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Exploring children's choir conductors' perspectives on creating and sustaining a virtual choir during Covid-19 in South Africa

by

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Abstract

This study aimed to explore children's choir conductors' perspectives on the virtual format their children's choirs were forced to adapt to during severe restrictions imposed by the Covid-19 pandemic in South Africa. The literature review revealed that choir conductors and choristers across the globe had to adapt to rehearsing and performing in the virtual realm. A qualitative research approach utilising a collective case study design was employed. Through purposive sampling, four conductors of children's choirs in South Africa were selected, with whom online semi-structured interviews were held. Additionally, participants were asked to complete an open-ended questionnaire to provide further data, allowing an in-depth and detailed understanding of their perspectives to be developed.

The data analysis revealed two themes. The first or main theme relates to the conductors' perspectives of adapting to a new virtual choir context. Choir conductors had to acquire new competencies, such as interpersonal skills, technological skills and musicianship skills to ensure the continuation of their choirs in virtual format. They had to adapt and learn to cope with several challenges, such as finding new ways of rehearsing and performing that forced them to think divergently. By creating innovative solutions to adapt to new roles in organising, managing, facilitating and maintaining their virtual choirs, new opportunities were realised. The virtual rehearsals and performances posed several predicaments, such as poor attendance by choristers, technological difficulties or lack of internet connectivity, financial implications, as well as other stress-related factors including a drastic increase in workload leading to emotional distress. Moreover, the majority of the participants experienced an extension of their roles and responsibilities.

The second theme relates to the conductors' perceptions of their choristers' experiences of virtual choir activities. Although the second theme is not as prominent as the first or main theme, it highlights the choristers' participation and how it directly impacted each choir conductors' role. The conductors indicated that their relationships with individual choristers improved due to frequent personal online communications. However, the choristers felt isolated from the camaraderie of their friends. They found it strenuous and intimidating to sing individually during group online rehearsals. Acquiring the technological skills and vocal confidence to make audio or visual recordings of themselves while singing as part of homework assignments was an additional challenge that required effort and and dedication.. Therefore, the choristers needed extra support from parents and staff. This research shed light on choir conductors' perspectives on creating and sustaining a virtual children's choir in South Africa during an international pandemic.

Keywords

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Chapter 1: Introduction

1.1 Background to the study

> The South African government introduced some of the toughest lockdown restrictions in the world. Borders were shut to international travellers, schools were closed, alcohol was banned and people were told to stay at home (BBC News, 2020).

The Covid-19 pandemic necessitated "change in the most fundamental aspects of human society, our interpersonal behaviors[2] and social connections" (McPherson et al., 2021, p. 1). This meant that music educators and choir conductors had to resort to alternative ways of continuing with their respective music-making activities when learners, educators, and choir conductors were confined to their homes. The strict measures of social distancing and closing of schools in South Africa since the end of March 2020 led to conductors having to devise alternative ways to persevere with this endeavour. As a music educator involved in practical ensemble groups with primary school learners, I had to adapt my teaching strategies and find alternative ways to connect to the learners. I realised the significant impact the pandemic had on my work circumstances and wanted to find out more about teaching music in a virtual context.

Due to 21st century technology, online participation or "portable communities" (Chayko, 2008, p. 17) provide opportunities for music educators and conductors to utilise virtual ensemble groups. Numerous studies suggest that music-making via online methods may develop a sense of community to enhance the wellbeing of the participants (Fancourt & Steptoe, 2019; French, 2017). These authors agree that virtual choirs may reduce perceived isolation and lead to the choir members forming specific social bonds. Because of the increase of virtual choir participation internationally in the past decade (Fancourt & Steptoe, French, 2017; Theorell, et al., 2020; Whittacre, 2010), it is important to be informed about the possibilities that this musical community interaction – using portable technology – offer.

Several studies have been conducted on choir singing for pre-adolescents and teenagers (Hinshaw, Clift, Hubert & Camic, 2015; Sweet, 2010; Welch, 2014), however, none focus on virtual

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[2] In this dissertation, UK spelling is used unless directly quoted text are in US English as in this instance.

children's choirs[3]. In South Africa, the renowned Ndlovu youth choir[4] who won the produced several online videos during the Covid-19 pandemic and newspaper articles appeared on these activities. However, no research studies on their virtual choir activities have been published. This prompted me to explore the trend in virtual children's choirs – specifically children's choirs with primary school choristers – that emerged in South Africa to circumvent the Covid-19 regulations. Moreover, I wanted to focus on the perspectives of conductors who had to transform their choirs to find alternative ways of continuing with choir activities.

1.2 Aims of the study

The purpose of this collective case study was to explore South African conductors' perspectives regarding the virtual mode of their children's choirs when they were compelled to transform normal choir activities to an online platform due to Covid-19. I also wanted to gain the conductors' perspectives of their possible changed roles. Additionally, I aimed to find out how they perceived the ways that the new virtual setting of the choir affected the choristers when compared to their choirs' face-to-face music-making activities under normal circumstances. This study led to new insights and a better understanding of virtual children's choirs during a world pandemic within a South African context.

1.3 Research questions

The main research question guiding this study is:

What are conductors' perspectives regarding the creating and sustaining of a virtual children's choir during Covid-19 in South Africa?

- **Secondary research questions**

The following three secondary questions provided systematic steps to enable me to answer the main research question:

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[3] The term 'children's choir' is a key component in this study and needs clarification as choristers are typically 14 years old or younger and repertoire is limited to equal voices (Ashworth Bartle, 2003).
[4] The Ndlovu Youth Choir, "an African music and dance spectacular" (https://choir.africa/) was established by conductor, Ralf Schmitt in 2009 and the participants' ages range from 14 to 24.

- What are children's choir conductors' perspectives regarding the virtual mode of the choir during Covid-19?
- In what ways do the virtual mode of the choir influence the roles of conductors?
- What are the conductors' perceptions of the choristers' experiences and participation in the virtual choir?

1.4 Research methodology

A detailed description of the research methodology is provided in chapter three. The following sections present a short overview of the decisions I made in selecting an appropriate research approach, research design, and participants for this study.

1.4.1 Research approach

I employed a qualitative research approach. Qualitative research seeks to understand an individual's or group's views and perspectives regarding a social issue (Creswell & Creswell, 2018). The research questions were phrased in such a way that they all relate to a specific group of individuals in a particular context regarding a social issue, therefore a qualitative approach provided the best avenue to find answers for this study.

1.4.2 Research design

Rule and John (2011) suggest case study research as an appropriate design to explore a social issue and was therefore applicable to this research project. A collective case study applies when more than one case is being examined (Baxter & Jack, 2008; Crowe et al., 2011), and since I was interested in how children's choir conductors in South Africa navigated their new roles in a virtual environment, a collective case study was the most applicable design to fit the context of the study.

1.4.3 Selection of participants

I used a purposive sampling strategy to select participants each representing a single case (De Vos et al., 2011). Each of the participants had to be the conductor of a children's choir in South Africa and should have adapted their choir activities to a virtual format – for rehearsals and/or performances – over the past year due to Covid-19 restrictions. Although research literature reveals no clear age range of choristers in a children's choir (Kankainen, 2010), a common feature of these choirs is that the repertoire is limited to equal voices (Kankainen, 2010, van Aswegen,

2005). Therefore, the choristers represented by the choirs of the selected participants were children in primary school and, as for the European Music Festival of 2010, "14 years old or younger" (Kankainen, 2010, para. 5).

1.4.4 Data collection strategy

Qualitative research focuses on collecting in-depth data from individuals or groups to derive deep knowledge and understanding (Flick, 2018; Nieuwenhuis, 2016). Therefore, individual interviews were the ideal data collection method since they provided "in-depth information pertaining to participants' experiences and viewpoints of a particular topic" (Turner, 2010, p. 754). The advantages of interview data are that it permits flexibility regarding questions, there is a higher response rate, and any misunderstandings and ambiguities can be clarified before an answer is given (Miller & Brewer, 2003). This allowed the responses of the participants to be more in line with the research questions. After the interviews were conducted, I realised that I needed more information to compile a thorough understanding of the virtual choir context, therefore I created an additional questionnaire that the participants were requested to complete and email back to me.

1.5 Delimitations of the study

There are limitations attached to the generalisability of case studies due to the findings being precise to the study of specific individuals or groups, and such findings cannot be randomly applied to other cases (Yin, 2009). However, Willig (2001) mentions that "case study research can give rise to explanations that can *potentially* apply to new cases" (p. 80). Another limitation is that only a small sample of cases were selected. This often happens in case study research due to the explorative nature of the investigation as well as the specific context to allow a deeper and more thorough understanding of the phenomenon (Nieuwenhuis, 2016).

1.6 Value of the study

This study will contribute to understanding choir conductors' perceptions of adapting to their children's choirs to a virtual mode. Thus far, recent studies related to virtual choirs focus on the choristers' experiences, not on the choir conductors' experiences or perspectives. Although this collective case study was conducted within a uniquely South African context, the findings may lead to a better understanding of virtual children's choirs and the roles of their conductors during a world pandemic.

1.7 Chapter outline

Chapter 1 of this dissertation provides the background to the study as well as the research questions, focusing on the unique challenges related to children's choirs in South Africa during Covid-19.

In chapter 2, an integrated literature review situates and contextualises the current study in comparison to international and national scholarship.

The research methodology in chapter 3 offers details regarding the research approach, design, data collection and analysis strategies, as well as research quality and ethical considerations.

Chapter 4 presents the findings and a breakdown of the emerging themes and subthemes. This is supported by verbatim quotes from the participants,

Chapter 5 provides a discussion relating the findings of the current study to the broader research literature.

Chapter 6 concludes the study by providing answers to the research questions. A summary of the research findings is given as well as recommendations and suggestions for further research.

Chapter 2: Literature review

In this chapter, relevant research literature that is related to the study is reviewed. The literature presented relates to music making and choir participation for children, socialisation during choral singing, the role of the conductor, virtual cultural experiences, and finally, the notion of a virtual choir.

2.1   Music making and choir participation for children

Music making is a natural activity for all children and adolescents, impacting their social and personal development (Hallam, 2016). Music making can also be called "musicking" (Small, 1998, p. 1), a term coined by this author to reflect the word 'music' as a verb, not a noun, because it involves active participation instead of passive observation. For him, musicking is taking "part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practicing" (p. 9). Therefore, musicking in essence forms part of a "gestural process" (Small, 1999, p. 9) where information is shared among the musicians or choristers, and each participant relates to the others through their cooperative experiences. Musicking embodies a "communal and functional human activity [affording participants] a means to explore, affirm, and celebrate their identities" (Cohen, 2007, p. 25). Singing is therefore a musicking activity which forms an integral part of child development (Hallam, 2016) as children are naturally keen to sing (Williams, 2018). During their school years, choir singing provides opportunities for children to partake in an extra-mural activity that involves "body, mind, spirit, voice" as well as requiring "mental concentration and body awareness" (Oakes, 2013, p. 189).

