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How can primary school-aged boys be motivated to join a choir? What barriers may they face, and what strategies can be used to encourage participation?

Sarah Ashton

(Student No. 2117732)

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Project Proposal

How can primary school-aged boys be motivated to join a choir? What barriers may they face, and what strategies can be used to encourage participation?

Introduction and Justification

Background

As a vocal lead for a local authority music service, I have noticed a marked difference in the number of boys attending primary school choir events compared to girls. Through my role, I am in contact with choir leaders and music coordinators from schools who have expressed the same concern. In November 2023, I was asked to contribute to a network meeting discussing the issue of motivating boys to participate in primary school choirs. While preparing for this meeting, I found only a few research studies on encouraging primary school-aged boys to sing, which led to a desire to explore the issue.

Justification

Singing is an integral part of every musical culture worldwide, and positive early experiences are crucial in developing a lifelong love of singing (Lamont et al., 2012). Singing within a choir is an accessible, cost-effective way to improve physical and mental health, combat loneliness and increase self-esteem (Davies et al., 2023; Ferrer et al., 2017; Gutiérrez Cisneros et al., 2023). Every child should be able to participate in singing groups and progress to more advanced levels (Lamont et al., 2012; Burland, 2020; Launey et al., 2015). However, studies on boys and music mainly focus on adolescence and the male voice change (Freer, 2010; Sweet, 2010). Elpus (2015) produced estimates of choral participation in American High Schools from 10 cohorts and found a ratio of 30% male to 70% female. Data from the U.K. Music Education hubs also shows girls are overrepresented compared to boys in overall musical participation across all ages, with a significant widening in Key Stage 3 (Arts Council, 2018). Wryler (2021) found a significant adverse change in boys' attitudes towards singing by age 6-8, indicating that further research on encouraging participation before negative perceptions occur may be beneficial (Wryler, 2021).

On average, boys are underperforming academically compared to girls in English primary schools and suffer from more behavioural disorders (Roberts et al., 2024; Bertrand & Pan, 2013). Singing may help boys get closer to their potential as it creates interaction between multiple parts of the brain and engages areas involved in the production of language, music, fine motor skills, visual imagery, and emotion (Welch, 2012). Regular and structured participation in musical activities, such as singing, have been shown to enhance academic

achievement (Jaschke et al., 2018). Before and after test results of primary school-aged children showed increased scores when assessing phonological working memory, verbal I.Q. and inhibitions (Welch et al., 2021; Jaschke et al., 2018). An increase in these scores of executive function have been shown to predict increased academic performance (Welch et al., 2021; Jaschke et al., 2018). In a survey by SingUp, 90% of schools stated that singing improved their pupils' self-esteem, and 81% stated that singing increased their students' concentration in other lessons (Barberia, 2011). Singing can provide an outlet for emotions and activate the endocrine system, providing a feel-good effect (Welch, 2012). Additionally, group singing can encourage a sense of social inclusion and create empathetic relationships with others (Davies et al., 2023; Welch, 2012).

Research aim and objectives

Aim

This study aims to deepen the understanding of boys' perceptions of singing and develop strategies to encourage participation.

Objectives

- Consolidate the current literature available through the completion of a literature review.
- Record and analyse participants' qualitative data through focus groups and online questionnaires.
- Collect and analyse quantitative data on the number of boys attending choirs from online questionnaires completed by teachers.

Research Methodology

Ontological position and methodology

An ontological position of constructivism and a belief in multiple realities which are socially and individually derived has been used to identify boys' perceptions of singing (Costley et al., 2010). Constructivism allows deeper insight into the experiences and world view of participants and an ability for them to guide the focus of the research (Costley et al., 2010). However, the ontological position of positivism and a belief that unless something is measurable, it cannot be known for certain is also valid as statistical data will provide clear evidence of the number of boys in choirs (The University of Nottingham, 2024). This realisation has led to the use of the pragmatist paradigm, which emphasises the importance of the researcher employing the philosophy and methodology that will most benefit the research (Kaushik & Walsh, 2019). Within this project, both qualitative and quantitative data will be utilised to build a comprehensive picture of the participation of boys in choirs (Glogowska, 2011). Quantitative data will provide an initial overview of the current involvement of boys in choirs, and qualitative data will provide an understanding of the participants' social realities (Glogowska, 2011; Morgan, 2014).

I will undertake the research using a grounded theory approach, which will provide a comparative method of data analysis and a set of procedures to systematically create a theory grounded in data (Tarozzi, 2020). Grounded theory has been linked to the pragmatism paradigm due to a focus on encouraging the most beneficial methods for thorough research rather than adhering to philosophical perspectives (Tarozzi, 2020). Grounded theory has been considered appropriate for this project as it has a proven reputation for interpreting human behaviour and aims to develop a theory rather than testing a hypothesis (Cullen & Brennan, 2021).

Methods of data collection

1. **Literature Review** - Through an ongoing traditional narrative review, I intend to read and evaluate research on:

- The current evidence of boys' and girls' involvement in singing activities.
- The benefits of boys' increased involvement in singing activities.
- Reasons boys may be less motivated to sing.
- Current strategies used to promote and encourage boys' involvement.

2. **Questionnaires** - Online questionnaires completed by music coordinators of primary schools will be time-efficient and use standardised questions to provide statistical analysis (Lambert, 2019). Quantitative data will identify the number of boys and girls attending primary school choirs, creating a surface-level understanding of the subject (Lambert, 2019). The questionnaires will also include open-ended questions to gain qualitative data, describing teachers' experiences of boys' participation of singing in their schools (Lambert, 2019).

3. **Focus groups with boys** - Qualitative data will be collected via focus groups, revealing boys' views on singing and creating the opportunity for discussion (Lambert, 2019). Understanding the experiences boys have of singing and their perceptions and perspectives will add depth to the knowledge gained from the questionnaires (Freer, 2010; Lambert, 2019). The time of the focus groups will be 20 minutes, with clear questions phrased in simple language as vague or general questions may be difficult for a young child to answer (Adler et al., 2019). At the end of the focus group, I will review the points to ensure I understand them correctly (Adler et al., 2019).

Research locations

The Focus Group locations will be in the primary schools where the participants study and teach. The focus group location must be familiar to the children and with familiar adults, such as teachers, whose presence will help the children feel at ease (Adler et al., 2019). Ideally, an additional member of the school's staff will be available to take children out of the focus group if needed (Adler et al., 2019).

Participants

The participants will be music coordinators who work in the schools, and boys between 6-11 who attend two of these schools. All primary school music coordinators from across the local authority will be emailed and invited to complete the online questionnaire. As a result of the quantitative data self-reported by the schools, two schools will be selected for focus groups. To help provide a broad overview, the two schools selected will contrast in the musical opportunities available to children and demographic area. When working with children, limiting the number of participants is ideal, as a larger group can be more difficult to handle (Adler et al., 2019). Therefore, I will aim for up to two focus groups per school of 6-10 boys in KS1 (ages 5-7) and a second group of 6-10 in KS2 (ages 8-11) (Adler et al., 2019).

Analysis

Grounded theory's constant comparative data analysis will be employed within this project (Cullen & Brennan, 2021). Reflective memo writing will also be used throughout the process to record insights and direct future data collection (Conlon et al., 2020). The following stages will be repeated until all data has been summarised and categorised.

- **Open coding stage** - Data will be transcribed and read several times with important words labelled and identified (Tie et al., 2019). Theoretical sampling will allow the pursuit of additional information through additional participants or changes in questions, which may reveal further insight (Tie et al., 2019).
- **Intermediate coding stage** - Further data is read, noting differences and similarities to make detailed summaries that help create emerging themes (Tie et al., 2019)
- **Advanced coding stage** - Defined summaries will create a core concept which describes the relationship between categories and themes (Tie et al., 2019)

Core categories and themes will create a new grounded theory which will describe the research, indicate areas covered and areas for future study (Cullen & Brennan, 2021). Quantitative data will be created from the online questionnaires to provide descriptive statistics of the frequency of boys in choirs and where they like to sing within the schools asked.

Insider-researcher

I will approach the study as an insider researcher as I will likely know the choir leader participants through my current role in organising vocal events. I may have also conducted and taught workshops to the children participating in focus groups. If I wish to implement research results in my workplace and community, it will be essential to maintain a balanced perspective and consider the opinions of others (Costley et al., 2010). Having pre-existing and professional relationships with participants can present the risk of ethical dilemmas resulting from insider knowledge and multiple roles and responsibilities (Poulton, 2021). Through my own bias and experiences running a choir, I may also assume too much of the data I have received and be unable to consider alternative conclusions, resulting in data distortion (Poulton, 2021). To reduce bias, research ethics will be closely followed, triangulation will be employed in data collection, and attention will be paid to accurately interpret participants' feedback (Costley et al., 2010; Lambert, 2019). To help reduce the effect of familiarity, a disclaimer before online questionnaires to choir leaders will state that despite potentially previously discussing the subject, they need to respond as if they have not (Greene, 2014). As I will utilise contacts I have gained through my workplace, I must secure my employer's consent to contact and work with participants (Costley et al., 2010). Emphasis will be placed in the consent process on the research being optional to avoid participants feeling obliged to participate (Lambert, 2019). Within the study, I must acknowledge and describe my position as an insider researcher and my previous knowledge of the subject (Greene, 2014). Reflecting on my perspectives of the research process throughout will deepen my understanding of my bias and separate my views from the collected data (Greene, 2014).

Ethics

Children are a vulnerable population and ethical practice is paramount when involving them in research (NCPCC, 2024). Due to the power dynamics between teachers and students, to avoid feeling obligated to participate, children must understand that the study is optional (Lambert, 2019). It will be essential to describe the purpose of the research simply to children, using pictures if needed, to help ensure informed verbal consent before commencing the focus groups (Adler et al., 2019). Regularly asking children if they are still happy to participate will help enforce the optional nature of the research (NCPCC, 2024). Ensuring consent from the parents or guardians of children is mandatory, and they will be given a letter of consent to read and sign (Adler et al., 2019). Emotional risks may include vulnerability for music coordinators over having their approach questioned and the group context of the focus groups may expose participants to potential embarrassment (Sim & Waterfield, 2019). Therefore, within the consent process, I will accurately describe the research process and ensure participants understand the advantages of taking part and the potential risks (Sim & Waterfield, 2019; Adler et al., 2019). The online questionnaires will have an initial page before the questions, which

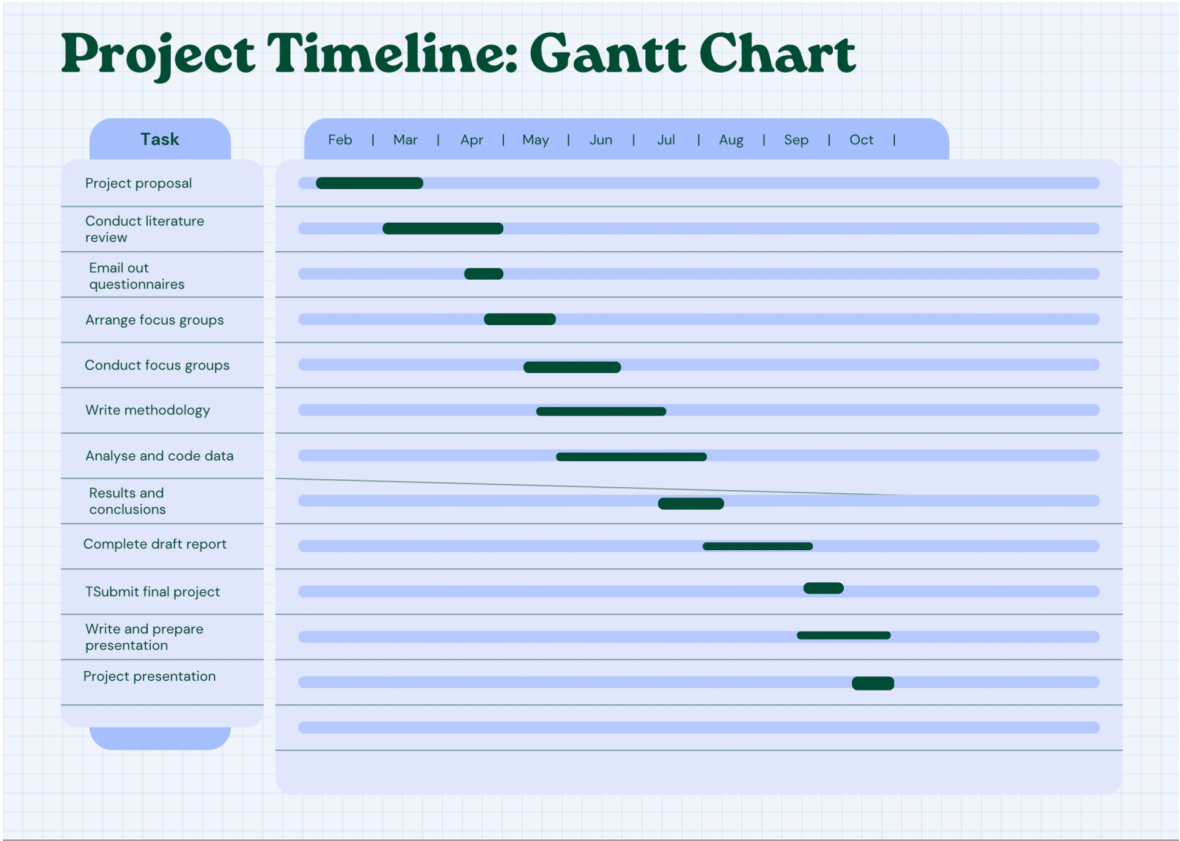
will act as a consent form, informing participants that by clicking NEXT, they are providing consent (University of Cambridge, 2024).

Participating in the research study may result in a loss of learning time for children and teaching time or non-working hours for teachers. The focus groups will ideally be placed during the school day during times which do not impact learning (NCPCC, 2024). The timings of the focus group will be appropriate for the age of the child and ideally at the start of the day to avoid fatigue (Adler et al., 2019). Participants of questionnaires will be made aware of the time it should take to participate in the study, with time scales to be reasonably over-estimated to account for participants who may take longer.

Loss of confidentiality may result in emotional distress, such as embarrassment, and GDPR guidance must be followed (Sim & Waterfield, 2019). The names of participants will be changed to ensure anonymity, and all data will be kept on a password-protected laptop and will not be shared (University of Reading, 2024; UWTSD, 2022). All participants will be given a unique identifier to ensure confidentiality, and this list will be kept securely in a password-protected folder (University of Reading, 2024; UWTSD, 2022). Audio/visual data will be transcribed verbatim using software Otter AI and shown to participants to check the accuracy of reporting (Adler et al., 2019). Paper consent forms will be stored in a locked box and, once received, only handled by myself, the sole researcher of the project, and shredded following the final moderation of the assignment (University of Cambridge, 2024). If participants withdraw from the study before completion, all their data will be destroyed (University of Reading, 2024).

