and syllabus demands in terms of conflicting interests, others listed their mixed criteria in formulations suggesting contrasting ingredients that together might constitute a comprehensive singing instruction based around a diverse repertoire. This participant, for example, lists five distinct factors with a focus on variation in genre and performance context:

Christmas traditions, spring and soon summer. Various vocal techniques, eras and genres. They should have drive.	Tradition till jul, vår och snart sommar. Varierande röstteknik, tidsperiod och genre. Att de ska vara medryckande. (Participant #160)

Another participant illustrates a similar attitude, this time by formulating their response in contrasting pairs of criteria:

Something current, something old, something Swedish, something foreign… groove.	Något modernt, något gammalt, något svenskt, något från andra länder... Sväng. (Participant #195)

In summary, no one factor was found to be dominant regarding repertoire selection. Rather, several sometimes competing factors were found to influence repertoire selection in equal measure. In turn, participants described a varied singing repertoire, where chosen music often serves to fulfill several learning goals at once. Participants discussed the need to find balance and variation between new and traditional music, teacher and student preferences and competing curricular demands. While evincing a wide agreement on the need for balance and diversity, responses noted the imperative to perform repertoire for school and Swedish holidays, a factor which further promotes the inclusion of traditional music representing Swedish cultural heritage.

5.3.4 Finding repertoire to meet students' vocal range and abilities

Concern with finding an adequate vocal range for the singing repertoire was discussed in many responses (14.0%). In some cases, a target range was described: "Try to keep the range c_1-c_2, sometimes we end up with a few steps below/lower or over/higher [Försöker hålla omfånget c_1-c_2, ibland blir det några toner under/lägre eller över/högre] (Participant #262). Another participant referred to the same range, writing that they "choose a key so that the melody ends up between c_1 and c_2 as much as possible" [väljer tonarter så melodin hamnar mellan c_1 och c_2 i möjligaste mån] (Participant #229). Other comments are more general: "songs that sit in a good singing range and therefore develop their singing voices" [sånger som ligger i ett bra sångläge och därför utvecklar deras sångröster] (Participant #30).

A separate but sometimes related concern was to find or adapt repertoire to suit students' level of development or abilities more generally, with 12.8% of responses discussing the need to consider aspects such as "difficulty" [svårighetsgrad], "appropriately challenging" [lämplig utmaning], "age-appropriate" [åldersanpassad], and similar formulations. Such considerations – which fall within the concept of Developmentally Appropriate Practice (DAP) thinking – may include vocal range but can also be related to diverse developmental concerns such as language skills, emotional maturity or numeracy. In some cases, concern for vocal range and student development were explicitly mentioned in the same response:

Right key, not too low. Age-appropriate depending on the class and maturity.	Rätt tonart, ej för låg. Åldersadekvat efter grupp och mognad. (Participant #135)

These concerns can be seen to potentially conflict with the previously stated need to adapt singing repertoire to keys best suited for easy accompaniment on piano and guitar. Keys that are amenable to beginner guitar accompaniment may not be best suited to children's voices. Several respondents acknowledged this dilemma when describing their practice: "If they are going to play along on guitar or piano we have

to adapt the key a lot so they can play and accompany themselves" [Om de ska spela den på gitarr eller piano anpassas tonarten mycket efter att de sedan ska kunna spela och kompa] (Participant #103).

In summary, developmental concerns, when taken together and including specific concern for vocal range, played an important role in participants' singing repertoire selection. At the same time, competing concerns such as the need to include repertoire suitable to ensemble made finding appropriate repertoire and vocal range challenging.

5.3.5 Relative importance of cultural diversity as a factor in repertoire selection

In contrast to the strong drive to include music of diverse genres and time periods, relatively few participants (n=12; 4.5%) mention the need to pursue cultural diversity in singing repertoire through the learning of songs from Indigenous, non-Swedish or non-Western cultures. This is despite being an explicitly formulated learning goal in guiding documents, a fact one participant alludes to in their response, saying they try to "include curricular goals for both 'other cultures and eras'" [få med kunskapskraven både vad gäller 'andra kulturer och tider'] (Participant #232). Sámi yoiking similarly warrants specific mention in current guiding documents, but is named by only one study participant. Those who name cultural diversity as a criteria cite language and national origin as relevant factors for the selection of culturally diverse repertoire "to gain a deeper understanding for music in different cultures" [för att få en fördjupad förståelse för musik i olika kulturer] (Participant #130).

5.3.6 Relative importance of integration as a factor in repertoire selection

Issues relating to integration and singing instruction were mentioned by five participants which accounts for just 1.9% of total responses. Those participant responses which discussed integration of students with diverse national backgrounds in their classroom focused primarily on students' language abilities. One participant writes, "As many students speak Swedish as a second language the lyrics can't be too hard to understand" [Eftersom många elever har svenska som andraspråk får texterna inte vara för svåra] (Participant #109). Another describes their repertoire as limited to "simple lyrics that work for both our 'old' students and the many new immigrants in grades 3-4 who have music class together" [enkla texter som passar både för våra "gamla" elever och de många nyanlända i årskurs 3-4 som har musik tillsammans] (Participant #91). In these responses, participants report that they choose Swedish language music with easy to understand lyrics in order to "strengthen language abilities" [stärka språket] (Participant #210). Only one participant reports integrating

music from immigrant students' home countries into class singing repertoire, writing "Integration from the classroom, that is, Africa – a few African songs" [Integration från klassrummet, dvs Afrika – lite afrikanska sånger] (Participant #81).

5.3.7 Summary of factors governing repertoire selection

No single factor was found to dominate repertoire selection. Rather, several competing and sometimes conflicting criteria of relatively equal importance frame choice of repertoire. Responses describe the need for providing a varied repertoire that mixes traditional and popular music and strikes a balance between student influence and teachers' own preferences and expertise. Student choice and the inclusion of current familiar pop music were seen as important tools for engaging students' interest in singing, while music representing Swedish cultural heritage was included in order to familiarize students with national traditions but also because of its function in student singing performances at annual school year holidays and events. Singing range and other developmental issues were noted as factors governing repertoire. Ensemble playing was also seen to affect and sometimes restrict singing repertoire and practices, with the need to adapt repertoire to guitar and piano instruction potentially clashing with the need to find appropriate keys that might best suit student singing range. While participants expressed interest in providing repertoire from varied styles and genres, inclusion of music from diverse cultures and languages was found to be of very limited importance relative to other factors.

5.4 Reported song repertoire in grade 4

In this section of the results chapter, we turn to a descriptive statistical analysis of the repertoire list generated by teacher questionnaire responses. Diverse issues such as variety of genre categories, national origin, singing range, and song age will be addressed.

A total of 1,345 unique songs were reported by participants as grade 4 song repertoire during the 2015-16 academic year. Many songs were cited by more than one participant (i.e., the same song used by different teachers), yielding a total of 2,912 repertoire entry responses. This leads to a rate of overlap or common use of the same song as 2.17 (2,912/1,345); that is to say that the same song appeared on average in two different classrooms.

5.4.1 Most commonly reported songs

The most commonly reported songs – that is, those songs reported most often in the repertoire list – are presented in Table 6, along with song age, total mentions, and percentage of participants who report using the song in their repertoire:

Table 6
Most Commonly Reported Songs, 2015-16

Ranking	Song (song age in years as of 2015)	Total *n* times cited	Percent of participants citing song
1	Brev från kolonien (50)	45	16%
2	Den blomstertid nu kommer (320)	40	14%
3	Du gamla du fria (171)	38	13%
4	Broder Jakob (165)	35	12%
5	Nu tändas tusen juleljus (117)	32	11%
6	Sommaren är kort (33)	30	10%
7	Nu grönskar det (82)/ Sankta Lucia (87)	29	10%
8	Varmkorv boogie (56)/ Jag vill ha en egen måne (44)	28	10%
9	Jag hade en gång en båt (49)	26	9%
10	Tänd ett ljus (28)/ Idas sommarvisa (45)/ Guld och gröna skogar (0)	25	9%

The list of the most commonly reported songs can be seen to have a strongly traditional Swedish character in terms of song origin, language, age, and function. All of the songs have Swedish lyrics and originated in Sweden. The average age of the most commonly reported songs (dated from 2015, the school year assessed in the present study) was 89 years, with only one song published in the past thirty years. Two of the songs – the Christmas song, ”Nu tändas tusen juleljus” and the national anthem, ”Du gamla, du fria” – were included in the twenty original ”Core Songs” (”*stamsånger*”) mandated to be obligatory song repertoire for all school-age children by royal decree (1943 through 1969). There are five songs in the list that can be said to have a sacred function or significance in Swedish culture, with three of them being written in whole or in part by teachers: ”Den blomstertid nu kommer”, ”Nu tändas tusen juleljus”,”Nu grönskar det”, ”Tänd ett ljus”, and ”Sankta Lucia”. In sum, older, sacred music strongly connected to Swedish national singing traditions is prominent in the most commonly sung repertoire.

Alongside music strongly connected to Swedish national singing traditions is the noteworthy prominence of songs from the Swedish singer-songwriter or ”*visa*” tradition. The popular 60’s singer-songwriter Cornelis Vreeswijk has two songs in the top ten, including the most sung song, ”Brev från kolonien” and ”Jag hade en gång en båt”, Swedish versions of the American songs “Hello Muddah, Hello Faddah” and “Sloop John B”, respectivily. A third singer-songwriter song – ”Jag vill ha min egen måne” – was performed by well-known 70’s singer-songwriter Ted Gärdestad. The average age of these singer-songwriter compositions is 48 years.

Older, chart-topping popular music has a strong presence among the most sung songs. The Vreeswijk and Gärdestad songs topped the Swedish national popular music charts when they were first released, as did three other of the songs in the list: ”Varmkorv boogie”, ”Tänd ett ljus”, and ”Guld och Gröna skogar”. Only one – the Eurovision Song Contest entry ”Guld och gröna skogar” – was released during the 2015-16 school year.

In addition to traditional, sacred, singer-songwriter, and popular music, there are two children’s songs – ”Broder Jakob” and ”Idas sommarvisa”.

5.4.2 Repertoire list analyzed by specific genre categories

A total of 10 main genre categories were used to classify the 1,345 songs (2,912 entries in total) in the total repertoire list: (in order of prominence) pop/rock, Christmas music, children’s music, traditional music, singer-songwriter (*visa*), traditional children’s music, school music, Eurovision, electronic/dance music, and non-Western music. Categories which were present but did not account for more than 1% of repertoire songs are listed as ”other”: (in order of prominence) Swedish folk music, *dansband* music[12], jazz, advertisment music, yoik, musical, rap, classical, and film music. Songs written by teachers or students represented a not insignificant portion of the collected repertoire (circa 2%); however, since it was not possible to assess these original compositions in terms of genre, they were also grouped into the ”other” category for purposes of genre analysis (see Figure 5).

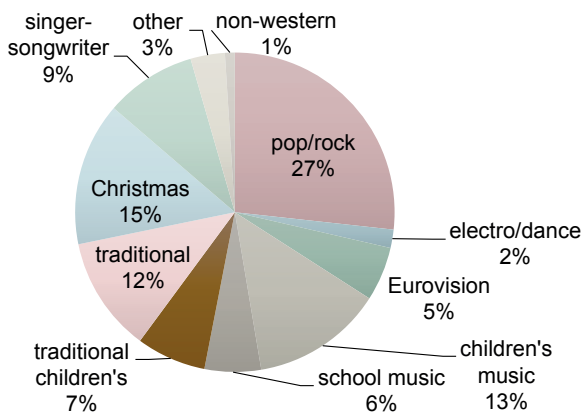


Figure 5
Genre Analysis of the Repertoire List

[12] *Dansband* is a form of Swedish country music for social dancing.

In the analysis of genre categories, popular music stands for a large proportion of the repertoire, as does children's music from diverse sources, music associated with Christmas time celebrations, traditional music, and singer-songwriter music. Non-Western music is almost entirely absent.

5.4.3 Repertoire list analyzed by broad genre categories

For the purpose of considering the relative prominence of popular and traditional music, several of the genre categories were considered as subgenres and merged into broader genre categories: pop/rock, music from the *Eurovision Song Contest*, and electronic/dance music were collected under the category of "popular music"; children's music and school music were merged into the broader category "contemporary children's music"; traditional music, Christmas music and traditional children's music were regrouped as "traditional music". This analysis of broad genre categories is presented in Figure 6.

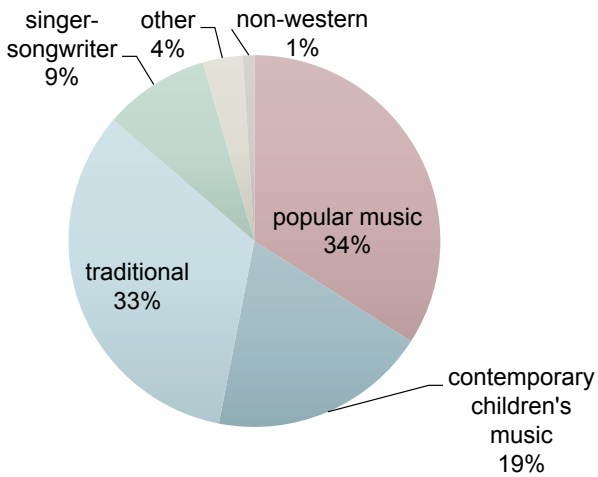


Figure 6
Broad Genre Analysis of the Repertoire List

In this analysis, popular music and traditional music were seen to have a roughly equal prominence, with children's music and singer-songwriter also accounting for large proportions of the song repertoire.

5.4.4 Median song age

The Median song age of the repertoire was 33 years (inter-quartile range 13-34 years, based on 2,285 songs whose age could be identified). Some 274 songs (12.0%) were published during the 2015-16 school year, and approximately one-fifth of the repertoire dated from the previous decade (22.5%).

5.4.5 Top songwriters and songwriter gender

The songwriter with the most songs in the repertoire list was singer-songwriter Cornelis Vreeswijk with 84 citations. The songwriting team of Ted and Kenneth Gärdestad were second with 65 citations. Children's music writers Georg Riedel and Astrid Lindgren had 55 and 48 citations respectively. Singer-songwriter Evert Taube rounded out the top five songwriters with 48 citations. No other writer received more than 40 citations (Alice Tegnér was cited 23 times).

The overwhelming majority of music used in singing repertoire was written by men (n=1,616; 62%). Only 10% (n= 254) was written by women. A total of 14% of the repertoire were songs written by male/female songwriting teams, with the remaining 375 songs (16%) being of anonymous authorship.

5.4.6 The national origins of the repertoire

Music originating in Sweden accounted for 58.2% of popular music in the repertoire list. In terms of the total repertoire, fully three-quarters was found to be of Swedish origin; music from the U.S. accounted for 14%, as shown in Figure 7:

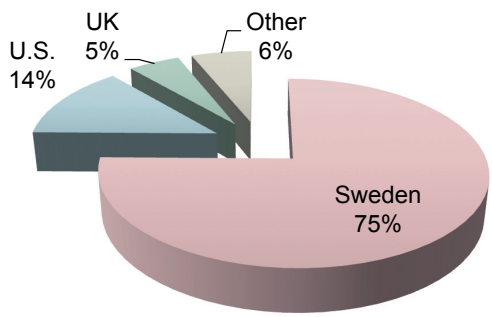


Figure 7
National Origins of the Repertoire

5.4.7 Language and culture

Swedish was the language sung in 74% of the repertoire (n= 2,041). English accounted for the only other significant bloc, with 24% (n= 664). Of the songs sung in English, nearly one quarter were of Swedish origin (n= 156; 23.5%).

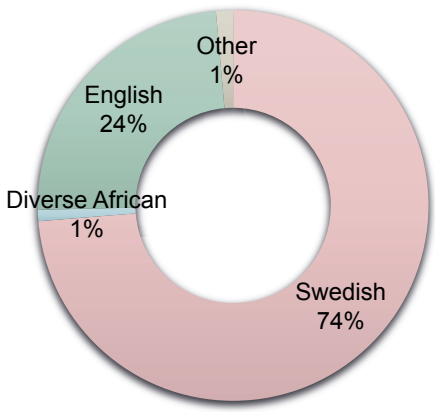


Figure 8
Language of the Repertoire List Lyrics

Swedish minority languages and cultures were almost entirely absent from the repertoire. A total of three songs of Sámi origin were reported.

5.4.8 Summary of results pertaining to repertoire

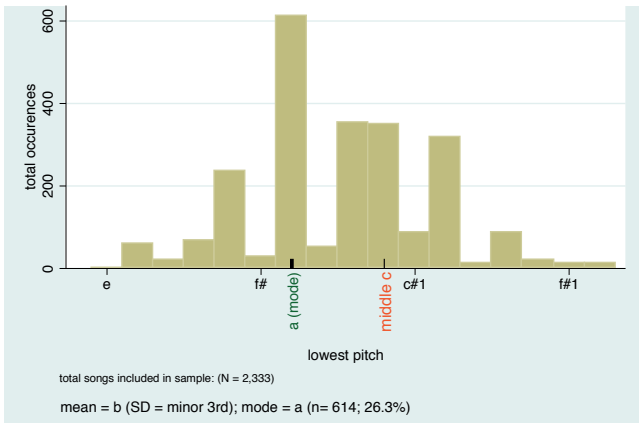
Reported song repertoire was found to be a mix of relatively even proportions between traditional music, popular music, and children's music. Singer-songwriter was also a prominent category. Music from Sweden dominated the repertoire, although national minorities were largely excluded.

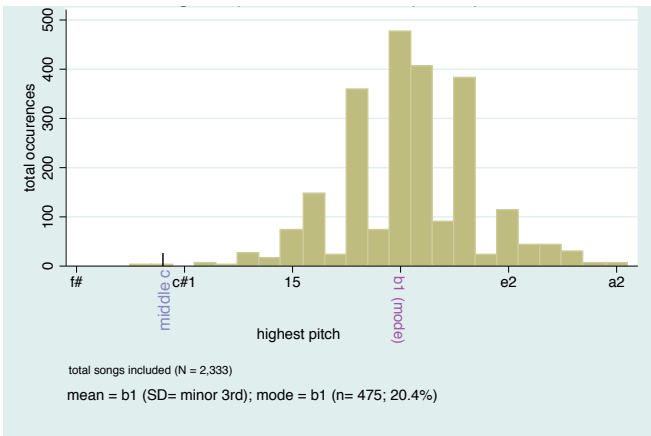
5.5 Singing range

Survey participants were asked to include chosen key for sung repertoire to facilitate the mapping of chosen or "prescribed" singing ranges. In this section, descriptive statistical analyses related to prescribed singing range will be presented.

5.5.1 Average lowest and highest pitch

The average lowest pitch for songs in the repertoire list with available prescribed singing range data (n=2,333) was found to be B_3 (SD= minor 3rd). The mode was A_3. The average highest pitch was B_4 (SD= minor 3rd). B_5 was also the mode for highest pitch. These results are presented in Figures 9 and 10:





Figures 9 and 10
Lowest and Highest Average Pitches

5.5.2 Average prescribed singing range

The average prescribed singing range – taken as the distance between the lowest and highest average pitches as presented above – was found to be between B_3 and B_4: exactly one octave, with a standard deviation of approximately a minor third on both the lowest and highest ends of the spectrum. Of all repertoire song entries, 61.20 % go below middle C, with the most common average lowest note (the *mode*) being A_3. The ratio is reversed in regards to the upper limits of the prescribed singing range, with 68.52 % of all repertoire song entries *not* rising above C_5, with the most common highest note being B_5.

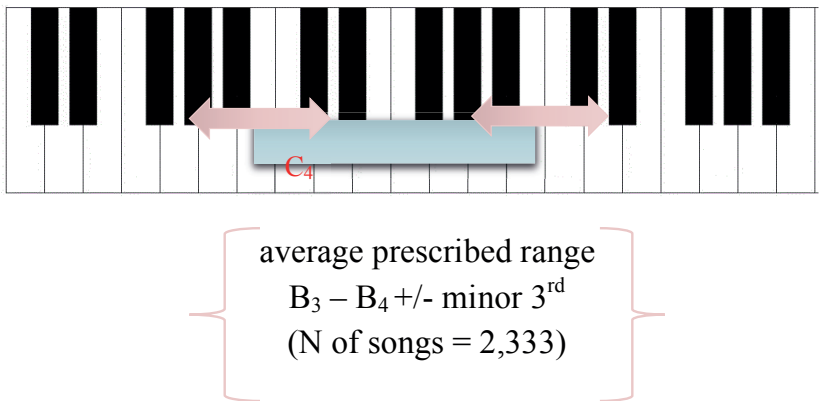


Figure 11
Average Prescribed Range of the Repertoire List Songs.