Research studies over the past decades have indicated that singing in a choir fulfils several needs for young singers. It i) shapes their identity by growing self-esteem, confidence, leadership skills, motivation, perseverance, and self-discipline (Adderley et al., 2003; Costa-Giomi, 2004; McDowell, 2002; Welch, 2012; Williams, 2018; Zehr, 2003); ii) promotes social inclusion (Batt-Rawden & Andersen, 2020; Marsh & Dieckmann, 2017; North et al., 2000; Plumb & Stickley, 2017; Welch et al., 2014), for example, "being engaged in the community [and experiencing a] sense of belonging" (Menehan, 2013, para. 2) and developing "emphatic relationships" (Welch, 2012, p. 2); iii) diverts them from boredom (Hallam, 2010; Lucas, 2011; Williams, 2018); iv) provides emotional support (North et al., 2000); v) relieves tension (Chong, 2010; Hallam, 2010; Welch, 2012); vi) aids psychological wellbeing and health (Clift et al., 2010; Mellor, 2013; Saarikallio, 2011; Saarikallio & Erkkilä, 2007; Winsler et al., 2011), vii) develops musicianship

(Hallam, 2010; Welch, 2012, Welch et al., 2014); and viii) enhances physical attributes such as developing "fine and gross-motor control in the vocal system" (Welch, 2012, p. 2).

These studies indicate that there are many benefits and opportunities for children that may be unlocked if they participate in choral activities. However, due to the Covid-19 pandemic, few choirs in South Africa continued their normal functioning and primary school children were not able to participate as usual. Therefore, this research is important to gain an understanding of how the conductors of children's choirs managed to continue with their activities during this stressful time. Moreover, these benefits place considerable responsibility on children's choir conductors, impacting their roles in significant ways.

2.2   Socialisation during choral singing

An aspect closely related to choral singing is social identity formation, which often serves as a "badge of identity" (Frith, 1981, p. 258) that relates to leisure interests, music styles, and various values and attitudes. These aspects can be shared and communicated with others, a vital component of adolescents' social identity (Rentfrow & Gosling, 2003) that happen during social activities such as choir singing. Lamont and Hargreaves (2019) view music as an integral part of life, established and celebrated from birth through various stages of routines and rituals. Teenagers are especially inclined to relate to music, using it as a tool to communicate and bond with each other (Boer et al., 2011), often using it to start conversations with strangers (Rentfrow & Gosling, 2006). Music and group music-making can provide a sense of group identity (Laiho, 2004; Miranda & Gaudreau, 2011); promote prosocial behaviour (Bakagiannis & Tarrant, 2006); and "can encourage a sense of social closeness within groups" (Weinstein et al., 2016, p. 154). During group music-making activities, a collective motivation is present to produce the music (Reddish et al., 2013). Additional group responses happen during such shared music-making activities, including the anticipation of the movements of another person (Sebanz & Knoblich, 2009); the shared attention involved (Shteynberg et al., 2014; Wolf et al., 2016); the mutual successes celebrated within a group (Launay et al., 2013); and the reciprocal physical coordination (Hove & Risen, 2009). All these combined music-making responses are likely to enhance affinity among other group members whereby "a selective advantage for social bonding behaviour is generated" (Weinstein et al., 2016, p. 154).

Choristers are typically committed to their choir activities and share a "desire to belong" (Smith & Sataloff, 2013, p. 8). Singing in a choir therefore offers opportunities for children to feel

connected to others, and under the usual circumstances, choirs would meet weekly in a face-to-face context and the children would have the opportunity to engage in social interaction. However, this changed abruptly early in 2020 at the start of the Covid-19 pandemic. Therefore, this study is important to reveal how these circumstances were managed by choir conductors.

2.3   Role of the choir conductor

As aptly described by Colin Durrant, conductor of the University of London choir, conducting a choir is "not just about getting through a piece of music" (Durrant, 2014, p. 3), it's more about the choristers and motivating them to achieve their best. Choir conductors are often "therapists, role models, teachers, advisers, and inspirers" (Smith & Sataloff, 2013, p. 17). These aspects imply that the choir conductor has several roles such as the development of choristers' singing abilities through "encouragement, support, and challenge" (Durrant, 2014, p. 3).

Research literature indicates that the role of instructors, such as choir conductors, shifts in a virtual context, where the familiar role of being the "expert" or "sole" source of knowledge becomes that of "facilitator, coach, or mentor" (Berge, 2008, p. 410). Berge consequently identified four rolesin his instructor's role model for online instruction namely pedagogical, social, managerial, and technical as illustrated in figure 1.

Figure 1: Berge's instructor's role model
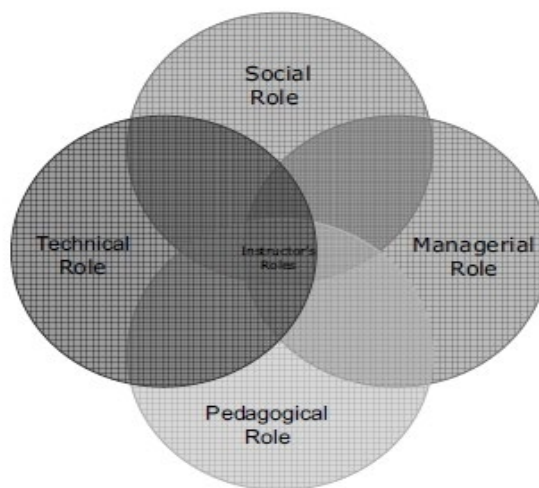
Additionally, Spieker and Koren (2021) recognise different musical roles associated with "technology-based music instruction" (p. 75) that include. composing, performing, and listening, amongst others. Skills that need consideration when describing the roles of a choir conductor are "communication skills, empathy, a curiosity […] to keep learning, personal organisation and,

above all, enthusiasm" (Williams, 2018, p. xxiv). The key roles of choir conductors, therefore, include Berge's instructor's roles as well as specific music-related roles: i) a leadership or managerial role to initiate and plan all choir activities; ii) a musician's role to interpret music, iii) a pedagogical and technology-based music instruction role regarding the vocal training of choristers; iv) a communication and social role to make sure that the choristers work together as a team, and v) an organisational role to ensure the smooth running of all choir activities. In the following sub-sections, each role is described according to the available literature.

2.3.1   Leadership role

A choir conductor needs a wide range of skills, techniques, knowledge, and talents related to music, as well as certain personality traits (Wis, 2007). However, the most important attribute of choir conductors is their leadership skills (Jansson, 2013; Jansson et al., 2021; Wis, 2007) as this will determine the success of the musical ensemble. These leadership skills include the ability to be innovative, to motivate others, and to be able to lead a group of choristers effectively so that they can perform as a unity (Carnicer et al., 2015). However, no studies have been conducted on the roles of choir conductors during the Covid-19 pandemic, emphasising the importance of the current research.

2.3.2   Musician's role

The choir conductor's responsibility towards the chosen repertoire is inherently part of their musicianship role (Jansson, 2013; Saunders, 2005). This role includes that the conductor selects appropriate repertoire, interprets the music in an accountable way, and shares this vision of interpretation with the choristers so that it can be communicated to the audience. Apart from creating "a fine musical product" for the audience (Wis, 2007, p. x), the conductor needs to ensure that the choristers gain a "meaningful experience" during the performance.

2.3.3   Pedagogical role

Choral conductors need to apply and share the principles of vocal pedagogy to to develop their choristers' vocal capabilities (Smith & Sataloff, 2013). At the start of rehearsals the conductor need to prepare the singers to attain concentration and awareness(Oakes, 2013). They also need to demonstrate and explain singing techniques at an appropriate level for the age group of their choristers. These include illustrating how sound is produced, the physiology of the voice, correct phonation techniques, voice building, choral diction, how to shape sounds and "develop good

vocal tone production" (Durrant, 2013, p 44), and how to control pitch and loudness (Smith & Sataloff, 2013). Moreover, the conductor needs to develop the choristers' aural skills (Jansson et al., 2021) as part of a finely tuned collaborative vocal instrument. It is therefore imperative that the conductor is well-informed about the pedagogical aspects of singing and voice training.

2.3.4   Communication role

Another important role of a conductor is to be the main channel of communication by creating a positive social space where the choristers feel comfortable within the group. They should also be encouraged to freely express their musical abilities (Smith & Sataloff, 2013; Saunders, 2005). For this role, well-developed skills in "verbal and non-verbal communication" (Carnicer et al., 2015, p. 84) are required so that the conductor can effectively share the musical vision and interpretation of the music with the choristers (Saunders, 2005). At the start of rehearsals, the conductor needs to create a sense of community, "anticipation and joy" (Oakes, 2013, p. 149) to motivate the choristers and raise their levels of expectation for communal music making. The conductor also has to "balance the needs of individual singers" (Durrant, 2014, p. 25) with the social needs of the choir as a whole.

2.3.5   Organisational role

Although the main role of a choir conductor is to direct the rehearsals and performances (Saunders, 2005), the conductor is also the key facilitator and therefore needs to manage all organisational matters as well. Such matters include recruiting and selecting choristers, deciding on the length and times of rehearsals, organising the running of each rehearsal, arranging logistics such as placement of choristers in choir format, co-ordinating support groups with the choristers' parents, and liaising directly with other musicians regarding accompaniment or performances (Rosenbaum, 2017; Saunders, 2005).

Under normal circumstances, the choral conductor often has a support system, for example, a choir committee, additional music staff, or "mentor teachers" (Favazza & Eady, 2020, p. 27) who can assist with the organisation of choir activities such as auditions, rehearsals, and performances. Since no research literature regarding circumstances for choir conductors during the Covid-19 pandemic was available when I started with this study, it was necessary to explore how conductors of children's choirs in South Africa dealt with their various roles under the new circumstances.

2.5   Virtual cultural experiences

Recent newspaper articles portray how virtual choirs have become a popular international phenomenon due to the effect of Covid-19 on choirs. Choir conductors had to resort to alternative ways of continuing with their respective choirs due to social distancing, the closing of schools, as well as other constraints since the start of 2020. Almost two decades ago, new interactive technologies in "multidisciplinary areas, such as education, art and entertainment" (Gaitatzes et al., 2001, p. 103) emerged, aiming at the broad public and allowing wider access to cultural experiences formerly only available to the wealthy. These virtual cultural experiences range from touring monuments, exploring various archaeological sites, visiting national parks, interacting with heritage buildings, engaging and contributing to digital art, as well as being able to experience other cultures (Carrozzino & Bergamasco, 2010; Efstratios et al., 2018; Fritz et al., 2005; Gaitatzes et al., 2001; Jung et al., 2016; Serafin et al., 2016; Wolf et al., 2018). These researchers found that virtual cultural experiences allow individuals to access various locations or events – such as concert venues or cultural heritage sites – utilising virtual reality. The latter provide the participants with opportunities to engage in various re-enactments or activities, for example taking part in a virtual orchestra (Bellini et al., 2018; Carrozzino & Bergamasco, 2010; Fancourt & Steptoe, 2019).

2.6   Virtual choirs (VCs)

A virtual choir (VC) is another example of a virtual cultural experience. One of the first virtual choirs were created in March 2010 by Eric Whitacre, a well-known composer and choral conductor (Whitacre, 2010). This virtual choir comprised 185 singers and performed the conductor-composer's composition, *Lux Aurumque*, receiving over one million views over a period of two months since its release (Whitacre, 2010). Studies of VCs indicate that they have the potential to enhance singing in the educational sphere by presenting more complex performances, as well as promoting greater participation in group singing (Blackburn & McGrath, 2014; Fancourt & Steptoe, 2019; Payen, 2015). According to Fancourt and Steptoe (2019), a virtual choir or VC can be defined as a desktop virtual experience (VE) "that strives to recreate 'non-realistic' VEs in the final product" (p.2). Such virtual experiences refer to real-life visual and audio recordings of individual singers, edited using software programs to compile and produce a final audio-visual product. Individual VC choristers record their performances in their various physical localities, which is then "combined and presented back in cyberspace" (Fancourt & Steptoe, 2019, p. 2). These authors posit that the participants of a VC require personal electronic

equipment, such as a desktop computer or a laptop with either an external microphone or built-in microphone; an external camera or a built-in camera; as well as speakers or headphones to record their performances.