Personal learning outcomes

- Build on my knowledge of why boys may not engage in singing activities.
- Develop strategies to help increase the participation of boys in choirs in the local area.
- Learn fundamental descriptive statistical analysis to present quantitative data.
- Become familiar with using the Grounded Theory approach to data analysis.
- Work towards the presentation of my research and develop presentation skills.



Project report

Introduction

Many choir directors have reported difficulties recruiting boys to sing, and boys' singing participation has been a highly discussed topic in music educational research (Palkki, 2024; Mizener, 1993; Warzacha, 2013; Hale, 2006; Hall, 2006). Gender as a fluid entity defined by cultural factors is recognised within this study (Harrison, 2007). Nevertheless, girls and boys can be exposed and encouraged to participate in different activities based on binary gender stereotyping (Save the Children 2016). Boys often enjoy singing at a very young age, but negative perceptions of singing have been shown to begin as young as five years old (Warzacha, 2013). Confidence in singing ability is often formed during the primary school years (Goopy, 2022). However, few recent studies have focused on primary school-aged boys' perceptions of singing and assessed how to increase participation at the foundation stage (Warzacha, 2013). Singing is the most direct, accessible, and economical form of musical expression and also supports children's academic, social, and psychological development. (Gutiérrez Cisneros et al., 2023). As a creative force within schools that promotes connection between students and their communities, group singing must be encouraged as an activity for all, regardless of gender (Adler, 2002).

Aim of study

Through this study, I hope to develop an understanding of boys' singing participation in the community I serve as a local authority music service vocal lead. From this understanding, I aim to develop strategies to share with local music coordinators to encourage primary-aged boys to engage in singing activities and join choirs.

Literature review

This review aims to provide an overview of the current literature on primary school-aged boys' participation in singing activities and choirs. Due to a need to draw upon various academic disciplines and research methodologies, a narrative review model was deemed appropriate (Efron & Ravid, 2019). A grounded theory approach was applied to the analysis, exploring themes emerging from the research data (Dunne, 2011; Dearing & Williams, 2020). To avoid irrelevant focus and bias, grounded theory typically delays literature review until research theories have been established (Charmaz, 1990). However, a preliminary review was necessary for ethical approval and to establish the broad themes to be investigated (Charmaz & Bryant, 2007; Dunne, 2011). Literature was referred to during the integrative phase to determine what the data may signify and to help develop codes (Dearing & Williams, 2020). The final literature review was completed during data analysis to provide context to the theory and practical strategies to increase singing participation (Charmaz, 1990; Dearing & Williams, 2020). This process helped to ensure the research was grounded in relevant literature whilst

remaining open to new insights (Dearing & Williams, 2020). As societal norms evolve, the review will mainly focus on recent literature (Hempel, 2020). However, referencing older literature will be necessary to interpret cultural practice changes and understand the historical context of boys' singing (Hempel, 2020).

The following questions were raised and highlighted within the studied literature and during data analysis:

- Why are fewer boys singing in choirs?
- Why should boys sing?
- How can boys be encouraged to join choirs?

These questions will now be explored in detail during the review.

Why are fewer boys singing in choirs?

Inspiring boys to sing in a choir is a well-documented challenge for music educators (Spraggs, 2022; Cobbs, 2007). However, in Western culture, there exists a long tradition of male-only choirs with the unchanged treble voice celebrated and associated with sacred music and innocence (Ashley, 2006). Over the last 75 years, ideologies and social patterns have changed, and Western society has become more secular (Heywood & Beynon, 2013). A more secular society may have led to less participatory singing in churches and fraternal organisations (Hall, 2005; Heywood & Beynon, 2013). Without careful guidance from educators, the male voice change can lead to feelings of vocal instability, resulting in a lack of confidence and avoidance of singing (Henwood, 2006; Freer, 2016). Varied approaches to adolescent voice change and reduced opportunities to sing may have resulted in a lack of singing peer role models to encourage boys to sing before, during and after voice change (Hall, 2005; Heywood & Beynon, 2013).

Singing can often be framed as a feminine activity, reducing boys' willingness to participate in school choirs (Warzecha, 2013; Hale, 2006; Watson et al., 2017). Within this study, gender refers to socially constructed characteristics, norms and roles associated with being male or female (WHO, 2024; Palkki, 2024). While acknowledging the spectrum of gender identities, the binary gender concept will be of focus due to its dominance in the studied community (Spraggs, 2022). From three years old children are often aware of gender stereotypes and what a man or woman should or could be (Pownall & Heflick, 2023). Perceptions of masculinity are often shaped by social constructions of gender, which vary across cultures and time (WHO, 2024; Palkki, 2024). Nannen (2017) identified common themes of "*choir is for girls*" and "*guys are physical*" in male adolescent perceptions of singing. A hegemonic view of masculinity is characterised by stoicism and physical strength and often contrasts with activities perceived as expressive or vulnerable (Powloski, 2015; Pearson, 2020). Singing in a 'high' voice is often perceived as feminine, and boys whose voices have not changed can feel

exposed to ridicule (Ashly, 2009). Within Sweet's (2010) study, boys described receiving sarcastic comments from other boys who were not involved in choir and receiving negative comments on their vocal ranges when singing high. Palkki (2015) observed that boys' involvement in U.S. choirs is challenged by a stereotype that incorrectly associates masculine participation in perceived feminine activities with homosexuality. This was also shown in Harrison's (2007) research, where adolescent boys were subject to homophobic comments for participating in choir and enjoying singing. The risk of peer comments and societal pressure may lead boys to avoid choirs and other activities considered feminine (Watson et al., 2017).

Primary school teachers have been shown to have low expectations of the number of boys they expect to join their school choirs and may presume they are uninterested in singing (Ashley, 2009). Low expectations may lead to less motivation to change existing practices, and time pressures and workload to a lack of ability to develop effective teaching strategies (Nikolopoulou, 2023). Research by Hale (2006) and Mizener (1993) found that Primary school-aged girls were often more motivated to participate in singing activities than boys and had more confidence in their singing capabilities (Hale, 2006). However, Mizener (1993) found that pitch-matching ability between the ages of 8 and 12 is similar across genders. The utility value placed on an activity and the cost of missing other activities has been shown to significantly affect motivation (Studer & Knecht, 2016). McPherson et al. (2015) found that girls in upper primary school valued music more and placed more utility on it than boys. However, as they moved into secondary school, general interest and value in music decreased and were similar in both genders (McPherson et al., 2015). This shift in perspective may be due to an enhanced focus on academic subjects and music being perceived as unnecessary for their future examinations and career goals (McPherson et al., 2015).

Why should boys sing?

Creative expression is crucial to mental health, and singing can increase confidence and support personal identity development (Powell, 2014). Men and boys can often be affected by toxic hegemonic masculinity, which can see emotional expression and discussing mental health as a weakness (Pearson, 2020; NCPCC, 2022). These perceptions can lead to escalated distress and severe consequences (Pearson, 2020; NCPCC, 2022). In the last decade, the mental health of children has declined, leading to less enjoyment of school and increased cases of depression and self-harm (Davies et al., 2023). In 2020, 1 in 6 children were identified as having a probable mental health condition (Young Minds, 2024). Group singing may effectively support mental health as it has been shown to increase children's feelings of well-being (Davies et al., 2023). By lowering levels of the hormone cortisol and increasing oxytocin levels, singing alleviates stress and anxiety and enhances bonding (Davies et al., 2023; Robens et al., 2022; Singup, 2024). A sense of belonging during childhood and adolescence is crucial in creating a healthy self-concept (Freer, 2010). Self-esteem can be increased by choral singing as it offers a chance to forge friendships and gain a new skill (Ferrer et al., 2017; Gutiérrez Cisneros et al., (2023). Group singing also promotes

respect and perseverance through learning repertoire and following a conductor (Ferrer et al., 2017). These benefits of group singing and the opportunity to express emotions in a safe space may help children react less emotionally to stress and improve classroom behaviour and mental health (Sing-Up, 2024).

By the end of primary school, 56% of boys, compared to 63% of girls, are meeting standards, leading to concern for boys' academic progress (Hall, 2005; Roberts et al., 2024; Pearson, 2020; Houtte, 2010). Boys are nearly twice as likely to be excluded from school, and behavioural difficulties are linked to a lack of language and communication development. (Save the Children, 2016; Roberts et al., 2024). Rush et al. (2009) investigated the long-term outcomes of developmental language difficulties using data from 17,196 children, measuring the language and nonverbal skills at age 5 utilising the English Picture Vocabulary Test and the Copying Designs Test (Rush et al., 2009). At age 34, literacy levels, mental health, and employment were analysed, and language skills were compared (Rush et al., 2009). After analysis, lower language skills at age five were shown to lead to adverse outcomes in adulthood, highlighting the importance of early intervention and support (Rush et al., 2009). Musical stimulus, such as singing, imitates similar transmission characteristics as language but also engages the cerebral structures concerned with motivation, gratification and emotion (Maule & Hilpold, 2013). Music training can enhance academic achievement by developing cognitive abilities called executive functions (Guhn et al., 2020). Executive functions refer to the cognitive abilities necessary for problem-solving, attention and goal-orientated tasks (Frishen et al., 2021). Strengthening these abilities through musical activities in childhood is beneficial to future academic success (Frishen et al., 2021). During Welch et al.'s (2021) six-month study, when children sang every day for two terms, the executive functions of phonological working memory and inhibition increased, increasing reading assessment scores (Welch et al., 2021). Compared to a control group, Gutiérrez Cisneros et al., (2023) found that primary school-aged children who sang every day for eight months had significant increases in reading and attentional skills. In a longer-scale study of 2.5 years, Jaschke et al. (2018) saw increased results in verbal I.Q., inhibitions, and planning tests when a primary school class engaged in structured musical activities.

How can boys be encouraged to join choirs?

Enthusiasm for singing and confidence in ability can decline as children approach late childhood and adolescence (Siebenaler, 2008; Cobbs, 2007). According to Hale's (2006) study, 6-8-year-olds were more likely to join in singing activities when they felt confident in their abilities. This implies that developing boys' confidence in their singing abilities may lead to higher participation (Hale, 2006). To increase confidence and engagement, Mizener (1993) recommends incorporating singing games, songs with narrower range, and children playing drum accompaniments into choir rehearsals. Social and personal identity can be closely linked to musical identity and repertoire preference (Cobbs, 2007). Children may be more engaged singing about topics relevant to them and allowing students to have input into repertoire selection may enhance their motivation and connection to the music (Spraggs, 2022). However, Hall's (2005) study demonstrated that 5-year-old boys were more influenced by gender and socioculture than their singing ability when deciding to join in singing activities (Powell, 2015; Hall, 2005). Boys seeing peers singing may help them view it as culturally acceptable and may reshape their perceptions (Demorest, 2000; Spraggs, 2022; Cobbs, 2007; Hall, 2005). Regular workshops where boys sing together and observe male singers have been shown to increase participation in choirs (Demorest, 2000). However, McBride (2016) warns against depending on heteronormative approaches to promote choirs, such as sports references and all-male groups. Instead, he suggests focusing on creating a safe, accepting environment for all (McBride, 2016). Ashley (2006) found that a choir leader's enthusiasm and musical competence, regardless of gender, were influential and motivating to boys aged 8-14. Parental and family influences can also significantly impact children's perspectives on singing, and children with musical parents are more likely to join a choir (Ferrer et al., 2017; Rinn, 2022). An important consideration in a child's decision to participate in an activity is its relevance and usefulness for future goals (Studer & Knecht, 2016). Informing students and their caregivers of the mental health and academic benefits may further develop motivation to sing and lead to stereotypes being challenged (Mizener, 1993; Ferrer et al., 2017; Hall, 2007).

Conclusion

By acknowledging and challenging negative gender stereotypes, boys may see singing as a socially acceptable activity (Palkki, 2024). Understanding the barriers boys may face when participating in choirs may help to create an environment where they feel safe to participate without fear of embarrassment or judgement from peers (Powell, 2014; Harrison, 2007). Beneficial teaching strategies may include showcasing peer singing role models, singing consistently from a young age and involving students in repertoire choices (Demorest, 2000; Spraggs, 2022). Developing and researching these strategies may enhance teaching and increase boys' singing participation and motivation (Ashley, 2006).

Research Methodology

I will now provide an overview of the methodology used within this study and present and explain the research methods, data analysis, and ethical considerations.

The pragmatist paradigm formed the philosophical foundation of this mixed-methods study and represents the specific worldview that guided the research (Pabel et al., 2021). Ontological and epistemological views shape perspectives on the discovery and nature of knowledge and influence the chosen research paradigm (Open University, 2024; Pabel et al., 2021). For the study, an ontological position of constructivism was applied, recognising multiple individual and social realities influencing how people may experience the world (Costley et al., 2010).

Qualitative data is usually associated with constructivism and studies how individuals learn, understand, and interpret their realities (Berg, 2001). However, a positivist ontological position, which sees knowledge as measurable and certain, was also adopted to quantify and measure averages of choir participation (The University of Nottingham, 2024). Given these dual considerations, the pragmatist paradigm was viewed as appropriate for this research.

Pragmatism adheres to mixed-methods research and education due to its focus on practical outcomes and on understanding complex social phenomena (Pabel et al., 2021). The use of both qualitative and quantitative data aimed to provide a comprehensive picture of boys' participation in choirs in the area of research (Glogowska, 2011). Quantitative data from teacher questionnaires offered an overview of boys' preferences in singing activities and averages of choir participation (Glogowska, 2011; Morgan, 2014). In addition, qualitative data from teacher questionnaires, interviews and boys' focus groups provided deeper insights into the participants' social realities (Glogowska, 2011; Morgan, 2014).

Data Analysis

A grounded theory approach was used within qualitative data analysis, due to its accreditations in interpreting human behaviour and its aim to develop theory rather than test hypotheses (Cullen & Brennan, 2021). Grounded theory also provides a systematic process and comparative analysis method to help generate theory grounded in data (Tarozzi, 2020). Grounded theory aligns with the pragmatist paradigm due its focus on practical methods which benefits research rather than strictly adhering to philosophical perspectives (Tarozzi, 2020). All qualitative data was initially analysed line-by-line and summarised in succinct terms (Charmaz, 1990). The following coding cycles were then applied:

- **In Vivo Coding:** The participants' own words were coded to accurately reflect their perspectives (Saldaña, 2016).
- **Process Coding:** Codes were created based on the actions, events, and processes, utilising gerunds (verbs ending in -ing) used by participants (Saldaña, 2016).

- **Emotion Coding:** Codes were identified based on the emotions expressed or recalled by participants (Saldaña, 2016).

Initial codes were then organised into categories during axial coding, and theoretical categories were developed (Charmaz, 1990; Saldaña, 2016). The relationships between themes across all the data sources were then analysed and synthesised to identify core categories and generate theory (Charmaz, 1990) (See Appendix K 3& 4, pp.103-104.). For example, from the data, *“I probably don’t really want to sing in schools because everyone thinks that it’s sort of a girl thing”* the initial codes *“singing perceived as feminine”* and *“girl thing”* were created. These and similar codes contributed to the theme of the *‘Impact of Gender Stereotypes’* (See Appendix K 1, pp.100). Analytical memo writing was also used to document thoughts and reflections during the coding process to progress from describing and summarising into analysis (Charmaz & Tweed, 2012) (See Appendix L, pp.106). Quantitative data were analysed using descriptive statistics, and results from closed questionnaire questions were presented through averages and visual representations such as graphs and pie charts.