5.5.3 Lowered prescribed singing range for standard traditional repertoire

In several instances, the average prescribed singing range for prominent traditional repertoire was found to be transposed downwards relative to standard published versions, as shown in Figure 12:

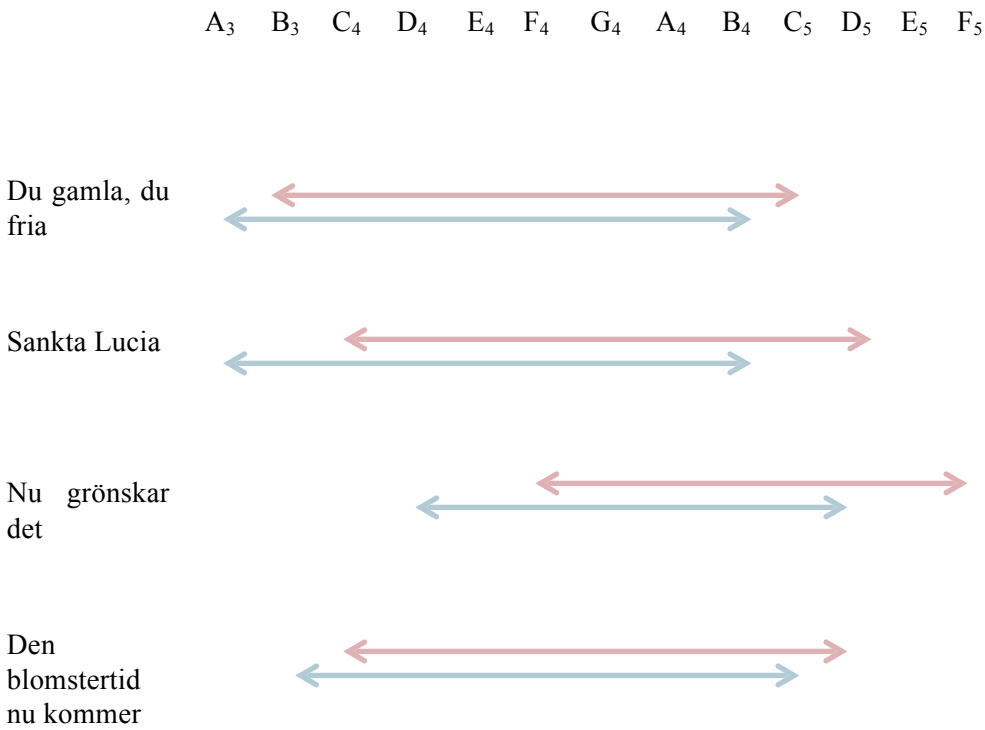


Figure 12
Prescribed ranges compared to standard ranges

Note: Standard range is presented on top in blue, followed by prescribed range in red underneath; references for standard keys: *Barnens svenska sångbook* (1999), *Psalmboken* (1986), *Sångboken: vår gemensamma sångskatt* (1986), *Andliga önskesånger* (2005), *20 sommarsånger arrangerade till barnkör* (1984), and *Sjung nu, Svenska folket* (1958). The national anthem was sung by survey participants on average a whole step lower than its standard standard key (from G to F), "Sankta Lucia" was sung on average a minor third lower (from B ♭ to G), "Nu grönskar det" was sung on average a minor third lower (from F to D), "Den blomstertid nu kommer" was sung on average a half step lower (from F to E).

5.6 Factors associated with singing practices

Since the purpose of the present study was to be an exploratory mapping of school singing practices where little previous research has been conducted, several hypotheses concerning possible associations between singing practices and background factors were assessed using diverse methods. Outcomes such as low/high percent of class time devoted to singing, type of repertoire used, and chosen singing range were of interest; these were correlated to background factors such as choice of accompanying instrument, school form, teacher sex, and teacher education and experience to look for possible associations. An online DAG (Directed Acyclic Graph; *dagitty.net*) tool was used to map out possible associations and consider what causal relationships (mediating factors, competing risks, confounders) might be found between background factors, as in the example below:

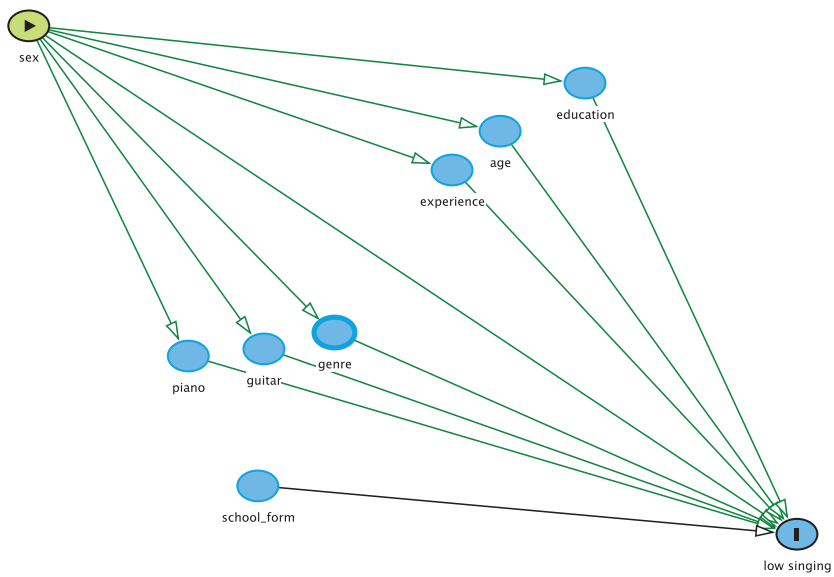


Figure 13
Example of DAG Diagramming

Note. This DAG represents possible mediating factors between teacher sex and low singing; green lines indicate mediating factors, black indicates competing risk. The teachers' choice of accompanying instrument, choice of genre, work experience, age, and professional education are all charted here as possible mediating factors leading to low singing.

5.6.1 Singing as percent of total class time

For these analyses, a low percentage of class time singing was defined as singing 30% or less of class time, which was reported by 41.3% of teachers. High percentage of class time singing was defined as singing 60% or more of class time, and was reported by 20.2% of teachers. These cut-off values, at roughly ten percentage units below or above the average, were chosen in order to select groups of participants with sufficient, but not extreme, divergence from the study population at large. There was no association between age of the teacher and either low or high percent class time singing (both p>0.10). Neither was an association found between high/low percent class time singing and teacher gender, illustrated in the univariate analysis below:

Table 7
Percent Classtime Singing by Sex

	men	women	mean (total)	p value
Low percent singing (<30)	46.8	37.8	41.3	0.135
High percent singing (>60)	16.5	22.7	20.3	0.211

Note: Six participants did not respond to this question.

There was no association between low percent singing time and professional experience (p= 0.21), but longer professional experience was associated with high percent singing time (p= 0.01). Those who reported high percent singing time had a median of 13.5 years (IQR 16.5) teaching experience, whereas those who reported less singing time had a median of 10 years (IQR 13). The Spearmans correlation coefficient for percent singing time measured on a Likert scale and professional experience was 0.13 (p= 0.026).

An analysis was also performed to assess the association between music enrichment program schools and percentage of class time singing. Thirteen teachers from music enrichment program schools participated in the survey (4.5% of respondents). Six of these reported a high percentage of singing class time (p= 0.009). That is, there was a significant association between school form (music enrichment program) and high percentage class time spent on singing activities.

Teacher training was associated with percent class time singing; teachers with no relevant education were less likely to report low percent singing time (28.6% compared to 44.2%, p=0.04). The teachers with education from a teaching program and music teacher program reported 46% and 43% low percent class time singing respectively. No reported educations were associated with high percent class time singing.

To summarize, the wide divergence in total amount of class time devoted to singing between participants was not found to be associated with variables such as age or gender. The teachers who lacked professional training were less likely to have a low percentage of class time devoted to song, and the percentage of class time for song tended to increase with the teachers' years on the job, regardless of their training.

Finally, the teachers in music enrichment programs tended to sing more than their peers in non-enrichment schools.

5.6.2 Background factors associated with repertoire selection

There was no substantial variation found between the genre choices of the teachers with music teacher education, non-music teacher education, or no relevant teacher training, although traditional music was slightly more common among teachers with a relevant education. Neither was any significant difference found between the repertoire choices of teachers working within music enrichment programs compared to regular schools. Sex was also not a factor found to substantially influence genre preferences (Table 8):

Table 8
Genre Choices According to Teacher Background Factors

	Mean (total population)	Music teacher education	Teacher education	No relevant training	Men	Women	Music enrichment program
Pop/rock	26.6	28.4	25.4	24.3	33.1	23.6	26.9
Christmas music	14.5	14.5	14.5	15.2	13.1	15.2	14.4
Children's music	13.3	14.3	12.5	10.1	11.2	14.3	13.2
Traditional music	11.7	12.5	12.5	9.7	9.4	12.8	11.8
Visa	9.2	8.8	9.4	9.5	9.7	9.0	9.3
Traditional children's music	7.1	5.0	7.4	11.0	5.2	7.9	7.0
School music	5.7	3.9	7.6	7.1	3.7	6.7	5.3
Eurovision	5.5	5.8	4.7	6.3	5.3	6.3	5.5
Electro/dance	1.8	2.0	1.6	1.8	2.4	1.5	1.9
Non-western	1.0	0.8	0.9	1.4	0.8	1.1	1.0

Note. All values given in percent (%); genre category "other" (3.8%) is excluded.

5.6.3 Factors associated with low singing

Low singing (defined as songs descending below C_4) was analyzed in two ways. The first was in terms of percent of songs sung at this level for each individual, in an individual-centered analysis, in order to determine person-specific factors related to low singing. The second song-centered analysis was performed to assess how low singing might be associated with genre.

In the song-level analysis, 59% (24.9) of songs (median 60%, IQR 0.25) were low: 59.6% (25.9) of songs sung by men (median 61%, IQR 25%) and 58.9% (24.2) of songs sung by women (median 60%, IQR 25%, p for difference= 0.589). In other

words, there was no significant association found between low singing and teacher gender. Neither was any significant univariate association found between low singing and teacher age, professional experience, training, school form, or the use of either piano or guitar as main accompanying instrument (all p>0.45). Table 9 reports the percent of songs sung under C_4 by quartile and illustrates how the variables can be judged to be independent and that none of them are more strongly associated with the outcome of low singing than any other.

Table 9
Background Factors Related to Percentage of Songs Sung Below C_4 (by Quartile)

	0-0.24	0.25-0.49	0.50-0.74	0.75-1.0
Mean (total)	8.9	13.5	49.2	28.5
Piano accomp.	9.1	13.3	49.7	28.0
Guitar accomp.	6.1	14.3	48.0	31.6
Men	9.4	10.4	49.1	31.1
Women	8.6	16.1	49.4	25.9
Music enrichment program	8.2	14.1	48.6	29.0
Music teacher education	8.3	11.1	50.7	30.0
Teacher education	8.6	19.4	47.3	24.7
No relevant training	9.1	16.0	47.7	27.3

Note. All values given in percent (%); all p values >0.33

In a multivariable logistic regression analysis of predictors of a high percentage of low singing (defined as 75% or more of songs sung under C_4), including choice of accompaniment (piano, guitar, recorded music, or none reported), teacher age, sex, professional experience and education, no significant predictors were identified (all p>0.2).

A song-centered analysis of low singing, with clustering on individual, was also performed in order to assess the effect of genre on range. The genre categories ”school music” and ”traditional music” were found to be significantly less likely to include pitches below C_4 compared to other genre categories (p=0.034 and 0.025, respectively) after adjustment for professional experience, teacher age, sex, and training.

Table 10
Percentage of Songs Below C_4 According to Genre (%)

	not under C_4	under C_4
children's music	37.8	62.2
electronic/dance music	38.9	62.2
Christmas music	36.3	61.1
Eurovision music	37.9	63.7
non-Western music	41.7	62.1
pop/rock	34.3	65.7
traditional*	51.6	48.4
children's traditional	30.3	70.0
singer-songwriter	39.8	60.2
school music*	52.1	48.0
mean (total)	38.9	61.2

5.6.4 Factors associated with high singing

High singing (defined as >50% of songs sung in ranges that rise above C_5) was analyzed in the same manner as low singing: both for associations with individual teacher tendencies and associations with genre. In the individual-centered analysis, it was found that 17.7% of all teachers reported high singing. There was no significant difference between sexes, 15.4% of women reported high singing and 21.7% of men reported high singing, p= 0.19. High singing was not associated with teacher age or professional experience. However, the teachers with music teacher education were more likely to report high singing, p<0.008. In a multivariable logistic regression analysis of predictors of high singing including age, sex, professional experience, and teacher training there was a statistically significant association between teachers with music teacher training and high singing (p= 0.01). Teachers with music teacher education were roughly twice as likely to choose singing ranges ascending above C_5. No other significant associations were found. Results are reported in Table 11:

Table 11
Background Factors Related to Percentage of Songs Sung Above C_5 (%, by Quartile)

	Mean (total)	Piano accomp.	Guitar accomp.	Man	Woman	Music enrichment program	Music teacher education	Teacher education	No relevant training
0-	39.2	39.9	37.8	31.1	43.8	36.4	39.0	38.7	34.1
.25-	42.7	40.6	45.9	47.2	40.7	36.4	37.5	44.3	52.3
.50-	16.9	18.2	15.3	19.8	14.8	27.3	22.9	12.9	11.4
.75-	1.2	1.4	1.0	1.9	0.6	0.0	0.7	1.1	2.3

There was furthermore no significant association between the percentage of songs sung over C_5 and teacher age (Pearsons correlation coefficient: -0.0385, p=0.53), or years of professional experience (Spearmans correlation coefficient: -0.0347, p= 0.57).

In the song-centered analysis of low singing, genres were found to be associated with divergent singing practice. In this case, pop/rock was most strongly associated with high singing, as shown in Table 12:

Table 12
Percentage of Songs Above C_5 According to Genre (%)

	not above C_5	above C_5
Children's music	73.3	26.7
Electronic/dance music	69.4	30.6
Christmas music*	61.7	38.3
Eurovision music	77.6	22.4
Non-Western music	83.3	16.7
Pop/rock*	57.4	42.6
Traditional*	64.1	35.9
Children's traditional	83.3	16.7
Singer-songwriter	81.3	18.7
School music	77.9	22.1
Mean (total)	68.5	31.5

*$p<0.05$

5.6.5 Association between prescribed singing ranges and genre

Using ANOVA, the mean lowest and highest pitch were found to be associated with genre, with significant variation between genre categories in terms of both low and high pitch ($p < 0.0001$ for both). In absolute and musical terms, however, this variation can be understood as too small to be meaningful, as the degree of variation in singing ranges between the genres falls between one to two semitones, with all genres adhering closely to the overall average range of between B_4 and B_5, as seen in Figure 14:

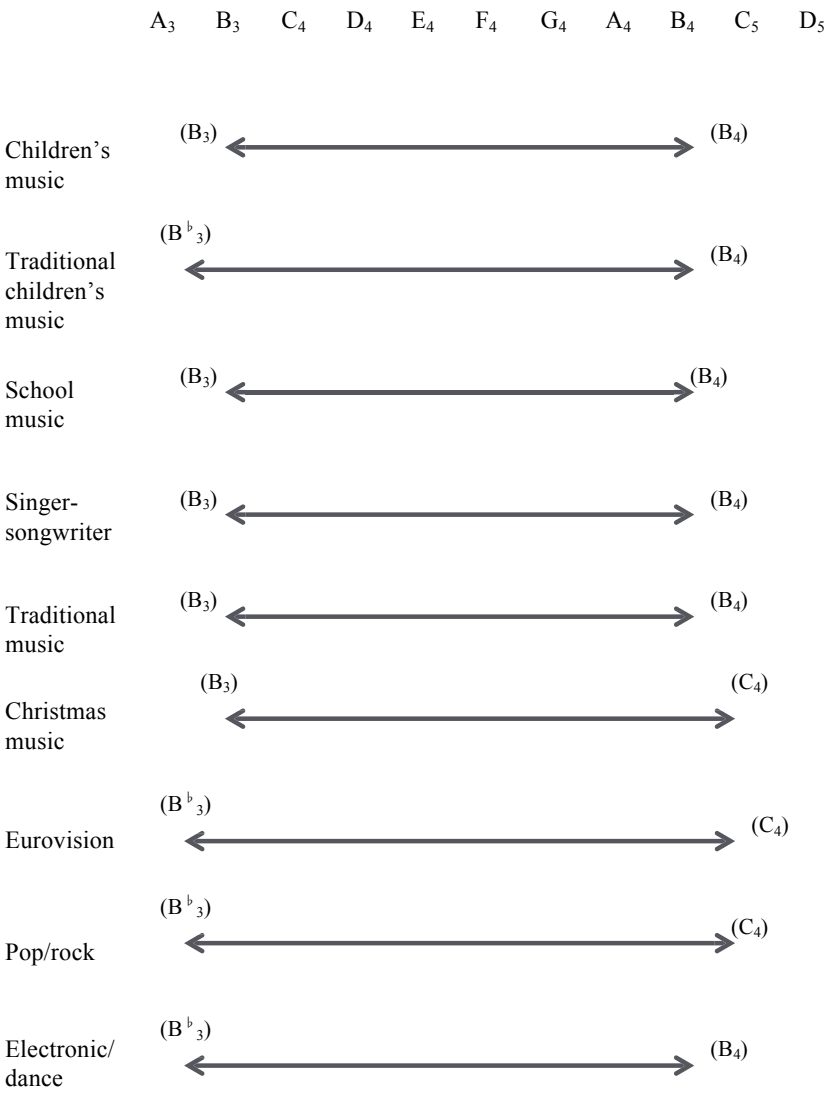


Figure 14
Prescribed Singing Ranges Analyzed According to Genre

In summary, prescribed singing range was not seen to vary substantially with teacher age, gender, choice of instrument, or work experience. Nor did prescribed singing range vary to a large degree according to genre, although school music and traditional music were found to be less likely to descend below C_4, while pop/rock was more likely to ascend above C_5. High singing was associated with music teacher education.

5.7 Summary of the results

In this section, main findings will be summarized: the place of singing in classroom music teaching, the nature of song repertoire, singing practices and associated factors.

Taken together, findings from this study show singing to be a popular and important element of classroom music education. Students exhibit a high level of engagement in the subject; teachers have access to necessary resources and report a high degree of confidence in their abilities to teach singing. Teachers rely most often on printed or self-made resources rather than internet sources for repertoire.

Singing occupied on average just under two fifths of class time, which may be considered a significant if not a dominant place in the pedagogical practice. There was a wide variation in amount of class time participants devoted to singing. Two factors were found to be significantly associated with a higher percentage of class time spent singing: one was teaching experience, with a correlation found between longer teaching experience and more singing; the other factor was school form, with teachers working within music enrichment programs tending to sing more with their students than in standard music education.

Allowing students to participate in choosing repertoire was found to be the most important criterion for repertoire selection. Choice of repertoire was not seen to vary significantly according to factors related to teacher background or school form. Participants stressed the need to find a balance between traditional and popular music. Few participants reported focusing on music from non-Western and Indigenous cultures. Several participants noted that singing practices were affected by the curricular imperative to study other instruments. Ensemble playing was seen to affect and sometimes restrict singing repertoire and practices, with the need to adapt repertoire to guitar and piano instruction potentially clashing with the need to find appropriate keys that might best suit student singing range. Singing of traditional music was associated with annual school events.

Singing repertoire was found to have a strongly traditional Swedish character in terms of song origin, language, age, and function. The most common repertoire tended to be older, Swedish music drawn from popular music, children's music, traditional music and singer-songwriter music. A relatively small proportion was recently published, with the median age of the repertoire being over 30 years old. The

repertoire can therefore be said to tend towards being older traditional Swedish music and lacking in regional, cultural, and musical diversity. Music of minority cultures from within Scandinavia and music from cultures outside Western popular and traditional musics are largely excluded. Choice of repertoire was not seen to be associated with background factors such as the participants' age, sex, training, or work experience, making the choice of older, traditional, Swedish music a dominant tendency.

The mean singing range of the repertoire was found to be an octave (between B_3 and B_4) with a standard deviation of approximately a minor third for both the bottom and top values of the range.

A majority of songs sung went below middle C (61.2%). With regards to the upper end of singing range, about one-third (31.5%) of songs went above C_5; that is, a majority of songs descended below C_4 and did not exceed C_5. Teachers tended to transpose music into the same relatively low and narrow range regardless of genre, with three exceptions: school music and traditional music were less likely to fall below C_4; pop/rock was found to be more likely to exceed C_5. As singing range did not diverge according to most background factors, a dominant singing culture regarding singing range could thereby be described, with most participants placing music within the lower ranges of their students' voices close to and below spoken pitch while avoiding the upper or head register.

Several hypotheses concerning possible associations between low singing and related factors such as teacher background, training, and experience, choice of accompanying instrument, and school form were tested. The low, narrow range was found to be independent of any of these factors. However, participants with music teacher education were found to be more likely to have their students sing above C_5 than those without such training.

In conclusion, somewhat low singing was found to be a strongly dominant vocal ideal transcending most background factors. The significance of the main findings of the present study will be considered further in relation to previous research and theoretical frameworks in the following chapter.

6. Discussion

The ambition of the present study has been not only to map out song repertoire and singing practices but also to look for associations between singing practices and background factors in order to build an understanding of how and why school singing practices are formed. In order to do this, a national survey of grade 4 music teachers was conducted, 2015-16. The survey achieved a representative sample of classroom teachers with regards to age, gender, geographical distribution and response rate. This has permitted the present study to account for possible geographical and school form differences and draw conclusions as to how background factors are associated with singing practices and selection of song repertoire in elementary school on a national level.

This chapter will address the significance of the main study findings in the context of previous research and consider theoretical models which could explain possible underlying mechanisms constraining repertoire choice and governing singing practices in Swedish compulsory music education. The relation between school singing, pedagogical philosophies, nationalism, and the exclusion of minority musical cultures will be addressed. Vocal music education will be considered through an ethnomusicological lens to discuss the social and cultural significance of current singing practices in the general music classroom.

Finally, as a work of research within the field of Music Education this study aims to generate relevant knowledge for the field of practice by considering possible practical implications of the research findings and relating them back to classroom instruction. This chapter therefore looks at study results from a pedagogical perspective. Challenges of adapting diverse genres to developing voices will be addressed with examples from study findings. In what ways and to what degree current repertoire and singing practices can have an exclusionary effect for learners and the relationship between learning aims and vocal ideals will be discussed. These issues will be considered in the broader context of what purpose vocal music education has and may have in young learners' musical and personal development.