Fancourt and Steptoe (2019) revealed that VC singers overall are more likely to perceive a higher sense of social presence, but a lower use of Emotional Regulation Strategies (ERS). The lowering of ERS is significant because it indicates that choristers are less prone to evade stressful emotions such as distraction, suppression or detachment (Fancourt & Steptoe, 2019). Lower use of approach strategies refers to acceptance, reappraisal, and problem-solving; while a higher use of self-development strategies involves enhanced self-identity, improved self-esteem, and increased agency (Fancourt & Steptoe, 2019). Studies indicate that VC engagement may develop a sense of community, reduce perceived isolation, and lead to the forming of specific social bonds (Fancourt & Steptoe, 2019; French, 2017). VCs can therefore be viewed from a sociology perspective, as 'socio-mental' spaces rather than 'virtual' spaces, which suggests an 'unreal' experience (Chayko, 2008).

Due to VCs not being bound in terms of geographical constraints or considerations, they support non-hierarchical relationships that could contribute to creating a particularly strong sense of social capital (Fancourt & Steptoe, 2019; Putnam, 2000). According to research, digital technology can improve perceived social support and social connectedness (Chen & Schulz, 2016; Fancourt & Steptoe, 2019). Research indicates that VCs are valuable intervention sources to combat social isolation, suggesting that singers in a VC "make greater use of self-development strategies than singers in live choirs" (Fancourt & Steptoe, 2019, p. 8).

2.7   Summary

This chapter explored the perspectives of researchers concerning music making and choir participation as well as socialisation in choir contexts. Furthermore, the role of the choir conductor was described according to various authors' perspectives. Finally, studies on virtual cultural experiences and virtual choirs were presented to broaden the perspective of the current research topic. The reviewed literature revealed that research on virtual choirs – especially virtual children's choirs and the roles of their choir conductors – are scant, therefore emphasising the need for this study. In the next chapter, the research methodology is explained and motivated.

Chapter 3: Research methodology

In this chapter, the selected research methodology for the study is clarified and described. Aspects dealt with include the research approach, research design, sampling strategy, data collection methods, research quality, ethical considerations, and the data analysis technique.

3.1 Research approach

Creswell (2013) provides thorough input on processes used in qualitative research. A qualitative approach involves exploratory research, allowing the researcher to gain an understanding of underlying opinions, motivations, and reasons. I chose a qualitative research approach as I was exploring participants' perspectives on the research topic. Creswell further contends that qualitative research reveals trends in opinions and thoughts and that it delves deeper into the problem. This approach is ideal to capture rich data, such as participants' expressions, reactions, and nuances of their perspectives and experiences that cannot be captured using quantitative methods.

3.2   Research design

A case study typically explores "real-life, contemporary, multiple bounded systems, through detailed, follow-up data collection" (Creswell, 2014, p. 97). According to Yin (2009), a case study design is appropriate when: (a) the study involves answering "how" and "why" questions, (b) behaviours of participants involved in the study cannot be manipulated, (c) when the researcher aims at covering contextual conditions due to a belief that it is relevant to the phenomenon being studied, or (d) when boundaries are unclear regarding the phenomenon and context. All these criteria apply to the current study. I specifically selected a collective case study design as it is applied when more than one case is being examined (Baxter & Jack, 2008; Crowe et al., 2011). This allowed me to analyse "within each setting and across settings [to] understand the similarities and differences between the cases" (Baxter & Jack, 2008, p. 550). These authors further posit that a collective case study design allows the researcher to obtain rich data. I was able to explore the perspectives of the participants regarding various aspects that affected the normal functioning (Crowe et al., 2011) of their work environment, in this instance, a children's choir within a virtual context. The objective of this collective case study was to obtain detailed descriptions of events so that I could gain new insights into each case. Therefore, using a collective case study as the

research design allowed me to collect appropriate data that assisted me to find answers to the research problem.

3.3   Sampling strategy

For this study, I used a purposive sampling strategy to select four participants (De Vos et al., 2011), each representing a specific case. Although more than four possible participants were initially identified, the selection criteria included that all participants should have been appointed as choir conductors for a children's choir at a primary school in South Africa, or as the conductor of an independent South African children's choir, with choristers' ages ranging from 10-14 years. Children's choir conductors were selected due to the nature of younger choristers not being as independent as older choristers in high school or youth choirs, placing additional demands on the conductors. Furthermore, participants should have recently adapted their choirs to a virtual platform due to the current restrictions of Covid-19 in South Africa. Only four conductors that met all the criteria and who were willing to participate could be identified. In this study, the context and setting for each of the children's choirs varied in unique ways, for example, they represented different regions in South Africa, included diverse groups of choristers in each choir, and comprised experiences and backgrounds of four different conductors. Once the participants were selected, I arranged an initial online meeting with each choir conductor via Zoom to explain the research procedures and to gain their consent to participate in the study. This allowed me to build a rapport (Nieuwenhuis, 2016) with the individual conductors before commencing with data collection.

3.4   Data collection and preparation

A vital part of case study research is to "draw […] data from multiple sources to capture the case […] in its complexity and entirety" (Yazan, 2015, p. 142). Using a case study method allows the researcher to use multiple methods of data collection to investigate a research problem (Ponelis, 2015). Using more than one data source and multiple participants (Pervan & Maimbo, 2005) is preferable, as it allows the researcher to verify the findings from the different data sets (Yin, 2009). I therefore originally planned to include three data collection methods namely interviews, observations, and questionnaires. To do the observations, I planned to log onto the online rehearsal sessions of the various conductors, or that they send recordings of the online rehearsals to me. However, due to ethical issues and the children being below the ages of 18, I was compelled to omit observations and focus in more depth on the conductors' perspectives via interviews and

a questionnaire, as accepted by the Ethics Committee of the Faculty of Humanities of the University of Pretoria. The in-depth interviews, as well as the questionnaire, enabled the conductors to comment on specific issues in an unfamiliar territory that were of immediate concern to them.

3.4.1 Semi-structured interviews with choir conductors

Interviews allow participants to convey their experiences regarding a specific idea or event and is therefore widely used in qualitative research (Nunkoosing, 2005; Ponelis, 2015). When research participants share narratives of their experiences, readers can gain access 'into' their lived realities (Nunkoosing, 2005). Interviews can also assist with the exploration of complex issues that could not necessarily be investigated through quantitative means (Baxter & Jack, 2008; Nieuwenhuis, 2016; Ponelis, 2015; Rimando et al., 2015; Yazan, 2015). When running an individual semi-structured interview, participants can provide detailed descriptions (Flick, 2018). This allows for flexibility during the interview since the precise order of questions do not have to be followed. The interviewer is rather being guided by the responses of the interviewee, thereby adapting the order of questions or omitting some questions if the interviewee had already answered some of the aspects during the course of the interview. To prepare adequately for an interview, Dawson (2009) suggests that the researcher creates an interview schedule with questions related to the research topic to ensure continuity during the interview. Therefore, I compiled a semi-structured schedule to guide me during the interview process (see Appendix A) and applied the flexibility strategies as described above.

Due to the restrictions of Covid-19, it was not possible to conduct face-to-face interviews and I had to make use of Zoom as an online platform as suggested by Janghorban et al. (2014). As this platform includes both visual and audio contact, it allows the interviewer to wait for participants' answers, giving them sufficient time to think about their responses (Flick, 2009). The online interviews were arranged at a convenient time for each conductor. Although I used the interview schedule to direct me during the Zoom interviews, the semi-structured format permitted me to deviate from the prepared questions. Before going on to the following question when the need arose to delve deeper into a certain topic, I could probe for additional information "as in a face-to-face interview" (Flick, 2009, p. 268). This allowed the participants to explain how they perceived their personal experiences in a new virtual choir environment. I also gained their feedback on how they perceived their choristers' encounters with the virtual choir activities.

3.4.2 Open-ended questionnaire

Since I originally planned to do observations of the virtual choir rehearsals but were not able to do so due to ethical issues and possible compromising of the anonymity of the young choristers, I realised that I needed another form of data collection to fill the gaps that the observations would have supplied. Consequently, I compiled a questionnaire with open-ended questions (Hancock et al., 2001) and sent it to the various choral conductors to clarify further issues regarding their perspectives of the virtual choir reality they were faced with (see Appendix B). The questionnaire required detailed descriptions and explanations, requiring the participants to reflect deeply on their experiences and their perceptions of their choristers' experiences. Some of the questions did not apply to some of the participants as they may not have necessarily participated or experienced some of the activities contained in the questionnaire. An example of the latter is that one of the participants (Alex), did not partake in virtual choir rehearsals. The additional data assisted me in forming a clearer picture of several aspects regarding the research problem.

3.4.3 Data preparation

Transcribing audio recordings of interviews allow researchers to listen attentively while transcribing as it adds the value of noticing aspects that might not have been evident during the real-time interview (Parker, 2005). After data collection, I carefully listened to the recording of each interview while carefully making verbatim transcriptions, after which they were sent back to the participants so that they could verify that their views were accurately reflected (Flick, 2009). These transcriptions were the first step in organising the data systematically before commencing with the data analysis process. There was a total of 52 single-space typed pages of transcripts comprising 24 333 words. All the participants' responses – both from interviews and subsequently from the questionnaires – were transcribed for data analysis purposes, as illustrated in figure 1.
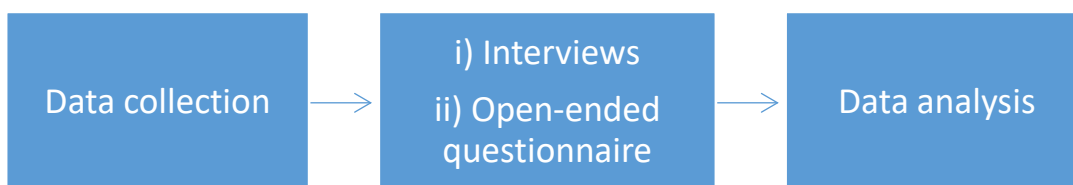

Figure 2: The research process

3.5 Research quality

According to Flick (2009), the foundation of quality in qualitative research depends on the researcher planning an explicit and clear research methodology that reflects the decisions for a specific research design and data collection strategies. While validity, reliability, probability and generalisability are important factors in quantitative research, trustworthiness is a central category to incorporate in qualitative research (Ansdell & Pavlicevic, 2001). There are four criteria required to establish research quality within the category of trustworthiness, namely i) dependability, ii) credibility, iii) transferability and iv) confirmability (Anney, 2014, p. 8).

Dependability refers to stable findings over some time (Bitsch, 2005). In this study, dependability was established as I was in close contact with the participants over a period of a year. During this time, they were interviewed and were able to read the transcripts and verify the contents, as well as filling in an additional questionnaire related to their perceptions of their choir experiences during the Covid-19 pandemic.

Credibility is defined as the confidence instilled in the truthful nature of the research (Bitsch, 2005; Macnee & McCabe, 2008). In this study, I used Lincoln & Guba's (1985) advice to ensure the credibility of the results by demonstrating accurate descriptions, identifying the social phenomena, and carefully recording how the participants perceived their new virtual working environment. I also involved multiple cases as well as two sources of data collection (Anney, 2014). Moreover, I constantly strived to establish an open rapport with the participants, assuring them of the confidentiality of their views, and that their honest reflections and perceptions of their experiences and feelings were what mattered.