Research Methods

Online Questionnaires

All primary school music coordinators in the research area were emailed semi-structured online questionnaires (See Appendix G, pp.42). The questionnaires provided an efficient method to establish the opinions of music coordinators and gain quantitative data on boys’ participation in school singing activities (Bartram, 2019). The questionnaires contained both open and closed questions, with closed questions asked first, followed by more complex ones (Bartram, 2019). Closed questions provided quantitative statistics and frequencies of themes through multiple-choice, ratio and dichotomous data (Cohen, 2017). The use of open questions allowed participants room to elaborate and further comment and provided personal responses and honesty from respondents (Cohen, 2017). However, to avoid participants feeling forced to answer, the ‘Not Sure’ option was used (Cohen, 2017).

Focus groups

Children are the best placed to provide information about themselves (Cohen, 2017). Therefore, focus groups were used to provide qualitative data on boys’ viewpoints on singing (Cohen, 2017). Focus groups were chosen above other qualitative interview procedures due to their ability to facilitate group discussion and the opportunity for various viewpoints to be shared (Vaughn et al., 1996; Whittaker, 2011). Focus groups are also often used to add depth and clarification to questionnaire findings and are suggested to be beneficial within exploratory research (Vaughn et al., 1996). Focus groups of peers can help participants feel more at ease, but dominant members can sway group discussions (Hammond & Wellington, 2021). To reduce this effect, I aimed to be aware of and acknowledge potential bias and monitor verbal

and non-verbal behaviour (Vaughn et al., 1996). Treating all participants' viewpoints equally was essential to balance controlling the focus group and losing spontaneous discussion (Vaughn et al., 1996). When a participant's viewpoint could be interpreted in several ways, further questions were asked to ensure understanding (Vaughn et al., 1996). Conversational and non-confrontational language was used to help create a relaxed atmosphere which encourages children to express themselves freely (Whittaker, 2011). The sessions began with an introduction to the research and reconfirming consent, followed by an initial warm-up question to set a relaxed tone (Vaughn et al., 1996). The questions progressed from general "*what do you think about singing?*" to more specific, such as "*would you join a choir?*". This approach aimed to build participants' confidence before tackling potentially sensitive topics (Winwood, 2019; Whittaker, 2011). At the end of the session, the main themes discussed were summarised, and participants were thanked and given the opportunity to ask further questions (Vaughn et al., 1996).

Individual interviews with music coordinators.

As the vocal lead for a local authority music service, part of my role is to organise singing events to support and encourage singing in the borough. The data from the online questionnaires showed that two music coordinators had arranged and taken boys to boys-only singing sessions. I was keen to explore their views of the events to assess whether it would be beneficial to organise a similar event (Gill, et al. 2008). To further investigate, the two music coordinators from the schools were contacted to take part in a short online semi-structured interview and sent consent forms (See Appendix C pp.22). Semi-structured interviews were chosen as a method of research as they have been shown to be most useful when used to further explore known concepts (Given, 2008). Within the interview, the participants were asked a series of open-ended but predetermined questions (Given, 2008) about the singing event and their views on its effectiveness in encouraging boys to join their school choirs. Semi-structured interviews allowed key areas of interest to be explored and the opportunity to ask further questions and develop additional insight (Gill et al., 2008). Attentive listening through open body language and allowing participants time for reflection through strategic silence were used to help participants feel at ease and remember details (Gill et al., 2008).

Ethical considerations

As a vulnerable population in our society, ethical practices must be implemented when children are involved in research (NCPCC, 2024). Children may feel obligated to participate due to the power dynamics between teachers and students and must understand the optional nature of the research (Lambert, 2019). The purpose of the research study was explained simply by school staff before children were given consent forms for their guardians to read and sign (Adler et al., 2019) (See Appendix E pp.29). Before the focus groups began, the consent forms were checked, and verbal consent from the child was confirmed (Adler et al., 2019; NCPCC, 2024) (See Appendix F pp.32-41)..

Music coordinators may feel emotionally vulnerable having their approach questioned (Sim & Waterfield, 2019). The group context of the focus groups may also expose participants to embarrassment from peers (Sim & Waterfield, 2019). To reduce this risk, the participants were accurately informed of the advantages and risks of participating during the consent process (Sim & Waterfield, 2019; Adler et al., 2019). Within the online questionnaires, an initial page before the questions acted as a consent form, informing participants that by clicking NEXT, they were providing consent (University of Cambridge, 2024) (See Appendix G pp.42).

Participating in the research study may result in a loss of learning time for children and teaching time or non-working hours for teachers. Therefore, the focus groups were placed at a time of day the music coordinators felt was appropriate (NCPCC, 2024). The timings of the focus group were appropriate for the child's age and were at most 20 minutes long (Adler et al., 2019). Participants of questionnaires were told the questions would take 10 minutes maximum to allow participants only to participate if they felt they had time.

Loss of confidentiality could result in emotional distress, and GDPR guidance was closely followed (Sim & Waterfield, 2019). The names of participants have been removed to ensure anonymity, and all data has been kept on a password-protected laptop and not shared (University of Reading, 2024). Audio data from the focus groups and teacher interviews were transcribed verbatim using Otter AI software (See Appendix I pp.55-92 & Appendix J pp.93-100). The transcriptions were then checked for accuracy and sent to teachers to check the reporting accuracy (Adler et al., 2019). Once received, paper consent forms from the focus groups were stored in a locked box and will be shredded following the final moderation of the assignment (University of Cambridge, 2024).

Due to my role in organising primary school vocal events, some teachers may be familiar with me. I may have also conducted and taught some of the children participating in focus groups. Therefore, I was approaching the study as an insider researcher. Due to insider knowledge and having multiple roles and responsibilities, pre-existing professional relationships with participants can risk ethical dilemmas (Poulton, 2021). Reflecting throughout the research process has helped deepen my understanding of my bias and separate my views from the collected data (Greene, 2014). To further avoid data distortion, research ethics have been closely followed, and emphasis placed on accurately interpreting participants' feedback (Costley et al., 2010; Lambert, 2019). Data collection from various perspectives and sources also provided triangulation and ensured a broad analysis (Maxwell, 2018). As I will utilise contacts I have gained through my workplace, my employer's consent was ensured before contacting participants (Costley et al., 2010) (See Appendix B pp.21).

Findings

Using a grounded theory study approach to data collection and analysis, I will now present the findings designed to address the research question:

“How can primary school-aged boys be motivated to join a choir? What barriers may they face, and what strategies can be used to encourage participation?”

Data was collected from 17 online questionnaire responses from music coordinators, four focus groups with primary school-aged boys, and two teacher interviews. Quantitative data from the teacher questionnaires were analysed to produce descriptive statistics and assess boys’ average participation in school choirs.

Teacher Questionnaires

The online questionnaire was emailed to all primary school music coordinators, and 17 responses were received from schools (See Appendix H pp.47). These results were firstly organised and reduced to synthesise the data (See Appendix K 2 pp.102). Within the initial coding process of the open-ended questions, 47 codes were identified. These codes were then refined and organised into ten categories (See Appendix K 3 pp.103). After analysis and refinement across all questions, they were synthesised into four main themes.

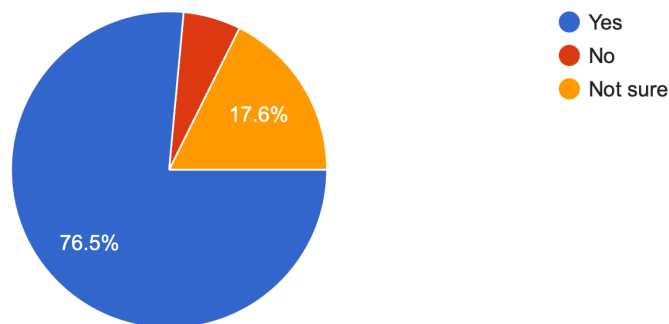
1. Boys may perceive singing as a gendered activity more associated with girls.
2. The repertoire chosen can significantly influence boys’ willingness to sing and join choirs.
3. Sports were described as taking priority over participating in choirs.
4. Boys enjoyed class singing and singing assemblies, but this did not lead to more participation in the choirs.

As expected, 100% of respondents agreed on the importance of boys participating in singing activities. This is consistent with the National Plan for Music (2022), which accentuates singing as a core component of the music curriculum. However, 13 of 17 music coordinators indicated that boys’ participation in singing activities was lower than girls. Three music coordinators were unsure and one stated it was not an issue in their school (see Fig. 1 pp.22). In agreement with previous research studies, these findings highlight the gender discrepancy of participation in school choirs and the challenges associated with encouraging boys to sing (Henwood, 2006; Hall).

Figure 1: Do you consider boys' singing participation lower in your school than girls?

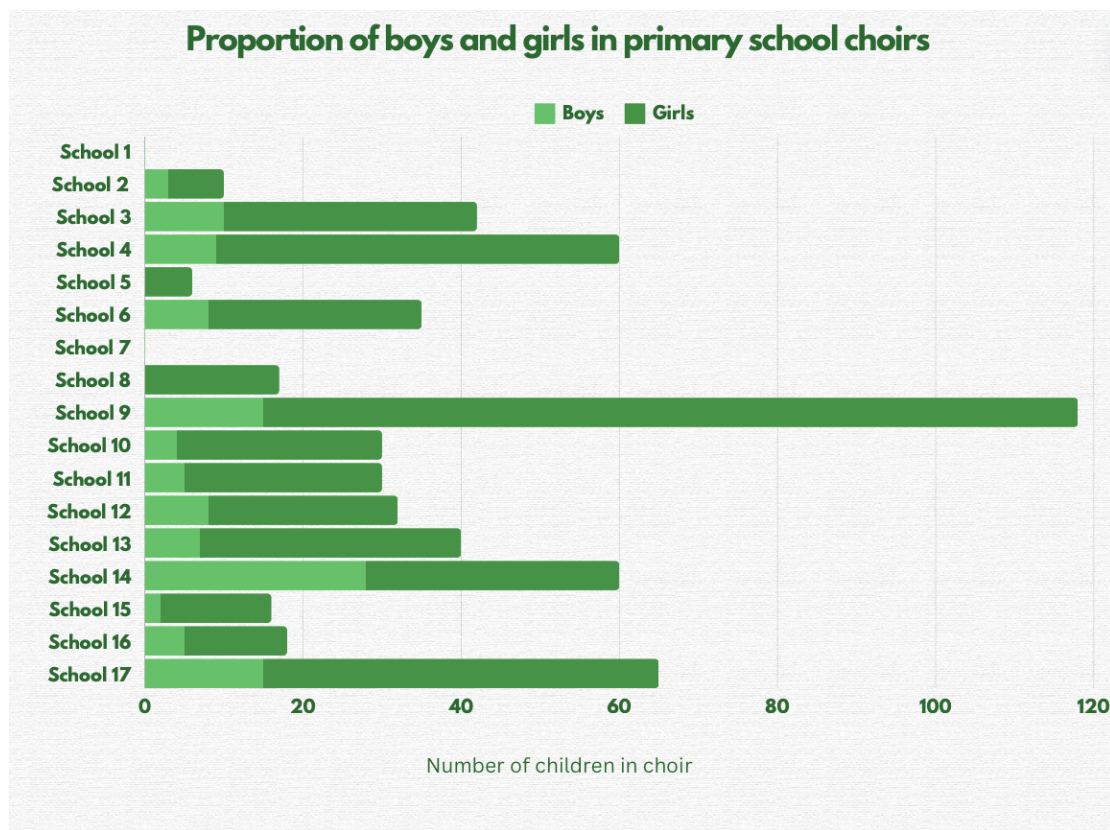
Do you consider boys' singing participation lower in your school than girls'?

17 responses



Fewer boys were found to participate than girls in school choirs (see Fig 2 pp.23). Fifteen primary schools responded to the question; the average number of boys in a choir was 8, compared to an average total of 37 choir members. Overall, 584 children participated in choirs, with only 121 being boys. This resulted in an average male participation rate of 21%. Lower participation by boys in extracurricular singing activities may be typical across various age groups and geographical areas, as comparable trends have been observed within other research (Cobbs, 2007; Mizener, 1993; Siebenaler, 2008).

Figure 2: Proportion of boys and girls in primary school choirs

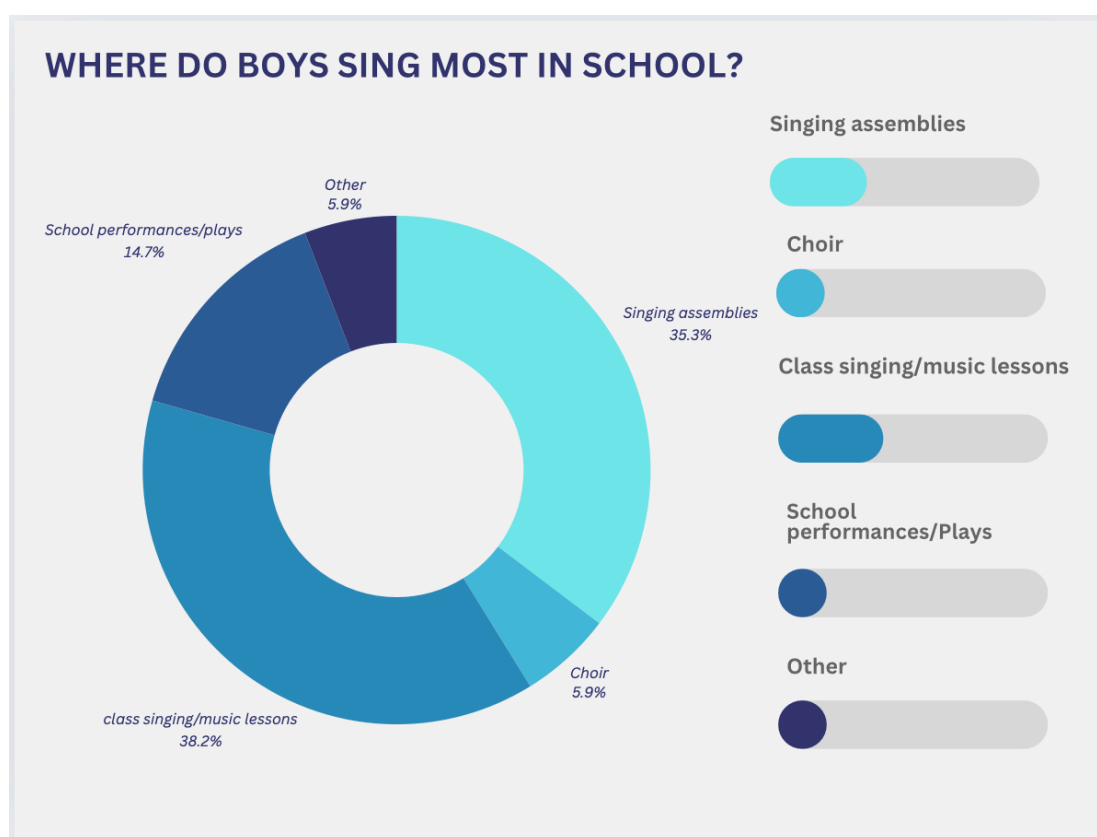


Music

Music coordinators were asked to select where they observed the most singing participation by boys from the following options:

- Singing Assemblies
- Class Singing/Music Lessons
- School Performances/Plays
- Choir
- Other

Class singing/music lessons were selected thirteen times, and singing assemblies were chosen twelve times as the activities in which boys are most likely to participate (see Fig 3 pp.25). The least chosen option was school choirs, selected only twice, followed by school performances and plays, which were chosen seven times.