6.1 Significance of main findings

This study has examined singing repertoire and practices with a focus on three main areas of interest: (i) the place of singing in the general music classroom; (ii) the nature of current song repertoire analyzed by genre, age, origin and language, and (iii) singing practices, with specific focus on prescribed singing ranges. Main findings for these three areas of interest will be summarized in the three sections below, followed by a discussion of the significance of these main results in subsequent sections.

6.1.1 The place of singing

Singing was found to be a popular subject among students with high levels of active participation. Singing instruction was allotted a significant though not a dominant proportion of classroom teaching time, with teachers on average devoting 40% of their general music class time to song. Teachers tended to focus more on singing activities as they gained professional experience: the longer they worked as music teachers, the more they sang with their students. Participants felt that including students in the process of choosing repertoire was the most relevant concern in repertoire selection, as well as the need to strike a balance between competing curricular goals. In total, these results can be viewed from an historical perspective as evidence of a move away from earlier exclusionary practices in music education towards a student-centered teaching philosophy that fosters active participation and encourages all students to find their voice and learn to sing in school.

6.1.2 Song repertoire

Singing repertoire as represented by the results of the present study was found to be a mix of several kinds of music, with traditional music, children's music, and popular music representing the most prominent sources for song repertoire. Popular music – while having a significant presence – was not found to have a dominant share of the chosen repertoire, with a balance of music drawn from popular, traditional and children's music sources. Singer-songwriter music was also found to have a prominent place in sung repertoire. The strong presence of music for children is consistent with previous research (Lindberg, 2002; Netterstad, 1982) indicating the growing importance of child-centered repertoire in music education over the second half of the past century. Because choice of repertoire was not seen to vary according to background factors such as age, gender, school form, professional training and experience, it is possible to conclude that a broad common understanding exists among teachers and students concerning what sort of repertoire and musical culture are desirable for the general music classroom. This conclusion is further supported by

the participants' discussion of factors governing repertoire selection, where a shared understanding of the need to balance different genre elements and curricular aims in repertoire selection was reported. These teacher attitudes can also be seen to reflect current curricular goals.

While there was little variation between participants in terms of choice of genre, variation between participants in terms of choice of songs was high: that is, there emerged little consensus as to which specific songs were used, with no songs having a dominant presence in the total repertoire. The most popular song – "Brev från kolonien" – was sung by only 16% of participants; songs strongly associated with school tradition and Swedish cultural identity such as the well-known summer hymn "Den blomstertid nu kommer" and the national anthem were also cited by fewer than one in five teachers. With 1,345 unique song titles collected, and total song entries given as 2,917, the rate of overlap between classrooms is small: the same song being reported on average by about two participants (2.17). So while there was a general uniformity in the kinds of music chosen, no single song or songs was seen to have a dominant presence in the classroom, and each participant's response thereby relatively unique.

In regards to ethnic national origin and language, the repertoire was found to be highly homogenous. Swedish language dominates, with only 24% of songs sung in English; furthermore, nearly a quarter of English language songs were of Swedish origin. Of the most commonly cited songs, all of them have Swedish lyrics and several of them are associated with sacred function, such as hymns and Christmas music. Two of the most cited songs were included in the "Core Songs" repertoire (1943-1969). Median song age was 33 years, with only 12.0% of the repertoire published during the 2015-16 school year, indicating a tendency towards inclusion of older rather than more recent music. Printed materials were twice as popular as a source of repertoire compared to digital resources. These results suggest that despite being a field where teachers (and students) have been allowed broad discretionary powers and professional autonomy, and despite access to digital platforms and tools offering potentially limitless variety, repertoire remains ethnically and nationally homogenous, with repertoire selection largely unaffected by variation in region, school form, or teacher background. Teaching practices as represented by this study's results have thereby resisted longstanding curricular demands for the inclusion of music from diverse world traditions as well as music that might represent diversity from within Sweden, for example indigenous Sámi music or music from immigrant cultures. In this regard, contemporary classroom practices were seen to be consistent to some degree with pedagogical traditions from the past century associating singing education with nation building and the fostering of a homogenous national identity.

6.1.3 Singing practices: prescribed singing ranges

Turning from the question of what is sung to how the repertoire is used, singing practices described in this study point to a dominant teaching practice that places repertoire in a somewhat low and narrow tessitura relative to students' expected vocal range and abilities, with a large majority of music falling below middle C and not exceeding C_5. This tendency was also shown to be largely independent of background factors such as teacher age, sex, choice of accompanying instrument, training and experience. Nor was this dominant tessitura seen to vary significantly depending on genre, with the exception of school music, traditional music, and pop/rock. Teachers with music teacher education were more likely to teach songs that used children's upper register; teacher education however was not associated with avoiding low signing. These results suggest that Swedish classroom singing has a dominant vocal ideal characterized by a relatively low and narrow tessitura, a vocal ideal that can be seen in some instances to diverge from Swedish singing tradition outside the classroom. In other words, traditional music continues to be taught in the classroom, but is not taught according to current singing practices and vocal ideals found outside of school.

6.2 The place of singing in school

Singing was found to occupy an important place in the general music classroom for teachers and students by both qualitative and quantitative measures. Singing was a prominent aspect of music teaching, and students and teachers were found to be highly engaged and confident in singing activities.

Singing was found to account for two-fifths of class time on average. In this regard, classroom practice is consistent with current curriculum guidelines and with previous research (Johnson, 2020), showing the relative prominence of singing in current Swedish written curricula to be approximately equal to that of playing instruments. From being the dominant element in classroom music in the middle of the 20th century, singing now occupies an important but not dominant place in the contemporary general music classroom.

A wide variation between respondents in amount of class time spent on singing was reported. Fully 10 percent of participants devoted less than 20% of class time to singing; at the other end of the spectrum, the highest decentile spent over 70% of class time on singing. The background factors considered in the present study could only partially account for this variation between teachers. While focus on singing was seen to be associated with music enrichment programs and with greater professional experience, no associations were found between low focus on singing and those factors considered in this study: age, gender, teacher education and professional

experience. Pressure to cover other elements from the written curricula such as playing instruments in ensemble was noted by several participants, and may account for less singing among some teachers. Factors beyond those included in the present study may need to be considered to gain a better understanding of why some teachers devote significantly more or less time to singing than their peers.

Current attitudes of both students and teachers towards singing in school as reported in this study were highly positive. Attitudes towards singing pedagogy can be described as nurturing and student-focused, grounded in the understanding that every child can and should learn to sing in school. This attitude is reflected in several findings. In terms of repertoire selection, high priority is given to students' musical preferences to encourage as wide a participation in singing as possible. Teachers ask students to bring repertoire of their own choosing, and also try to include popular music that they believe will be familiar and correspond to students' tastes. In this manner, students' roll as independent consumers of popular music is taken as a premise in the process of repertoire selection. These practices can be seen to conform to best practices for motivating students in singing activities (Goetz, 1990; Hedden, 2012). Teachers also report a high degree of awareness of developmental considerations when choosing singing repertoire, suggesting wide understanding of children's singing as distinct from adult singing and subject to developmental processes. Students tend to love to sing in school; teachers report a high level of confidence in their own abilities to lead singing activities, whether they have relevant professional training or not.

Seen from an historical perspective, the current attitudes towards singing in school as reported in this study can be seen as an evolution from exclusionary towards more nurturing, student-focused practices, grounded in the understanding that every child can and should learn to sing in school. This can be seen as representing a significant shift in attitudes and practices. As Hentschel (2017) points out, while the establishment of the *folkskola* in Sweden in 1842 offered most Swedish children the opportunity to participate in formal music education in the subject "Church song" [Kyrkosång] (later to be renamed simply "Song" in 1878), this did not mean that all Swedish children were taught to sing in school. Hentschel (2017) writes, "Those children who were not able to sing in tune were taken aside and put beside their singing classmates to listen" (p. 12). She argues that this reflected the vocal ideal of the times, "where singing was to be performed by those who could sing in key – in an aesthetically pleasing manner – an ability that only some children were considered to have" (p. 12). The persistence through the 20th century of attitudes both inside and outside the classroom regarding singing ability as achievable by only some has been noted (Knight, 1999; Mang, 2006; Richards & Durant, 2003; Welch, 2017). As Richards and Durant (2003) wrote at the turn of the millennium, "It is often assumed that singing is something you either can or can't do" (p. 78). Accordingly, research has found that the proportion of people who self-identify as unable to sing

far outstrips the rate of actual singing-related disorders in the general population. The results of the present study suggest this attitude has shifted profoundly in the Swedish context towards a more progressive, enabling view of singing ability.

Some research suggests that one reason for the persistence of negative and exclusionary attitudes towards singing ability in Western culture has been teaching practices established within formal music education. Research studying those who self-identify as unable to sing has identified early exclusion and negative experiences of singing in school as an important contributing cause of negative singing identity in many cases (Knight, 1999; Welch, 2017). The formation of negative singer identities may have a multi-generational impact as suggested by Knight (1999), whose study found that children of parents with negative singer identities developed such identities themselves. Teachers who provide negative feedback to students about their singing may often do so because of their own negative singer identity (Welch, 2017), which can be seen as another instance of multi-generational transmission. In sum, negative singing experience in school has been seen to be an important factor in the formation of negative singing identity, the effects of which may be inherited and passed down through generations. The attitudes of teachers surveyed in the present study represent a clear break from such vicious cycles of negative singing identity building in formal music education.

In light of the historical prominence and persistence of negative singing identities and attitudes, the generally positive and inclusive attitudes of teachers and students in the present study evince a significant change in singing practices. Results suggest that both the present generation of students and the older generation represented by their teachers are relatively free from multi-generational effects of voice shaming or silencing described in previous research of historical practices both in Sweden and internationally. Expansion of music teacher training and the professionalization of the role of music teacher correspond to this historical shift (Gustafsson, 2000; Olsson, 1993). This can only partially explain teacher confidence, as a large proportion of participants in the present study reported having little or no teacher training. While less than half of participants were trained in a music teacher education program, some 95.4% percent of participants reported confidence in their abilities to teach singing. Indeed, teachers reporting no teacher training tended to focus more on singing than their peers. This would suggest a more widespread or growing confidence among the general population in their singing abilities than previously reported.

Changes in the way singing has been taught over several generations may account for changes in the general population with regards to singing ability and attitudes towards singing. Lindberg (2002) suggests that the *Skolradio* initiative which ran from the 1930's to the 1960's may be credited with improving singing development in Sweden:

> A possible explanation for why Sweden became one of Europe's leading choral nations could be the solid grounding that was established for singing education in the Swedish

> school system beginning in the 1950's. *Skolradion* should be given due credit for its wide initiative providing support for singing and music programs during the 1950's and 60's. (p. 215)

Whatever the specific effects of initiatives such as *Skolradio*, developments in teacher education, or changing attitudes towards singing and musicianship in society at large, the attitudes expressed by teachers in this study represent the sort of "solid grounding" – to use Lindberg's phrase – children need in order to find their voice in school singing activities.

6.3 The nature of song repertoire

The song repertoire mapped by the present study is a mix of traditional, popular, and children's music. As this study is unique in its method and scope, it is not possible to make direct comparisons to earlier repertoire practices. However, some previous research, and the studies by Lindberg (2002) and Netterstad (1982) in particular, have been taken as the best available points of comparison between the present study's findings and historical practices. In this context, some aspects – such as the overrepresentation of domestic popular music, the continued rise in prominence of both children's and popular music, the exclusion of national minority and immigrant cultures, and the emergence of singer-songwriter music as an important genre – will be discussed in the following sections.

6.3.1 National origin of popular music in the school song repertoire

Results represented both by the most commonly reported songs and the complete repertoire list suggest that school song repertoire is strongly national in character: there is a strong tendency towards use of music originating in Sweden that is disproportionate to the market share and cultural presence of Swedish-produced music outside the classroom.

According to the music-streaming site *Spotify* (news.spotify.com, 2017) the 10 most-streamed songs of 2015 in Sweden included only two Swedish artists (Table 13), while the 10 most popular songs on Spotify worldwide included no Swedish artists (Table 14). These results are closely matched by other industry measures, such as the Billboard end of year charts and Swedish recording industry reports. A significant overlap (five of the 10 songs) between Swedish and international streaming tendencies may be taken as reflecting the homogeneity of a unified, dominant global music industry and its strong presence in the Swedish market, as shown in Tables 13 and 14:

Table 13
Top 10 most streamed songs on Spotify in Sweden, 2015

★	1.Major Lazer – Lean On (feat. MØ & DJ Snake)
★	2. Ellie Goulding – Love Me Like You
	3. Kygo– Stole the Show
★	4. Wiz Khalifa – See You Again (feat. Charlie Puth)
	5. Lost Frequencies – Are You with Me – Radio Edit
	6. Norlie & KKV – Ingen annan rör mig som du
★	7. OMI – Cheerleader – Felix Jaehn Remix Radio Edit
	8.Kygo – Firestone
★	9.Hozier – Take Me To Church
	10. Avicii – Waiting For Love

Note: Songs of Swedish origin (n=2) are marked in bold; songs common to the Swedish top ten most-streamed songs and world-wide top ten most streamed songs are marked with ★

Table 14
Top 10 most streamed songs on Spotify worldwide, 2015

★	1.Major Lazer – Lean On (feat. MØ & DJ Snake)
★	2. OMI – Cheerleader – Felix Jaehn Remix Radio Edit
	3. Mark Ronson – Uptown Funk
★	4. Wiz Khalifa – See You Again (feat. Charlie Puth)
★	5. Ellie Goulding – Love Me Like You
	6. Ed Sheeran – Thinking out loud
	7. Maroon 5 – Sugar
	8. Jack Ü, Skrillex, Diplo – Where Are Ü Now (with Justin Bieber)
★	9. Hozier – Take Me To Church
	10. The Weeknd – Can't Feel My Face

Note: Songs common to the Swedish top ten most-streamed songs and world-wide top ten most streamed songs are marked with ★

By the measure of popular music charts, Swedish consumers in the year the present study was conducted listened to music that was popular worldwide, most of it produced outside of Sweden, with a small proportion of hit music of Swedish origin (one in five of the top ten, for example). Swedish popular music was much more prominent in the classroom repertoire; a total of 560 of the 962 popular music songs reported came from Sweden, that is a prominence of 58.2% of Swedish popular music. These findings are re-enforced by the results of analysis of song origin

correlated to language, showing an overrepresentation of Swedish-made English language songs (nearly a quarter of the total songs sung in English) as well.

Collectively, from ”Den blomstertid nu kommer” (published 1696) to ”Guld och gröna skogar” (published 2016), the top ten list represents over three hundred years of Swedish music history, and provides examples from several genre categories, from classic traditional children’s music to the latest *Eurovision* pop. Significantly, all but the most recent of the songs can be found in the 1999 edition of *Barnens svenska sångbok (Children’s Swedish Songbook)* (Palm, 1999), suggesting that classroom practice closely follows the continuing evolution of national canons. Bevers (2005) argues that the factors underlying choice of school song repertoire extend beyond the frame of school discourse and curriculum development and ought to be understood in a broader sociological context of national and transnational cultural development:

> Neither the educational system nor any other school characteristic, it is our guess, can sufficiently explain what the state of the art is of the canon of musical and artistic reproduction … the sociology of transnational cultural relations provides an alternative way to answer this question. (p. 390)

A strong tendency towards what Bevers calls a ”hidden pedagogy” promoting a national cultural identity may be seen to be at work in the repertoire as represented by these results. Significantly, and perhaps surprisingly, not one of the top ten most popular songs is sung in English; songs from diverse categories – from traditional and sacred music, through early rock & roll to modern pop – are all represented by domestic Swedish examples. In fact, every one these top ten songs is of Swedish origin, a finding that may be considered remarkable considering the globalising influence of the mass-media entertainment industry and an ever-expanding digital listening space. Music in schools appeared in 2015, the year of this survey, less as “data” (Hebert, 2014) and more as liturgy, resisting the fluidity of musical identity associated with digital music consumption. Teachers’ continued reliance on printed resources is remarkable in this context, and may be a contributing factor in the prominence of older, Swedish material. Mantie’s (2017) observation that technological advances and new digital tools often remain outside music education practice and philosophy is relevant in light of the present results. More songbook than playlist, school song repertoire was found to adhere closely to a core of Swedish, traditional music.

6.3.2 Tradition and the role of song at school events

The importance of singing for school events marking Swedish celebrations and the importance of including music representing traditional Swedish cultural heritage can be seen as related factors driving the learning of traditional singing repertoire. Indeed, many of the songs chosen for intended use in school performance – from Sankta

Lucia and Advent songs in December to ”Den blomstertid nu kommer” for end of term celebrations – fulfill both criteria. In this sense at least, these two criteria can be seen to potentially overlap. The existence of two related factors driving the inclusion of traditional repertoire when taken together represent a strong inclination towards teaching traditional Swedish singing repertoire in schools.

These findings underscore the connection between collective singing and important social events as noted by Nettl (1995) and Lomax (1968). Many teacher responses indicate the high degree to which ceremonies tied to the “annual spin of the school year’s wheel” frame choices of repertoire selection and singing practices. One participant reports:

The only pure singing instruction I had was for the songs we will perform for end of term ceremonies.	Den enda renodlade sångundervisning jag har är sången de ska sjunga till sommaravslutningen. (Participant #23)

Singing activities are affected by the occasion for which they are organized. Another participant states:

For Lucia and end of term we put a choir together with volunteers. Then the engagement and quality is better.	Till Lucia och examen bildas en kör just för de tillfällena på frivillig basis. Där är engagemanget större och kvaliteten blir bättre. (Participant #142)

In sum, the results highlight the social function of singing in schools as an important framing factor in choice of repertoire and singing practices. This factor was found to promote the inclusion of traditional repertoire.

6.3.3 Ethnic national character of school song repertoire

Only 1% of the reported repertoire in the present study was of non-Western origin. Variation within this small selection was itself limited by teachers’ reliance on standard songbooks that offer few examples of pedagogical materials from other cultures. The framing power that popular songbooks can exert on repertoire selection was forcefully illustrated by the participants’ favoring of the Cameroonian song “Bele Mama”. Of the 28 songs of non-Western origin reported in the repertoire list, twelve of them were “Bele Mama”. The song was found to owe its notable dominance of the non-Western genre in Swedish classrooms to its inclusion in a well-known textbook, *Musikskatten*, published in 1997. Out of the 12 participants who named “Bele Mama” in the present study, nine of them listed “songbook” as their source for the material, with five of them specifying *Musikskatten* by name. This indicates the

impact textbooks continue to have on classroom practice, and a robust *songbook effect* underlying the prevalence of certain titles in classroom teaching. One possible explanation for the small and limited presence of diverse musical cultures in classrooms may be the continued reliance on older, traditional teaching materials. If greater diversity in singing repertoire and practice is to be achieved, a greater reliance on digital rather than printed repertoire sources may be an important step in overcoming tokenizing tendencies of selective inclusion.

Previous research in music education and related fields has established the strong historical association that singing in music education has had historically with nationalism both in Sweden and internationally (Bohlman, 2011; Hebert & Kertz-Welzel, 2012; Hoegaertz; 2014; Johnson, 2020; Kertz-Welzel, 2018; Lindberg, 2002). As Kertz-Welzel (2018) writes, ”The connection between music education and patriotism has always been a strong one” (p. 58). She continues:

> Often, patriotic or religious notions were the main reasons for introducing music education in public schools, as was the case in Germany at the beginning of the 19th century … Educating loyal citizens and fostering religious feelings through choral singing within the school community were the common justifications for music as part of the public school curriculum. (p. 58)

Globalization, as Kertz-Welzel (2018) argues, may be challenging national teaching traditions and require the adoption of a ”global mindset” or ”transnational and cosmopolitan approach” (p. 12) by music educators. Findings from the present study, however, suggest that in the case of Sweden, singing education continues to adhere in significant measure to its original function as a force for the invention and perpetuation of a unified national identity and national traditions within compulsory education. This repertoire tradition strongly curtails the presence of music from outside of the traditional Swedish and Scandinavian cultural sphere (including the music of new immigrants to Sweden) and also represses intra-national cultural diversity, notably in regards to the musical traditions of Sweden’s ethnic minorities.

Since 2000, the Swedish state has recognized five official national ethnic minorities: Tornedaling, Swedish-Finns, Roma, Jewish, and, most prominently, the Sámi indigenous people. Their minority languages – Sámi, Meänkieli, Finnish, Romani chib and Yiddish – are also accorded official minority status. The inclusion of music that is representative of the Sámi minority was adopted as a curricular goal in Sweden in 2011. This moves Sweden closer to Norway’s national curriculum, which has included mention of Sámi music since the 1990’s and states prominently that ”Sami cultural heritage is a part of Norwegian cultural heritage” (Ministry of Education and Research, 2017, p.7). However, of the 2,917 song entries within the present study’s repertoire list, only three were of Sámi origin. Seven songs had ties to Finnish culture. There were two songs – “Hava Naguila” and “Zemer Atkik” – of

Jewish origin, and no songs representing Roma or Torndaling. In sum, there is disappearingly little national ethnic diversity represented in current singing repertoire.