Transferability refers to the extent to which the results of qualitative research could be transferred to various contexts or settings that involves respondents – known as the interpretive equivalent of generalisability (Anney, 2014; Bitsch, 2005). Although this study only involved four cases, in-depth perspectives of the participants' experiences and perceptions were gained, which may relate to other choir conductors of South African children's choirs faced with challenges during a pandemic with similar restrictions as imposed for Covid-19.

Confirmability usually refers to the extent to which the results of an inquiry could be corroborated or confirmed by various researchers (Anney, 2014). Confirmability is also "concerned with establishing that data and interpretations of the findings are not figments of

the inquirer's imagination, but are clearly derived from the data" (Tobin & Begley, 2004, p. 392). Although limited studies have been conducted in this emerging and novel research area, some inferences could be made to current literature on choir participation during Covid-19, as exemplified in the discussion section provided in Chapter 5.

3.6   Ethical considerations

Ethics in social research involving human participants requires researchers to comply and act ethically during the period of the research (Alderson, 2005; Tolich & Iphofen, 2019). One of the key ethical aspects of research is the protection of participants' identities. This often includes obtaining letters of informed consent and voluntary participation, privacy, confidentiality and truth (Tolich & Iphofen, 2019). A major aspect of social research ethics is voluntary participation, in other words, participants may refuse to partake in the research (Tolich & Iphofen, 2019). Participants thus have the right to informed consent, meaning that participants' participation in the research study is formed on the basis that they sufficiently understand the methods and project goals. Informed consent includes all relevant information that participants may conceivably need, to decide whether or not to partake as participants (Tolich & Iphofen, 2019). Furthermore, these authors emphasise that ethical research practices prohibit duress, force, over-reaching, deceit, fraud, coercion or other forms of constraints.

After obtaining ethical clearance to conduct the study from the Ethics committee of the Faculty of Humanities, I emailed a letter explaining the research and requirements for the research to the selected research participants. This letter asked the conductors' consent to voluntarily partake in the research project (See Appendix C) and to permit me to use the data for research purposes (Tolich & Iphofen, 2019). I then contacted the selected participants individually via phone to explain the basics of the research project. I informed them that they have the right to withdraw at any time during the study, without having to explain why they choose to do so. Participants were also allowed to ask any questions or concerns about the research. We then arranged a time that was convenient for each participant during which I could conduct the individual interview.

3.7   Data analysis technique

In this study, I used a thematic data analysis technique, a "distinctive method with a clearly outlined set of procedures in social science" (Braun & Clarke, 2013, p. 178). The suitability of this method fits the qualitative nature of the current study that enabled me to capture the

multifaceted perspectives of the participants as they described their actions in a real-world context. A thematic analysis strategy involves a cyclic encoding process to convert qualitative data, into a manageable format, so that it can be analysed. By using explicit codes (Saldana, 2011) it becomes "an exploratory problem-solving technique without specific formulas or algorithms to follow" (Saldana, 2011, p. 8). Creswell (2007) refers to coding as the core data analysis strategy in qualitative studies. This implies that the researcher has to peruse the data several times to identify segments of data to code them.

I used the Atlas.ti software program that was specifically devised to analyse qualitative data (Archer et al., 2017). This assisted me to identify specific codes in the data so that I could classify and group them into superordinate and subordinate themes. The comparing functions allowed by Atlas.ti enriched the analysis process (Archer et al., 2017). In comparison to using a manual data analysis technique, Atlas.ti benefited the data analysis process as the software afforded me to reveal codes that enhanced the formulation of categories and themes (Friese, 2014). Moreover, since the manual organisation of the data was minimised, this allowed me to spend more time delving deeper into the various categories that emerged.

To answer the research questions, I identified all relevant pieces of data within the entire dataset, generating codes inductively. This led to "categorization, or analytic reflection" (Saldana, 2011, p. 14). By grouping codes with similarities together, I was able to create categories, leading to broader themes as part of the thematic analysis process, after which I could subdivide each broad theme into superordinate and subordinate categories. While thematic analysis provides an opportunity for the researcher to contribute knowledge in a specific field by relating it to existing literature, the challenge was finding contradictions, thereby raising the level of credibility of the research (Braun & Clarke, 2013).

3.8 Summary

In this chapter, I explained the research methodology used to conduct this project. I also motivated the quality criteria, ethical considerations, and data analysis technique I have implemented. The following chapter presents the findings that emerged from the data analysis.

Chapter 4: Data analysis and findings

In this chapter, the research findings are described concerning the participants' perceptions of their experiences, as they had to make the transition of being conductors during a world pandemic with severe restrictions on face-to-face rehearsals. I first provide a profile breakdown of the four participants (see table 1) and then present a table with themes derived from data analysis (see table 2). A flow diagram with all the themes in table 2 is then presented (see figure 2). After that, each theme is described in detail with added quotes to reflect the participants' voices.

As can be seen in table 1 below, all the participants are highly skilled, having obtained one or more tertiary qualifications in music and at least 16 years of experience in conducting choirs. I have assigned pseudonyms for the participants to protect their identities and to make it user-friendly for the reader to relate to each participant.

Table 1: Participant profiles

No.	Background and experience	Pseudonym
1	Participant 1 obtained his BMus degree, specialising in piano and voice. He has been a choral conductor since 1993 and currently has several choirs –including a children's choir – in Johannesburg. He regularly presents workshops on vocal technique, choral sound and conducting, and ethnic South African music in South Africa, Namibia, the USA and Australia. He strives to be at the cutting edge, inspiring his choristers to explore new forms and levels of expressing their musical gifts.	Jonathan
2	Participant 2 started his choir conducting career in 1984 at an internationally renowned boys choir school in South Africa. In 1986, he became the music director at a prestigious boys' school in Johannesburg and, apart from the children's choir, also conducted several adult choirs. He holds a licentiate in choral conducting as well as a DMus degree.	Benjamin
3	Participant 3 obtained her education diploma (HOD) in music in 1983, specialising in voice and piano as her main instruments. She conducted several voice groups ranging from church choirs, youth voice ensembles, and school choirs for children between the ages of 7–18. She is well-renowned for her work in the South African choral arena. Her children's choir won several national and international accolades.	Caren
4	Participant 4 is a well-established choral conductor, tenor, vocal pedagogue and composer of predominantly vocal music. He obtained his BMus, BMus (Hons) and MMus degrees. He has been a choral conductor since 2004 and currently directs children's choirs at several schools as well as a community choir. Additionally, he is a part-time voice lecturer at a South African university.	Alex

In table 2 below, the themes derived from data analysis are placed in a hierarchical order. Apart from the main theme (theme 1) and secondary theme (theme 2) in the first column, superordinate themes related to either theme 1 or theme 2 are indicated in the second column. In the third column, the subordinate themes that resort under the superordinate themes (where applicable) are displayed in bullet points.

Table 2: Summary of themes derived from data analysis

Themes	Superordinate themes	Subordinate themes
Main Theme (Theme 1) 4.1 Adapting to a virtual choir context	4.1.1 Mind shifts and role changes	
	4.1.2 Divergent thinking	4.1.2.1 Innovation and creativity 4.1.2.2 Skills development (technological, inter-personal, musicianship, personal growth) 4.1.2.3 Opportunities
	4.1.3 VC challenges	4.1.3.1 Choir attendance 4.1.3.2 Increased workload and emotional distress 4.1.3.3 Financial implications 4.1.3.4 Technological challenges
	4.1.4 New ways of rehearsing & performing	4.1.3.1 Planning 4.1.3.2 Logistics (practical strategies, choristers' sight-reading, intonation, frequency of rehearsals) 4.1.3.3 Homework for choristers
Secondary Theme (Theme 2) 4.2 Choristers' participation	4.2.1 Support structures	
	4.2.2 Chorister challenges	4.2.2.1 Isolation & loss of interest 4.2.2.2 Insufficient musical knowledge 4.2.2.3 Singing individually
	4.2.3 Skills development	4.2.3.1 Musical skills 4.2.3.2 Technological skills

In Figure 3, the two key themes as presented in table 2 are illustrated via a flow diagram. Theme 1 (the main theme) relates firstly to the conductors who had to adapt to a virtual choir context, while Theme 2 (the secondary theme) reflects the perspectives of the conductors regarding their choristers' participation in their respective virtual choirs. The superordinate themes of Theme 1 and Theme 2 are indicated in rectangles, each in a different colour, with the related subordinate themes in ovals presented in the corresponding colour.
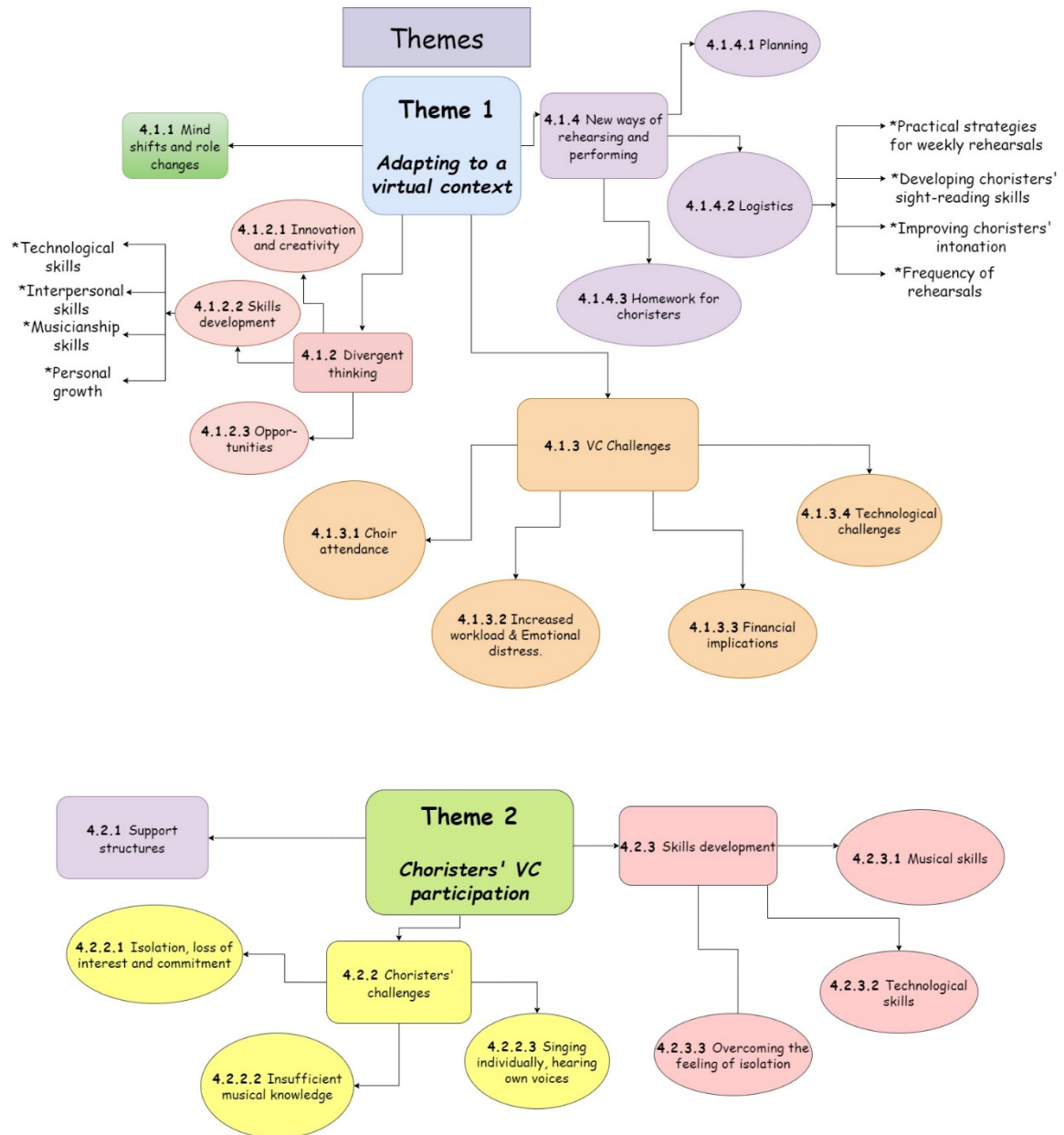

Figure 3: Flow diagram of themes and sub-themes

In the following sections, each of these themes – as well as their respective superordinate and subordinate themes – is presented through thick descriptions.