Figure 3: Where do boys sing most in school.

There were 16 responses to the question, *“If you feel encouraging boys to sing in your school is challenging, what do you feel are the reasons why?”* Ten responses indicated that a preference for playing outside or participating in sports was a significant barrier to boys joining school choirs. Music coordinators inferred this to be due to these activities conflicting with choir, which were also during lunchtime or after school. Peer pressure, stereotypes that singing is a female activity, and resistance to singing songs from various genres were also described as significant barriers.

When asked, *“Do you use any motivational strategies to encourage boys’ participation?”* sixteen music coordinators stated they did, while one did not respond. Four teachers did not add detail, and two did not answer. School 9 expressed no concern over increasing boys’ participation in their school choirs, as boys had other opportunities to sing within the school, and the choir already had sufficient members. Among the seven remaining schools, the most commonly mentioned strategies were having boys take solos and selecting repertoire appealing to them, described as pop songs, upbeat music, rap, and beatboxing. Research supports the observation that boys tend to prefer popular and jazz styles more than girls, who generally like a broader range of musical genres (Siebenaler,

2008). In response to the question on motivational strategies, School 15 said they organised a boys-only singing event and School 6 held boys-only choir taster sessions. Literature suggests that boys-only events can be effective in increasing boys' participation in choirs (Demorest, 2000). This realisation led to theoretical sampling (Conlon et al., 2020) through follow-up interviews with the music coordinators from these schools. From these interviews, I hoped to gain more depth in understanding whether similar vocal events may be beneficial.

The percentage of boys attending choirs did not change significantly based on whether motivational strategies were used or not. However, School 14 had the highest number of boys in their choir, representing 47%, and reported using numerous motivational strategies to encourage boys' participation: *"Yes. During assemblies and performances, we have boys sing solos. We choose current songs, provide lots of praise and encouragement, and include simple beatboxing. We have choir leaders at the front of the hall, ensuring an equal number of boys and girls."*

These motivational strategies align with existing literature, which identifies confidence in singing ability, peer role models, and enjoyable repertoire as key factors for boys' attendance in choirs (Demorest, 2000; Lucas, 2011; Hall, 2005). When asked whether additional strategies for encouraging boys' singing participation would be beneficial, 14 schools answered "Yes," while three schools were "unsure". This suggests a consensus that their current strategies may not be sufficient and that more targeted approaches could be beneficial.

Focus Groups

Twelve schools indicated their willingness to participate in further research within the online teacher questionnaire. To assess whether schools from varied locations would need different motivational strategies, two schools for the focus groups were chosen based on their contrasting levels of socio-economic location and the musical opportunities available (Shaw, 2017). Socio-economic status may reflect two main aspects of a person's social background, their access to resources, and their place within a social hierarchy (Shaw, 2017). Social hierarchy is often shaped by a person's income, the goods and services they consume, their job's reputation, and their level of education (Shaw, 2017). The borough in which the research was conducted is one of the most socio-economically polarised in England, with a significant disparity in the future health and employment outcomes of children (Democracy Stockport, 2022; Office of National Statistics, 2021). School A is from one of the most deprived areas in the borough, ranking within the 2% of the most deprived areas nationally, and School B is from one of the most affluent (Office of National Statistics, 2021, JSNA, 2024). School A did not have a choir, while School B featured a well-established Key Stage 2 choir that performs regularly within the school and in the community. School B also provided the opportunity to learn instruments in weekly individual or small group lessons. Both schools incorporated singing into music lessons and held regular singing assemblies. Similar themes emerged from both schools, and there were no obvious differences in their enjoyment of singing. The younger KS1 groups, particularly children from the KS1A group, showed the most enthusiasm for singing and the benefits they feel from it. This may indicate that choral singing is an opportunity to create socially inclusive, affordable, and accessible spaces based on many children's intrinsic enjoyment of singing (Shaw, 2017).

I initially requested each school to provide groups of 6-9 Key Stage 1 (KS1) and 6-9 Key Stage 2 (KS2) boys for the focus groups. The actual size and year groups varied slightly (see Fig. 4 pp.28). The sessions were designed to last 20 minutes to promote concentration, due to the age of the children, and to limit missed lesson time (Adler et al., 2019). A teacher was also present to ensure a comfortable and familiar environment (Adler et al., 2019).

Figure 4: Focus Group Compositions

School	Focus group	Number of children	Child number	School year
School A	KS1A (Ages 5-7)	5	1	1
			2	1
			3	1
			4	2
			5 (Didn't speak throughout focus group)	2
	KS2A (Ages 8-11)	4	1	3
			2	3
			3	5
			4	5
School B	KS1B (Ages 5-7)	6	1	2
			2	2
			3	2
			4	1
			5	1
			6	1
	KS2B (Ages 8-11)	6	1	4
			2	4
			3	4
			4	4
			5	6
			6	6

The main themes from the teacher questionnaires provided a focus for these discussions, which centred around the following five questions (Winwood, 2019):

1. How do they feel about singing?
2. What types of songs do they enjoy?
3. Where do they prefer to sing?
4. Who do they see as singers?
5. Would they consider joining a choir?

The data from the focus groups were transcribed (see Appendix I pp.55-93) and initially analysed line-by-line to reduce personal bias and assumptions (Saldaña, 2016). Using NVivo 14 software, during the open coding stage, 47 codes emerged. In the second coding cycle, these codes were refined into key codes and then organised into categories and subcategories, resulting in 5 themes (See Appendix K 4 pp.104). These were then synthesised into the main concepts of the study (Saldaña, 2016).

Emergent themes included:

- Many children noted improved mood when singing.
- Singing was a natural and enjoyable part of life.
- Gender stereotypes affected how boys viewed singing and their participation.
- There was a strong preference for pop, rock music, and other familiar genres.
- Boys expressed a sense of self-consciousness when singing in front of others or on their own.

Improved mood

The children's descriptions of how singing made them feel were overwhelmingly positive. They frequently used words like "*calm*," "*relaxed*," and "*less worried*" to describe their emotions when singing (See Fig. 5 pp.29). One notable comment from the KS2A focus group was that singing in school assemblies felt like "*a break from work*," which helped them feel more connected to their peers.

Figure 5: Emotional impact of singing



Singing As Part of Everyday Life

At Home

KS1 Boys, especially in the KS1A group, expressed enjoyment of singing at home and during daily activities like walking to school or riding bikes:

- *"I like putting my hand on the fence and singing when I'm walking along."* - KS1A.
- *"Because when you're bored, you've got something to do and it's fun."* - KS1A.
- *"When I put things away and tidy up, I like to sing."* - KS1A.

There was a preference within the KS1B groups to sing by themselves in their own private spaces, such as their room or in the shower.

In KS2A, a child who was a positive and confident singer mentioned family singing activities, highlighting the potential home influence on singing:

- *"On Fridays, we normally do like this singing competition where they choose their favourite song and then they sing it. And if they win, then they get a big bag of popcorn for the movie"* - KS2A.

KS2B held similar findings, with some boys enjoying singing alone or with family.

However, two boys found singing with family embarrassing, although they acknowledged their parents' influence on their musical preferences:

- *“When I’m in my dad’s car, he plays all kinds of songs, and I add the ones I like to my playlist.” - KS2B.*
- *“I like singing alone in my room where no one can hear me.” - KS2B.*

At School

In the KS1A focus group, boys were eager to demonstrate their learned songs, showing excitement for songs which included Makaton sign language. Due to visual and movement aspect, Makaton signs may help promote inclusivity and concentration (Makaton, 2024). Children sang with friends during playtime and used songs to support school subjects, such as Math.

- *“We play games and sing songs to make it more fun.” - KS2A.*

All the children particularly enjoyed singing assemblies:

- *“When I sing in assembly, I don’t really care. Because everyone in my class, I’ve known them for like a long time. So we just join arms together and start singing out loud and proud. Which is fun, so we sing it at the top of our voices” - KS2A.*

This enthusiasm contrasts with Cobb’s (2007) study, in which primary school-aged children in Australia were reluctant to sing in school due to a fear of peer criticism and a lack of engagement in school repertoire. In the KS2B group, three boys were school choir members and enjoyed performing at events. Repertoire choice and preferences for other activities were stated as reasons for not participating by the rest of the group.

Repertoire

In both focus groups, the most popular genre among boys was pop music, followed by rock and country. Classical music was talked about negatively by a year six child, and the familiarity of the music was very important to another:

- *“I tried out for the choir, quite a lot people in my class did. But it’s just they didn’t really like the songs because like the songs were very classical” - KS2 B.*
- *“If I knew the song, I’d stay in the choir.” - KS2 B.*

Regarding repertoire, young children can be more open-minded than older children, and the willingness to engage with various musical styles may decline in late childhood and adolescence (Siebenaler, 2008). Cobbs’ (2007) research also showed that boys are more affected than girls by repertoire choice as they move into later childhood.

Despite these preferences, some boys expressed a desire to explore new genres:

- *“I’d like to learn more.”* - KS2A.
- *“I just like any song, even if I don’t know it!”* - KS1A.

Boys in the KS2B choir appreciated fun warm-up games and short, engaging songs, aligning with research indicating that “fun” is a primary motivator for boys to join a choir (Lucas, 2011; Spraggs, 2022).

Impact Of Gender Stereotypes

Gender stereotypes were not mentioned in KS1 but were acknowledged and challenged in KS2:

- *“I used to think well, when I was like around about five to seven. And then we learnt about stereotyping. Everyone is different can do the same things as different people because if they want to do it, they can do it because they’re free”* - KS2A.
- *“I probably don’t really want to sing in schools because everyone thinks that it’s sort of a girl thing”*. This was challenged by another *“No! People can like whatever they want”* - KS2B.

Despite stereotypes being challenged, upper KS2 boys still held views that singing as a “girl thing” and believed boys were “too cool” for choir:

- *“Girls are like better singers than boys because girls have like higher pitched voices, and like, but um, but like boys, they normally go a bit deeper”* - KS2A.
- *“Boys don’t really like doing choirs because some boys think they are too cool to be in like choir”* - KS2A.

These perceptions are similar to Hall’s (2005) study, which found that gendered stereotypes about singing were already evident in children in the first year of school.

Within Lucas’s (2011) study, the perceived pressure from peers of singing ‘being uncool’ negatively affected adolescent boys views on singing. Adolescents are more likely to be influenced by peers than adult authority (Lucas, 2011), which may indicate that peer role models may be a crucial addition as the upper KS2 boys move towards adolescence.

When asked why they felt choir was perceived as a feminine activity, they were unsure.

- *"I don't know. They just think that like, blue is boys"* - Ks2B.
- *"Because when I was younger it was kind of fixed into me"* - Ks2B.

Boys in the second KS2 focus group described preference for playing sports as a reason fewer boys were in the school choir.

- *"I think genuinely like boys do more like after school activities than the girls. Most do like loads of sport"* - KS2B.

Hall's (2005) study of primary school opinions on singing also shows that sport is viewed as a male activity and is incompatible with musical activities.

Self-consciousness

Girls are generally more musically confident than boys, although no difference in ability has been found (Siebenaler, 2008). Only one boy in the KS1 groups mentioned feeling *"embarrassed"* by singing, and many sang spontaneously throughout the focus group. Within both KS2 groups, themes of embarrassment and self-consciousness were more prevalent.

However, boys often preferred singing in groups rather than solo in all the focus groups.

- *"I don't like singing by myself when people are watching me. Yeah, I sing with my friends beside me"* - KS1A.
- *"I feel like people are just going to think I'm being stupid"* - KS2A.

Some boys in both KS2 groups worried about voice cracks, being unable to sing high and were conflicted over whether they would join a choir because of *"stage fright"*. Consistent with literature, boys can struggle to continue to sing during the voice change, which can begin in primary school (Lucas, 2011).

In KS2B, a boys-only choir was suggested to address their concerns:

- *"There should be separate choirs for boys and girls, then we can perform together."* - KS2B.

The idea was popular within the group, with boys agreeing that singing with friends and not having to sing high are key factors in participation. Singing with friends is also a motivating factor within Kenndy's (2002) study as it provided the confidence to overcome the stigma of choir being a feminine activity.

Teacher interviews

Within responses in the online questionnaires, two music coordinators specified using boy-only events to increase participation. Through organising interviews with these teachers, I sought to gain more insight into the effectiveness of this strategy (Gill et al., 2008). The first interview took place in person at the same school where the second set of focus groups was conducted. Due to time constraints, the second interview was conducted via Zoom.

The interview questions focused on the following four questions:

1. Why did you decide to attend or organise a boys-only singing event?
2. What was the structure and content of the event?
3. Did the event impact boys' participation in the school choir?
4. Will you attend or organise a similar event in the future?

For clarity, the participants will be referred to as Teacher A and Teacher B. Both interviewees served as music coordinators at their respective schools, with Teacher A's choir managed by a specialist teacher and Teacher B's by another classroom teacher.

Three key themes emerged from the interviews:

1. Both teachers noted that boys responded positively to upbeat, short songs during the sessions.
2. There was a consensus that similar future events could be beneficial.
3. Boys' preference to engage in more active activities rather than attend choir after school or during lunchtime was a significant barrier to attendance.

Teacher A decided to lead a boys-only choir taster sessions to address the underrepresentation of boys in the school choir, commenting that boys' voices would improve the choir's sound:

- *"The Head Teacher said we look like a girls school because there's no boys. So we decided to have a bit of a drive."*
- *"We really need boys voices to add a bit more depth and to make it sound better"*

50 boys attended the 20-minute taster sessions, which consisted of several warm-up activities, rounds, and short songs. The teacher also showcased the songs that would be performed in a future concert. Despite successful taster sessions, only seven boys continued to the regular choir, primarily due to the after-school timing and a preference for more active after-school activities:

- *“I could keep them all going for 20 minutes, but because it was an hour and it was, it’s almost like another listening lesson at the end of a school day. So some of the year three’s and four’s were like, they just came in and sat down and they were already like zonked out completely. So we lost some of them.”*

However, the teacher felt that the school watching boys perform in the choir has increased children’s perception that singing is for all genders.