As Hebert and Kertz-Welzel (2012) write, nationalistic traditions in music education tend to enforce an "artificial view of heritage and tradition [that] largely neglects the actual musical diversity of cultural minorities residing in most nations" (p.175). In this way, minority cultures may be excluded from the ongoing shaping and communication of national identity within compulsory education, often, as in the case of Sweden's Sámi minority, perpetuating a history of oppression and colonialization (Kantasalmi & Seurujärvu-Kari, 2017). Hebert and Kertz-Welzel (2012) perceive a tendency for national systems of education "to not fully recognize and support the musical practices of ethnic minorities, particularly indigenous and immigrant populations, despite ethical and even legal obligations to protect the rights of all peoples" (Hebert & Kertz-Welzel, 2012, p. 175). These tendencies are reflected in the current singing repertoire of Swedish schools.

One intention of the design of the present study was to sample schools from both large and small population centers as well as regionally diverse schools to measure potential variation in the inclusion of diverse musics according to location: for example, possible inclusion of music sung in Arabic in cities such as Malmö and Stockholm with a significant presence of new immigrants from Arab-speaking countries, or the inclusion of Sámi music in schools from northern municipalities where Sámi have historical ties and a strong regional presence. Repertoire was, however, not found to vary by population center or region, further speaking for the dominance of a homogenous, national tradition.

Alan Lomax felt that supporting the diversity of the world's musical cultures against the imperialism of a dominating, Western commercial mainstream – what he called the pursuit of "cultural equity" (Averill, 2003, p. 239) – was an imperative for music research and education. In this, as in so many other aspects of his legacy, he was a pioneering figure whose writings may continue to inspire those who cherish traditional musics and understand their unique and irreplaceable value.

Some scholars have suggested that the presence of indigenous music in national curricula should be seen as a separate and stronger moral imperative than the need to include other forms of musical diversity (Archibald, 2011). While multicultural music education may aspire to better represent diverse music cultures in general, Archibald (2011) argues that special consideration should be given to inclusion of indigenous musics in national education programs:

> While music education philosophers debate values and ethical concerns associated with multicultural music education in general… they do not discuss the fundamental reality that First Peoples are original to the land or discuss the impact of colonization and the relationship of it to musical expression. (p. 49)

Archibald suggests the use of critical pedagogical theory in music education research to promote a stronger presence of indigenous music and fight embedded exclusionary tendencies of a ”system that has perpetuated racism” (Archibald, 2011, p. 77). The right path towards the broader participation of indigenous musicians and their music in music education has yet to be defined. Kantasalmi and Seurujärvu-Kari (2017) argue that the inclusion of Sámi culture within compulsory education must begin with higher education and teacher training, stating that ”such profound changes would require also indigenizing of the hierarchical top of the organization structure in national school systems, namely the university” (p. 118). Truly intercultural indigenous music education will involve change at the institutional level.

As the results of the present study indicate, there is a pressing need for reform if Sámi voices and those of other minorities are to be heard in classroom music education in Sweden. While music of non-Western origin represents such a small fraction of sung repertoire (1%), the exclusion of Sámi music is even more pronounced, with only three songs included in the 2,917 song total repertoire list (or 0.1%). According to these results, then, a Swedish grade four student is ten times more likely to be taught to sing along to a West African djembé than to a Sámi rune drum, despite Sweden’s Sámi minority culture boasting what is considered the oldest living vocal tradition in Europe and designated a UN World Heritage by UNESCO (1996) (Hilder, 2017). This invisibility is also in contrast to a rather strong presence on the national stage of well-known Sámi popular music stars in such as Sofie Yannock, Jon Henrik Fjällgren and Maxida Maräk. In sum, while the inclusion of World or non-Western music has made no significant inroads into classroom singing repertoire, it is a striking finding that the music of minority groups from within Sweden are even more neglected.

6.3.4 The balance between traditional, children’s and popular music

The present study found that middle school song repertoire could not be said to be dominated by contemporary pop and rock music; instead, the majority of music was drawn from a mix of popular music, children’s music, singer-songwriter and traditional music from several eras. Approximately two-fifths of the repertoire was classified as popular music. Lindberg’s (2002) study of *Skolradio* song repertoire (1934-1969) found that only 1% of the program’s material was popular music, noting that it was only in the final decade of the program that music associated with youth culture (she names the Beatles’ *Yellow Submarine* and *Yesterday* as examples) began to find their way into the national radio school song repertoire. This definition, however – predicated as it is on listening preferences of a certain age group rather than also on musical content – may be seen as somewhat narrow for the purposes of comparison to the present study. Lindberg chooses to employ another category – ”light classical” (*mellanmusik*) – to denote commercial music composed using

elements drawn from the late Romantic musical style, for example in terms of orchestration or harmonization, a style which could arguably be considered Swedish popular music of the 30's and 40's in a similar manner to Broadway and Tin Pan Alley music from the US or Music Hall music in the UK during the same period. This "light classical" category accounted for 33% of the *Skolradio* repertoire. Depending, then, on how one choses to define these genre categories, the repertoire prescribed in the 1960's and current classroom practice could be regarded as comparable in their relative proportions of popular music to traditional music.

Regardless of whether popular music occupies a similar space in classroom practice today as in previous generations or has grown significantly, it has not taken over as the dominant music of classroom singing instruction in Swedish elementary school. Rather, it was found that traditional music and children's music dominate current school song repertoire. This was also the case for *Skolradio* repertoire, where Lindberg (2002) found traditional music to account for 44% of the material. Where a large shift in classroom practice has occurred between the two periods described by these studies is in the relative prominence of classical music: in Lindberg's study, 21% of sung repertoire, in the present study, less than 1%. Divergence in how genre categories were defined in Lindberg's and the present study may account for a small amount of this disparity. Lindberg did not choose to delineate "traditional" Swedish singing repertoire in her study, whereas this has been judged relevant in the present study in order to study possible divergence in singing practices between newer music and music with established performance traditions. For this reason, a prominent song such as "Nu grönskar det" was assigned the category "traditional", despite having a melody based on a cantata by J.S. Bach with Swedish lyrics from 1933. In a contrasting example, the song "Papagenos sång", an aria from W. A. Mozart's opera *The Magic Flute,* was proposed by a participant and classified as classical. While both pieces have a clear connection to the genre category "classical", the connection to Swedish singing traditions was regarded as the defining quality for "Nu grönskar det", while "Papagenos sång" was considered not to have such a connection. In any case, while there may be some cases where a song's genre identity can be seen to overlap between categories, the present study's genre analysis accurately represents the nature of the material in general since it reflects the relative obscurity of the music of Bach or Mozart in this study's repertoire, "Nu grönskar det" excepted. Thus, the conclusion holds that there has been a large shift in repertoire selection from the *Skolradio* period to the present regarding the inclusion of classical music.

In attempting to relate findings from the present study to the historical development of classroom repertoire based on previous research, it is important to note that neither Netterstad's (1982) nor Lindberg's (2002) research is based on a study of actual classroom practice; they draw instead on teaching materials (songbooks and recordings). In this regard, the results of these studies may not be considered directly comparable to the results of the present study, but provide the

best available point of reference, along with guiding documents, for understanding current repertoire selection in an historical perspective.

The rapid disappearance of a formerly prominent musical culture from classroom practice may be considered a significant shift in pedagogical practice. This may in turn signal important social and cultural change in society at large. As Nettl (1995) argues, the question of what music and which composers are admitted into the core of culturally important repertoire is one that reflects dominant cultural values and social structures; a society's "central shared repertory" maintains its centrality so long as "their values and tensions are still with us" (p. 126). The historical association between classical music and the ruling elite has long kept classical musical practices close to the core of musical culture and has meant that classical repertoire has been highly valued and emulated. As Nettl (1995) writes, "The sounds of musical cultures meet by approximating classical ideals" (p. 109) in concert format, instrumentation, and performance styles. Nettl suggests that the paradigm of choral singing within the classical music tradition has had a particularly influential symbolic significance in Western culture, attributing to the SATB[13]-choir form a "homology with what became widely regarded as the ideal family – two parents, a son and a daughter, or at least a family with four distinct roles" (Nettl, 1995, p. 126). The metaphor of choir as family may be the origin of the Western system of classification of other orchestral instruments within "families", according to Nettl, who argues that "cultures of the world group their instruments in ways modelled on important aspects of their world views" (p. 121): in this instance, a social order based on hierarchy and division of labor. These aspects of hierarchical organization and the complexity of industrial societies are central to the ethnomusicological understanding of Western musical culture as articulated by Lomax (1968), Blacking (1972) and Green (2011). Classical music culture – with the choir "family" at its core – may be expected to reflect and symbolically represent not only ideals of harmony, love and collaborative effort, but also "anti-democratic values, conformity [and] rigid class structures" (Nettl, 1995, p. 42). As we have seen, critiques such as Day's (2018) describe the English chorister ideal of disciplined, pure, blended voices as representing an exclusionary, bourgeois, elitist ideal. Researchers such as Hoegaertz (2014) and Bohlman (2003) have argued that the classical children's choral vocal ideal of "the soaring sound of treble voices" (Hoegaertz, 2014, p. 16) has been strongly associated with nationalism in the previous two centuries. The turn away from classical music singing repertoire in school can be seen as striking considering its long centrality and meaning in Western culture; it may reflect a progressive reaction against such traditional "values and tensions" (Nettl, 1995, p. 126) as nationalism and hierarchical social structures seen to inhere in classical repertoire and musical culture. On the other hand, elements in

[13] SATB is an acronym for Soprano, Alto, Tenor and Bass, a common four-part singing arrangement, with the top parts in adult choir sung by women, the bottom parts by men.

repertoire selection such as the continued prominence of traditional music, the overrepresentation of domestic music, the continued exclusion of ethnic minority and immigrant cultures, and the tendency to favor older repertoire over more recent music point to a continued conservative and traditional drive in school singing practices.

6.3.5 The prominence of singer-songwriter music

The emergence of singer-songwriter music as a prominent genre of school singing is another significant finding that can be seen in part to represent conservative or traditional elements. As the genre is itself defined as Swedish, all of the songs originate in Sweden with Swedish lyrics. The focus on the national singer-songwriter tradition in this regard is another element reinforcing the dominant national character of the repertoire. Lomax (1962) also sees the solo singer or "bard" as a conservative figure; he argues that the bard epitomizes Western musical practices since the form implicitly replicates hierarchical structures through the dominance of the individual performer over the audience. It is "the main performance style of Western European folk song, where a lone voice dominates a group of passive listeners" (Lomax, 1962, p. 255). He continues:

> The leading singer commands and dominates his listeners during his performance. His association with his audience is, in sociological terms, one of exclusive authority, a principle model for conduct in Western European culture. (p. 259)

In this analysis emphasizing its ties to traditional social structures and national culture, the singer-songwriter genre can be understood as representing a conservative element in school repertoire. As Lomax has argued, a culture's favoured song style, "reflects and reinforces the kind of behavior essential to its main subsistence efforts and to its central controlling institutions" (Lomax, 1968, p. 133). In the case of the solo singer or "bard", the performer represents leadership of the one over the many, "pre-empting the communication space" (Lomax, 1968, p. 135) as the individual leading the masses.

While the singer-songwriter may indeed be conceptualized as a "highly individualized, group-dominating performance" (Lomax, 1968, p. 16) by Cantometric measurement, the genre might also be seen as an ambivalent or complex symbol of national unity, consisting as it does of the explicit individual authorship of the music, often accompanied by a distinctive performing style. In this regard, the emergence of singer-songwriter music may explain why the proportion of anonymous songs was found to be relatively small in the present study at only 16% of sung repertoire. In contrast, Lindberg's (2002) analysis of *Skolradio* repertoire found 25% of the programs' music to be anonymous. The prominence of music of unknown authorship in the *Skolradio* repertoire of the 30's to the 60's can be viewed as a vestige

of Sweden's earliest national school singing traditions, which co-evolved with the collection of regional folk music and the building of national institutions and identity. This music of unknown authorship – the folk music tradition consisting of "songs that nobody every wrote" (Rodnitzky, 1976, p. 1) – was seen as a key building block in the twin processes of nation building and the establishment of compulsory education in Sweden and Europe more broadly (Bohlman, 2010; Lindberg, 2002). The *visa* may be heir to the *volkslied* in the national imagination (see section 2.3). However, as the modern *visa* is implicitly associated with national traditions but with explicit individual authorship and commercial appeal, it may be considered as a genre with a distinct conceptual identity from the *volkslied*. In the classroom context, moreover, the solo singing style is appropriated for group singing, changing an important aspect of the music's performance context and thereby its Cantometric measure.

It may be the case that the modern singer-songwriter represents a distinct category from Lomax's "bard" in a number of important respects, at least in the classroom context: it's use in group-singing performance, the focus on individual style and expression associated with the particular performer, the political associations of 1960's artists such as Vresswijk and the counter-culture movements of the era, and perhaps not least, the commercial aspect of the genre from the middle of the last century to the present. The songs of the contemporary singer-songwriter are closely associated with their author, not least in commercial terms, with songwriting having become one of the modern music industry's most lucrative fields. These outwardly conflicting aspects of the singer-songwriter as popular music or symbol of collective and national heritage may serve as interesting directions for future study considering the genre's current prominence in school song repertoire as found by the present study.

6.4 Prescribed singing range

A tendency towards a somewhat low and narrow prescribed singing range is reported in the present study. A majority of songs sung went below middle C (61.2%); more than two-thirds (68.5%) of songs did not rise above C_5. The tendency to place songs in a relatively low range included transposing well-known traditional repertoire into lower keys relative to standard published versions. Prominent examples of traditional songs such as the national anthem, well-known hymns and Christmas music were found on average to be sung notably lower than in published versions and contemporary commercially broadcast performances. Teachers with music teacher education were found to be twice as likely than those without music teacher training to sing above C_5 with their students, but teacher education did not affect how much they sang below C_4. Beyond teacher education, the tendency to sing low was found to persist independently of other background factors such as choice of accompanying

instrument, teacher gender and age, school form, teacher experience, or genre (with the exception of school music and traditional music, which tended to stay above C_4 more often than other genre categories, and pop/rock, which tended to exceed C_5 more often than other genre categories). In sum, a strong tendency towards singing in a relatively low and narrow range was found. In Cantometric terms, this dominant singing culture can be conceptualized as the current singing style in Swedish elementary school music education and a central finding of the present study: *the school singing style*.

Previous research as described in the present study establishes that the average 10-11 year old possesses a two-octave vocal range (Schnieder et al., 2010; Welch, 2006; Goertz et al., 1990). Singing that avoids the head register can in this regard be understood as a choice not predicated on the physical limitations of the learner. As Hedden (2012) writes, "A mechanism is in place, but we must teach children how to properly develop and use it" (p. 354). The tendency to choose repertoire that avoids the upper register of children's voices and favor the lower extremes appears broadly dominant in findings of the present study over all genre categories, even extending to lowering well-known traditional repertoire as illustrated by examples presented in Chapter 5 (Figure 12). The prevalence of low singing could not be fully explained in reference to those variables measured in the present study.

Research has shown that singing both expresses and creates emotions (Coutinho et al., 2018) and that these emotions have been shown to be strongly bound to physical factors such as pitch, volume, and range. High pitch was found to be associated with heightened emotion such as joy, fear and excitement, with low pitch associated with states such as tenderness, sadness or anger. In this light, limiting the sung expression of young learners also excludes their experience of the physiological states attendant to the higher register and to wider singing ranges generally. As such, the singing practices described in the present study can be seen to set limits on both students' experience of certain emotions in singing and the opportunity to express those emotions through song.

With respect to those specific instances of traditional repertoire such as "Sankta Lucia" that rise above the low and narrow range in standard performance practice, the teaching of such well-known music in ways that deviate from standard practice is notable. The possible exclusionary effect for learners, where they are not educated within performance traditions, may be considered. That is, while students and their teachers in schools across the country are seen to participate in "Sankta Lucia" processions every December 13th, the present study shows that they generally do so without using the high vocal register – the "angelic" as Ashley describes it, or what Hoegaertz (2014) calls the "soaring treble voices" – of the classical music children's choir vocal ideal that it is associated with in its standard public performance.

When elementary school students are taught "Sankta Lucia" or "Nu grönskar det" in versions that deviate from the classical vocal ideals of traditional performance

practice, the implication may be that the high voice is reserved as the exclusive domain of more advanced or elite singers. These practices would in this manner be seen to perpetuate, perhaps implicitly, an ideology that elevates art music performance traditions beyond the skills or education of the majority. Chapman (2006) has noted the negative association between choral singing and elitism, stating that the perception of singing as "an elitist activity – for the talented rather than the community" (p. 1) has contributed to the weakening of singing's place in the general music classroom. Considering the exclusionary aspects of Western musical culture as described in the present study's analysis of ethnomusicological theory (Lomax, 1962; Blacking, 1972; Green, 2011), these practices would be seen to be consistent with a musical culture that has historically elevated a musical specialist class and discouraged broad participation in collective music-making. In Green's (2011) pessimistic view, formal schooling has tended to serve the perverse function of teaching that one cannot sing rather than providing the skills necessary to participate fully in singing traditions. In this way, schooling has historically "contribute[d] to the production and reproduction of certain ideological assumptions … which contribute to overall patterns of musical life in the wider society" (p. 207) where voices are silenced rather than raised in formal music education. Blacking (1972) states that because musicianship in Western society has traditionally not been seen as a universal, human-specific trait, "the majority of us live far below our potential, because of the oppressive nature of most societies" (p. 116). Here, the question raised by Green (2011) as to whether school singing practices invite or restrict broader participation in music-making appears relevant in considerations of prescribed singing range and standard performance practices. Children performing traditional music but without being trained in traditional performance practices may in this light be construed as a sort of half-way participation in national singing traditions.

While exclusionary tendencies in Western musical culture have been widely noted, this analysis would appear inconsistent with study results showing the broadly inclusive and supportive attitudes towards singing education advocated by the study participants. The majority of teachers surveyed in the present study report fitting repertoire to student tastes in order to achieve a high level of active participation from all students. The participants also list music's expressive qualities as an important factor in repertoire selection, with a majority of the participants favouring music that they characterize as happy and upbeat, again with the explicit aim of encouraging wide participation in singing activities, but also with the aim of giving students positive emotional experiences through singing. In sum, factors other than exclusionary attitudes towards singing and singing abilities would seem to be necessary to explain shifting prescribed vocal ranges as reported in study results.

Pitch has been hypothesized to be a structural element in the transmission of music (Savage, 2018; Olthof, 2015). The widespread capacity for latent absolute pitch suggests that the association between songs and their standard performance pitches is

robust (Olthof, 2015; Dalla Bella & Peretz, 2007). Both Lomax's Cantometric analysis (1968) and current research in the Psychology of Music (Stolarski, 2020; Friedman, 2018; Truesdale, 2018; Weusthoff, 2013; Huron, 2007; Juslin & Laukka, 2003) establish that the high and low extremes of the human singing range are associated with divergent emotional expression, and Lomax's theory connects vocal range to deep-seated social structures. As Rice (2014) has noted, the transfer of power between emperors in dynastic China was marked by the smashing of old instruments to establish a new reference pitch. From an ethnomusicological perspective, the instability of pitch in traditional music should be considered a significant musical change possibly reflecting underlying social changes. In sum, since pitch has been seen to be an important bearer of musical meaning with structural significance within musical cultures, evidence for a generalized trend towards sinking prescribed singing ranges ought to be considered as notable variation in national singing traditions worthy of further investigation.

6.4.1 DAP and lower prescribed singing range

The aim of adapting song repertoire to Developmentally Appropriate Pedagogical (DAP) standards may explain participants' lowering of prescribed singing range in some cases. It has been noted in several studies that children's songbooks of the past century were found to consistently place songs relatively high with reference to children's actual expected singing and speaking ranges (Leighton & Lamont, 2006; Goetz et al., 1990; Welch, 1979). Many practitioners and researchers within child singing pedagogy recommend taking children's mean spoken pitch and spontaneous singing range as a reference point for prescribed singing ranges, at least with inexperienced singers, suggesting a relatively low and narrow range from approximately C_4-C_5 or D_4-D_5 as a rule of thumb in the spirit of Rutkowski's "speech-to-pitch" strategy (Hedden, 2012; Goetz, 1990; Rutkowski, 1990). Adapting singing repertoire to suit their students' stage of singing development was cited as an important aspect of repertoire selection by many participants, and several cited the "C to C" range as an example of Developmentally Appropriate thinking for their age group.

Consideration for keeping music within accepted DAP ranges could account for why the majority of participants chose to lower "Nu grönskar det" from the key of F to the key of D, as this results in a sung range of D_4-D_5. It does not seem to account for the other three examples cited in Section 5.5.3 above, though, since they already lie roughly within the DAP parameters in their standard keys; instead, moving them downwards results in their transgression of the lower boundaries of what is commonly invoked as DAP range. It is also uncertain how widespread knowledge and use of DAP singing theories could be expected to be in the study sample since less than half were trained in a music teacher training program. For these reasons, DAP

considerations appear to be an incomplete or inadequate explanation to account for low prescribed singing range.