4.1   Main Theme: Adapting to a virtual choir context

When the Covid-19 pandemic struck the world – and South Africa in February 2020 – there were severe and direct consequences for all, especially for music educators. In a traditional pre-Covid-19 South African children's choir context, conductors were used to the support from a team of parents or appointed staff who were responsible for the logistics. Such support included, for example, organising auditions, performance and rehearsal venues, and voice group rehearsals. The way that the choir conductors adapted to the online choir environment is the most important aspect of this study as it reflects the conductors' perceptions of their experiences, and how they navigated their new roles in a virtual choir context.

Several superordinate themes fit under this main theme including mind shifts and role changes; divergent thinking; challenges; and rehearsals and performances. In the following sections, these are described and explained.

4.1.1   Mind shifts and role changes

The participants in this research had to undergo several mind shifts to find new ways of sustaining their choirs during international pandemic circumstances. Conductors were compelled to adapt to new circumstances to operate in the new virtual choir realm. This, in turn, had a rippling effect and direct impact on their roles as conductors. Role changes were varied, depending on the specific situations and contexts of each participant as explained in the following paragraphs. These role changes relate to pedagogical, social, managerial, and technical issues, as explained in the following sections.

Alex felt that his role changed significantly at the onset of the Covid-19 pandemic. Circumstances required that he shifted from being a choir conductor to becoming a manager and producer. He soon realised that he was dealing mostly with technical issues, rather than concentrating on his role as musician and choir conductor. This people management-role frustrated him:

> "Your hands are cut off as a conductor, you become a producer. You're not a musician anymore, you are a 'techie'. You have to just keep all the lions together and, yah, I didn't feel like a musician or a conductor at all and I hated that." (Alex)

Alex expressed how his perception of a choirs' purpose changed and came to the realisation that there is more to a choir than enthralling audiences. He also conveyed that choirs should be founded on a holistic educational basis, where choristers can grow musically and psychologically so that they can be in tune with their own humanity. He described his thought patterns regarding his role as the conductor as follows:

> "Why do we have choirs? Why do we allow kids to sing in choirs and what is it all about now? […] I had time to think about these things and what's the point? My conclusion is that, if it's not educational, […] if the basis is not educational and […] if there's no holistic growth, then I do not see the point. If it's just a show and we are trying to impress everybody with lights and all sorts of things, I don't understand it, and I've drifted further and further and further during this time in my thought pattern regarding this. […] Choral singing is not just singing. Something happens between those people. […] We have to change people, not, just making sure, we need to touch people, we need to be in touch with our humanity again and all this 'fakeness' and all this flash destroys it, in my opinion. So, I'm sorry, that's how I feel and this is what this time has brought me and changed me." (Alex)

Although Alex created virtual versions of his choir performances that were posted online, he decided not to engage in weekly virtual rehearsals and used the online time in alternative ways as explained in section 4.1.2.2.

Benjamin had to make a significant mind shift when he realised that his role was no longer focused on choir conducting:

> "I realised, after four or five rehearsals, I have to accept the fact that my role is now different. […] So, I had to think of different ways of doing stuff and I realised that I can't do the same things anymore. […] My role changed completely and I had to accept that I'm not a choir conductor anymore, I'm now a sort of a sight-reading[5] coach and I'm introducing different kinds of music which we listen to, so the role changed immediately". (Benjamin)

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[5] Sight-reading is the "unrehearsed performance of music" (Kopiez & In Lee, 2008, p. 41) by singing or playing sheet music for the first time without prior practise.

Jonathan explained how his role changed and that, instead of being a music educator, he had to become a manager to keep his choristers and parents connected.

> "None of us have a frame of reference for this [a virtual choir], we've all been doing choir for ten, twenty, thirty years in a certain way. […] The mind shift was enormous, [however], it was much harder to facilitate a mind shift in my singers and especially their parents than it was for me to make a mind shift. […] I used to be a music educator and conductor, I became someone who just had to constantly motivate, sometimes fight, just to keep people connected" (Jonathan).

Because he has several choirs with choristers in different age groups, he had to consider strategically how he would approach the choristers in each of the choirs during VC rehearsals:

> "I had to think of all my choirs, from the 'littlies' to the adults, and what works for all of them and what they were used to, so that they don't have to try and do something new […] I had to do it in a language and in a way that […] the little kids will understand, so it was quite a mind shift." (Jonathan)

Caren found herself focusing more on her role as music educator than as conductor, realising that she had to put in more effort when preparing for rehearsals. She also became more aware of the technological implications the virtual choir had on her choristers and their parents.

> "I had to prepare more because I had limited time and I had to make sure that […] I don't waste the [internet] data of the children or the parents and that I had to prepare better." (Caren)

4.1.2   Divergent thinking

The mind shifts and role changes described in the previous section had a direct impact on conductors, forcing them to think out-of-the-box and to become innovative. This demanded that they learnt new skills, but it also provided new opportunities. The following sections provide details on the four subordinate themes I identified concerning divergent thinking.

4.1.2.1   Innovation and creativity

All the participants indicated that they had to find innovative ways to continue with their virtual choirs. For example, Caren indicated that she had to do extensive research to find out what other

choirs across the world have done regarding virtual choirs, and how they were using the Zoom platform:

> "To try to find something new, something to learn from other choirs […] became a whole thing of looking up on YouTube and [the] internet how they [other choirs] are doing this." (Caren)

Alex embraced change and the creativity involved in the process of doing a virtual choir. He also highlighted the dangers of getting caught up in a comfort zone and going about things in the same manner as he has been accustomed to. Moreover, he emphasised the importance of exposing his choristers to new ways of doing things:

> "I thought it brought out a sense of pioneer-ship; a sense of how can we continue; a creativity. I think, during this time, you had to be creative, you had to come up with new ideas, and I think that's good. Sometimes we fall into a rut and we just continue the way we've continued for the last 20 years, but it's important for us to renew our thoughts. So, I think, in that sense, it was good. I think I'm pro-innovation and this was an exercise in innovation and progress. Learning a new process and being exposed to another kind of discipline is always a wonderful pedagogical tool." (Alex)

Benjamin had to adapt and find new ways of continuing with his choir:

> "In principle, we wanted the choir to continue, be it as an activity where they got together on campus and merely listen to music, which we never have time for, or go through the choreography of dance movements of African music. When not on campus, we asked the boys to learn their choir lines which we uploaded for them in different parts as videos [Music notation and sound exported from Sibelius as video clips]. (Benjamin)

Jonathan wanted to ensure the continuation of his choir by exploring new ways of engaging with his choristers:

> "I didn't want my singers to stop singing! None of us knew how long our first-ever nation-wide lockdown was going to last, so I had to find a new way of engaging my singers." (Jonathan)

4.1.2.2 Skills development

The virtual platform also paved a way for the choir conductors to learn new skills that enabled them to realise their choir practices in a new context. These skills include technological skills, interpersonal skills, and musicianship skills.

- **Technological skills**

All the participants reflected how they were faced with new technological skills. For example, Caren indicated that she had to explore and find help to improve her technological abilities and knowledge, but that in this process, she acquired several technological skills related to computers, the internet, and software:

> "I also did lots of research [about technological issues]. So, I think my knowledge grew a lot. […] I learnt a lot of technical computer- and cell phone skills, […] all the things that we had to do with the internet and with the technical things. It was a challenge to get used to all the technical things. […] I learnt Zoom front, back, in, and out, because sometimes, when I set up a meeting and they [the choristers] joined, Zoom changed my password and they couldn't log in. And so, I learnt all the tricks […] I had to go and find out how sixty children could join in, watch the same thing, and hear it." (Caren)

Alex learnt important skills related to the audio-editing process and how to improve efficacy when working with recordings and editing:

> "Sitting with the editor was positive [...]. I learnt a lot, I think, and how to do it in future, and processes of how to do these recordings effectively and without wasting time. […]. To really streamline it. […] It was a learning curve." (Alex)

It was evident from Benjamin's responses that it was very important for him to acquire technological skills, such as learning to use the Google-Classroom platform:

> "So, I would have a meeting with X and then realise, oh, but I can't do this like this anymore, I have to change the way I do it and then I have to go back to Y again and say, 'can we change this to accommodate the following things?' Literally, within forty-eight hours, we had to learn to use the Google Classroom and explore possibilities around it." (Benjamin)

Jonathan mentioned that his skills improved substantially in terms of his own efficacy when dealing with audio editing; competencies that he acquired during the process of his virtual choir experience:

> "In the beginning, I was super focused, like '*ons moet nou werk*' [we need to work now] and have to now do this new thing, and then, over time, I just realised to just relax about these meetings a little bit. Because I'm now good at it [referring to creating audio rehearsal tracks[6]]. It doesn't take me three weeks anymore to do a piece, it takes me two days […], but it was also a little bit exciting to me because I'm the kind of person who likes a challenge and likes to try and do new things. […] I didn't grow up with technology, you know. I had my first computer when I was like 25, 26 years old. I'm not into audio by any means, but I just learnt how to, basically line up vocals, EQ vocals, […] how to record the piano and multiple instruments. I just had to learn how to do that. I've learnt how to film people and I learnt about the editing process, visual and audio." (Jonathan)

He also had to plan rehearsal tracks of each voice part for his choristers. These recordings or vocal guides were then sent to his choristers to use and to practice with:

> "I had to create a rehearsal track for each voice part in each one of my choirs." (Jonathan)

- **Inter-personal skills**

Although a virtual choir context is unnatural and was, in some ways imposed on the participants, they realised that it presented new ways of connection that led to the development of untapped interpersonal skills. Caren, for example, explained that her interpersonal skills with choristers were significantly enhanced due to one-on-one contact with each of them on a regular basis. Moreover, she explored ways to engage more effectively with her choristers by finding out what they love doing:

> "In the process, I learned who can do what; who were the fast learners; […] who were only followers [and] who were leaders in a group. I learned to know their voices, so I could know exactly what a certain child was capable of doing and not doing, and that helped a lot […]. I became more aware of ways to do things that the children would love

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[6] A rehearsal track is an audio recording of a chorister's voice part (TotalChoirResources, 2017) made by the conductor or other musician either by singing or playing the part on a piano/keyboard or other instrument. These tracks are used by choristers to rehearse with individually.

to do. Knowledge in what to send, what does [sic] children like to sing. I watched videos, I did what other choirs do. I got a lot of new ideas to do with the choir. I became more aware of ways to do things that the children would love to do." (Caren)

She felt that it was important to share her view of what it means to be in a choir with the choristers:

"To show the children that a choir, the world of a choir, is not only us practising together, but there's a world [out there]. The world can be a part of our choir." (Caren)

She realised that she had to use her inter-personal skills to make friends with specialists in the IT field so that she could get the help she needed to make her virtual choir work:

"Because […] I needed help, I made a lot of new friends in [the] IT connected world to help with stuff". (Caren)

She also explored ways to develop her choristers' sight-reading:

"I did a lot of reading and self-study about methods to improve and develop sight-singing. All the skills that I had to learn to do." (Caren)

Alex described how he was far more personally involved with the choristers and had to provide individual support and encouragement:

"I had more phone calls than ever before […] and messages, because, [in] an individual session, you know, [choristers would ask] 'how do I do this?' 'how do I do that?' 'is this okay?' 'I hope it's not too bad?'" (Alex)

Although Alex experimented for a while with online rehearsals, he soon decided that it was not a conducive method of teaching. He, therefore, used online rehearsals for inter-personal connection to get in touch with his choristers, ensuring that they were coping emotionally:

"We waited until we could do face-to-face rehearsals, even if it was per voice group. […] Online rehearsals were done once or twice on Zoom and Google meets and, when it became impossible to use, it became a platform to check in on everybody from a mental point of view." (Alex)

During Benjamin's interview, he indicated that his people skills improved due to continuous inter-personal communication

> "I think I have [gained skills]; I think people skills. That constant communication and learning from one another [referring to colleagues].