Teacher B took all KS2 boys in her school to a boys’ singing event led by male conductors to increase boy participation in choirs. She was concerned about reinforcing gender stereotypes by supporting gender-segregated activities:

- *“I had some reservations about going because all of our boys basically sing in school, although they don’t necessarily join the choir. But in a music lesson, they will do. I was a bit concerned that by highlighting boys singing, they might think it was something they shouldn’t be doing.”*

Inclusive events which encouraged all students to sing together, regardless of gender, were suggested as more beneficial to avoid feeding perceptions (Palkki, 2024):

- *“I would be more interested in a singing workshop for whole class, how to get boys involved and singing enthusiastically with boys and girls. Perhaps a singing event led by male and female leaders”.*

Throughout the workshop, simple, upbeat songs and chord-building exercises were used. Although enjoyable, the teacher felt the day would have been more beneficial if teachers had been able to take the resources away to trial.

The early singing experiences of some of the school’s students were another aspect she felt impacted participation in the choir:

- *“Our other issue with singing is we have a very high Muslim population and a lot of those children haven’t had early singing experiences. So when they do sing, they can feel that they’re not in tune”*

The subject of singing within Islam is a complex subject which varies across cultures and beliefs and detailed discussion beyond the scope of this study (Izsak, 2013; Berglund, 2008). Some members of the Islamic faith may refrain from singing, while others may have varied opinions of what is acceptable (Izsak, 2013). Developing an understanding of any cultural conflicts which may stop children from being able to engage with choirs, such as lyric subject matter and choice of instrumental backing, may be an important consideration for future research (Izsak, 2013).

Both teachers noted the importance of repertoire selection in engaging boys. They also highlighted the challenges posed by after-school choir sessions, especially when they conflicted with more active pursuits:

- *“If we have choir in lesson time, the boys would come. Because they would miss lessons, and they wouldn’t miss football. And it’s all about football.” - Teacher B*
- *“So we were kind of competing against the After School Club because when they go up to the After School Club, they can go outside and play football and all of that”.*
- Teacher A

Financial constraints were also shown to affect choir accessibility by both teachers, as some parents may not be able to afford additional after-school activities (Burland, 2020).

Discussion and Analysis

Conducting large-scale vocal events made me realise that boys are vastly underrepresented in many primary school choirs. This study aimed to determine whether fewer boys are participating on average, why this may be, and what strategies are needed to encourage gender diversity.

The data demonstrates that boys navigate multiple identities, such as race, gender, religion, and socio-economic status, which may impact their participation in a choir (Palkki, 2024). Broad generalisations based on gender are often irrelevant and inaccurate and should be avoided (Palkki, 2024). However, gendered stereotypes about singing were shown to influence boys' participation in choirs, and they must be acknowledged and challenged for all boys to enjoy the benefits of group singing (Warzecha, 2003).

As income level has been directly associated with children's musical activity, the socio-economic areas of the chosen focus groups schools varied significantly (Palmer, 2017). However, across all focus groups, consistently similar themes emerged. The main highlighted difference between Schools A and B was access to a school choir. School B, located in an affluent area, had a well-established after-school choir funded by parents, while School A, from a less affluent area, did not have a choir. In the KS2A focus group, only one child indicated interest in joining a choir, if the opportunity existed. This contrasts with KS2B, where three boys were already members of the after-school choir and KS1B children were keen to join in the future. Research by Ho et al. (2020) found that low-income parents did not always recognise the benefits of music education, often seeing it as an unnecessary luxury with little practical value. However, these attitudes shifted after their children participated in a free music program, which led to increased confidence, better concentration, and positive behavioural changes (Ho et al., 2020). Due to time restraints, financial difficulties, and logistical barriers, the children were unable to continue musical activities despite the change in perceptions of musical activities (Ho et al., 2020). Teachers also noted financial barriers as a significant concern in both interviews. This evidence suggests a need to increase awareness of the benefits of singing and to remove logistical and financial barriers to choir participation. This could be achieved through equitable funding and by scheduling rehearsals and performances during school hours, as recommended by Beveridge (2021) and Palmer (2017).

The main disparity between all data sources was the boys' positivity towards singing and the lower numbers of boys participating in choirs than girls. Implying it is not a lack of

enjoyment of singing that causes low participation but an avoidance of extracurricular activities like choirs. The main themes that emerged across all data sources as barriers affecting boys' participation in school choirs were:

- Negative Gender Stereotypes.
- Preference to play sport.
- Fear of Judgment.
- Unrelatable repertoire.

These will now be discussed before suggesting strategies to reduce their effect.

- **Negative Gender Stereotypes Of Singing**

Comments of gendered stereotypes about singing were present within both KS2 focus groups: *"Everyone thinks it's sort of a girl thing."* Despite the fact that the boys acknowledged and challenged stereotyping, they were still prevalent and described as *"being fixed into me"*. Choir being perceived by others as a feminine activity may make it a risk to their social identity and threaten their perceptions of masculinity (Watson et al., 2017). According to the Social Identity Theory (Tajfel & Turner, 1979), in order to increase self-esteem, people are motivated to complete tasks that help them identify with certain social groups (Watson et al., 2017; Neighbors et al., 2013). However, joining a group that challenges societal norms and is not embraced by their peers may risk a lack of acceptance and negatively impact self-esteem (Abrams, 2001). KS1 boys did not mention or infer any gender stereotypes about singing and were generally very passionate about singing. This may indicate that older children are more aware and affected by gender stereotypes of singing than younger children.

- **Preference to play sport over choir**

Teachers described boys prioritising sports activities above singing, with comments like *"it's all about football"* being consistent. Within the KS2 focus, there was also a consensus that *"boys play more sport than girls."* Although boys, in general, have been demonstrated to be more physically active than girls, the reasons behind this tendency are more likely societal expectations and gender stereotyping than any biological differences (Telford et al., 2016; Owen et al., 2019; Hills et al., 2021). In the U.K., Football is often associated with hegemonic masculinity and often dominates school playgrounds (Paechter & Clark, 2007; Hills et al., 2021). Football and competitive sports can be seen

by boys as a way to assert their masculinity (Paechter & Clark, 2007). Parents, teachers, and caregivers may unconsciously anticipate boys to be more active and provide them with more opportunities to engage in physical activities (Telford et al., 2016). This expectation can lead to boys being given more chances to be active and girls being directed toward other pursuits (Paechter & Clark, 2007).

- **Fear of Judgment**

Within the KS1 focus groups, only one boy mentioned feeling embarrassed when singing, and a number of boys were excited to sing the songs they had been learning. In contrast, boys within the KS2 focus groups expressed concerns about being judged on their singing: *"It isn't always great and people might start laughing"*. Many KS2 boys also stated they enjoyed singing in private and with others but did not like performing in front of people or on their own. Upper KS2 boys mentioned fears of voice cracks and an inability to sing as high as the girls: *"Girls are like better singers than boys because girls have like higher pitched voices"*. Voice change can begin within this age group result in feelings of vocal unpredictability and self-consciousness (Warzecha, 2013).

- **Unrelatable repertoire**

Unrelatable repertoire may contrast with forming musical identity and reduce motivation and engagement (Cobbs, 2007). The type of music selected for a choir impacted older KS2 boys' willingness to participate: *"I tried out for the choir, quite a lot people in my class did. But it's just they didn't really like the songs because like the songs were very classical"* - KS2B.

These barriers to choir participation suggest the importance of addressing gender stereotypes, repertoire selection, choir scheduling and increased confidence and inclusivity. The following strategies have been identified from these themes:

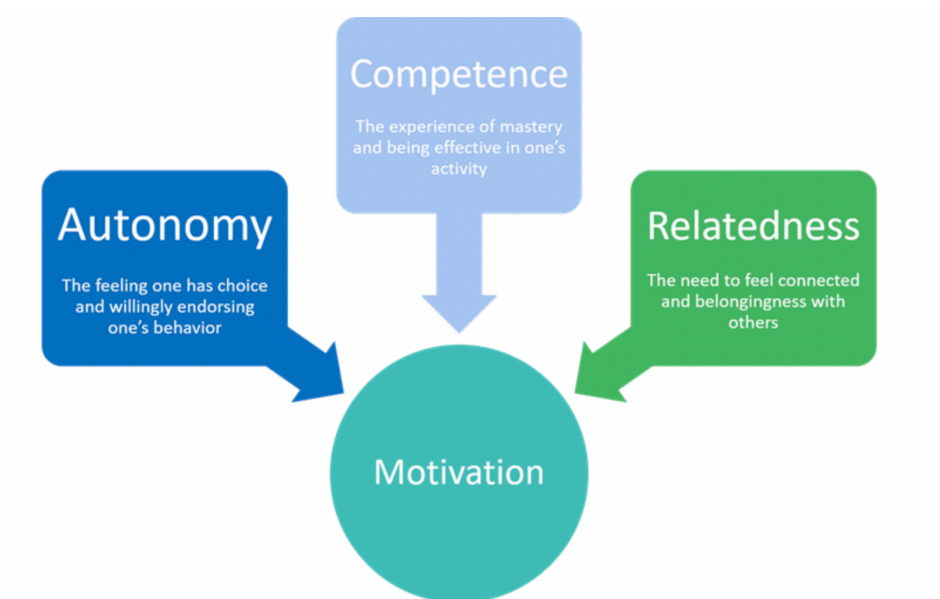
- Repertoire to develop confidence and motivation.
- Singing peer role models.
- Increasing singing self-efficacy.
- Scheduling of choir.

To propose actionable steps, these potential strategies will now be discussed in detail, drawing from both data findings and relevant literature.

Using Repertoire to Develop Confidence and Motivation

Careful repertoire selection, which inspires boys to engage with a choir and develops intrinsic motivation, may be a key strategy for increasing participation. From researching motivational theories in a previous assignment (Ashton, 2024), Self-Determination Theory (SDT) was found to be an effective strategy when selecting repertoire due to its ambition to increase intrinsic motivation and development of a deeper interest (Deci & Ryan, 2017). SDT theory suggests that motivation to complete a task is only possible when an individual's basic psychological needs (BPN) are met: relatedness, autonomy, and competence (Deci & Ryan, 2017) (See Fig 6 pp. 39). I will now explore increasing motivation for boys' choir participation through repertoire selection using meeting BPN as a framework.

Figure 6: SDT University of Rochester Medical Centre (2023)



Forming musical tastes can be an integral part of personal identity development, resulting in social networks and a sense of belonging among peers (Cobbs, 2007; De Vries, 2010). Musical tastes are mainly influenced by peers, family, cultural background, and media exposure (De Vries, 2010). Repertoire, which is relatable to choir members and reflects the school community's culture, may promote student connections and enhance feelings of relatedness (Poliniak, 2009). The boys in the focus groups often expressed a love of pop music, with rock and country also being popular. Questionnaire responses by music coordinators showed that upbeat and contemporary songs, including genres like rap and

beatboxing, were used to appeal to boys. These preferences are consistent with Spraggs (2011), who observed that grade 3 boys (8-9) were most effectively engaged with rhythmically complex, relevant, and upbeat music. To increase a sense of autonomy among choir members, choir leaders may allow students to suggest songs and compose pieces that reflect their interests and cultures (Poliniak, 2009).

Within the KS2B focus group, familiarity with songs was demonstrated to lead to more confidence and increase motivation to commit to a choir. Familiar songs may fall within the student's abilities, creating a more accessible experience and increasing feelings of competence. However, to further increase feelings of competence, introducing slightly unfamiliar material could push students into the zone of proximal development, encouraging additional learning and growth (McLeod, 2024). Learning repertoire in the zone of proximal development (ZPD) is an effective learning strategy as learning occurs beyond what the student can do independently but within reach with guidance (McLeod, 2024). However, skill level should be carefully assessed, as students must have fun to be engaged in the first instance and not be set up to fail. (Poliniak, 2009) Although familiarity with repertoire may be important to increase feelings of competence and relatedness, preventing any genre from being perceived as niche or exclusive is essential for music educators (Burland, 2020). Giving students the opportunity to pre-listen to choir repertoire before the rehearsal may help to increase confidence and familiarity (Staake, 2024), as exploring the unknown whilst embracing the familiar is vital in providing a well-rounded choral education (Luca, 2011; Burland, 2020).

Boys were shown to find warm-up games and short humorous songs enjoyable and motivating during choir taster sessions in the second KS2 focus group. However, during the regular choir rehearsals, these activities were often skipped due to the time pressures of getting repertoire ready for events. Teacher B also observed that boys found concentrating an entire hour after school challenging and enjoyed the shorter, 20-minute taster sessions more. Interspersing work on concert repertoire with fun singing activities and ensuring that the amount of repertoire is manageable may lead to continued participation (Smith, 1987). A varied rehearsal structure that includes active activities and develops singing techniques could also enhance both competence and motivation (Meredith, 1995). With these discussed considerations, when repertoire is chosen and taught using proven pedagogical approaches, it can enhance motivation and support the development of vocal skills (Hartwig & Riek, 2015).

Singing Peer Role Models

Older boys in the KS2 focus groups were aware of singing being stereotyped as a feminine activity, and this was shown to affect participation. *"I probably don't really want to sing in schools because everyone thinks that it's sort of a girl thing."* - KS2B. Some boys also deemed girls as naturally better singers and could reach higher notes. They were unsure why they held these views and acknowledged that anyone, regardless of gender, can sing well and be in a choir. To reframe perceptions, stereotypes must be actively challenged, and choir emphasised as an activity for all genders (Mcbride & Palkki, 2020). In challenging boys' attitudes to singing, peer role models have been shown to be more influential than teachers, especially if they are of a similar age and ability and sing confidently (Hall, 2005; Cobbs, 2007). Sweet (2010) states that matching students according to their aims and goals may help create feelings of belonging and competence by developing skill and a sense of teamwork. Within Kennedy's (2002) study, high school boys performed in elementary schools, which led to an increase in younger boys joining choirs. During the teacher interviews, events which showcased boys' singing throughout all vocal ranges and boys-only-taster sessions were suggested as potentially beneficial (Demerost, 2000). However, Teacher B was concerned that spotlighting boys' lack of participation in choirs may discourage them further. However, boy-only taster sessions, which actively acknowledged the lack of boys in the school choir, were found to have the opposite effect, with 50 boys attending the event. Nevertheless, as only 7 of the 50 regularly attend choir rehearsals, other barriers still need to be overcome.

Children under eight will explore varied interests more readily than older children, often without concern for peer judgment (Hidi & Renninger, 2019). Establishing choirs for younger children, such as KS1 choirs, may enable boys to explore singing before peer pressure and gender stereotypes become ingrained. The schools involved in the focus groups did not have KS1 choirs, although school B did have an enthusiastic KS1 cohort for the KS2 choir. This suggests that visible role models and positive experiences with singing at a young age can influence boys' willingness to participate in choirs, and challenge persisting gender stereotypes (Henwood, 2006).