6.4.2 Teacher education and singing range

Relevant teacher education was found to increase the likelihood that a teacher would sing higher with their students, but had no significant effect on how much teachers sang low with their students. That is to say, teachers with more professional training tended to use a wider prescribed singing range with their students: a range that was both relatively high and low. This is also the case with prescribed singing range of participants from music enrichment schools although the association between school form and singing range was not found to be significant, perhaps because of the relatively small sample size. A comparison of music enrichment program singing range versus the total survey population is presented in Figure 15:

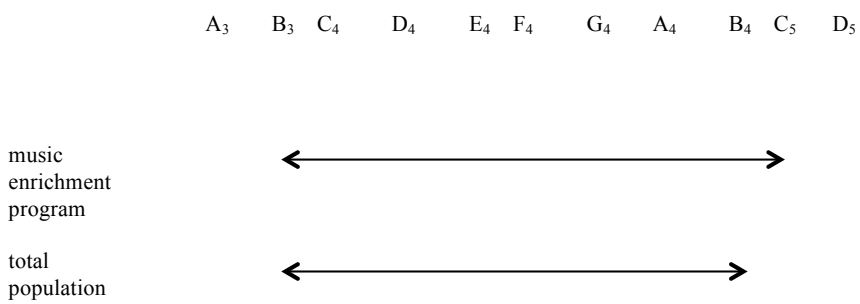


Figure 15
Prescribed singing range, music enrichment program, total

As reported in the present study, less than half of teachers of grade 4 had received teacher training from a music teacher education program, while a quarter of participants reported no relevant professional training at all. Accordingly, these results may be taken as evidence for the significance of teacher education in terms of variation in teaching practices and standards. However, teacher education did not mitigate tendencies to sing low with students. Teachers with or without relevant training tended to place a majority of sung repertoire in ranges that descended below middle C, including schools with elite focus on music. This suggests that low singing is widely regarded as correct practice by both expert teachers and students.

6.4.3 Lower prescribed singing range outside classroom practice

A tendency for traditional songs in Sweden to be transposed downwards in recent publications compared to older publications – for example the most recent edition of the national Hymn book – has not been systematically studied in a manner that could be directly comparable to the current study's data. A cursory survey of some prominent examples from this study's repertoire list does suggest such a trend: for example, the national anthem is published in A major in *Sjung nu, Svenska folket* (1958), G major in *Sångboken: vår gemensamma sångskatt* (1986), and sung in F major by this study's participants; the song "Nu grönskar det" is published in F major in the Swedish Hymn book (1937) but appears in D major in *Sångboken: vår gemensamma sångskatt* (1986). Counter examples, however, can also be found in the same sources, with "Nu tändas tusen juleljus" published a whole tone higher in *Sångboken: vår gemensamma sångskatt* (1986) than in the Swedish Hymn book. A systematic study of several sources would be necessary to determine how and why prescribed singing range outside schools may be changing over time and how this might be seen to correspond to changes in school singing practice; taken on their own, however, the present study's findings of shifting singing ranges may be taken as notable in light of the importance of pitch levels as an important structural element and independent bearer of musical meaning (Bartlette, 2015; Friedman, 2018; Olthof, 2015). A pronounced shift in standard performance pitch of well-known traditional music may in this way be seen to constitute a notable change in national singing practices.

6.4.4 Popular music and singing range

Popular music was not found to be associated with lower singing range relative to other genres. The prominence of contemporary popular music was in this way not found to be a contributing factor for the lowering of prescribed singing range. On the contrary, this study found that pop/rock music was more likely to exceed C_5 than other genres. One explanation for this association between pop/rock and higher singing may be the prominence of wider vocal ranges relative to other genres due to typical stylistic features of the genre. Several pop/rock entries in the repertoire list have a notably wide singing range, employing a songwriting structure that has the chorus melody jump an octave higher than the verse. Many of these songs represented in the repertoire are even explicitly marketed towards children, such as "Let it go" (2013) from the Disney movie, *Frozen*, and Swedish artist Laleh's "Goliat" (2013). Laleh's "Goliat" was a hit song the year it was released in Sweden and reported by 17 participants. The range of transcriptions reported by study participants of this song are represented in Figure 16, where the broad red line represents the original range of $F^{\#}_3$ to $C^{\#}_5$ of the original recorded key of $F^{\#}$:

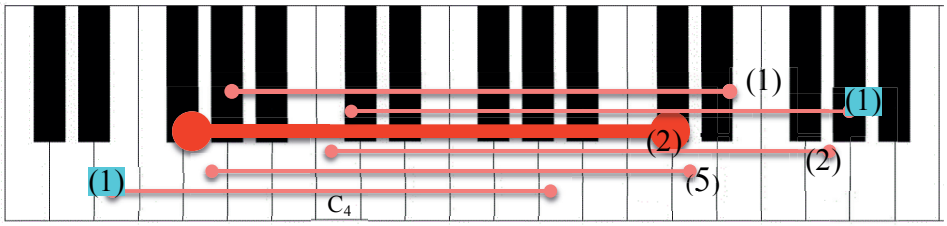


Figure 16
Prescribed singing ranges: "Goliat"

Only twelve of the participants provided enough information to analyze tessitura. Of those, two reported using the original key. The highest and lowest transcriptions, indicated above in blue, may be considered outliers as they deviate significantly from average prescribed range; underlying these two transcriptions may be a rearrangement of the melody to fit within a smaller range. The most commonly reported key was G major, representing a transposition upwards of a semi-tone, with a total of six proposed transpositions reported. With six unique keys proposed out of ten examples, this example suggests that there was little consensus among participants concerning effective transposing of this type of song material.

While there were fewer cited uses of "Let it go" (n=5, with only 3 participants providing key), the three reported singing ranges were very close to each other and to the original performance key (A^{b}):

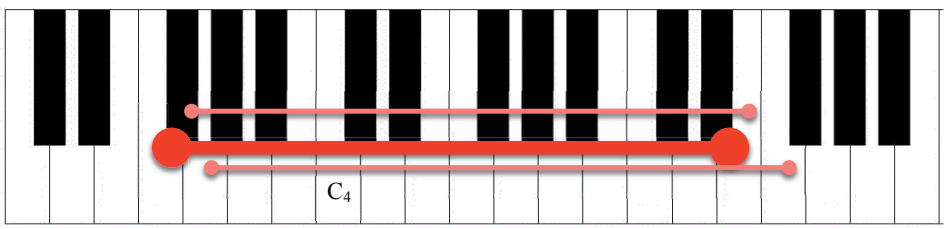


Figure 17
Prescribed singing ranges: "Let it go"

The range of "Let it go" is close to two octaves and a minor third wider than "Goliat", making possibilities for transposition more limited. Nevertheless, they can both be said to represent a common type of contemporary songwriting style typified by a wide singing range suggesting contrasting vocal performances within the same song. This song type poses clear challenges to teachers and students and even professional singers. Seen in familiar examples such as Nirvana's "Smells like teen spirit", Adele's "Hello" and a hallmark of much of Laleh's songwriting, this verse/chorus contrast in

modern pop requires a feeling of two contrasting song registers or 'voices'. The low verse is often delivered in a breathy, confidential tone, quietly and sometimes as a whisper, with the chorus emerging in a loud, proclaiming voice, often with elements of overdrive such as raspiness and belting effects. In terms of both the adult female and child's vocal range, it is the lower range of the verse rather than the higher range of the chorus that lies at the extreme end of average vocal range.

The style of performance for the songs in question is arguably predicated on microphone technique, as well as modern recording tools such as compression. In both of these examples, we see that teachers have generally attempted to move the range upwards rather than downwards. This might be interpreted as an attempt to capture the urgency and power required to portray the sung emotions of the original recordings by avoiding the lowest part of the register where projection and power is difficult. Beyond using a microphone and studio recording techniques, however, recreating the drama of the combination of low verse and high chorus is difficult. Here, the humachine (Danielson, 2010) of popular music practice must be translated to the human voices of children's choir in the classroom setting. As Fagius (2007) has noted, these efforts present specific and important difficulties for teachers and students. This study serves to illustrate how these challenges are currently being met by music teachers and students.

6.4.5 Prescribed singing ranges for child performance in popular and children's music

An element of complexity in the present question of how popular music is adapted to classroom use is the tacit understanding that such music is almost never sung by children or children's ensemble in its original version, but rather by adults. In those exceptional cases where children are featured in popular or commercial children's recordings, a low and narrow range may often be found. As a touchstone familiar to most readers, Pink Floyd's "Another Brick in the Wall" (1979) prominently features a children's chorus with a low, narrow range (D_4-A_4) and subsequent heterogeneous, spoken-voice timbre. The song is part of a rock opera about totalitarianism and social isolation, and the children's low, narrow performance arguably contributes to the overall angry and menacing tone of the recording.

Turning to the current study's repertoire list, a similar range to "Brick in the Wall" is found in the example of Timbuktu's "Inte stor nog", performed by the voice-over child actors of the *Alfons* movie (2013). The rendition is placed in B major (B_3 to B_4), and because much of the song remains within the first three notes of the scale – similar to "Brick in the Wall" structure – the performance is particularly low, giving a spoken and heterogeneous quality to the performance, with a clear separation of the three characters' voices heard. In contrast, the version sung by Timbuktu himself is performed a sixth above in G major. For the adult male voice, this places the verse in

a comfortable midrange, with the lift in the chorus pushing towards the top of the tenor range, arguably another example of the verse/chorus two-voice style discussed above. In other words, the song was released with two very different vocal performances. This confusing presentation can be seen to be reflected in participants' ambivalent use of "Inte stor nog" (n=5) in the present study: two teachers adopted the adult key of G major, one participant placed the song in B^{b} (a half step lower than the children's recorded version), while yet another participant tried D major, a transposition that adapts the singing range to a more conventional D_4-D_5. When children's choir was added to "Det kommer bli bra" by Laleh for a national television performance (2020), the part written for the choir held between $C^{\#}_4$ and A_4, a performance also conforming to a spoken and heterogeneous vocal ideal. A third noteworthy example of a popular recording with a child singer figuring prominently in the repertoire list of the present study was "Tomten jag vill ha en riktig jul" (n=17). The relatively wide vocal range of a tenth is placed at the low extreme for the verses in G major (G_3-B_4), once again rising to the song's high note in the chorus about an octave above the verse. The song presents a rather compromised singing range at both ends, where the high note (B_4) is not relatively very high for the child's voice, while the singer's struggle to intonate the lowest notes of the melody in the recorded version is palpable. In the classroom use described in the present study, a majority of participants providing key signature information (n=13) chose to place the song in this original key, falling well below C_4 for much of the song. Several tried raising the song, with ranges of keys from A ♭ to C major. In total, there was a range of five different suggested keys among the 13 responses: a high rate of variation.

Not all recent recordings with children's voices fit the low and narrow paradigm. A prominent example of a wide and high range is found in the 2015 hit song "Elektriskt" by Markus and Martinus, which is sung in the original from D_4-F_5. In the present study, three participants reported singing it in the original key, while one moved it down a fourth to A_3 to C_5.

While these analyses of examples where recorded performances of child singing can be referenced to data from the present study aren't meant to be generalized, they can be said to represent current vocal ideals with an established presence in contemporary commercial music. This vocal ideal is characterized by a somewhat low and narrow prescribed singing range imparting a spoken, unpolished quality to vocal performance, varying intonation and a heterogeneous blend of voices (when performed in ensemble). Such a description could also be applied to "Ida's sommarvisa" by Georg Riedel (1973), a final example of this performance type drawn from the present study's repertoire list. Like "Tomten", "Idas sommarvisa" places the melody for the verses within a low, narrow range, with the chorus ascending no higher than B_4, giving the commercial recording a spoken, unpolished quality, with varying intonation. In the present study, the participants showed strong consensus as to prescribed vocal range consistent with the commercial performance, with 18 of 21

responses choosing to perform the song in the original D major of the recording. In contrast to the typically wide range of variation among participants' prescribed ranges for songs that exceed the low, narrow paradigm, participants' responses for "Idas sommarvisa" suggest a strongly shared common understanding of how they want this piece to sound with their students.

The kind of tessitura and performance in "Idas sommarvisa" (published in 1973) is typical of this period of Riedel's collaboration with Astrid Lindgren, where they composed music for her children's books characters such as Emil from Lönneberga and, most famously, Pippi Långstrump, whose theme song and "Summer song" also feature the same, declamatory style of unpolished singing. One might call it the "Pippi" vocal ideal. These pieces of music and their "Pippi" vocal ideal are now nearly half a century old and well-established within school singing traditions. Indeed, "Idas sommarvisa" is arguably as strongly associated with end of term concerts as the 320 year-old "Den blomstertid nu kommer". It would follow that the vocal ideal associated with this now standard children's repertoire has also established itself as an accepted singing style both in schools and in commercial performance.

While it has been shown that background factors such as Developmentally Appropriate Practices (DAP), teacher education and genre could not adequately account for lower prescribed singing ranges, a dominance of the low and narrow singing style outside of the classroom – in popular children's music and contemporary popular music – may be considered to explain study results. That is, lower vocal range can be understood as a rival singing style that is revealed in the findings of the present study to be competing with earlier vocal ideals for traditional repertoire among a majority of teachers in current singing practices. This analysis will be developed in the following section in reference to examples of sinking prescribed singing ranges found in the present study's repertoire.

6.4.6 Rival singing styles and acculturation

Returning to the four examples of prominent traditional songs with sinking prescribed singing ranges – "Du gamla, du fria", "Sankta Lucia", "Den blomstertid nu kommer", and "Nu grönskar det" – we see a pattern of lowering prescribed vocal range which is consistent with this study's finding of a general trend towards lower singing overall across the repertoire selection. On the other hand, an examination of the spread of participants' responses shows that for many songs there is a wide spread of suggested prescribed singing range. This lack of agreement may be taken as evidence for the co-existence of rival vocal ideals or singing styles. In other words, the study findings capture a detailed picture of Swedish school singing traditions in flux, characterized by strong variation between individuals and a lack of common understanding between music educators and between students. The music classroom in this analysis can be seen as a conflict zone between rival singing styles with

individual teachers choosing to set the same shared repertoire in opposing singing styles.

Looking at this conflict in specific examples, in the arrangements of "Sankta Lucia" there were a total of six unique transpositions proposed by 23 participants: a high rate of disagreement and variation. While the majority placed the song lower than commonly published versions (G rather than $B^{\flat}$), one participant performed the song in $D^{\flat}$, the key often performed by elite choirs in national broadcasts (see for example the Adolf Fredrik youth choir (Westergren, 2014). In other words, while one teacher placed the song in a range for the "soaring sound of treble voices", others placed it in the range of "Idas sommarvisa" and Pippi Långstrump ("Idas sommarvisa" in its original key and "Sankta Lucia" in G have an identical range of A_3 to B_4). Similarly, with "Nu grönskar det", while most of the 28 participants placed the song lower than published versions, one participant placed it in G, the same key that the Adolf Fredrik boys-choir performed "Nu grönskar det" on national television in 2014 (Nyhetsmorgon, 2014), and two participants reported placing the song in F major. The national anthem had a total of seven suggested keys, from C to $B^{\flat}$ major, while "Den blomstertid" had five suggested keys. In other words, while the overall tendency is towards a lower prescribed singing range, the range of suggested keys reveals a lack of unanimity and strongly contrasting or rival interpretations of how the music is meant to be performed.

Where a "Pippi" vocal ideal is preferred by the majority of participants for "Sankta Lucia" and "Du gamla, du fria", for example, there is a minority maintaining the "soaring treble" vocal ideal in their classrooms. The same tendency can be seen if we look again at the example of "Goliat" (Figure 16); the majority of responses cluster around the lower range starting on G_3, but a smaller cluster of responses can be seen around C_4, suggesting a contrasting performance in a typical "soaring treble" register.

In cases where the standard prescribed singing range is low, in contrast to the above-named examples, prominent traditional songs that do not rise higher than C_5 were found to maintain their standard key with broad consensus among participants. These findings are consistent with previous research indicating the robust nature of standard performance keys (Dalla Bella & Peretz, 2007) and can be seen to support the argument that it is the upper range that is the underlying basis of teachers' diverging practices. For example, "Nu tändas tusen juleljus" (C_4-C_5) was sung on average in the standard key of F (with F also as the mode with 16 out of 30 participants), "Änglamark" (C_4-C_5) was sung in the standard key of C (all seven participants), and the previously mentioned "Idas sommarvisa" was performed in the standard key of D (18 out of 21 participants). This pattern was also found to hold for prominent popular music examples such as "Jag hade en gång en båt" (original range: A_3-A_4). However, participants showed strong consensus in performing "Sommaren är kort" in its original key (D major: 19 out of 21 participants) despite the song going as high as D_5 (range: B_3-D_5). And in the case of the most popular song of the school

year, participants actually chose to sing "Brev från kolonien" a whole step up from its original key (from F major, A_3-B^b_4 to G major, B_3 to C_5). These counter-examples aside, the strong association seen between standard traditional repertoire and performance pitch is seen to hold in those cases where the prescribed range is low but not where the prescribed range is high. This would suggest that use of the upper register is the significant variant being selected by a subgroup of teachers and their students, but avoided by the majority of teachers and students. This would suggest that the upper register is a zone of competition between rival interpretations, with the lower vocal ideal being favored regardless of a song's genre or performance tradition.

Understanding contemporary classroom singing practices as characterized by a rivalry between traditional, classical singing style and singing style from popular music and children's music accounts for several findings in the present study. That popular singing style is overtaking traditional singing style is consistent with this study's finding showing the dramatic disappearance of classical music as a sung genre in school repertoire. It would also explain why music from diverse genres tended to be sung in the same way. Finally, this analysis also serves to explain the variation in prescribed singing range between traditional music and popular music genres, where the former was seen to be less likely to descend below C_4 than the latter. In other words, the results of this study suggest that lower prescribed singing ranges are developing as a result of acculturation of traditional music into popular music styles, with the emergence of a single, dominant school singing style from conflicting vocal ideals.

As Folkestad (2006) has argued, there is no point in debating the existence of popular music in the classroom as it is already there, brought in by both teachers and students and mixing with more traditional repertoire. What the results of the present study are able to shed light on in a novel way is how these competing singing styles may affect each other and affect singing culture in school contexts. Savage (2018) has suggested that this "microevolutionary" level of musical change, where individuals are seen in conflict (or "competition" to use evolutionary terms) over musical practice, is especially relevant for ethnomusicological research to better understand musical change and the mechanisms that underlie transmission within musical cultures. Savage (2018) states, "The role of the individual musicians in this process and their relationships with other actors are in fact central to understanding the cultural evolution of music" (p. 7). The wide disagreement displayed by teachers on the issue of appropriate transposition may be interpreted as evidence of such microevolutionary changes in singing practice, where teachers' divergent choices are seen as "individual agency in musical evolution" (p. 7). The present study's data also suggest that one of the singing styles – the "Pippi" style – has come to dominate over the other, classical style, although the older rival style continues to exist and compete for prominence. Taken together, these results suggest a period of transition in singing culture, where a

shift or evolution from one dominant style to another is in progress both in terms of singing repertoire and singing practices.

The concept of acculturation may be usefully applied to understand the underlying processes of musical change observed in the conflicting musical interpretations within the present study's observations. Here, a new song style is found to be successfully competing with a traditional song style, resulting in evolving musical tastes and practices. As in Lomax's (1959) example of the shared repertoire of American Blues and Bluegrass song styles, one and the same song is interpreted or re-interpreted within contrasting singing styles. In the case of American traditional musics, however, these styles were separated by social and cultural estrangement, permitting the co-existence of rival singing styles in distinct populations of singers. Here, in the classroom, the same Cantometric theory of singing style would predict the emergence of a single dominant singing style. As Lomax argues, within one and the same musical culture, fewer than three song styles tend to co-exist, usually with one dominating the others (Lomax, 1962, 1968). In the findings of the present study, a dominant school song style has been discerned, with music of all genres tending in general to be performed within the same low and narrow range. There is, however, evidence of the continued presence of the submerged classical singing style proposed by a minority of the participants. In this microevolutionary conflict between rival singing styles, the teachers impose their favored singing style on the sung material in some measure regardless of its genre: in the majority of cases "Sankta Lucia" is sung in a vocal register associated with popular style, in a minority of cases "Goliat" is sung in a vocal register associated with classical style. Individual teachers choose their preferred style as the correct or normative mode of vocal performance, leading to variation; on a collective level, one style is seen to dominate. The implication of these findings is that what sounds right for one teacher sounds wrong to another, and vice versa. Looked at from the population level, these individual actions can be seen as part of a collective evolution in musical tastes, where the understanding of what sounds correct and what sounds incorrect is in flux and being determined.

Lomax (1968) argues that we are keenly aware of the social correctness of our choices as singers and are loath to deviate from the practice that is understood as proper in the eyes of the group:

> The most important thing for a person to know is just how appropriate a bit of behaviour or communication is, and how to respond to it appropriately. Everyone in a culture responds with satisfaction or ecstasy to the apropos, and with scorn and resentment to the unseemly. (p. 12)

In the case of competing vocal styles, the teachers in the present study can be seen as agents of musical change, with the diverging transcriptions of the repertoire understood as those variants which may be selected or rejected as dominant musical practice. In this analysis, "Lucia" in G major is no less correct *per se* than the version

in B♭ or D♭, or, rather, its correctness is precisely what is subject to the destabilizing evolutionary processes underway in conflicting classroom practices. Just as low and narrow commercial performances such as "Another Brick in the Wall", "Inte stor nog" or "Tomten jag vill ha en riktig jul" both reveal and reproduce a dominating popular singing style, so too the consistent reproduction in performance and instruction of low versions of sacred and traditional melodies may contribute to the shifting of musical tastes in school singing repertoire and practices. When a song is acculturated into a distinct singing style, it is no longer considered incorrect, but rather correct by the standards of that new style.

As Lomax (1962) has suggested, acculturation may be expected to occur when a new element can find a meaningful place within the structure of the existing dominant culture. It is this level of analysis, where the ties between social and cultural meaning and specific singing practices is to be discerned, that is both essential but also relatively underresearched and little understood (Harrison, 2014). The "bearings these influences have on the sound qualities of the voice" (Harrison, 2014, p. 6) define and delineate singing styles, but research has "established little concerning the relationship between singing, vocal ideals and the society it originates from" (Harrison, 2014, p. 6). Savage (2018) argues that analysis of microevolutionary processes – such as that of the present study – may shed light on this aspect of singing culture and processes of musical change. Lomax's theory of dominant singing style can provide a framework for interpretation of the meaning of such musical change.