Caren got to know her choristers better, as she was allowed to work with each chorister individually during rehearsals:

> "I became more aware of the persons in front of me [more than] the choir in front of me. I became more aware that the choir [consists of many] individuals, and that I know some background when I look at my choir and I see the children. I now see a picture behind them, I don't only [identify] them with [their] voices [as] I saw [them] before, and I think that is [a significant] change to me" (Caren)

Jonathan used his weekly online rehearsal to engage with his choristers and to ensure that they were coping emotionally.

> "Weekly online meetings were for teaching, connecting, encouragement, to see how everyone was doing." (Jonathan)

- **Musicianship skills**

Most of the conductors noted that their musicianship skills were stretched and grew due to the virtual context. Jonathan, for example, decided to sing the various vocal parts himself and had to ensure that his recordings were of good quality, which included accurate intonation, rhythm, breathing and phrasing:

> "Because I had to create a rehearsal track for each voice part in each one of my choirs, I would sing it and have to sing it well to give them a good guide vocal for them to practice along to. So, my everything had to be very good, my intonation had to be very good. I had to phrase exactly in the spots where I want my choir to phrase. I would have to practice what I preach. So, my skill, I think, sharpened a little bit in terms of singing every part of every piece of music very accurately. Yah, I think that was one of the biggest benefits for me, personally. […] So, now, I can just [say] 'bring it on baby'! Soprano one,

two, three, or four, I can sing it to you now! And also, I had to sing in [vocal] ranges that I don't normally sing [in]." (Jonathan)

Caren created warm-up exercises to use during her Zoom rehearsals, incorporating tonic solfa notation, where she zoned in on the difficult sections of the repertoire. She also did extensive research on teaching methodologies on how to develop and improve her choristers' sight-reading:

"I worked out tonic solfa parts for difficult sections of the music and then used it as a warm-up at Zoom practices. I did a lot of reading and self-study about methods to improve and develop sight-singing. All the skills that I had to learn to do, […] and I also did lots of research. So, I think my knowledge grew a lot. It helped a little bit, but it is difficult to say if it has improved the reading skills of my choir in general." (Caren)

Due to free time during Covid-19 restrictions and because he was not doing weekly virtual rehearsals, Alex made use of this time to compose music:

"I have more time for myself and thus can produce more compositions." (Alex)

Jonathan also saw the opportunity to exploit his new creative outlet as a way of turning new repertoire into an expressive form:

"The biggest positive for me that came out of lockdown was that I was forced into a creative avenue that I would never have gone down, […] which is creating digital [musical] content, and I learned as I went. […] I personally loved discovering a new creative outlet for myself, and truly enjoyed the challenge of turning each new piece of repertoire into a unique audio-visual expression." (Jonathan)

- **Personal growth**

Jonathan realised that he had to ensure that the vocal tracks that he created for his choirs were executed professionally, to set a high standard and to show his choristers how they should sing their parts when recording themselves, by leading by example:

"I think, one of the things, definitely, is that I know more than before, and I thought I used to know every voice part so well! Because I had to create a rehearsal track for each voice part in each one of my choirs, so, I would sing it and have to sing it well to give them a good guide vocal for them to practice along to. So, everything had to be very good,

my intonation had to be very good, I had to phrase exactly in the spots where I want my choir to phrase. I would have to practice what I preach, so, my skill, I think, sharpened a little bit in terms of singing every part of every piece of music very accurately. I think that was one of the biggest benefits for me personally" (Jonathan)

Caren, on the other hand, realised that life is about more than work and that she could harness lessons learnt from the virtual choir context to benefit herself and others, as exemplified in her words below:

"It's like, for me personally, it is as if my world became bigger […] It's not only me and the choir, there's a world around us. […] I concentrated, maybe more, [on giving] other people watching or listening some pleasure, and to try to find something new, something to learn from other choirs. To stay fresh and […] to have some initiative and some drive to want to do something." (Caren)

Alex felt that the restrictions during Covid-19 allowed him an opportunity to break away from the chaotic life and heavy workload he used to have:

"This is my best year in years, where I did not have to conduct the choir […], especially in the beginning. […] So, this was good for me. Just having the pace of [not] 'running around like a mad chicken'. […] We had less rehearsals. […]My life cannot just be choral conducting or what I do." (Alex)

"Especially in this time, I want to return – not to the things of old necessarily – but returning within a new way of thinking to holistic growth, musical growth, and from a psychological point of view." (Alex)

Benjamin explained how his views and perceptions changed, and that he had to find alternative ways to approach his role as choir conductor, as well as to have different expectations from his choristers:

"I think I've learnt to appreciate the kids more [and] I've learnt to appreciate what they [are] going through and I've learnt to appreciate their frustrations […] I had to restrain myself in terms of expressing my frustration because you had to think the whole time, they [the choristers] have to go away after the thirty minutes thinking that was worthwhile

[…] It was embracing a different kind of method of working with children which became a huge challenge right from the start." (Benjamin).

4.1.2.3 Opportunities

The skills mentioned in the previous sub-theme afforded the participants new opportunities as their skill sets either broadened, or the virtual platform allowed new possibilities to unfold. For example, Caren mentioned that using the virtual platform made it easier for her to audition new choristers, as well as for soloist parts. In the past, she only auditioned choristers once a year, and now that she acquired the skills to operate virtually, she can audition choristers at any time throughout the year:

> "We are not going to have only once a year auditions anymore, we are going to have auditions, like, whenever there are children who want to do auditions. If I look for the solo part, I will ask the children, 'please sing this for me', and then I can [listen to them individually during an online audition] instead of asking them in front of the choir and listening to several children [during] choir time." (Caren)

Jonathan, Caren and Alex indicated that the virtual platform created an opportunity for them and their choirs to connect with singers and choirs around the country and the world:

> "If I could afford it, it would have been worth for me to keep building my online choir community because, I think, over time, I would've had people from many different parts of the world […] who live in a town or a country or a place where there is just no opportunity for them to sing. I actually had one international member from Australia [and] a guy in Kenya who was interested. […] I had people from Stellenbosch, I had people from Pretoria in the online choir because they now didn't have to be physically where I am and they loved it, they loved that there was an opportunity […] for them to do that, and I think […] if you have time and money, […] if you can afford it, let's put it that way." (Jonathan)

> "It also brought the rest of the world into my home because I interacted with choirs from all over the world. We did projects with them and, all of sudden, because of Zoom and the virtual choir projects that we took part in, the world became smaller. So, we had choir meetings, […] for instance with the Philippines, and it was two o'clock in the afternoon in South Africa and it was eight o'clock in the evening there, and sometimes, also do a

workshop simultaneously with people from New York, and it was five o'clock in the morning when they joined into the meeting. So, it actually […] changed the world for me. They [Caren's choristers] met other choristers all over the world because we took part in virtual videos of other countries. It broadened not only my world but also those of each choir member." (Caren)

"This became a world phenomenon. […] How choirs came together across the world, I mean, we had people contacting us from Kazakhstan and Mongolia and wherever, you know, it was quite interesting. So, the choral world became very small which is very […] positive." (Alex)

Benjamin saw an opportunity for his choristers to not only listen to music when they were on campus but also to learn choreography moves of African music, which they seldom had time for pre-Covid. He also prepared the various choir parts utilizing video clips, which he extracted [music notation and audio] from Sibelius for his choristers to learn at home, while not on campus:

"In principle we wanted the choir to continue, be it as an activity where they got together on campus and merely listen to music, which we never have time for, or go through the choreography of dance movements of African music. When not on campus, we asked the boys to learn their choir lines which we uploaded for them in different parts as videos. [Saved from Sibelius as video clips]. [In future] I will be able to upload a situation where I say 'right, fine, here's the lesson, go listen to this passage or to the entire piece, play it twice, three times, sing this, make sure that bars twenty-six, twenty-seven, twenty-eight are in place, and if you have problems with that, I have now done a second clip where you can listen to those three bars a little bit slower and there's another clip where I make it a little bit faster. So, I would be able to do that very, very easily." (Benjamin)

During this time, Benjamin also had the opportunity to expose his choristers to other recordings of music, as well as recordings made of his choir in previous years. He explained that he never used to have time to do this pre-Covid:

"The exposure to other music became extremely valuable. […] That's something I would never have done, I would have used that time to rehearse. So, the exposure to other recordings and other choirs' recordings, and eventually, […] towards the end, our own previous recordings." (Benjamin)

Benjamin also saw an opportunity for his choristers to do sight-reading, which they normally don't have time for during normal choir rehearsals:

> "Sight-reading is definitely something which we very, very hardly have any time for, so that's why I introduced that." (Benjamin)

Alex spent more time with his individual music pupils, which he did not have time for previously:

> "I [can] focus on my individual students and do more with them than my choirs." (Alex)

Jonathan realised that new opportunities opened up. Due to his newly acquired skills, such as learning how to film, and the visual and audio editing process needed to produce a virtual choir performance item, he will be able to venture into new and innovative ways of creating an income:

> "I've learnt how to film people and I learnt about the editing process, visual and audio, so, definitely! For me personally, huge, yah, huge bonus that I've now new opportunities. I am looking at different ways to use my skill and experience to generate income. I think, the main thing for me is that new horizons opened up for me personally as a musician, as a music educator, and that, to me, is very exciting." (Jonathan)

Caren explained how there were opportunities to provide individual feedback to choristers:

> "What I found [worked] very well [was that], when I prepared music, I could WhatsApp a child and say, 'sing for me from this part to that part', and they […] could ask me 'I don't understand this or that in the music, can you please send me a short note to help me with that?'" (Caren)

This enabled Caren to be more closely aware of the problems that choristers faced when learning the music so that she could adapt her teaching strategies.

4.1.3 VC Challenges

The new virtual reality caused significant stress and a multitude of challenges to the choir conductors, negatively impacting their wellbeing. In the following sections, the perceptions of the conductors regarding their personal experiences and frustrations are described according to four subordinate themes namely choir attendance; increased workload and emotional distress;

financial implications; and technological challenges. Each subordinate theme is supported with relevant quotes from the participants.