Scheduling Of Choir

Singing assemblies and class singing were shown to be enjoyed by the majority of boys in the focus groups. Teachers stated that the main barrier to boys' participation was a preference for playing sports, especially football, during break times over the choir. This preference was highlighted by three boys in KS2B, who stated that they would not want to miss sports or playtime to participate in a choir. However, the boys in this focus group were the only ones with access to a choir. This may suggest that boys in the other groups may share these concerns when faced with the reality of missing recreational time. Powleski (2015) produced a large-scale study of children's play and found that during break times, boys playing football often dominated primary school playgrounds, with girls frequently excluded. The study also highlighted a reinforcement of gender binaries through a gendered dynamic in supervision, with male teachers often engaging in sports and female teachers interacting with small groups (Powleski, 2015). Research shows that girls are 17% less physically active than boys, partly due to less encouragement and social support to join team sports and lower perceived enjoyment (Telford et al., 2016). The gender gap in activity levels, as reported by Sport England, is 6.8% (Sport England, 2023). Boys may feel pressured to conform to social norms, such as playing football, and may be reluctant to miss opportunities to socialise if their peers are not in the choir. Emphasising the inclusion of girls in sports has been shown to challenge the stereotype that football is exclusively a masculine activity (Hill et al., 2021). This change in perception may also help remove gender stereotypes related to choirs and encourage a more inclusive view of musical activities for both boys and girls (Hill et al., 2021).

Opportunity Cost refers to assessing the potential benefits and negatives of engaging in a task against other opportunities before participating (Studer & Knecht, 2016). The opportunity cost of participating in a choir may refer to the competition to other goals, the effort it takes, and the negative effect on other areas of life (Studer & Knecht, 2016). Scheduling a choir during the timetabled lessons may reduce the opportunity cost of participating for some children. However, it may lead to them joining for extrinsic reasons to avoid lesson time: *"I'd like to get out of English!"* - KS2B. Joining a choir for extrinsic reasons may lead to less committed and dedicated members (Stewart & Lonsdale, 2016). Participating due to the intrinsic motivation of a love of singing is more likely to lead to commitment and enhanced psychological benefits (Stewart & Lonsdale, 2016). Yet, to reduce opportunity cost, exploring alternative scheduling may be necessary to increase boys' participation and to support higher levels of singing ability. Timetabling choir to avoid

children missing sports activities could suggest that boys should prefer sports and may perpetuate the view of sports and music as contending interests (Palkki, 2024). However, children must have adequate time to exercise and socialise with peers for their physical and mental well-being (Kretchmer, 2023). In 2022-2023, only 47% of children met the guideline of 60 minutes of exercise a day (Sport England, 2023). Therefore, it may be essential to consider that physical activity is not sacrificed for choir participation.

Choir scheduling may benefit from being separate from playtimes or sports activities to encourage physical activity and to reduce opportunity cost. Sessions could be held before school starts or during the school day to ensure boys do not have to choose between eating lunch, socialising, and participating in choir. Although practical strategies are not suggested, The National Plan for Music Education (2022) states students must be enabled to miss lesson time for instrumental and vocal tuition lessons and be able to catch up on missed learning. It also advises running choir sessions during lunch to avoid conflicts with after-school sports and family commitments (National Plan for Music Education, 2022). Further research into the strategic scheduling of choir sessions may support broad pupil engagement in music while balancing other essential activities (National Plan for Music Education, 2022).

Increasing singing self-efficacy

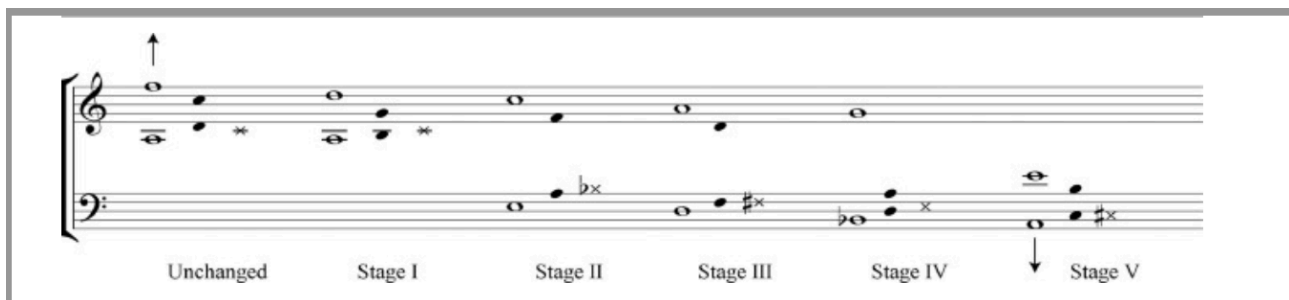
Self-efficacy, or someone's belief in their abilities to complete a task effectively, directly impacts their motivation to pursue it (Ritchie & Williamon, 2011). People with low self-efficacy will often give up when faced with challenges, but people with high self-efficacy will persist and gain further competence (Fisher, 2014). Self-efficacy in arts subjects, including music, tends to decrease as children age (McPherson et al., 2015). Hidi & Renninger (2019) state that from ages 8 to 10, children begin to compare their abilities with others which may lead them to withdraw from activities where they feel less competent. In developing self-efficacy, students have to feel some success in what they are involved in (Henwood, 2006). Praising improvement and effort rather than innate ability may help to cultivate a sense of competence (Peterson, 2001). According to Attribution Theory, emphasising effort and task difficulty over ability can help sustain motivation, as people are more likely to stay engaged if they believe success is within their control (Peterson, 2002).

Within this study, year 5 and 6 boys in the KS2 groups stated finding high notes difficult and feeling songs for the choir were selected with girls' voices in mind:

- *"I just get a bit nervous if my voice crackles Because, because some times, like some of the songs that I really love. The singers like have high pitch, like notes and voices. Like when I try my voice crackles and I sound stupid"* - Year 5 boy KS2A
- *"Yeah. I feel most of the songs are directed to the girls a bit, because they're really high"* - Year 6 Boy KS2B

An earlier trend in the start of voice change has been noted in research, with Fisher (2010) finding that 46% of 4th graders (year 5) and 50% of 5th graders (year 6) were already experiencing voice changes. During voice change, boys often experience changes in vocal range, breathiness, pitch breaks, and vocal instability due to the rapid growth and development of the vocal folds, muscles, and cartilage (Weinrich et al., 2022; Cooksey, 1978). Asking boys to sing repertoire outside their current vocal range and technical ability can hinder their confidence and success (Kennedy, 2002; Cooksey, 1978). Due to a fear of vocal damage, in the middle of the nineteenth century, Manuel Garcia created a widely practiced theory that boys should not sing during the voice change (Fisher, 2009). Within the mid-twentieth century, this theory began to be questioned, and guiding adolescent boys through the voice change became more prominent (Fisher, 2009). Cooksey (1978) identified five distinct stages of vocal development in adolescent boys (See Fig.7 pp.45). These stages are not associated with any specific ages and can vary in duration and some stages may be skipped altogether (Cooksey, 1978). Although from older research, these categories have been shown to still be relevant when assessing the voice change stages in primary school-aged boys (Fisher et al., 2021). During voice change, extreme demands on the developing vocal apparatus can be a major cause of vocal strain (Cooksey, 1978; Weinrich et al., 2022). To avoid vocal damage, Cooksey (1978) suggests certain tessituras when choosing repertoire for boys during the stages of voice change (See Fig.7 pp.45).

Figure 7: Vocal ranges and tessitura during adolescent voice change (Cooksey, 1978; Williams, *et al.*, 2021)



Regularly assessing singers' ranges and adapting repertoire and vocal parts to accommodate their changing voices is also crucial (Weinrich et al., 2022). Williams et al., (2021) (See Fig.8 pp.46) suggest incorporating both spoken and sung activities to establish vocal range. However, some choir leaders may not read notation or have access to a keyboard, which may lead to difficulty assessing range. Using a tuner or vocal range app may assist in this (Ashley, 2020). Further research would be beneficial in developing strategies to quickly and easily establish the range of boys in choirs and repertoire specifically for primary school choirs with appropriate ranges and parts (Killian, 1999).

Figure 8: How to assess singers range (Williams *et al.*, 2021).

Activity	Purpose
1 Counting backwards from 20 to 1; normal, loud, very loud and quiet	This demonstrates comfortable, customary fundamental frequency (F0) at varying degrees of loudness, and the effect of ‘projecting’ the speaking voice on voice quality
2 Reading aloud the first paragraph of the standard passage ‘Arthur the Rat’ (see Appendix)	This text has a carefully distributed selection of phonemes, enabling a thorough perceptual evaluation of voice quality
3 Singing a sustained single pitch; beginning quietly, increasing and then decreasing the loudness. On both D4 and D5	This demonstrates technical vocal control, maintaining stable pitch with variable intensity
4 Singing a pitch glide starting on G4; to slide up as far as possible, down as far as possible and to return to the starting note	This demonstrates total pitch range and alterations in voice quality with pitch changes
5 Singing two-octave major scale, from G3, up and down	This demonstrates changes in voice quality over controlled pitch changes and register transitions
6 Singing one verse of the hymn “Jesu, the very thought of thee” unaccompanied (see Appendix)	This melody has a relatively small pitch range and a relatively stepwise melodic contour

Within the KS2B focus group, boys showed enthusiasm for a boys-only choir, which suited their vocal ranges, which they described as lower than the girls.

- *"I think there should be like one day there should be a boys choir and one day there should be a girls choir. Then sometimes they can join together. They can learn the same song in different groups and then they can go into like a performance."* - Year 6 boy KS2B
- *"Boys can have like a deeper song and girls can have like a higher song. Boys can have lower notes".* - Year 6 Boy KS2B

Irvin Cooper (1900-1971) established the concept of Cambiata Choirs to work with adolescent boys' changing voices, composing and arranging music to meet and celebrate their unique needs (Ashley, 2020; Stockton, 2015). Setting up Cambiata choirs within schools may be unachievable due to staffing pressures and timetabling issues. However, they may have potential as workshop opportunities. Ashley (2020) states Cambiata choirs improve participation and continued singing as they create an environment where boys can explore their voices during voice change without fear or embarrassment. However, it is crucial to implement inclusive practices to avoid reinforcing gender binaries (McBride & Palkki, 2020). McBride and Palkki (2020) suggest organising vocal parts and choirs based on voice type rather than gender and acknowledging female adolescent voice change.

Future research may include developing resources and training to support choir leaders in encouraging upper KS2 boys to keep singing during voice change. From learning more about their changing voices and incorporating vocal pedagogy in the classroom, boys may develop resilience and motivation to continue to sing through voice change and beyond (Henwood, 2006; Freer, 2016).

Frequently singing within the classroom and during assemblies may provide a low-risk environment for boys to develop their confidence and singing self-efficacy. Once confident, they may feel more comfortable joining a choir to increase their vocal and performance skills. Fisher (2014) found that boys who had been in a choir for at least three years did not suffer a decline in their singing self-efficacy and confidence due to voice change. Fisher (2014) further illustrates how the establishment of KS1 choirs may provide more time for the development of singing self-efficacy before the possible decline due to voice change and peer comparison. Additional learning opportunities such as workshops, mass choral events and guest conductors may also help to develop self-efficacy (Kennedy, 2002; Fisher, 2014).

Research Limitations

I have identified the following six limitations that may have affected this study's results and which may present the foundation for future research.

Sample Size - The sample size for focus groups used two schools, which can reduce the variety of opinions (Theothanidis & Foundouki, 2018). Data collection from more schools may give a clearer overview of boys' opinions on singing and school choirs.

Selection Bias - There may have been a selective bias in selecting the boys for the focus groups. Leading to the findings being affected by how the boys were chosen (Price and Murnan, 2004). The music coordinators may have chosen boys for the focus group based on assumptions about how they would behave in the group and whether they had prior experience with singing. Potentially selecting boys seen as more cooperative or familiar with singing, possibly overlooking others who might be less involved or exhibit more challenging behaviour but who still have valuable insights. In future research, a more randomised or systematic selection should be followed in order to get a representative sample.

Geographical Scope - As the survey consisted of only music coordinators' and boys' views from one local authority, this may not be representative of the experience of schools throughout the U.K. (Theothanidis & Foundouki, 2018). Broadening the geographical scope would provide consistency to the identified themes.

Role of Interviewed Teachers - Data was collected from the music coordinators of the school rather than from the teachers directly leading the choirs. Although the music coordinators revealed valuable insight, choir leaders have more firsthand experience and observations. Future research should include both roles in order to capture a deeper understanding.

Engagement with Music Service - The schools who responded to the research were already mainly working with the music service and committed to improving singing in their schools. Research that includes a mix of schools may prove more balanced.

Group Dynamics - Focus groups are subject to dynamics that affect individual opinions, or create dominant voices that override others (Berg, 2001). Careful facilitation and supplementation of group discussions with individual interviews of boys or anonymous surveys may allow more diversity of opinion (Berg, 2001).

Reflections and Conclusions

Throughout all data sources, boys and their teachers often reflect a passion for singing, a knowledge of the benefits and a willingness to challenge gender stereotypes. Hopefully, as perceptions of gender evolve and with continued effort from educators, singing can be viewed as an activity for all (Warzacha, 2003). However, several main themes emerged that hindered boys involvement:

- Singing being labelled as a feminine activity can lead to boys fearing peer judgment and the social repercussions of joining a choir (Warzecha, 2013; Hale, 2006; Watson et al., 2017).
- The socially constructed norms of boys playing football and scheduling conflicts with sporting extracurricular activities can lead to boys prioritising sport over choir.
- Feeling self-conscious singing in front of others due to low singing self-efficacy can further discourage boys from participating in choirs (Warzecha, 2013).

A concert event showcasing boys singing in choral groups may stimulate, motivate and trigger a desire to join a choir (Demorest, 2000). Through peer role models representing confident singing, stereotypes can be broken, and the acceptance of choir participation encouraged among boys (Demorest, 2000). Specific educational strategies that enhance boys' singing self-efficacy during voice-change and appropriate repertoire during these stages may support boys to keep singing in upper KS2 and into adolescence (Henwood, 2006; Cooksey, 1978; Weinrich et al., 2022). Consistent with previous literature, this study suggests that as boys get older, they become more aware of gender stereotyping, and their singing self-efficacy reduces. Facilitating KS1 choirs may help to develop an early interest in singing and self-efficacy before the pressures of society and stereotypical expectations are felt (Welch et al. and Hidi & Renninger, 2019). Repertoire choice also plays a significant role, and boys may disengage when the repertoire does not resonate with their interests and musical identity (Sprigs, 2011). Selecting repertoire which aligns with boys' musical preferences whilst broadening their musical horizons may engage, inspire and build confidence (Hartwig & Riek, 2015). In this study, teachers responded positively to the target of developing strategies to help boys overcome some of the challenges of joining choirs. It is also essential to be realistic about the time pressures on music coordinators, who often have dual responsibilities and an emphasis on core academic subjects may lead to arts subjects being neglected (Burland, 2020). Practical continued professional development (CPD) opportunities which support teachers to help develop confidence in their singing skills and provides resources to help boys through the early stages of voice change are imperative considerations (Lamont et al., 2012).