As seen in the analysis of the nature of school repertoire, there are strong conservative tendencies maintaining a base of traditional, national repertoire in school singing practices. At the same time, progressive attitudes toward singing have evolved to embrace child-centered and inclusive attitudes towards singing pedagogy and singing repertoire. In this context, the adoption of vocal ideals from children's and popular music to traditional choral repertoire might be hypothesized as a functional solution for resolving tensions between renewal and tradition within school singing practices. The tradition in this interpretation is maintained but subverted – in Lomax's words, "submerged" (Lomax, 1962, p. 255) – with the song now expressing a "new set of emotional needs" (Lomax, 1962, p. 246). The high register singing from one style of music is replaced by the low register singing from another style of music. It is in this context that the school singing style may be interpreted as being predicated on underlying social changes or as a critique of dominant social structures and cultural practices.

6.4.7 Dissociation from classical vocal ideals

Previous research has stressed associations between head voice, classical music, nationalism (Hoegaertz, 2014), and upper class ideals (Day, 2018). As Day (2018) points out, the relatively recent 'invention' of the English Cathedral Boy's Choir vocal

ideal was from its inception at the beginning of the 20th century a marker of social class and in many regards an exclusionary practice (Day, 2018). Lomax (1968) associates the high voice with the discipline and rigid hierarchy of modern industrial society, arguing that pre-industrial societies with more egalitarian structure tend to have singing styles marked by a high degree of "vocal empathy" or "vocal solidarity", the seamless blending of individual voices into a homogeneous sound – and "vocal width" – a preference for singing in a relaxed manner close to spoken pitch. In these analyses, repertoire using the voice's higher register is seen as taking on the negative "values and tensions" (Nettl, 1995, p. 126) of exclusionary social and musical practices.

While ethnomusicological perspectives as presented in the present study have tended to focus on a critique of negative aspects of modern industrial society and its musical norms, classical music and its attendant vocal ideals also have associations with such positive images as the sacred, the innocent, and ideal collective organization. As Lilliestam (2006) states, classical music is commonly portrayed in Western culture as imparting positive moral and health effects: "These effects hardly need to be confined to the spiritual but rather are often presented in terms of concrete effects, even if there is often a subtext of idealistic thought in these analyses" (p. 257). Nettl (1995) has argued that the four-part classical choir has been taken as a symbol of the perfect family. Suzuki (1983) argues that classical music is a world heritage that all children should have the right to participate in.

While Lomax (1968) often strikes a critical tone concerning the dominant musical culture of his own cultural sphere, he also suggests that Western classical music embodies transcendent democratic ideals. Lomax (1962) characterizes the choral traditions of Western art music as a sort of dialectical return to the collective ideals voiced in pre-industrial societies. He argues that the vocal empathic style epitomized by Pygmy culture is found again in the classical traditions of art music's common performance era. Lomax (1962) states, "The only parallel [to Pygmy vocal empathy] in our coding system is found at the peak of Western European contrapuntal writing, where again all the separate interests of a variegated musical community are subordinated to a desire to sing together with a united voice about universal human values" (p. 258). This is the image of the classical choir Bygdéus (2015) describes as "an example of perfect human togetherness" (p. 24). The "multiple, blended voices" (p. 136) of the children's cathedral choir – the pure, well-blended tone of the high register – holds a firm association both with the sacred and with this picture of perfect, harmonious co-existence. Ashley (2014) describes this as "something akin to folk religion" (p. 136). In other words, the "soaring sound of treble voices" is an ambivalent symbol in Western culture, representing both positive and negative aspects or perspectives on the society in which we live. Nettl (1995) refers to this ambivalence as the "values and tensions" (p. 126) inhering in the culture's standard collective repertoire. He argues that music not only reproduces the social organizaton

it emerges from. It has instead the ability to reflect both the good and the bad that inheres in a social order. As such, music – like all art – can act as a commentary on society, to "reflect, contradict, parody, exaggerate, soften and idealize the stuff of everyday life" (Nettl, 1995, p. 8). He continues, "A music with sharp social distinctions may reflect such a social system or it may only remind us that the social system contains the seeds of inequality" (p. 9). According to this analysis, it is unsurprising to find a musical element such as the high, angelic vocal range bearing multiple, at times contradictory meanings within a given social context. Nor would it be surprising to find that it is an element that is employed in divergent ways by individual agents within the same musical context, such as this study finds with teachers and classroom singing. Nettl's (1995) study of the music conservatory found the academy to be "a venue of both convergences and collisions" (p. 111) between competing musical styles. The present study finds a similar conflict played out in the general music classroom.

That the values and tensions represented by traditional singing repertoire and its attendant vocal ideals may be seen to be challenged by current classroom practice is evident in the waning place of classical music as a genre in singing education in the compulsory school. The classical ideal is also challenged by the emergence of a school singing style that tends to be low and narrow, including performances of traditional music that avoid the high vocal register by transposing songs downward from standard keys. In light of these analyses, the territory of singing repertoire and practices mapped in this survey is one characterized by a notable ambivalence towards national tradition. Traditional music of ethnically homogeneous national origin dominates repertoire, but there is little consensus as to which specific songs that repertoire should include, with a small overlap of music between classrooms. School children continue to sing standard traditional songs, but in lower versions that submerge or subvert their cultural significance. That a pattern of opposing interpretations of the same repertoire is seen to exist in contemporary school singing practice may be taken as evidence for a period of instability or transition in school singing practices.

6.5 Limitations of the present study

The present study has undertaken to map singing repertoire in Swedish schools on a national level. In order to achieve this, a national survey was conducted with teachers asking the participants to describe their work with students over the course of one school year (2015-16).

To the best of my knowledge, this survey is unique in scope and subject, meaning that methods for execution of the present study have been developed without reference to similar previous studies. Similar studies in related fields and standard

current survey best practices have been followed where possible to ensure validity and minimize sources of survey error.

The survey was limited in its scope by several feasibility concerns. In order to achieve a representative picture of singing practices in elementary school overall, several grades would need to be surveyed. This was deemed unfeasible, as it would require those teachers teaching several grades at the same school to fill in the same survey more than once, making an already long questionnaire untenably difficult for participants. As such, while results may be understood as having a bearing on the more general question of singing repertoire and practices in elementary schools, the results represent specifically practices in grade 4.

A survey was deemed the best possible method to achieve a nationally representative sample. Collecting data by direct observation would not have been feasible by a single researcher within the scope of a doctoral research project, where the aim was to generate data that was generalizable to the larger population of Swedish music teachers in order to perform both descriptive and inferential statistical measurements. The questionnaire as measurement instrument, however, by its nature provides the participants' reported behaviours and attitudes rather than direct observation. Data for the present study is thereby the teachers' own account of their singing practices.

6.6 Implications for pedagogical practice

William Byrd (1588) famously reasoned that everyone should be taught to sing because this was the only sure way not to miss out on discovering those who were truly gifted singers. He wrote, "It is the only way to know where nature hath bestowed the benefit of a good voice: which gift is so rare as there is not one among a thousand that hath it" (McCarthy, 2013). A philosophy of singing education that takes seriously the challenge of "every child a singer" (Phillips, 2014, p. 49) recalculates this rarity by several degrees of magnitude: each unique human voice a treasure not one in a thousand, but rather one in eight billion.

It would be unfortunate if the evolution of nurturing attitudes towards children's singing witnessed in the present study were left unfulfilled because teachers were not given the necessary tools and education needed to help their students achieve their potential and realize their musical aspirations with regard to singing. As Heddon (2012) states, children have the ability to learn to sing in a wide array of styles and contexts, if given the opportunity. Teachers in the present study who had a music education degree employed a significantly wider prescribed vocal range. Recent initiatives such as England's *Chorister Outreach Program* (2008-11) provide strong evidence that elite singing traditions – if educators wish to maintain them – are within the reach of all students and possible to achieve within compulsory education,

given adequate teacher education and a nurturing, compelling learning environment (Ashley, 2014; Welch 2009). The results of these studies and initiatives point to the effect teacher education can have on singing instruction. That such a large proportion of teachers in elementary school have not received relevant training is therefore an important observation.

Of the many criteria reported by participants for choosing singing repertoire, a significant omission was the issue of vocal ideals. Teachers are nurturing young singers – raising voices – while making aesthetic choices about how those voices can or should sound and which singing styles and musical cultures find expression in the classroom. These choices may have repercussions both in the classroom for young learners and beyond the classroom for the perpetuation and renewal of national singing traditions and musical cultures. While the participants in the present study named expression as an important consideration in repertoire selection, they were largely silent on how they wanted their students to sound. The question of vocal ideals and singing styles may be an important area to highlight and develop in teacher education and classroom practice to enrich singing instruction and permit learners a wide range of musical expression. In the case of performing traditional repertoire, this may be necessary to give students the tools they require to actively participate in traditional singing practices. A deeper awareness of the physical grounds for emotion in song, expression in singing, and contrasting vocal ideals may be an area to develop within music education in order to build awareness of the potential of singing education for helping young learners express themselves widely and freely through music. In this way, educators may more fully "match our educational programs to the capabilities of the children we teach" (Welch, 1979, p. 13), thereby fulfilling the vision of the emancipated child's voice first envisaged by the pathbreaking voice research of the second half of the previous century.

While recent developments in our systematic knowledge of the voice and voice development can inform singing education, they address only one side of the issue of vocal ideals and didactic approaches. The other half are the social and cultural connotations of diverging singing styles and the aesthetic choices that underpin what and how vocal music is taught in schools. As Harrison (2014) states, "The research in voice sciences can identify biological and acoustical attributes of the vocal mechanism but it still cannot tell one how to teach" (p. 4). Current empirical research can reframe didactic questions to some degree, but there are still many more questions to be asked of the relationship between singing, vocal ideals, school repertoire, and the society it operates within: the ethnomusicological perspective on classroom practices. In many instances, these questions may engage teachers as the musicians whose agency in the classroom must negotiate issues of social values, inclusion, and national identity.

The enduring significance of school singing as a source of national identity is an observation from the present study that may be developed to the end of broadening

who and what cultures the nation encompasses within its musical identity. The question of how all people can be best represented by singing traditions in schools is an important and relevant one. The low prevalence of indigenous and other national minorities musics can be seen in light of this study's findings as an area for renewed focus and engagement.

A Cantometric outlook on singing practices suggests that including diverse singing traditions in the classroom can provide the child with not only a wider range of musical knowledge but more importantly a wider range of expression. That living vocal traditions both within and outside of the Western European cultural sphere could provide the student with a wider experience of "vocal empathy" or "vocal solidarity" may be a compelling rationale to sustain and broaden participation in traditional singing cultures through formal education. Again, reforms in teacher education and teaching resources may be necessary to support culture bearers, teachers and learners in this endeavor.

That new repertoire, vocal ideals and singing practices are evolving in the Swedish school must not be taken to imply that older traditions are bound to be abandoned or ought to be abandoned. Nor is it the place of this study to make such judgements. The aim of the present study has been to map singing repertoire and practices and to build knowledge about what factors may be seen to govern this historically important aspect of classroom music education.

"Perhaps by establishing that musicality is a universal, species-specific characteristic, we can show that human beings are even more remarkable than we presently believe them to be – and not just a few human beings, but all human beings."

– John Blacking

7. Directions for further research and concluding remarks

The present study has assessed singing repertoire and singing practices in Swedish schools. It has in terms of its aims, methods and scope been exploratory in character. As such, there are many possibilities for further research that could build on its findings. Some avenues for such studies will be proposed in the following section, followed by a short conclusion.

7.1 Directions for further research

The findings of the present study suggest how more knowledge about contemporary vocal ideals – how students and teachers want their singing to sound – could inform singing education and build understandings of how musical culture is represented, reproduced, and challenged in formal music education. A qualitative study of student and teacher attitudes could take the present study's quantitative assessment as a starting point to develop a clearer understanding of vocal ideals and conflicting singing styles both in and outside of the music classroom. Such a research orientation would be further enriched by field recording and analysis of school singing performances.

Student attitudes and behaviors were deemed an important variable for the present study. These were assessed however were reported by the teacher participants, as a second survey directed solely at students was deemed unfeasible within the scope of a single doctoral research program. Accordingly, student perspectives are here understood as reported not by the students themselves but rather through the eyes of their teachers and on a general classroom rather than an individual level. Studies taking students rather than their teachers as participants would balance and reinforce the results reported in this study.

Shifts in prescribed singing ranges in school may be associated with similar shifts in singing behavior in the general population. A comprehensive and systematic analysis of singing range in popular culture would serve as a valuable reference point for the

results of the present study and to deepen our understanding of how singing cultures may be seen to be evolving.

A further valuable point of reference for the present findings would be to reproduce the study in other national contexts and age groups. A comparison of the national character of singing repertoire in other national contexts, the rate of overlap of shared repertoire between classrooms, and the relative prominence of singing in the general music classroom in other national contexts would permit a comparison and better understanding of the significance of the present study's findings. It would also allow for broader generalizability of study findings and permit the development of theoretical understandings of the mechanisms governing national musical cultures and their formal education systems.

Lastly, the findings of the present study could be taken as a background for intervention studies examining possible effects of continuing education and professional development on teacher and student attitudes to learning in a diversity of singing styles and cultures, student singing development, and intercultural learning though singing education.

7.2 Concluding remarks

The present study maps singing practices in the contemporary Swedish music classroom. It finds that while teachers aim to build a nurturing learning environment to enable all children to find their voice, the forms of music and vocal expression available to students are constrained in terms of culture, ethnicity, genre and vocal ideals.

Returning to the example of the time-traveling singers Mira and Rakel taken up in the opening chapter of this book, we may ask ourselves to reflect on how far classroom singing culture has advanced over the past century, and where it may be heading in the present one. Is it possible to build more globalizing, contemporary pedagogical practices that negotiate a space where the unique quality of each child's voice may be raised and celebrated on its own terms? Is it possible to embrace the music of national minorities and musics from other cultural spheres to more meaningfully challenge the national paradigms that continue to frame singing education? During the course of this research project, I have often wished that I could travel back in time to replicate the study in the past as a point of reference for the present study's findings. It is even more interesting to ask what we would see if we could travel like Rakel into the future, searching for a classroom that welcomes her voice and all voices into the human choir.

The results of the present study can invite us to imagine a future singing pedagogy that is more fully liberated from the limits of narrowly defined national repertoires and the constraints of vocal ideals that curtail children's expression and singing

potential. A music pedagogy that enhances our capacity for vocal solidarity. In so far as singing practices reflect the values and underlying structures of the society they come from, the idea of enabling all voices to sing may be as radical a goal as it is a beautiful one. The exciting part is that we don't know how such a society of will look, or how this global choir of eight billion voices would sound.

Each voice – like each individual, like every musical culture – is itself unique and irreplaceable. It may be a leap in logic, but maybe only a leap of the imagination, to see the drive for wider diversity of musical traditions within music education as a complementary and related process to the drive to liberate each child's individual voice from the constraints of dominant vocal ideals and to empower all people to sing. Both imperatives envisage a freer individual and a freer society. Both can be worked towards in a music classroom that offers each student the tools and space they need to find their own voice.

References

Adorno, T. (1992). *Quasi una fantasia*. Verso.

Ahrendt, P. (2006). *Music genre classification systems: a computational approach* (Doctoral thesis). Technical University of Denmark.

Allen, M. (2017). *The sage encyclopaedia of communication research methods* (Vols. 1-4). SAGE Publications, Inc. doi: 10.4135/9781483381411

Apfelstadt, H. (2000). First things first: selecting repertoire. *Music Educators Journal*, *87*(1), 19-22.

Artino, A. R., La Rochelle, J. S., Dezee, K. J. & Gehlbach, H. (2014). Developing questionnaires for educational research: AMEE Guide No. 87. *Medical Teacher*, *36*, 463-474.

Ashley, M. (2014) 1000 years and 1000 boys voices: the crisis and radical challenge for choral singing. In U. Geisler & K. Johansson (Eds.), *Choral singing: histories and practices* (pp. 124-141). Cambridge Scholars Publishing.

Averill, G. (2003). Cantometrics and Cultural Equity: the academic years. In R. Cohen & R. D. Cohen (Eds.), *Alan Lomax: Selected writings: 1934-1997* (pp. 230-246). Taylor & Francis Group.

Bartell, L. R., Dolloff, L., & Shand, P. M. (1999). Canadian content in school music: a research update. *Canadian journal of music education*, 40(4), 13-20.

Bartlette, C., Henry, M. L., & Moore, J. (2015). Interaction of relative pitch memory and latent absolute pitch in an ordered list. *Psychomusicology: music, mind, and brain*, *24*(4), 279-290.

Berkowska, M., & Dalla Bella, S. (2009). Acquired and congenital disorders of sung performance: A review. *Advances in cognitive psychology*, *5*, 69–83. https://doi.org/10.2478/v10053-008-0068-2

Bevers, T. (2005). Cultural education and the canon: A comparative analysis of the content of secondary school exams for music and art in England, France, Germany, and the Netherlands, 1990–2004. *Poetics*, *33*, 388–416.

Bithell, C. (2014). *A different voice, a different song: reclaiming community through the Natural voice and world song*. Oxford University Press.

Björck, C. (2011) *Claiming Space: Discourses on Gender, Popular Music, and Social Change* (Doctoral thesis). Gothenberg University.

Bjørkvold, J. (1991). *Den musiska människan: barnet, sången och lekfullheten genom livets faser*. Runa.

8Blacking, J. (1973). *How musical is man?* University of Washington Press.

Bohlman, P. (2010). *Focus: Music, nationalism, and the making of the New Europe*. Routledge.

Borgström Källén, C. (2014). *När musik gör skillnad: genus och genrepraktiker i samspel* (Doctoral thesis). Gothenberg University.

Brinkmann, S., & Kvale, S. (2015). *Interviews: learning the craft of qualitative research interviewing* (3rd edition). Sage.

Brown, O. (1996). *Develop Your Voice*. Singular Publishing Group.

Bygdéus, P. (2012). *Uttryck genom handling: Medierande verktyg i körledararbete med barn och unga* (Doctoral thesis). Lunds universitet, Musikhögskolan i Malmö.

Byrd, W. (1588). *Psalms, sonnets, and songs of sadness and pietie*.

Chapman, J. L. (2006). *Singing and teaching singing*. Plural Publishing.

Chen, Y. (2018). *An investigation of middle school music teachers' rationale and procedure relating to instrumental (band) repertoire selection in Southern Ontario: a case study* (Doctoral thesis). University of Windsor.

Coutinho, E., Scherer, K. R., & Dibben, N. (2014). Singing and emotion. In G. F. Welch et al. (Eds.), *The Oxford Handbook of Singing* (pp. 297-314). Oxford University Press.

Cuddy, L. L., Balkwill, L. L., Peretz, I., & Holden, R. R. (2005). Musical difficulties are rare: a study of "tone deafness" among university students. *Annals of the New York Academy of Sciences*, *1060*, 311–324. https://doi.org/10.1196/annals.1360.026

Dalla Bella, S., & Peretz, I. (2007). Singing proficiency in the general population. *The journal of the acoustical society of America*, *121*(2), 1182-9.

Danielsen, A. (2006). Aesthetic Value, Cultural Significance, and Canon Formation in Popular Music. *Studia Musicologica, 32*, 55-72.

Danielsen, A. (2010). *Musical Rhythm in the Age of Digital Reproduction*. Ashgate Publishing.

Danielsen, A. (2018). Music, media and technological creativity in the digital age. In Ø. Varkøy, E. Georgii-Hemming, A. Kallio & F. Pio (Eds.), *Nordisk musikkpedagogisk forskning. Årbok 18.* Norges musikkhøgskole.

Day, T. (2014). Cultural history and a singing style: the English cathedral tradition. In Welch et al. (Eds.), *The Oxford Handbook of Singing* (pp. 805-822). Oxford University Press.

Dillman, D., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail and mixed-mode surveys: the tailored design method*. John Wiley & Sons.

Djupsjösbacka, T. (2018). "Without choirs we would not have the society we have today". *Finnish Music Quarterly*.

Edwards, P.E. et al. (2010). Methods to increase response to postal and electronic questionnaires. *The Cochrane Library*: DOI: 10.1002/14651858.MR000008.pub4.

Ekberg, P., Parkmann, S., & Stålne, B. W. (2007) Förord. In G. Fagius (Ed.), *Barn och sång: om rösten, sångerna, och vägen dit* (p.13). Studentliteratur.

Ericsson, C., & Lindgren, M. (2010). *Musikklassrum i blickfånget- vardagskultur, styrning och kunskapsbildning.* Högskolan i Halmstad.

Ericsson, C., & Lindgren, M. (2015). Musik i grundskolan: en nationell ämnesutvärdering i årskurs 6 och 9. Skolverket.

Fagius, G. (2003, November 7). Förändrade sångideal ger sämre röst. *Svenska dagbladet*. https://www.svd.se/forandrade-sangideal-ger-barn-samre-sangrost

Fagius, G. (2007) *Barn och Sång: om rösten, sångarna och vägen dit*. Studentliteratur.

Fagius, G. (2009). *The Swedish choral miracle: on choir life in Sweden. Why, how and where do people sing in choirs?* Eric Ericson International Choral Center.

Farrell, G. (2004). Ethnomusicology and music education. *Psychology of Music*, (32), 265-268.

Feldman, M. (2014). Why voice now? *Journal of the American Musicological Society*, *68*(4), 653-685.