4.1.3.1 Choir attendance

Participants explained some of their challenges regarding choristers' attendance during their virtual rehearsals. Jonathan, who conducts a school choir, as well as a private choir, explained that choir attendance was significantly lower during his online virtual rehearsals. He also noticed that the attendance of the private choir members, whose parents pay membership fees, was better than that of the school choir where no membership fees are required. Moreover, his view was that primary school age choristers, in general, did not commit themselves to attend rehearsals conscientiously:

> "In most [...] choirs, the overall attendance was less than fifty per cent of total members. So, you don't get, in my opinion, the same average level of commitment from [school choir choristers] as you do in a private choir where people pay and they do an extra commitment. Very few children, especially in primary schools, loved the music and the singing enough to really commit to this new process." (Jonathan)

Caren mentioned that attendance depended on whether there was load-shedding during their rehearsal times:

> "It was a very difficult situation when it was load-shedding because all were in different regions, therefore, attendance was fifty per cent or less, but it was the responsibility of the children to catch up on their own. Most of the time, when it was not load-shedding, attendance was eighty to a hundred per cent." (Caren)

Benjamin noticed that attendance declined within the first four to six weeks of starting virtual rehearsals:

> "After at least four or five, six weeks, it [the novelty of singing in the VC] started to wear off, there's no doubt about that. So, we went literally from rehearsal to rehearsal for a couple of weeks, and then I introduced other aspects, because, as the novelty wore off, they got bored with the situation." (Benjamin)

4.1.3.2 Increased workload and emotional distress

Most of the participants experienced an increased workload related to their virtual choir projects that lead to emotional distress and anxiety. For example, Jonathan felt overwhelmed with the vast

amount of work he had to put into his virtual choir on a daily basis, compared to only working with his choirs once a week.

> "And then it would be relating between me and my singers all throughout the week, instead of just once a week. […] It was exhausting, beyond measure, and that's why I couldn't sleep at night." (Jonathan)

Alex felt a sense of peer pressure, feeling intimidated into doing a virtual choir performance project because so many other choirs started doing so:

> "I didn't want to do it. But it was a hype, and if you didn't do it, you looked bad, so I felt bullied, actually, [into] doing it, because nothing takes away [from] a live performance, but you can't have a live performance, so this is an alternative, you know. […] In a time where everybody was doing it, we felt, 'oh, we have to do it as well'. I didn't feel pressure from my management, but from the community, and the community was putting pressure on them [the management]." (Alex)

Caren expressed anxiety regarding the survival of herself and the choir. She had to deal with additional stress to keep the choristers and parents motivated to continue with choir participation:

> "In the past, I felt the sky is the limit, and currently, it is a battle of survival. Since Covid, I feel challenged to find ways to keep all [choristes and parents] interested and motivated." (Caren)

However, Alex decided not to have weekly virtual online rehearsals and limited face-to-face rehearsals with a single voice group at a time. :

> "I mean, [before Covid] I was burnt out. I have four choirs and full teaching responsibilities at two institutions, so I was burnt out. [Then, after Covid resctictions] we had less rehearsals. […] From a psychological point of view, yah, this was really good for me and having a contentment and peace of mind." (Alex)

This strategy allowed Alex to experience a sense of relief from feeling burnt out as his vast pre-Covid workload subsided considerably.

4.1.3.3 Financial implications

All the participants indicated that there are various constraints and expenses related to operating a virtual choir. For example, at the start of Covid-19, Benjamin felt that it would not be viable to attempt doing a virtual choir project:

> "Because I realised, we will be spending so much time on three and a half minutes of music that it's not worthwhile. Eventually what will happen is a member of staff will have to spend hours and hours and hours trying just to prove that we are doing something." (Benjamin)

Alex and Caren both indicated that the costs involved in creating virtual choir projects are very high:

> "There's a lot of costs involved, so budget-wise, I mean, you can do one, or maybe two of them. […] It's financially not viable and people don't realise it, and the amount of hours, I mean, you pay per hour, and it's really, really expensive. One project would be around four thousand to six thousand rand which were paid by the school and institutions, and not by me." (Alex)

> "It is an expensive project because of video- and sound costs, and we work with a low-to-no income budget due to Covid restrictions. In the situation I'm finding myself in there's no money to produce videos, […] no income, so why are we actually working?" (Caren)

Jonathan planned to ask the various schools where he is involved as choir conductor, to budget so that one virtual project per school can be produced in the following year:

> "So, I've actually asked some of my schools that I have contracts with to [each] budget twenty thousand rand next year for a music video." (Jonathan)

Jonathan further explained how this pandemic directly impacted his income, as some schools have completely cut their choir budgets:

> "Other schools simply cut choir from their budget and planning, which directly affected the income of me and my colleagues. Choir conducting and managing was my main source of income for many years, and it simply is not reliable in that sense anymore." (Jonathan)

Some participants even experienced exorbitant personal financial costs to serve the needs of their VC projects, as mentioned in the following quotes:

> "Lots of data, computer memory to expand, monthly Zoom costs, backgrounds for video recordings. Lots of ink for printing was used because the printing business [that usually did all the printing for the choir] was closed." (Caren)

> "I had to buy hardware and software in order to produce good quality recordings for my singers to practice along to. I ended up spending around forty thousand rand to have a purpose-built studio in my house, as I couldn't be effective in my house, living with three other people, any longer. I also had to pay my audio engineer and video editor for each project. Overall, it turned out that I spent so much on my own resources, in order to produce something worthwhile for my clients." (Jonathan)

4.1.3.4 Technological challenges

A factor that presented significant constraints were the technological challenges the participants experienced. Due to the new virtual context of their choirs, all of the rehearsals and performances required quite advanced technology to operate. For example, conductors had to experiment with various online platforms to discover which one worked for choir purposes where multiple voices could be heard at the same time:

> "We found out very quickly that we cannot sing in a Zoom meeting." (Jonathan)

> "On Zoom, you cannot listen to more than one voice at a time." (Caren)

Alex noted that the recordings took away the musicianship and musical execution of their voice parts from each chorister. As the choristers were not able to hear each other, they could not blend in [create a cohesive sound] or make music together:

> "Number one, you can't make music, really. It's just an electronic thing and each individual cannot feed off the other one, really, musically. So, it's really mechanical, […] it becomes quite dead." (Alex)

Alex and Caren also perceived the sound of the recordings to be unnatural:

"If there's a problem, then that's that. It needs to sound natural. Yah, so, to me that was quite negative." (Alex)

"Reasons, why I [would] choose not to do a virtual choir project, is because […] the result is not a natural, organic sound." (Caren)

Alex explained that, besides the financial implication of running a VC project, the process was very time-consuming for him as well as for the editors. This made it challenging to justify future VC projects:

"Although we did some [virtual choir performance] projects, the costs of editing by professionals as well as time spent as conductor with the editors, made it very difficult and [may make] further projects impossible." (Alex)

Caren often experienced difficulties regarding internet connectivity, as this was interrupted at times, which meant that some of her choristers could not join the VC rehearsals:

"Unfortunately, it did not work well because not all the choir members have stable internet connections and could not join in. We had to ask the choir members to switch off their cameras for Zoom practices so that they could hear better. This was not ideal because we could not see if they were taking part at all, and we could not assess if it was a successful practice." (Caren)

In her view, Caren felt that various technological factors affected her own and her choristers' participation in the weekly choral activities:

"Lack of data available for choir members, memory on my computer. I had to buy an external hard drive to save all audio and video footage. Load shedding[7], school platooning [learners were required to attend school on a rotational basis, with different days assigned to specific grades], no physical contact with [the] choir sometimes made it very difficult to get a message out in time." (Caren)

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[7] "When the demand for electricity exceeds the available supply, planned supply interruptions may have to be carried out. This is called load shedding." (Joburg Departments, 2018).

Jonathan experienced severe frustration when he had to manage and use the choristers' submissions of audio- and video recordings, as described below:

> "This was way too challenging for most people, which was really frustrating to me […]. This had to be done in a super-quiet environment, with a very dry acoustic. Even after doing tutorial videos, PDFs with step-by-step instructions, etcetera, children and parents would so often still not manage to do this so that it was usable. I often ended up using maybe half of the actual submitted recordings, simply because the others were non-usable at all […] This process was an even bigger nightmare!" (Jonathan)

4.1.4 New ways of rehearsing and performing

To allow their choirs to survive and thrive in a virtual environment, the conductors had to acquire new ways of planning and organising their weekly rehearsals. They also had to create innovative strategies to arrange and execute performances. Each conductor adapted unique approaches to negotiate this process, as explained in the following subordinate themes.

4.1.4.1 Planning

The choir conductors had to try out new strategies and virtual platforms for communication and to plan their VC rehearsals and performances. They also had to prepare what they were going to do during their rehearsals in terms of repertoire, warm-ups, activities, and what resources they would need to conduct their rehearsals.

The children's choir which Caren directs has four music staff members who assist with voice group rehearsals. As they soon realised, "it is not possible to do two different voice groups in one Zoom meeting, because only one sound at a time can be heard" (Caren). It was therefore not possible to run two voice groups simultaneously, necessitating a different strategy to be devised.

Alex also had a team of staff that assisted him with preparing recordings of the voice parts. These were then sent to the choristers so that they could practice and then record themselves performing their parts. Once the choristers recorded their renditions, they had to send it back to the team who could check that the choristers knew their parts:

> "I have a team of people that will record the parts with the sheet music, which they [the choristers] have to then perform, record it for us, and send it back. […] Then, just to see

whether [the choristers are] on par, [the team checked the children's recordings] so that we do not struggle with people who do not know their work." (Alex)

Benjamin realised that he had to plan a variety of activities for his VC rehearsals. This meant that he had to focus on aspects that he normally did not have time for, such as sight-reading and listening exercises:

"You need to have variety in terms of activity. Sight-reading and the listening to other [sound] clips, […] that was a conscious decision which I made: 'I'm going to do something different which we normally can't do'." (Benjamin)

Alex realised the importance of choral music that is text-based, and that he had to choose music with text that his choristers would be able to comprehend and engage with:

"Especially when you have text. Teaching kids to interpret and understanding the text, and choosing music that they understand and which they can interpret." (Alex)

Benjamin planned a programme to organise rehearsals. He asked his choristers' input to determine whether they were willing to go with his plan, which, in most cases, they did:

"I would have sort of a programme in mind and I would say to them: 'right, fine, for the next X weeks, this is what I want to do'. So, trying to gauge whether they are keen and interested to do that, and most of the time, they were happy to go along with whatever I suggested. I had to find a way of making it interesting for them, and eventually, for myself too, and I think, in a way, we succeeded with that." (Benjamin)

Caren planned and structured all her rehearsals in a particular way so that valuable time was not wasted that would cause the parents to pay for unnecessary internet data:

"So, I had to say […] okay, let's put a structure to this […]. So, I set up certain ways of doing things. […] I had to prepare more because I had limited time and I had to make sure […] that I use every minute, that I don't waste the data of the children or the parents, and that I had to prepare better." (Caren)

Caren planned on creating voice notes [audio recordings] for each voice group in her choir. This required her and her team to record the various voice notes so that they could be sent to the choristers, after which they could practise and record their parts:

> "The first thing that we did was to do our first virtual song. It was a whole learning process because […] each child had to record themselves. So, we had to provide the voice notes for the children. So, we [the four support music staff members] also sat and we worked on voice notes. So, for every song that we worked on first in the four parts, or in the five parts or six parts choir voice notes, we had to send out on the different [WhatsApp] groups, and then they [the choristers] had to learn it in their free time." (Caren)

To communicate with choristers and parents, and for rehearsal and performance purposes, conductors had to select specific online platforms. Data analysis revealed that all of the choir conductors used WhatsApp as their main communication platform. They created WhatsApp groups to communicate with different voice groups and parents. Some used additional platforms such as Discord, Google Meet, or email. For rehearsals, the majority of the choir conductors made use of Zoom, either to rehearse or to meet with their choristers on a weekly basis. To promote their choirs, some conductors made use of marketing platforms such as Facebook, Twitter, Instagram, and their institutional websites.