Although this study presents practical insights, it is limited due to the number of schools participating and may not represent the broader population. Any future research would need to include a diverse range of schools to validate these findings and build more generalisable strategies. Nevertheless, the present research has proven to be concurrent and complementary to themes in the existing literature related to boys' singing participation and the

potential strategies for improvement. Developing inspiring singing opportunities in schools depends on committed, enthusiastic teachers, supportive leadership and specialist external organisations to provide additional singing experiences (Lamont et al., 2012). Collaboration with schools, teachers, and students, alongside ongoing research, will help develop best practices and promote gender inclusivity. (Burland, 2020). Regardless of gender, the choir rehearsal should and can be a space where every child can enjoy music and sing to their full potential. (McBride & Palkki, 2020).

Future recommendations

The collected data showed that most boys enjoy singing in school assemblies and in the classroom. The amount of joy shown for singing in the focus groups pleasantly surprised me. This has led to a feeling of urgency to help the boys in my area of work feel comfortable developing their love for music and singing. Boys from both schools involved in the focus groups held similar views and opinions on singing, even though they were from contrasting socio-demographic areas. This may show a consistent approach to teaching and opportunity and, perhaps, persistent gender stereotypes. However, key social justice issues such as privilege and deprivation must be addressed to develop equity when establishing school choirs (Palmer, 2017).

Due to the limitations of this initial study, further research would be beneficial in developing effective practices for encouraging singing participation.

Key areas for further exploration may include:

- **Increasing Singing Self-Efficacy:** Conduct additional research on how voice change affects upper Key Stage 2 boys and identify best practices which support both students and teachers.
- **Singing Peer Role Models:** Developing methods to introduce male peer role models in schools and investigate the effectiveness in motivating boys to sing.
- **Researching Suitable Repertoire:** Research and test repertoire that resonates with boys and inspires them to participate in choirs.
- **Scheduling considerations:** Trial various choir scheduling methods during the school timetable and note if intrinsic motivation is reduced due to extrinsic benefits, such as missing lesson time.

Developing these areas through future research may help build a strategic framework to encourage boys to join choirs and discover a life-long love of singing.

References

Abrams, D. (2001) *Social Identity*, In (Eds. Smelser, N.J., & Baltes. P. B.) *International Encyclopedia of the Social & Behavioral Sciences*, Elsevier Science Ltd, pp.14306-14309.

Adler, A. H.W. (2002) *A Case Study of Boys' Experiences of Singing in School*, Available at: https://www.collectionscanada.gc.ca/obj/s4/f2/dsk4/etd/NQ69210.PDF?is_thesis=1&oclc_number=54972912 [Accessed 5 Aug. 2024].

Adler, K., Salanterä, S., & Zumstein-Shaha, M. (2019) 'Focus Group Interviews in Child, Youth, and Parent Research: An Integrative Literature Review,' *International Journal of Qualitative Methods*, 18.

Anderson, A., Pabel, A., & Pryce, J. (2021) *Research Paradigm Considerations for Emerging Scholars*, 1st ed., Channel View Publications.

Arts Council. (2018) *Key Data on Music Education Hubs 2018*, Available at: <https://www.artscouncil.org.uk/sites/default/files/download-file/Music%20Education%20Hubs%2C%20Key%20Data%20-%202018.pdf> [Accessed: 15th June 2024].

Ashley, M. (2006) 'You sing like a girl? An exploration of "boyiness" through the treble voice,' *Sex Education*, 6(2), pp.193–205.

Ashley, M. (2020) 'Boys will be boys,' *Choir & organ*, 28 (4), pp. 45.

Ashton, S. (2024) Investigating motivational theories: Can a deeper understanding help a choir leader retain and recruit new members? (unpublished assignment), UWTSD.

Barberia, C. (2011) *We Love a Little Research Don't You?*, Available at:(<https://www.singup.org/blog/article/888-we-love-a-little-research-dont-you/>) [Accessed, 20th June, 2024].

Bartram, B. (2019) *Using questionnaires*, In (Ed.Lamber, M) *Practical Research Methods in Education: An Early Researcher's Critical Guide*, Routledge: Abingdon.

Berg, B. L. (2001) *Qualitative research methods for the social sciences*. A Pearson Education Company: Needham Heights.

Berglund, J. (2008) 'Teaching Islam with music,' *Ethnography and Education*, 3(2), pp.161–175.

Bertrand, M., & Pan, J. (2013) 'The Trouble with Boys: Social Influences and the Gender Gap in Disruptive Behavior,' *American Economic Journal. Applied Economics*, 5(1), pp.32–64.

Beveridge, T. (2022) 'Does Music Education Have a Poverty Problem?' *Update : Applications of Research in Music Education*, 40(2), pp.10–18.

Boell, S. K. & Cecez-Kecmanovic, D. (2010) Literature reviews and the hermeneutic circle. *Australian Academic and Research Libraries*, 41(2), pp.129-144.

Briggs, R. A. & George, B. R. (2023) *What Even is Gender?* 1st ed, Routledge.

Burland, K. (2020) Music for all: Identifying, challenging and overcoming barriers. *Music & Science*, pp.3..

Charmaz, K. (1990) 'Discovering Chronic Illness: Using Grounded Theory,' *Soc Sci Med*, 30(11), pp.1161-72.

Charmaz, K & Tweed, A. (2012) Grounded Theory Methods For Mental Health Practitioners, In Harper, D., & Thompson, A. R., *Qualitative research methods in mental health and psychotherapy : a guide for students and practitioners* (1st ed.). Wiley-Blackwell: West Sussex.

Chairman, K. & Bryant, A. (2007) *The SAGE Handbook of Grounded Theory*, SAGE Publications LTD.

Cobb, D. (2007) 'An exploration of children's attitudes towards singing', MA Dissertation, University of New South Wales.

Cohen, L., Manion, L. & Morrison, K. (2018) *Research methods in education*. 8th ed. Routledge: London.

Conlon.C., Timonen, V., Elliot-O'Dare, C., & O'Keeffe, S. (2020) 'Confused About Theoretical sampling? Engaging Theoretical sampling in Diverse Grounded Theory Studies', *Qualitative Health Research*, 30(6), pp.947-959.

Cooksey, J, M. (1978) 'Developing an Integrated Approach to the Care and Training of the Junior High School Male Changing Voice: Part 1V selecting music for The Junior High School Male Changing Voice', *The choral Journal*, 18(2), p.5-18

Costley, C., Elliott, G., & Gibbs, P. (2010) *Doing work based research approaches to enquiry for insider-researchers*, Sage Publications LTD.

Cullen, M.M., & Brennan, N.M, (2021) 'Grounded Theory: Descriptions, Divergences And Application', *Accounting, Finance and Governance review*, 27.

Davies, J., Bentham, S., & Duah, F. (2023) 'The impact of group singing on children's subjective well-being: Mixed methods research'. *Children & Society*, 37(4), pp.1252–1273.

Deering K. & Williams, J. (2020) 'Approaches to reviewing the literature in grounded theory: a framework,' *Nurse Researcher*.

Democracy Stockport (2022) *Fair and Inclusive Stockport*, Available at: <https://democracy.stockport.gov.uk/documents/s199125/Fair%20and%20Inclusive%20Stockport%20-%20Inequalities%20update%20report%20Feb%202022%20-%20Cabinet.pdf> [Accessed: 5th September 2024].

Demorest, S. M. (2000) 'Encouraging Male Participation in Chorus,' *Music Educators Journal*, 86(4), pp.38–41.

De Vries, P. (2010) What We Want: The Music Preferences of Upper Primary School Students and the Ways They Engage with Music. *Australian Journal of Music Education*, 1, pp.3–16.

Dunne, C. (2011) The Place of The Literature Review in Grounded Theory Research, *International Journal of Social Research Methodology*, 14, pp.111-124.

Efron, S. E. & Ravid, R. (2019) *Writing the literature review: a practical guide*, Guilford Press: London.

Elpus, K. (2015) National estimates of male and female enrolment in American high school choirs, bands and orchestras. *Music Education Research*, 17(1), pp. 88–102.

Ferrer, R., Puiggalí, J. & Tesouro, M. (2018) 'Choral singing and the acquisition of educational values,' *International Journal of Music Education*, 36(3), pp.334–346.

Fisher, R. A. (2014) 'The Impacts of the Voice Change, Grade Level, and Experience on the Singing Self-Efficacy of Emerging Adolescent Males,' *Journal of Research in Music Education*, 62(3), pp.277–290.

Fisher, R. (2009) 'British and American Theories of the Changing Male Voice: An Historical Overview,' *Journal of Historical Research in Music Education*, 31(1), pp.37–47.

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), pp.17–30.

Glogowska, M. (2011) 'Paradigms, pragmatism and possibilities: mixed-methods research in speech and language therapy'. *International Journal of Language & Communication Disorders*, 46(3), pp. 251–260.

Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008) 'Methods of data collection in qualitative research: interviews and focus groups,' *Br Dent J*, 204(6), pp.291-295.

Given, L. M. (2008) Semi-structured interview, In (Ed. Given.L.M.) *The SAGE Encyclopedia of Qualitative Research Methods* (pp. 811-812). SAGE Publications, Inc.

Greene, M. J. (2014) 'On the Inside Looking In: Methodological Insights and Challenges in Conducting Qualitative Insider Research,' *The Qualitative report*, 19 (29), pp 1-13.

Goopy, J. (2022) 'Children's identity work in daily singing-based music classes: A case study of an Australian boys' school,' *Research Studies in Music Education*, 44(3), pp.570–588.

Guhn, M., Emerson, S. D., & Gouzouasis, P. (2020) 'A Population-Level Analysis of Associations Between School Music Participation and Academic Achievement,' *Journal of Educational Psychology*, 112(2), pp.308–328.

Gutiérrez Cisneros, A., Roussey, J., Inbar, T., Fratacci, A., & Frey, A. (2023) 'Impact of Daily Choral Singing and Creative Writing Activities on the Cognitive Development of Second-, Third-, and Fourth-Grade French Children from Low Socioeconomic Backgrounds,' *Children (Basel)*, 10(9), pp.1515.

Hale, C. L. (2006) 'Primary students' attitudes towards their singing voice and the possible relationship to gender, singing skill and participation in singing activities', PhD thesis, Kansas State University.

Hall, C. (2005) 'Gender and boys' singing in early childhood,' *British Journal of Music Education*, 22(1), pp.5–20.

Hammond, M. & Wellington, J. J. (2021) *Research methods: the key concepts*, 2nd ed. Routledge: London.

Harrison, S. D. (2007) 'A perennial problem in gendered participation in music: what's happening to the boys?' *British Journal of Music Education*, 24(3), pp.267–280.

Hartwig, K. & Riek, R. (2015) 'Choir in the age of "The voice," ' *Australian Journal of Music Education*, 3, pp.37–46.

Henwood, R. (2023) 'How Can I Keep Them Singing? Exploring "Tumult and Strife" in Male Adolescent Voice Change/Comment les convaincre de continuer a chanter? survol des desordres et troubles chez les garcons pendant leur mue,' *Canadian Music Educator*, 64(3), p.13.

Hempel, S. (2020) *Conducting your literature review*, American Psychological Association.

Henwood, R. (2023). 'How Can I Keep Them Singing? Exploring "Tumult and Strife" in Male Adolescent Voice Change/Comment les convaincre de continuer a chanter? survol des desordres et troubles chez les garcons pendant leur mue,' *Canadian Music Educator*, 64(3), p.13.

Heywood, A., & Beynon, C. (2013) 'Finding a Voice: Why Boys (Don't) Sing,' *The Phenomenon of Singing International Symposium VI*, 6.

Hills, L. A., Maitland, A., & Horne, S. (2021) 'It's not like she's from another planet': Undoing gender/redoing policy in mixed football,' *International Review for the Sociology of Sport*, 56(5), pp. 658–676.

Ho, L. L. K., Cheung Li, H.W., Cheung, T.A., Xia, W., Ho, Y. K., & Chung, K.O.J. (2020) 'Low-income parents' perceptions of the importance of a musical training programme for their children: a qualitative study,' *BMC Public Health*, 20(1), pp.1454–1454.

Houtte, M. V. (2004) 'Why boys achieve less at school than girls: the difference between boys' and girls' academic culture,' *Educational Studies*, 30(2), pp.159–173.

Izsak, K. (2013) 'Music education and Islam: perspectives on Muslim participation in music education in Ontario,' *Canadian Music Educator*, 54(3), 38–43.

Jackson, K. M., Pukys, S., Castro, A., Hermosura, L., Mendez, J., Vohra-Gupta, S., Padilla, Y., & Morales, G. (2018) 'Using the transformative paradigm to conduct a mixed methods needs assessment of a marginalised community: Methodological lessons and implications,' *Evaluation and Program Planning*, 66, pp. 111-119.

Jaschke, A.C., Honing, H., & Scherder, E.J.A. (2018) 'Exposure to a musically-enriched environment; Its relationship with executive functions, short-term memory and verbal IQ in primary school children,' *PLoS ONE* 13(11).

Kaushik, V., & Walsh, C.A. (2019) 'Pragmatism as a Research Paradigm and Its Implications for Social Work Research,' *Social Sciences*, 8(9), pp. 255.

Kennedy, M. A. (2002) '“It's cool because we like to sing.” Junior High School Boys' Experience of Choral Music as an Elective,' *Research Studies in Music Education*, 18(1), pp.26–36.

Killian, J. (1999) 'A Description of Vocal Maturation among Fifth- and Sixth-Grade Boys', *Journal of Research in Music Education*, 47(4), pp.357–369.

Kretschmer, L., Salali, D.G., Anderson, B.L., Hallal, P.C., Northstone, K., Sardinia, L.B., Dibble, M., Bank, D., & International Children's Accelerometry Database (ICAD) Collaborators. (2023) 'Gender differences in the distribution of children's physical activity: evidence from nine countries'. *Int J Behav Nutr Phys Act*, 20, p.103.

Lambert, M (2019) *Practical research methods in education : an early researcher's critical guide*. Routledge: London.

Lamont, A., Daubney, A., & Spruce, G. (2012) 'Singing in primary schools: case studies of good practice in whole class vocal tuition,' *British Journal of Music Education*, 29(2), pp.251–268.

Launay, J., Pearce, E., & Dunbar, R. (2015) 'The ice-breaker effect: singing mediates fast social bonding,' *R Soc Open Sci*, 28;2(10), pp.150221.

Leaper, C. (2011) *Advances in child development and behavior*, Academic Press: Cambridge

Lucas, M. (2011) 'Adolescent Male Attitudes About Singing in Choir,' *Update: Applications of Research in Music Education*, 30(1), pp.46–53.

Makaton. (2024) *Signing with Singing Hands*, Available at: https://makaton.org/TMC/TMC/News_Stories/Your_stories/At_work/Signing_With_Singing_Hands.aspx [Accessed 5th September, 2024].

Maule, E., & Hilpold, M. (2013) 'The Influence of Singing on 15-year-old Students School Performances in Mathematics, Science and Reading Comprehension,' *American Journal of Educational Research*, 1(8), pp.294-299.