Finney, J. (2000). Curriculum Stagnation: The case of singing in the English National Curriculum. *Music education research*, *2*(2), 203-211. https://doi.org/10.1080/14613800050165659

Flodin, A. M. (1998). *Sångskatt som socialt minne: pedagogiskstudie av en samling skolsånger* (Doctoral thesis). Luleå Technical College.

Flowers, P., & Dunne-Sousa, D. (1990). Accuracy, tonality and vocal range in pre-school children's singing. *Journal of research in music education*, *38*(2), 102-114.

Folkestad, G. (2002). National Identities and Music. In R. MacDonald et al. (Eds.) *Musical Identities*. Oxford University Press.

Folkestad, G. (2005). The Local and the Global in Musical Learning: considering the interaction between formal and informal settings. In *Cultural Diversity in Music Education*. Australian Academic Press.

Folkestad, G. (2006). Formal and informal learning situations or practices vs. formal and informal ways of learning. *British Journal of Music Education*, 135-145.

Forbes, G. (2001). The repertoire selection practices of high school choral directors. *Journal of research in music education, 49*(2), 102-121. http://www.jstor.org/stable/3345863

Freer, P. K. (2009a). Boys' descriptions of their experiences in choral music. *Research studies in music education*, *31*(2), 142–160. https://doi.org/10.1177/1321103X09344382

Freer, P. K. (2009b). Focus on Scaffolding Language and Sequential Units During Choral Instruction. *Update: Applications of Research in Music Education*, *28*(1), 33–40. https://doi.org/10.1177/8755123309344327

Freer, P. K. (2010). Two decades of research on possible selves and the 'missing males' problem in choral music. *International Journal of Music Education*, *28*(1), 17–30. https://doi.org/10.1177/0255761409351341

Friedman, R. S. (2018). Reexploring the effects of relative pitch cues on perceived sadness in an unconventionally tuned musical scale. *Psychomusicology: Music, Mind, and Brain, 28*(2), 108–116. https://doi.org/10.1037/pmu0000212

Friedman, R.S., Neill, W. T., Seror, G. A., & Kleinsmith, A. L. (2018). Average pitch height and perceived emotional expression within an unconventional tuning system. *Music perception*, *35*(4), 518–523. https://doi.org/10.1525/mp.2018.35.4.518

Frieler, K., Fischinger, T., Schlemmer, K., Lothwesen, K., Jabowski, K., & Müllensiefen, D. (2013). Absolute memory for pitch: A comparative replication of Levitin's 1994 study in six European labs. *Musicae Scientiae*, *17*(3), 334-349.

Frith, S. (2001). Pop music. In S. Frith, W. Straw, & J. Street (Eds.), *The Cambridge Companion to Pop and Rock* (Cambridge Companions to Music, pp. 91-108). Cambridge University Press. doi:10.1017/CCOL9780521553698.007

Georgii-Hemming, E., & Westfall, M. (2010). Music Education- a personal matter? Examining the current discourses of music education in Sweden. *British Journal of Music Education*, *27*(1), 21-33.

Gibbs, G. R. (2007). Thematic coding and categorizing. In G. R. Gibbs (Ed.), *Analyzing qualitative data* (pp. 38-55). SAGE Publications, Ltd. https://www.doi.org/10.4135/9781849208574

Goetz, M., Cooper, N., & Brown, C. J. (1990). Recent research on singing in the general music classroom. *Bulletin of the Council for research in music education*, no. 104, Symposium on research in general music (spring, 1990), 16-37.

Gould, A. O. (1969). Developing specialized programs for singing in the elementary school. *Research in Music Education*, *17*, 9-22.

Green, L. (2001). *How Popular Musicians Learn: A Way Ahead for Music Education.* Ashgate.

Green, L. (2008). *Music, Informal Learning, and the School: A New Classroom Pedagogy*. Ashgate.

Green, L. (2011) Music Education, Cultural capital and social group identity. In M. Clayton, T. Herbert & R. Middleton (Eds.), *The Cultural study of music* (2nd edition, pp. 206-216). Routledge.

Gross, N. (2009). A pragmatist theory of social mechanisms. *American sociological review*, *74*, 358-79.

Gunuc, S., & Kuzu, A. (2015). Student engagement scale: development, reliability and validity, *Assessment & Evaluation in Higher Education*, *40*(4), 587-610.

Hagen, A. (2015). *Using music streaming services: Practices, experiences, and the lifeworld of musicking*. University of Oslo.

Hall, C. (2011). *Voices of distinction: Choirboy's narratives of music, masculinity and the middle class* (Doctoral thesis). Monash University.

Hargreaves, D. J. (1996). The development of artistic and musical competence. In I. Deliège & J. Sloboda (Eds.), *Musical Beginnings: Origins and development of musical competence* (pp. 144-170).

Harrison, S. D. (2014). *Teaching singing in the 21st century*. Springer.

Hebert, D. G., & Shehan Campbell, P. (2000). Rock Music in American Schools: Positions and practices since the 1960's. *International Journal of Music Education*, 36, 14-22.

Hebert, D. G., & Kertz-Welzel, A. (Eds.) (2010). *Patriotism and Nationalism in Music Education*. Ashgate.

Hebert, D. G. & McCollum, J. (Eds.) (2014). *Theory and method in historical ethnomusicology*. Lexington Books.

Hedden, D. (2012). An overview of existing research about children's singing and the implications for teaching children to sing. *Update: Applications for Research in Music Education*, *30*(2). 8-13.

Heddell, K. (2009). Klang i kör: uppfattningar om körsång och klang i efterkrigstidens Sverige. *STM*, *12*.

Hentschel, L. (2017). *Sångsituationer: en fenomenologisk studie av sång i musikämnet under grundskolans senare år* (Doctoral thesis). Umeå University.

Hilder, T. (2017). Sámi musical performance, media and the politics of globalization: the case of the Sápmi Sessions. In H. Gilbert et al., (Eds.), *In the balance: Indigeneity, performance, globalization*. (pp. 221-239). Liverpool University Press.

Hoegaerts, J. (2014). Little Citizens and the "Petites Patries": Learning patriotism through choral singing. In U. Geisler & K. Johansson (Eds.), *Choral Singing: histories and practices* (pp. 14-32). Cambridge Scholars.

Holmberg, Y. (2014). *Musikskap: Musikstundersdidaktik i förskolepraktiker* (Doctoral thesis). Malmö Högskolan.

Hu, S., & Kuh, G. D. (2002). Being (dis) engaged in educationally purposeful activities: the influences of student and institutional characteristics. *Research in higher education*, *43*(5), 555-575.

Huron, D. (2008). Lost in music. *Nature*, *453*(22), p. 456-457.

Huron, D., Dahl, S., & Johnson, R. (2009). Facial expression and vocal pitch height: Evidence of an intermodal association. *Empirical musicology review*, *4*(3).

Hyde, K. L., & Peretz, I. (2004). Brains that are out of tune but in time. *Psychological Science*, *15*(5), 356–360. https://doi.org/10.1111/j.0956-7976.2004.00683.x

Hörngren, J. (2011). *SCB:s paraplyprojekt för åtgärder att minska bortfallet i individ- och hushållsundersökningar*. (SCB rapport).

Ilari, B., Chen-Hafteck, L., & Crawford, L. (2013). Singing and cultural understanding: a music education perspective. *International Journal of Music Education*, *31*(2), 202–216. https://doi.org/10.1177/0255761413487281

Jillefors, K., & Schein, V. (2000). Femåringars röstläge i sång och tal. *Röstläget*, 40-47.

Johnson, D. (2020). The decline of singing in compulsory Swedish music education: an historical survey of curricula from 1955 to the present. In Van der Sandt, J. (Ed.), *Singing with Children: International perspectives*. LIM.

Juslin, P. N., & Laukka, P. (2003). Communication of emotions in vocal expression and music performance: Different channels, same code?. *Psychological Bulletin, 129*(5), 770–814. https://doi.org/10.1037/0033-2909.129.5.770

Juslin, P. N., & Västfjäll, D. (2008). Emotional responses to music: the need to consider underlying mechanisms. *The Behavioral and brain sciences*, *31*(5), 559–621. https://doi.org/10.1017/S0140525X08005293

Kallio, A. A. (2015). Drawing a line in the water: Constructing the school censorship frame in popular music education, *International Journal of Music Education*, *33*(2), 195-209.

Kallio, A. A., & Heimonen, M. (2019). A toothless tiger? Capabilities for indigenous self-determination in and through Finland's extracurricular music education system, *Music Education Research*, *21*(2), 150-160. DOI: 10.1080/14613808.2018.1545014

Karlsson, C., & Karlsson, S. (2009) *Lagom svåra och hyfsat moderna. En undersökning av spelrepertoaren i skolår 7–9.* Bachelor thesis in Music Education. Örebro University.

Karlsson, M. (2002). *Musikelever på gymnasiets estetiska program: en studie av elevernas bakgrund, studiegång och motivation* (Doctoral thesis). Malmö Academy of Music, Lund University.

Kamiloğlu, R. G., Fischer, G. H., & Sauter, D. A. (2020). Good vibrations: a review of vocal expression of positive emotions. *Psychonomic Bulletin & Review*, *27*, 237-265.

Kantasalmi, K., & Seurujärvu-Kari, I. (2017). Saami educational and knowledge claims in school systems of the Nordic countries. In K. Kantasalmi and G. Holm (Eds.), *The State, schooling, and identity: Diversifying education in Europe*. Macmillan.

Kazdin, A. (2010). *Research Design in Clinical Psychology*, Fourth Edition. Allyn and Bacon.

Kertz-Welzel, A. (2018). *Globalizing Music Education: a framework*. Indiana University Press.

Kim, J. (2000). Children's pitch matching, vocal range, and developmentally appropriate practice, *Journal of research in childhood education*, *14*(2), 152-160.

Kjellander, Eva. (2005) *Sitter ekorren fortfarande i granen?* (C- uppsats i musikvetenskap). Växjö Universitet.

Knight, S. (1999). Exploring a cultural myth: what adult non-singers may reveal about the nature of singing. In B. Roberts & A. Rose (Eds.), *The phenomenon of singing* (pp. 144-154), Memorial University.

Kullenberg, T. (2014). *Signing and singing: Children in teaching dialogue* (Doctoral thesis). Ale Tryckteam.

Kungliga Skolöverstyrelsen. (1955). *Undervisningsplan för Rikets Folkskolor*. Svenska Bokförlaget Norstedts.

Kungliga Skolöverstyrelsen. (1962). *Läroplan för grundskolan*. Emil Kihlströms Tryckeri AB.

Kungliga Skolöverstyrelsen. (1969a). *Läroplan för grundskolan*. Svenska utbildningsförlaget.

Kungliga Skolöverstyrelsen. (1969b). *Supplement: Musik: Kompleterande anvisningar och kommentarer*. Bröderna Lagerström AB.

Larsson, S. (2009). A pluralist view of generalization in qualitative research, *International Journal of Research & Method in Education*, *32*(1), 25-38, DOI: 10.1080/17437270902759931

Latham, C. H. (2016). The limits of hearing: the historical and contemporary perspectives on vocal materiality and expression. *Music & politics*, *10*(2), 1-3.

Laukka, P., Neiberg, D., & Elfenbein, H. A. (2014). Evidence for cultural dialects in vocal emotion expression: Acoustic classification within and across five nations. *Emotion*, *14*(3), 445–449. https://doi.org/10.1037/a0036048

Lavrakas, P. (2008). *Encyclopedia of Survey Research Methods*. Sage Publications Inc.

Leighton, G., & Lamont, A. (2006). Exploring children's singing development: Do experiences in early schooling help or hinder?. *Music Education Research*, *8*(3), 311-330.

Leijonhufvud, S. (2011). *Sångupplevelse – en klingande bekräftelse på min existens i världen: En fenomenologisk undersökning ur första-person-perspektiv* (licenciat). Stockholms University.

Leijonhufvud, S. (2018). *Liquid streaming: the Spotify way to music* (Doctoral thesis). Luleå University of Technology.

Levitin, D. J. (1994). Absolute memory for musical pitch: Evidence from the production of learned melodies. *Perception & Psychophysics*, 56(4), 414–423. https://doi.org/10.3758/BF03206733

Lingard, B., Rawolle, S., & Taylor, S. (2005) Globalising policy sociology in education: Working with Bourdieu. *Journal of Education Policy*, *20*(6), pp. 759-777.

Lindberg, B. (2002). *Våra glada visor klinga: Skolradions sångstunder 1936-1969*. Arkiv Förlaget.

Lomax, A. (1959). Folk song style. *American anthropologist*, *61*(6), 927-954.

Lomax, A. (1962). Song Structure and Social Structure. *Ethnology, 1*(4), 425-451. doi:10.2307/3772850

Lomax, A. (1968). *Folk song style and culture*. Transaction Publishers.

Lorentz, H., & Bergstedt, B. (2016). *Interkulturella perspektiv*. Studentlitteratur.

Mang, E. (2006). The effects of age, gender and language on children's singing competency. *British Journal of Music Education*, *23*(2), 161- 174.

Mantie, R. (2017). Thinking and talking about change in music education. In S. A. Ruthmann & R. Mantie (Eds.), *The Oxford handbook of technology and music education* (pp. 339-344). Oxford University Press.

McAllister, A., & Sjölander, P. (2013). Children's voice and voice disorders. *Seminars in speech and language*, *34*(2), 71–79. https://doi.org/10.1055/s-0033-1342978

McCarthy, K. (2013, June 25th). *Byrd's reasons to sing* [blog post]. https://blog.oup.com/2013/06/william-byrd-reasons-to-sing/

McCollum, J., & Hebert, D. G. (2014). *Theory and Method in Historical Ethnomusicology*. Lexington Books.

McCormick, N. (2015, June 28). Pete Townsend: an old rocker in rip-roaring form. *The Telegraph*.

Merriam, A. P. (1964). *The anthropology of music*. Northwestern University Press.

Michelin, S., Pilakouris, A., Alinder, L., Hjellström, A. D., Östlund, J., Ankarmo, K. S., & Davidsson, H. (2020, November 30). Nu är det upp till oss att rädda vårt klingande kulutrarv. *Kyrkans tidning*. https://www.kyrkanstidning.se/debatt/nu-ar-det-upp-till-oss-att-radda-vart-klingande-kulturarv

Ministry of Education and Research. (2017). *Core curriculum: values and principles for primary and secondary education*. Government of Norway. https://www.regjeringen.no/contentassets/53d21ea2bc3a4202b86b83cfe82da93e/core-curriculum.pdf

Moog, H. (1976). *The musical experience of the pre-school child.* Schott.

Moore, R. S. (1994). Effects of Age, Sex, and Melodic/Harmonic Patterns on Vocal Pitch-Matching Skills of Talented 8-11-Year-Olds. *Journal of Research in Music Education*, *42*(1), 5–13. https://doi.org/10.2307/3345332

Muñoz Leiva, F., Ríos, F. J. M., & Martínes, F. J. (2006). Assessment of interjudge reliability in the open-ended questions coding process. *Quality and quantity*, *40*(4), 519-537.

Murdock, G. P. (1967). Ethnographic atlas: a summary. *Ethnology*, *6*(2), 109-236.

Music Manifesto Report #2 (2009). https://webarchive.nationalarchives.gov.uk/20130323064522/https://www.education.gov.uk/publications/eOrderingDownload/Music_Manifesto_Report2.pdf

Netterstad, M. (1982). *Så sjöng barnen förr. Textmaterialet i de svenska skolsångböckerna 1842-1972.* (Doctoral thesis). Gummesons Tryckeri AB.

Nettl, B. (1983). *The Study of Ethnomusicology*. University of Illinois Press.

Nettl, B. (1995). *Heartland excursions*. University of Illinois Press.

Nettl, B. (2010). Music Education and Ethnomusicology. A (usually) harmonious relationship. *Israel Studies in Musicology Online, 8*(1/2), 1-9.

News.spotify.com (2017, March 15th). *Top ten most-streamed songs in Sweden, 2015*. Spotify.com.

Nilsson, B., & Gren, K. (1994). *Elefantboken*. Lutfisken.

Nilsson, B., & Gren, K. (2004). *Låtar året runt*. Lutfisken.

Nyhetsmorgon (2014, April 30) *Nu grönskar det — Adolf Fredriks gosskör — Nyhetsmorgon (TV4)*. https://www.youtube.com/watch?v=vY05P6IdJOU

Ortiz, F. (1995). *Cuban Counterpoint Toboacco and Sugar* (translated by Harried de Onis). Duke University Press.

Olthof, M., Janssen, B., & Honing, H. (2015). The role of absolute pitch in the oral transmission of folksongs. *Empirical musicology review*, *10*(3), 161-174.

Parkinson, Diana. (2018). Diversity and inclusion within adult amateur singing groups: A literature review. *International journal of research into choral singing*, *6*, 41-65.

Paulsson, K. (2006). *Nu ska du få höra: Svenska musikfonogram för barn 1904-1980* (Doctoral thesis). Gothenberg University.

Peretz, I., Ayotte, J., Zatorre, R. J., Mehler, J., Ahad, P., Penhune, V. B., & Jutras, B. (2002). Congenital amusia: a disease of fine-grained pitch discrimination. *Neuron*, *33*, 185-191.

Peretz, I., & Vuvan, D. T. (2017). Prevalence of congenital amusia. *European journal of human genetics : EJHG*, *25*(5), 625–630. https://doi.org/10.1038/ejhg.2017.15

Pfordresher, P. Q., & Brown, S. (2007). Poor pitch singing in the absence of "tone-deafness". *Music perception*, *25*(2), 95-115.

Phillips, K. H. (2014). Another perspective: Every child a singer. *Music Educators Journal*, *100*(3), 49–51. https://doi.org/10.1177/0027432113516511

Potter, J. (Ed.). (2000). *The Cambridge Companion to Singing*. Cambridge University Press.

Potter, J. (2006). Beggar at the Door: The rise and fall of portamento in singing. *Music & Letters, 87*(4), 523-550.

Potter, J., & Sorrell, N. (2012). *A history of singing*. Cambridge University Press.

Pribuisiene, R., Uloza, V., & Kardisiene, V. (2011). Voice characteristics of children between 6 and 13 years: Impact of age, gender, and vocal training. *Logopedics Phoniatrics Vocology*, 36, 150-155.

Rada, V., & Dominguez-Alvarez, A. (2013). Response quality of self administered questionnaires: a comparison between paper and web questionnaires. *Social Science Computer Review*, vol. 32.

Rice, T. (2014). *Ethnomusicology: a very short introduction*. Oxford University Press.

Rice, T. (2017). *Modelling ethnomusicology*. Oxford University Press.

Richards, H., & Durrant, C. (2003). To sing or not to sing: A study on the development of 'non-singers' in choral activity. *Research Studies in Music Education*, *20*(1), 78–89. https://doi.org/10.1177/1321103X030200010501

Rodnitzky, J. L. (1976). *Minstrels of the dawn: the folk-protest singer as cultural hero*. Nelson-Hall.

Ruthmann, S. A., & Hebert, D. G. (2012). Music learning and new media in virtual and online environments. In G. E. McPherson & G. F. Welch (Eds.), *The Oxford handbook of music education* (Vol. 2, pp. 567-584). Oxford University Press.

Rutkowski, J. (1990). The measurement and evaluation of children's singing development. *The Quarterly*, *1*(1-2), 81-95.

Rutkowski, J. (1996). The effectiveness of individual/small-group singing activities on kindergartners' use of singing voice and developmental music aptitude. *Journal of Research in Music Education*, *44*(4), 353-368.

Rydén, S. (2019, June 20). *Barns sång: ett nationellt upprop*. Kungliga Musikaliska Akademien. http://www.musikaliskaakademien.se/nyheter/nyheter/barnssangettnationelltupprop.2603.html?utm_campaign=unspecified&utm_content=unspecified&utm_medium=email&utm_source=apsis-anp-3

Ryner, B. (2004). *Vad ska vi sjunga*? (Doctoral thesis). KMH.

Sadie, S. (2001). *The new Grove dictionary of music and musicians*. Macmillan.

Saunders, J., Papageorgi, E., Himonides, J., Rinta, T., & Welch G. F. (2011). *Diverse approaches to successful singing in Primary settings: Evidence from the Chorister Outreach Programme and other Sing Up schools (2009-2010).* iMerc.

Savage, P.E. (2019). Cultural evolution of music. *Palgrave Communications*, *5*(16). https://doi.org/10.1057/s41599-019-0221-1

Schellenberg, E. G., & Trehub, S. E. (2003). Good pitch memory is widespread. *Psycological science*, *14*(3), 62-66.

Schleyer, T. ,& Forest, J. (2000). Methods for the design and administration of web-based surveys. *Journal of American Medical Information Association*. vol 7, 4.

Schneider, B., Zumtobel, M., Prettenhofer, W., Aichstill, B., & Jocher, W. (2010). Normative voice range profiles in vocally trained and untrained children aged between 7 and 10 years. *Journal of voice: official journal of the Voice Foundation*, *24*(2), 153–160. https://doi.org/10.1016/j.jvoice.2008.07.007

Shuker, R. (2016). *Understanding popular music* (5th edition). Routledge.

Skinner, E., Kindermann, T. A., & Furrer, C. J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*, *69*(3), 493-525.

Skolverket. (2015). Musik i grundskolan: en nationell utvärdering av årskurs 6 och 9. https://www.skolverket.se/publikationsserier/rapporter/2015/musik-i-grundskolan

Skolverket. (2011). *Läroplan för grundskolan, förskoleklassen och fritidshemmet 2011.* Elanders Sverige AB.