Maxwell, J. (2018) *Collecting qualitative data: a realist approach*. In (Ed. Flick. U.) *The SAGE Handbook of Qualitative Data Collection* (pp. 19-31). SAGE Publications Ltd.

McLeod, S. (2024) *Zone of Proximal development*, Available at: <https://www.simplypsychology.org/zone-of-proximal-development.html> [Accessed: 1st August, 2024]

McBride, N. R. (2016) 'Singing, Sissies, and Sexual Identity: How LGBTQ Choral Directors Negotiate Gender Discourse,' *Music Educators Journal*, 102(4), pp.36–40.

McBride, N. R. & Palkki, J. (2020) 'Big boys don't cry (or sing)... still?: a modern exploration of gender, misogyny, and homophobia in college choral methods texts,' *Music Education Research*, 22(4), pp.408–420.

McLeod, S. (2024) *Social Identity Theory*, Available at: <https://www.simplypsychology.org/social-identity-theory.html> [Accessed: 1st July 2024]

McPherson, G. E., Osborne, M. S., & Faulkner, R. (2015) 'Motivation to study music in Australian schools: The impact of music learning, gender, and socio-economic status,' *Research Studies in Music Education*, 37(2), pp.141–160.

Meredith, V. (1995) 'Reaching New Peaks in Choral Rehearsal: Don't let your choir spin its wheels! Victoria Meredith proposes ideas that will help you move your ensemble forward by injecting variety into the rehearsal,' *Music Educators Journal*, 81(6), pp.20–61.

Mizener, C. P. (1993). Attitudes of Children toward Singing and Choir Participation and Assessed Singing Skill. *Journal of Research in Music Education*, 41(3), pp.233–245.

Morgan, D. L. (2014). 'Pragmatism as a Paradigm for Social Research,' *Qualitative Inquiry*, 20(8), pp. 1045–1053.

National Centre for Social Research. (2023) *Children and young people's mental health in 2023*, Available at: <https://natcen.ac.uk/publications/children-and-young-peoples-mental-health-2023> [Accessed 5 Aug. 2024].

NCPCC. (2024) *Research with children: ethics, safety and promoting inclusion*, Available at: <https://learning.nspcc.org.uk/research-resources/briefings/research-with-children-ethics-safety-promoting-inclusion/> [Accessed: 20th March 2024]

NCPCC. (2022) *Childline launches Campaign to tackle boys' mental health*, Available at: <https://www.nspcc.org.uk/about-us/news-opinion/2022/2022-03-02-childline-launches-campaign-to-tackle-boys-mental-health/> [Accessed 5 August 2024].

Neighbors, C., Foster, D.W., & Fossos, N. (2013) *Chapter 33 - Peer Influences on Addiction*, In (Ed: Miller, M. P.) *Principles of Addiction*, Academic Press, pp. 323-331.

Nikolopoulou, K. (2023). *What Is Status Quo Bias? | Definition & Examples*, Available at: from <https://www.scribbr.com/research-bias/status-quo-bias/> [Accessed 19th August 2024].

Noble, H., & Mitchell, G. (2016) 'What is grounded theory?' *Evidence - Based Nursing*, 19(2), pp. 34.

Oastes, T. (2022) *Boys and girls' achievement: what's really happening*, Available at: <https://www.cambridgeassessment.org.uk/Images/138517-boys-and-girls-achievement-what-s-really-happening-by-tim-oates-for-genderwatch.pdf> [Accessed 5 Aug. 2024].

Office Of National Statistics.(2021) *Exploring local income deprivation*, Available at: <https://www.ons.gov.uk/visualisations/dvc1371/#/E08000007> [Accessed 5th September, 2024].

Open University. (2024) *Ontology, Epistemology and Methodology*, Available at: <https://www.open.edu/openlearn/health-sports-psychology/critically-exploring-psychology/content-section-3> [Accessed 5 Aug. 2024].

Owen, M., Kerner, C., Newson, L., Noonan, R., Curry, W., Kosteli, M.C., & Fairclough, S. (2019) 'Investigating Adolescent Girls' Perceptions and Experiences of School-Based Physical Activity to Inform the Girls' Peer Activity Intervention Study,' *The Journal of School Health*, 89(9), pp.730–738.

Pabel, A., Pryce, J., & Anderson, A. (2021) *Research Paradigm Considerations for Emerging Scholars*, Channel View Publications: Bristol.

Paechter, C., & Clark, S. (2007) 'Learning gender in primary school playgrounds: findings from the Tomboy Identities Study. Pedagogy', *Culture & Society*, 15(3), pp. 317–331.

Palkki, J. (2024) 'Misogyny and masculinities: American boys and singing in an age of gender-expansiveness,' *International Journal of Educational Research*, 123, pp.102273.

Palmer, E. S. (2018) 'Literature Review of Social Justice in Music Education: Acknowledging Oppression and Privilege'. *Update : Applications of Research in Music Education*, 36(2), pp. 22–31.

Pendergast, S. (2023) 'Research-to-Resource: Two Motivation Frameworks for Encouraging School Choral Participation,' *Update: Applications of Research in Music Education*, 41(2), pp.5-14.

Pearson, R. (2023) 'Masculinity and emotionality in education: critical reflections on discourses of boys' behaviour and mental health,' *Educational Review (Birmingham)*, 75(6), pp.1101–1130.

Peterson, C. W. (2002) 'Recruiting for the choral ensemble by emphasizing skill and effort; encouraging students to join a choir is often a matter of convincing them that anyone can learn to sing and that choir is a great place to learn,' *Music Educators Journal*, 89(2), p.32.

Poliniak, S. (2009) 'Singers Branching out: How to Choose Repertoire that Will Help Your Chorus Students Fly to New Heights,' *Teaching Music*, 16(4), pp.32.

Pownall, M., & Heflick, N. (2023) 'Mr. Active and Little Miss Passive? The Transmission and Existence of Gender Stereotypes in Children's Books,' *Sex Roles*, 89(11–12), pp. 758–773.

Poulton, P. (2023) 'Being a teacher-researcher: reflections on an insider research project from a virtues-based approach to research ethics,' *Educational Action Research*, 31(3), pp. 575–591.

Price, J. H., & Murnan, J. (2004) 'Research Limitations and the Necessity of Reporting Them,' *American Journal of Health Education*, 35(2), pp.66–67.

Ritchie, L., & Williamon, A., (2011) 'Primary School Children's Self-Efficacy for Music Learning,' *Journal of Research in Music Education*, 59(2), pp.146-161.

Robens, S., Monstadt, A., Hagen, A., & Ostermann, T. (2022) 'Effects of Choir Singing on Mental Health: Results of an Online Cross-sectional Study,' *Journal of Voice*.

Roberts, N., Bolton, P., & Wilson, S. (2024) *Educational attainment of boys*, Available at: <https://researchbriefings.files.parliament.uk/documents/CDP-2024-0043/CDP-2024-0043.pdf> [Accessed 5 Aug. 2024].

Rush, J. L. R., Schoon, I., & Parsons, S. (2009) 'Modeling Developmental Language Difficulties From School Entry Into Adulthood: Literacy, Mental Health, and Employment Outcomes,' *Journal of Speech, Language and Hearing Research*, 52, pp.1401–1416.

Ryan, R. M. & Deci, E. L. (2017) *Self-determination theory: basic psychological needs in motivation, development, and wellness*, The Guilford Press.

Saldaña, J. (2016) *The Coding Manual for Qualitative Researchers*, SAGE Publications: London.

Save the Children. (2016) *The Lost Boys*, Available at: https://www.savethechildren.org.uk/content/dam/global/reports/the_lost_boys_report.pdf [Accessed 5 Aug. 2024].

Shaw J. T. (2017) 'Toward socially inclusive music organizations: Promoting socioeconomic diversity in choral ensembles', *Choral Journal*, 58(4), pp.22–37.

Smith, J. P. (1987) Selecting Music for the Elementary School Chorus. *Music Educators Journal*, 73(8), pp.54–57.

Sim, J., & Waterfield, J. (2019) 'Focus group methodology: Some ethical challenges,' *Quality & Quantity*, 53(6), pp. 3003-3022.

Skau Pawlowski, C., Ergler, C., Tjørnhøj-Thomsen, T., Schipperikn, J., & Troelsen, J. (2015) ' "Like a soccer camp for boys": a qualitative exploration of gendered activity patterns in children's self-organized play during school recess,' *European Physical Education Review*, 21(3), pp.275–291.

Sport England. (2023) *Children's activity levels hold firm but significant challenges remain* Available at: <https://www.sportengland.org/news-and-inspiration/childrens-activity-levels-hold-firm-significant-challenges-remain> [Accessed 5 Aug. 2024].

Spraggs, M. (2022) 'Fostering Engagement in Singing for Grade 3 Boys in a Rural South-Central Manitoba Context,' *The Canadian Music Educator*, 63(3), pp.29-38.

Stockton, P. H. (2015) 'Irvin Cooper (1900-1971) and the Development of the Cambiata Concept for Adolescent Changing Voices,' *Journal of Historical Research in Music Education*, 37(1), pp.75–87.

Staaake, J. (2024) *What is scaffolding in Education*, Available at: <https://www.weareteachers.com/what-is-scaffolding-in-education/> [Accessed: August 15th 2024]

Stewart, N, A, J., & Lonsdale, A, J. (2016) 'It's better together: The psychological benefits of singing in a choir', *Psychology of Music*, 44(6), pp.1240-1254.

Siebenaler, D. (2008) 'Children's Attitudes Toward Singing and Song Recordings Related to Gender, Ethnicity, and Age'. *Update : Applications of Research in Music Education*, 27(1), pp.49–56.

Stockport JSNA. (2024) *Socio-economic trends*, Available at: <http://www.stockportjsna.org.uk/2016-jsna-analysis/socio-economic-trends/> [Accessed: 1st September 2024]

Struder, B., & Knecht, S. (2016) *Progress in Brain research: Motivation Theory, Neurobiology and Applications*, Elsevier.

Sweet, B. (2010) 'A Case Study: Middle School Boys' Perceptions of Singing and Participation in Choir,' *Update: Applications of Research in Music Education*, 28(2), pp.5–12.

Tajfel, H., & Turner, J. C. (1979). *An integrative theory of inter-group conflict*, In (Eds. Austin. W.G., & Worchel, S.), *The social psychology of inter-group relations* (pp. 33–47). Brooks/Cole: Monterey, CA.

Tarozzi, M. (2020) *What is Grounded Theory?*, Bloomberg Academic.

Telford, R. M., Olive, L.S., Cochrane, T., & Davey, R. (2016) 'Why Are Girls Less Physically Active than Boys? Findings from the LOOK Longitudinal Study,' *PloS One*, 11(3).

The National Plan for Music. (2022) *The Power of Music to Change Lives: A National Plan for Music Education*, Available at: https://assets.publishing.service.gov.uk/media/62bc1242d3bf7f292040d364/The_Power_of_Music_to_Change_Lives.pdf [Accessed 5 Aug. 2024].

The University of Nottingham. (2024) *Understanding pragmatic research*, Available at: <https://www.nottingham.ac.uk/helmopen/rlos/research-evidence-based-practice/designing-research/types-of-study/understanding-pragmatic-research> [Accessed: 21st May 2024].

Theothanidis, D., & Foundouki, A. (2018) 'Limitations and delimitations in the research process' *Perioperative Nursing*, 7(3), pp.155-163.

Tie, Y. C., Birks, M., & Francis, K. (2019) 'Grounded theory research: A design framework for novice researchers', *Sage Open Medicine*.

Trollinger, V. L. (2010) 'The Brain in Singing and Language,' *General Music Today*, 23(2), pp.20–23.

University of Reading. (2024) *Research ethics and data protection*, Available at: <https://www.reading.ac.uk/research-services/research-data-management/data-management-planning/research-ethics-and-data-protection> [Accessed: 5th April 2024].

University of Cambridge. (2024) *Academic research involving personal data*, Available at: <https://www.research-integrity.admin.cam.ac.uk/academic-research-involving-personal-data> [Accessed: 1st May, 2024]

University of Rochester Medical Centre. (2023) *Self-Determination Theory*, Available at: <https://www.urmc.rochester.edu/community-health/patient-care/self-determination-theory.aspx> [Accessed: August 17th 2024]

UWTSD. (2022) *Research ethics & integrity in codes of practice*, Available at: <https://www.uwtsd.ac.uk/research/research-integrity-and-ethics>, [Accessed: 1st March 2024].

Vaughn, S., Schumm, J. S., & Sinagub, J. (1996) *Focus group interviews in education and psychology*. SAGE.

Watson, P., Rubie-Davies, C. M., & Hattie, J. A. (2017) 'Stereotype threat, gender-role conformity, and New Zealand adolescent males in choirs,' *Research Studies in Music Education*, 39(2), pp.226–246.

Warzecha, M. (2013) 'Boys' Perceptions of Singing,' *Update: Applications of Research in Music Education*, 32(1), pp.43–51.

Weinrich, B., Brehm, B.S., LeBorgne, W., Eanes, C., Zacharias, S., Beckmeyer, J., Hughes, M., & de Alarcon, A. (2022) 'Perceptual Measures of Boychoir Voices During the Phases of Pubertal Voice Mutation,' *Journal of Voice*, 36(1), pp.142.e1-142.e8.

Welch, G. (2009) 'Evidence of the development of vocal pitch matching ability in children,' *Japanese Journal of Music Education Research*, 39(1), pp.38-47.

Welch, G., Purves, R., Saunders, J., & Mason, S. (2021) 'Sing Every Day': The wider benefits of a school-based singing project with disadvantaged children'. In: González, P and Omolo-Ongati, R, (eds.) *Proceedings of the 28th International Seminar of the ISME Research Commission*. University of Jyväskylä, Finland, pp.250-262.

Welch, G, F. (2012) 'The benefits of singing for children,' *Learning Education and Social Research*.

Whittaker, A. (2009) *Research skills for social work*, Learning Matters: London.

WHO. (2024) *Gender and Health*, Available at: https://www.who.int/health-topics/gender#tab=tab_1 [Accessed 5 Aug. 2024].

Williams, J., Welch, G. F., & Howard, D. M. (2021) 'Which Sung Pitch Range is Best for Boys During Voice Change?' *Journal of Voice*, 35(4), pp.581–588.

Wisker, G. (2019) *The undergraduate research handbook*. 2nd ed. Macmillan International Higher Education.

Wyler, E.D. (2021) *When Did You Stop Singing?: Elementary Boys' Attitudes and Self-Efficacy Toward the Act of Singing*, MA Dissertation, University of Nebraska.

Young Minds (2024) *Mental Health Statistics*, Available at: https://www.youngminds.org.uk/about-us/media-centre/mental-health-statistics/?gad_source=1&gclid=EAlaIQobChMlrM7xqfachQMV-otQBh1C_gyEEAAYASAAEgLVevD_BwE [Accessed 5 Aug. 2024].