Skolöverstyrelsen. (1980). *Läroplan för grundskolan*. Södertälje: Axlings Tryckeri AB.

Skolverket. (2000). *Kursplan för grundskolan*. Skolverket.

Skolverket. (2005). *Nationella utvärderingen av grundskolan 2003* (NU-03). Musik: Rapport 253. Fritzes.

Small, C. 1998. *Musicking: The Meanings of Performance and Listening*. Middletown, CT: Wesleyan University Press.

Statistics Sweden. (2016). *Frågor och svar: om frågekonstruktion i enkät- och intervjuundersökningar*. SCB.

Statistics Sweden. (2021, March 18) *Befolkningsstatistik helåret 2020: Allt fler beviljade medborgarskap*. https://www.scb.se/hitta-statistik/statistik-efter-amne/befolkning/befolkningens-sammansattning/befolkningsstatistik/pong/statistiknyhet/befolkningsstatistik-helaret-20202/

Stolarski, L. (2020). The influence of character's gender and the basic emotions of "happiness" and "sadness" on voice pitch in the reading of fiction. *Brno studies in English*, *46*(1), 49-89.

Stålhammar, B. (1999). Music is more: A broader concept of music from a Swedish perspective. *Research Studies in Music Education*. vol. 12, 38.

Sundberg, J., Scherer, K. R., Trznadel, S., & Fantini, B. (2017). Recognizing emotions in the singing voice. *Psychomusicology*, *27*(4), 244-255.

Sundin, B. (1997). Musical creativity in childhood: A research project in retrospect. *Research Studies in Music Education*, *9*, 48-57.

Suzuki, S. (1983). *Nurtured by Love*. Warner Bros. Publications Inc.

Svensson, O. (2019, November 7). Ilska mot Skolverkets förslag om nationalsången. *Aftonbladet*. https://www.aftonbladet.se/nyheter/samhalle/a/Xg3nko/ilska-mot-skolverkets-forslag-om-nationalsangen

Sveriges Körförbund (2021, March 17). *Nyheter*. Sveriges körförbund. https://www.sverigeskorforbund.se/nyheter

Swanwick, K. (2004). Mapping Music Education Research in the UK. *Psychology of Music*, *32*(3), 239-290.

Sæther, E. (2003) *The Oral University. Attitudes towards music teaching and learning in the Gambia* (Doctoral thesis). Studies in Music and Music Education No.2. Malmö Academy of Music, Lund University.

Sæther, E. (2008). When minorities are the majority: Voices from a teacher/researcher project in a multicultural school in Sweden. *Special issue of Research Studies in Music Education, RSME, Pedagogies of inclusion in music education: international perspectives, 30*(1), 25-42.

Sæther, E. (2010). Music education and the other. *Finnish Journal of Music Education, 13*(1), 45-60.

Sæther, E. (2017). Under the surface: reflections on the symbiosis between ethnomusicology and music education. *Puls: Musik- och dansetnologisk tidskrift*, *2*(1), 11-23.

Sæther E. (2020) Intercultural game in music teacher education: Exploring El Sistema in Sweden. In: H. Westerlund, S. Karlsen & H. Partti (Eds.), *Visions for intercultural music teacher education. Landscapes: the arts, aesthetics, and education* (Vol 26). Springer, Cham. https://doi.org/10.1007/978-3-030-21029-8_5

Tarasti, E. (2002). *Signs of music*. Mouton de Gruyter.

Tillmann, B., Lévêque, Y., Foroni, L., Albouy, P., & Caclin, A. (2016). Impaired short-term memory for pitch in congenital amnesia. *Brain research*, *1640*(part B), 251-263.

Truesdale, D., & Pell, M. D. (2018). The sound of passion and indifference. *Speech communication*, *99*, 124-134. https://doi.org/10.1016/j.specom.2018.03.007

Trüün, F. (2020). The inspiration for singing. In Van der Sandt, J. (Ed.), *Singing with Children: International perspectives*. LIM.

Utbildningsdepartement. (1983). *Olika Ursprung- gemenskap i Sverige*. Statens offentliga utredningar.

Utbildningsdepartementet. (1994). *Kursplaner för grundskolan*.

Van Hedger, S. C., Heald, S. L., & Nusbaum, H. C. (2018). Long-term pitch memory for music recordings is related to auditory working memory precision. *Quarterly journal of experimental psychology (2006)*, *71*(4), 879–891. https://doi.org/10.1080/17470218.2017.1307427

Wang, J., & Humphreys, J. T. (2009). Multi-cultural and popular music content in an American music teacher education program. *International Journal of Music Education*, *27*(1), 19-37.

Welch, G. F. (1979). Vocal range and poor pitch singing. *Psychology of music*, *7*(2), 13-31.

Welch, G. F. (1986). A developmental view of children's singing. *British Journal of Music Education*, *3*(3), 295-303.

Welch, G. F. (2000). The developing voice. In L. Thurman & G. F. Welch (Eds.), *Bodymind and voice: Foundations of voice education* (2nd edition, pp. 704-717), National Centre for Voice and Speech.

Welch, G. F., & Howard, D. M. (2002). Gendered Voice in the Cathedral Choir. *Psychology of Music*, *30*(1), 102–120. https://doi.org/10.1177/0305735602301008

Welch, G. F. (2006). Singing and Social Development. In Gary McPherson (Ed.), *The Child as Musician* (pp.311-329). Oxford University Press.

Welch, G. F., Himonides, G., Saunders, J., Papageorgi, I., Vraka, M., Preti, C., & Stephens, C. (2009). *Researching the second year of the National Singing Program in England: an ongoing impact evaluation of children's singing behavior and identity*. iMerc.

Welch, G. F., Himonides, G., Saunders, J., Papageorgi, I., & Sarazin, M. (2014). Singing and social inclusion. *Frontiers in Psychology*, *5*(830), 1-12.

Welch, G.F., & Preti, C. (2014) *Singing as inter- and intra-personal communication*. In G. F. Welch et al. (Eds.), *The Oxford Handbook of Singing* (pp. 355-368). Oxford University Press.

Welch, G. F. (2017). The identities of singers and their educational environments. In: R.A.R. MacDonald, D.J. Hargreaves & D. Miell (Eds.), *Oxford Handbook of Musical Identities* (pp. 543–565). Oxford University Press.

Westergren, K. (2014, December 7). Sankta Lucia-Christchurch-Dublin-7/12/14 med Adolf Fredrik's ungdomskör. [video] https://www.youtube.com/watch?v=zbwJe4iV1nk

Westerlund, H., & Karlsen, S. (2017). Knowledge production beyond local and national blindspots: Remedying professional ocularcentrism of diversity in music teacher education. *Action, Criticism and Theory for Music Education*, *16*(3), 78-107. doi:10.22176/act16.3.78

Weusthoff, S, Baucom, B., & Hahlweg, K. (2013). Fundamental frequency during couple conflict: an analysis of physiological, behavioral, and sex-linked information encoded in vocal expression. *Journal of family psychology*, *27*(2), 3-32.

Whidden, C. (2010). Understanding social-cultural influences affecting non-participation in singing. *The University of Melbourne refereed e-journal*, *2*(1).

Young, S. (Writer), & Åstrand, C. (Director). (2020, December, 12) Julkalendern: Mirakel (episode 12) [tv series episode]. In C. Åstrand (Producer), *Julkalendern*. SVT.

Young, S. (Writer), & Åstrand, C. (Director). (2020, December, 13) Julkalendern: Mirakel (episode 12) [tv series episode]. In C. Åstrand (Producer), *Julkalendern*. SVT.

Appendices

Appendix 1: Printed version of the questionnaire (in Swedish)

Sångrepertoar i årskurs 4, läsår 2015-2016

Tack för din medverkan! Vid eventuella frågor angående enkäten, kontakta David Johnson, david.johnson@mhm.lu.se, tel: 0731-40 72 99

(I) Repertoarlista

1. Vad har du sjungit med årskurs 4 det här läsåret? Fyll i dina svar i tabellen på följande sätt:

- Skriv sångtitel (t.ex, "Yellow Submarine") och vilken tonart ni sjunger den i (t. ex, "C-dur"). Om sångtiteln är alltför allmän (t. ex, "Vårsång"), skriv istället första textraden. Glöm inte att inkludera dina och dina elevers egna kompositioner om ni har sjungit sådana.

- Ange om du använder den sången för första gången i din undervisning det här läsåret ("ja" eller "nej"), vem föreslog sången (t. ex. "elev", "jag", "kollega") och varifrån du hämtade materialet (t. ex, "sångbok", "internet", "egen transkription", "egen låt", eller annat). Använd tabknappen eller klicka för att förflytta dig mellan rutorna i tabellen.

Fyll i så många rader du behöver för din repertoarlista, lämna sedan övriga rader tomma och gå vidare till nästa fråga, "Några frågor om din verksamhet".

	Sång *(t. ex. "Yellow Submarine")*	**Tonart** *(t. ex. "C-dur")*	**Var det första gång du använde sången?** *("ja" eller "nej")*	**Vem föreslog sången?** *(t. ex. "elev")*	**Varifrån hämtade du materialet?** *(t. ex. "egen transkription")*
sång 1					
sång 2					
sång 3					
sång 4					
sång 5					
sång 6					
sång 7					
sång 8					
sång 9					
sång 10					
sång 11					
sång 12					
sång 13					
sång 14					
sång 15					
sång 16					
sång 17					
sång 18					

(II) Några frågor om din verksamhet

2. I vilken kommun ligger skolan där du undervisar elever i årskurs 4, läsåret 2015-2016?

3. Undervisar du årskurs 4 i halvklass på denna skola? Ringa in ditt svar: JA NEJ

4. Har den årskurs 4-klass som du undervisar en musikprofil? Ringa in ditt svar: JA NEJ

5. Har du tillgång till ett klassrum som är avsett för musikundervisning när du träffar årskurs 4 under läsåret 2015-2016? Ringa in ditt svar: JA NEJ

6. Hur upplever du ljudmiljön under musiklektionerna? Ringa in ditt svar:

MYCKET BRA GANSKA BRA GANSKA DÅLIGT MYCKET DÅLIGT

7. Saknar du någon utrustning till din sångundervisning?

JA NEJ

8. Om ja, vad?

GITARR PIANO LJUDTEKNIK SÅNGBÖCKER ANNAT – ANGE NEDAN

9. Har du ett årligt budgetanslag till att köpa noter och sångböcker till din undervisning? JA NEJ

Om "Ja", hur stort är anslaget?

10. Hur många timmars förberedelsetid använde du ungefär till att utveckla ny sångrepertoar till årskurs 4, läsåret 2015-16?

0 – 5 TIMMAR 6 – 10 TIMMAR FLER ÄN 10 TIMMAR

11. Vilka kriterier använder du för att välja sångrepertoar till dina elever?

(III) Några frågor om sångundervisningen

12. Hur stor andel av musikundervisningen i årskurs 4 har du ägnat åt sång? %

13. Hur brukar du oftast ackompanjera sång i årskurs 4?

INGET AKOMPANJEMANG PIANO INSPELNING GITARR ANNAT

14. Hur uppskattar du dina årskurs 4-elevers inställning till att sjunga under sånglektionerna? Sätt kryss på linjen:

De älskar att sjunga

De hatar att sjunga

15. Hur ofta ställer eleverna i årskurs 4 frågor angående sång?

OFTA IBLAND SÄLLAN ALDRIG

16. Hur skulle du beskriva dina årskurs 4-elevers fokus på lektionsinnehåll generellt under sångundervisning?

MYCKET FOKUSERADE	GANSKA FOKUSERADE	GANSKA OFOKUSERADE	MYCKET OFOKUSERADE

17. Hur skulle du beskriva dina årskurs 4-elevers engagemang i sång under lektionstillfällena generellt?

MYCKET ENGAGERAD	GANSKA ENGAGERADE	GANSKA OENGAGERADE	MYCKET OENGAGERADE

Har du annat du vill tillägga om sångundervisning med årskurs 4?

18. Hur trygg känner du dig i din roll som lärare i sångundervisning för årskurs 4?

MYCKET TRYGG	GANSKA TRYGG	GANSKA OTRYGG	MYCKET OTRYGG

(IV) Några frågor om dig

19. Vilket år föddes du?

20. Vad är ditt kön? MAN KVINNA

21. På vilket lärosäte har du fått utbildning i ämnet musik? Du kan ringa in i flera alternativ.

MUSIKHÖGSKOLAN LÄRARHÖGSKOLAN KONSERVATORIET

EJ UTBILDAT I ÄMNET MUSIK ANNAT

22. Hur många år har du arbetat som musiklärare? ☐

23. Hur många år har du arbetat på den skola där du nu undervisar årskurs 4, läsåret 2015-2016? ☐

24. Hur stor andel av heltidstjänst arbetar du på denna skola? (Ange i antal procent) ☐ %

25. Vilken typ av anställning har du på denna skola?

FAST ANSTÄLLNING TIMANSTÄLLNING VIKARIAT ANNAT

26. I vilka årskurser förutom årskurs 4 undervisar du i musik på denna skola? Ringa in alla relevanta:

förskola 1 2 3 5 6 7 8 9

27. Undervisar du i årskurs 4 på flera skolor, läsåret 2015-16? JA NEJ

28. Får jag kontakta dig om jag har några kompletterande frågor? JA NEJ

Om ja, hur vill du bli kontaktad?

☐

TACK FÖR DIN MEDVERKAN!

Appendix 2: Letter of introduction to participants

LUNDS UNIVERSITET
Musikhögskolan i Malmö

Angående nationell enkät

Datum: 15 april, 2016

Bästa kollega!

Mitt namn är David Johnson, och jag är musiklärare och doktorand i musikpedagogik vid Lunds Universitet. Jag skriver till dig för att be om din hjälp med en studie om sångrepertoar i den svenska grundskolan som jag genomför på Musikhögskolan i Malmö tillsammans med professor Eva Sæther och professor Göran Folkestad.

Studien bygger på en enkät som snart kommer att skickas till dig och andra musiklärare landet runt som undervisar i årskurs 4. Syfte med enkäten är att kartlägga vad vi sjunger med elever idag, hur vi använder den repertoaren, och hur repertoarvalet och sjungandet har förändrats från tidigare generationer. Vi vill undersöka både stora trender och kunna identifiera all variation och allt det nyskapande som kan finnas i varje lärares verksamhet. Din delaktighet är därför viktig; den bidrar till en vetenskaplig undersökning av ett viktigt ämne inom musikundervisning som det finns alldeles för lite kunskap om. Studien är unik i sin omfattning och kan bli en rik källa till forskning, ökad kunskap och samarbete mellan lärare över hela Sverige.

Enkäten kommer skickas elektroniskt till din jobb e-postadress måndag 25 april, 2016, kl. 12.00. Den kan besvaras elektroniskt och borde ta mindre än en kvart att fylla i.

Alla svar kommer att behandlas konfidentiellt; dina svar är skyddade enligt offentlighets- och sekretesslagen (2009: 400) och ditt namn och arbetsplats kommer inte att kopplas till dina enkätsvar i vår forskningsdatabas eller i några publikationer.

På vår hemsida: www.mhm.lu.se/david-johnson hittar du en kort informationsvideo om du vill veta mer om studien, om enkäten, eller om oss. Du kan också nå oss via mail, david.johnson@mhm.lu.se eller ringa 0731 40 7299 om du har några funderingar.

Tack igen för din medverkan! Den är både viktig och mycket uppskattad.

Hälsningar,

David Johnson
Doktorand i Musikpedagogik

Eva Sæther
Professor i Musikpedagogik

Postadress Box 8203, 20041 Malmö *Besöksadress* Ystadvägen 25 *Telefon 046 40 32 54 50 (växel) Webbadress* www.mhm.lu.se

Appendix 3: Non-response protocol 1

Bortfallsanalys- skolor som aldrig svarade på förfrågan om lärarnamn/epost

”Hej, mitt namn är David Johnson och jag är förskare i musikpedagogik på Musikhögskolan i Malmö”

”Jag ringer er som en uppföljning på en studie vi genomför om sångrepertoar i grundskolan”

”I början av mars skickade vi en epost till din skola angående en nationell enkät där vi frågade efter namn och epostadress till läraren som undervisar i musik i årskurs 4 på er skola.”

Frågor:

1. Kom eposten fram till er?
2. Hur blev det att ni inte svarade på eposten?
3. Hur ser musikundervisning ut på er skola? Har ni en eller flera musiklärare? Är de legitimeradelärare? Specifik utbildning för att undervisa i ämnet musik?

Appendix 4: Non-response protocol 2

Bortfallsanalys protokoll

Hej! Mitt namn är D.J. och jag är forskare i musikpedagogik vid Musikhögskolan i Malmö. Har du möjlighet att svara på ett par snabba frågor angående en forskningsstudie om musik i skolan? Det ska inte ta mer än två minuter

I våras skickades en enkät om sångrepertoar till lärare som undervisar musik i årskurs 4

1)Har du fått en inbjudan till att delta i studien?
2)Vad är ditt ålder?
3)Vad har du för utbildning?
4)Kan du bertätta hur det blev att du inte svarade på enkäten?

Appendix 5: Reference sources for identification of repertoire

Songbooks:

20 sommarsånger arrangerade till barnkör (1984): Gunlis Österberg and Ola Eriksson

50 visor till luta och gitarr-Evert Taube (1955): Jerry Högstedt

Barnens svenska sångbok (1999): Anders Palm

Barnens önskesånger (2011): Ingemar Hahne

Da Capo (2001): Marina Lindholm, Johan Sundqvist

Disneysångboken (2001): Göran Rygert

Evert Taubes Bästa (1998): Göran Rygert

Elefantboken (1994): Gren-Nilsson

Gnola och Sjung (1983): Kjell Lönnå

Här Ska det Sjungas (1951): Bertil Rask

Jorden Runt (1999): Dan and Gullan Bornemark

Julsånger (2004): Tord Nygren

Julens önskesånger (2008): Gunlis Österberg

Kör 5 Dans (1976): Daniel Helldén

Låtar året runt x 2 (2004): Birger Nilsson

Musikskatten (1997): Gren-Nilsson

Nu sjunger vi igen (1972): Lars Sjöstrand

Nu ska vi sjunga (1943): Tegnér/Beskow

Pojkaktig Sångbok, Pomperossa (1999): Hans Holm

Psalmboken (1986): Svenska kyrkan

The best christmas songbook ever (1999): diverse authors

Sing (1969): Sveriges Radio

Sångboken- vår gemensamma sångskatt (1984): Hallin, Lundström, Svensson

Sjung nu, Svenska folket (1958): Samfundet för unison sång

Sjung Svenska Folk (1989): Samfundet för unison sång

Sångskatten (1994): Lena Borgling

Sångtajm (1999): Janne Schaffer/Lasse Åberg

Sånger (2010): Lasse Berghagen

Ur och Skur (2004): Karin Gibson

Vamos Amigos (2009): Charlotte Rider Norlander/Marie Bejstam

Våra andliga önskesånger (2005): Ingemar Hahne

Våra bästa barnvisor (2008): Ingemar Hahne

Våra skolsånger (1992): Lennart Reimers

Vårmusikal (1997): Lotta Bengtsson

Vänner: 22 sånger för barn om vänskap och gemenskap (2005) Karin och Magnus Ivarson

Online resources:

Musikoteket.se

Notpoolen.se

Popfakta.se

Spotify

Svenskmediedatabas (SMDB)

YouTube.com

Visarkivet.se

Wikipedia.org

STUDIES IN MUSIC AND MUSIC EDUCATION

25. Johnson, David (2021). Raising Voices – Singing repertoire and practices in Swedish schools. Doktorsavhandling.
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9. Folkestad, Göran (2007). A Decade of Research in Music Education.
8. Törnquist, Els-Mari (2006). Att iscensätta lärande. Lärares reflektioner över det pedagogiska arbetet i en konstnärlig kontext. Doktorsavhandling.
7. Ericsson, Claes (2006). Terapi, upplysning, kamp och likhet till varje pris. Undervisningsideologier och diskurser hos lärare och lärarstudenter i musik.
6. Sæther, Eva (2003). The Oral University. Attitudes to Music Teaching and Learning in the Gambia. Doktorsavhandling.
5. Nilsson, Bo (2002). Jag kan göra hundra låtar. Barns musikskapande med digitala verktyg. Doktorsavhandling.
4. Ericsson, Claes (2002). Från guidad visning till shopping och förströdd tillägnelse. Moderniserade villkor för ungdomars musikaliska lärande. Doktorsavhandling.
3. Karlsson, Maria (2002). Musikelever på gymnasiets estetiska program. En studie av elevernas bakgrund, studiegång och motivation. Doktorsavhandling.
2. Hultberg, Cecilia (2000). The Printed Score as a Mediator of Musical Meaning. Approaches to Music Notation in Western Tonal Tradition. Doktorsavhandling.
1. Heiling, Gunnar (2000). Spela snyggt och ha kul. Gemenskap, sammanhållning och musikalisk utveckling i en amatörorkester. Doktorsavhandling.

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Raising Voices

This thesis charts the evolving singing practices and singing repertoire in Swedish elementary schools. It seeks to establish *how much* young students are singing in the general music classroom, *what* they sing, and *how* they sing, and to discuss possible implications for pedagogical practice from an ethnomusicological perspective.

David Johnson is a Canadian-Swedish music education researcher, musician and teacher. He holds a Master's Degree in Music Education from the Malmö Academy of Music, a Master's in Classical Guitar from the Royal Danish Conservatory, and a Bachelor of Arts, Philosophy (Honours) from McGill University, Canada. He worked as a music teacher with grades 1-9 for seven years at the Malmö International School, Malmö, Sweden.

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