4.1.4.2 Logistics

Due to the new circumstances and demands of a virtual choir reality, the conductors had to adapt the logistics of arranging and organising choir rehearsals. They also had to develop additional skills in their choristers to deal with online performances.

- **Practical strategies for weekly rehearsals**

Participants each explained in detail how they managed and planned their virtual rehearsals. For Benjamin, the best strategy was for his choristers to go online to learn their various parts, as well as finding out how they had to then upload their recordings where they sang their parts. He had to trust his choristers to do what was expected of them. He also mentioned that his choristers always had sheet music at hand during the virtual choir rehearsals:

> "Boys could go online, choose their voice groups, and then learn their parts, uploading a video recording of themselves singing their parts. We had to trust the boys to get on with it in their own time, always singing with notation!" (Benjamin)

Benjamin further explained that, during rehearsals, that the different passages within the music had to be approached in smaller sections, to make it more workable for his choristers. This was needed to focus on detail:

> "You couldn't just do a passage, you had to scale the passage down in bits and pieces and made it workable […] in smaller chunks, for example, and explain a little bit more in detail, [doing this] again and again and again and again, without losing your temper!" (Benjamin)

Jonathan planned his rehearsal tracks to develop vocal technique and found ways for his choristers to stay engaged. He also prepared and produced rehearsal tracks with lead vocals to guide his choristers when rehearsing at home:

> "I recorded vocal activation tracks, like vocal exercises, which they could use during the week to keep developing some technique and stay engaged with their singing. I also produced good quality rehearsal tracks with a lead vocal for each voice group, for singers to practice the repertoire by themselves." (Jonathan)

Caren explained that her choir was divided into four voice groups, each having their own teacher assigned to the individual voice groups, who taught the choristers their melodies during the rehearsals. Furthermore, each chorister had access to their music scores, sent to them in PDF format on WhatsApp. The latter allowed choristers to follow their scores at home, either using the printed version or viewing the PDF version on their phones:

> "We sent PDF scores via WhatsApp and those who have a printer at home could print the music. Others had to switch the camera off to follow the music on their phones. Not all could join Zoom on a laptop or computer, most used their phones." (Caren)

Additionally, she sent her choristers audio voice notes on WhatsApp, so that they could learn their parts, adding clear instructions as to which sections they were required to sing during the weekly rehearsal. During the virtual choir rehearsals, her choristers were taught eight bars of music at a time in relay style –as athletes do– which meant that progress was quite slow. This implied that each chorister had to sing their part of 8 bars back individually to the music teacher, and then the next chorister had to sing the next 8 bars, and so on:

"We divided into four voice groups and music teachers [each] took a group to teach [them their] melodies. […] We progressed very slowly because we would teach them eight bars, then each member had to sing it back in a relay style. They had to sing back [solo], for example, [chorister] A sings measure one to eight, B sings measure nine to sixteen, C carries on, etcetera. We also sent voice notes [audio notes] on WhatsApp groups. The children had to learn it individually and then sing it back to the teachers at our Zoom practices." (Caren)

Caren's virtual rehearsals also allowed her choristers to learn new warm-up techniques through watching several YouTube tutorials. She mentioned that each chorister received individual vocal training, aimed at improving their singing technique:

"We played warm-up and other technique videos from YouTube during our Zoom practices […]. The choir members gained by receiving solo voice training on breathing and pronunciation." (Caren)

Jonathan's choristers also received their scores on WhatsApp and were asked to follow their music during their virtual rehearsals in order to discuss musical aspects related to the music:

"I did get singers to scroll or page through sheet music with me, as we discussed symbols, musicological terms, structure, etcetera. Most singers had hard copies of music, but I also sent PDFs via WhatsApp groups so that no one would be left without it." (Jonathan)

During virtual rehearsals, Jonathan asked his choristers to activate their videos so that he could see who genuinely participated in the session. He also gave clear instructions as to what he expected choristers to do while participating in the session:

"I asked all my singers to mute themselves, and raise a hand to ask a question or make a comment. [I] also encouraged them to have their video on, so we can actually see each other, which also made it easier for me to see who seems engaged and who isn't. It was mostly a teaching and/or encouragement session." (Jonathan)

Benjamin wrote all the required voice parts using a software notation programme, which he then exported as videos for his choristers to practice with at home. He asked his choristers to sing and record their parts using the syllable 'lah' instead of the text of the songs:

"We rewrote the music […] using Sibelius, then extracted the parts and saved them as video clips. Boys could go online, choose their voice groups, and then learn their parts, uploading a video recording of themselves singing their parts. They were asked to listen to the clips, and learn their parts following the music. They were not required to sing to the words, but could simply sing using 'lah'." (Benjamin)

During Benjamin's online rehearsals, he asked his choristers to listen to recordings of the same songs they worked on that was sung by the choir in previous years. This proved to be a valuable strategy as the choristers engaged with it on more than one level and listened to it attentively. Benjamin explained how he would introduce such a recording during a rehearsal:

"I would say to them: 'This [song] is something which we've done, which you didn't sing perhaps, but some of your predecessors sang and some of it was very good'. […] They listened to it and they became very critical, also, of it, and I think they realised that, yes, there are things which are positive, definitely." (Benjamin)

Caren mentioned that it was very difficult to work with the whole choir and, therefore, decided to rather work with each chorister on an individual basis:

"[I worked] Individually with my group, but I could not work as a choir." (Caren)

Jonathan initially asked his choristers to send him video recordings of themselves so that he could provide them with detailed feedback. After working on the virtual choir performance project for a time, Jonathan realised that it would be easier if the choristers sent voice notes [audio recordings] of themselves instead of video recordings.

"After numerous practice recordings they sent me, on which I then provided detailed feedback, we would arrive at the point in our project where singers had to send me voice-only recordings." (Jonathan)

- **Developing choristers' sight-reading skills**

Benjamin attempted to improve his choristers' sight-reading during virtual choir rehearsals, but soon realised that sight-reading should be done in conjunction with other activities for it to be effective:

"We tried to use the opportunity for the boys to improve their sight-reading. Whilst it was interesting at first, one could not continue with sight-reading exclusively, but had to combine it with other activities." (Benjamin)

Alex also took the opportunity to teach his choir sight-reading, as well as chants, as they had the time to do so. Every week his choristers had the opportunity to sight-read a new piece. Alex also mentioned that, within one year, his young choristers were able to sight-read polyphonic music:

"I taught them chants and I taught them sight-reading. […] Because we had nothing to work for, so, […] every week, we would sight-read a new piece. At the end of the year, we could perform polyphonic music with these little ones, and they were sight-reading it within a year." (Alex)

Several of Benjamins' choristers experienced sight-reading as a challenge:

"We tried sight-reading […] and I think, initially, it was fine. So they saw that as a challenge." (Benjamin)

- **Improving choristers' intonation**

During the course of the year, there were times when Alex could organise smaller groups of choristers to attend face-to-face rehearsals in their normal choir venue. Although Covid-19 precautions had to be taken, including social distancing and sanitising, this allowed opportunities for Alex to work with specific voice groups and to enhance their intonation skills. He specifically focused on teaching the choristers to sing individual intervals using a wall chart that displays a large image of the piano keys. By pointing to the two different pitches representing a specific interval, such as a minor third – for example, C to E flat – he asked the children to sing these notes just by looking at the piano keys on the wall. Therefore, the choristers had to use their inner hearing to find the correct intonation instead of imitating notes played on a real piano. He also made use of solfège when teaching his choristers to sing these intervals, thereby further strengthening their intonation skills:

"We started with one voice [group] per session. So, you would have between five and ten kids standing there, and on the one side of the wall is a piano, so we would sing intervals. I would just press on the big piano on the wall […] So, I would [point to] a C, and they would sing C, and an E flat, and then D and then F" (Alex)

- **Frequency of rehearsals**

Data analysis revealed that all the choirs had different schedules regarding the frequency of their rehearsals. Jonathan on average "met once a week with most choirs, usually on the same weekday they would normally have [had] their rehearsal", while Benjamin's choir rehearsed twice a week. Caren initially had two Zoom rehearsals per week, but due to data costs, she decreased rehearsals to "one Zoom practice of thirty minutes per week." Alex revealed that they "did as many face-to-face rehearsals that we could, with no online rehearsals", and waited for in-person rehearsals to be permitted, which was ideal for smaller voice groups.

4.1.4.3 Homework for choristers

Two of the choir conductors – Caren and Jonathan – assigned homework for their choristers and explained what they expected of the choristers, as well as how this strategy assisted them as conductors to ensure that their choristers knew exactly what they were meant to do. For example, Caren expected her choristers to prepare various voice parts for her weekly online rehearsals. A week before each rehearsal, she sent a homework list to her choristers, so that they had sufficient time to practise. This included voice notes which the choristers could use to prepare, so that they could sing their parts individually during their weekly rehearsals. This, in turn, allowed her to familiarise herself with each chorister's voice to determine what they were capable of:

> "The choristers had to prepare certain parts for the Zoom practices. We sent a list of 'homework' to prepare for the Zoom practices the week before. They used the voice notes [audio recordings] to prepare and then they had to sing it back, solo, during the Zoom practices. I often asked them to send me a voice note of [their homework] parts which they had to prepare. It helped me a lot to know the individual voices and abilities of each choir member." (Caren)

Jonathan's choristers had to send their voice recordings to him before every rehearsal. He sent each of his choristers very specific instructions on how to video and audio record themselves at home. He expressed his frustration that many choristers were still unable to follow instructions on how to record themselves correctly at home:

> "They had to play the rehearsal track through ear buds [ear or head phones] from one device and record themselves with another device [a laptop, tablet, or smartphone]. After receiving their voice only audio, we [the music teachers] then gave them very specific instructions and guidance on how to film themselves at home, in a specific outfit or

colours, specific framing, singing along to the same rehearsal track they used to record their voices with." (Jonathan)

Caren asked her choristers to send back their video recordings where they sang their parts, using the click track[8] prepared and sent to them in advance. She also gave them clear instructions as to how they had to video record themselves at home:

"They had to send a video, singing with their voice [over the recording with a] click track. They had to hold the phone in landscape position and the track should be part of their video recording in order to sync the sound of the video." (Caren)

Caren also gave clear instructions to her choristers as to how they had to video record themselves while listening to the backtracks, and what devices they should use to capture the video recordings successfully. She explained how this was a learning curve for both her and her choristers, and how it became easier with time as the choristers gained experience in learning how to video-record themselves:

"So they had […] to do videos with two phones. On one phone and earphones in their [other] phone, they had to do the voicings and the track on the other phones. The parents had to do the video recording while the children were singing and we had someone who had to put the video clips and the sound all together. So, [this] was a learning process. The first one [video recording of the whole choir] was very difficult and we learnt a lot; 'what to do' and 'not to do', but the more we did [it], the better we [all, including parents, choristers and teachers] understood […] what was expected of them." (Caren)

4.2 Theme 2: Choristers' VC participation

During the journey of adapting to a virtual choir context, the conductors all realised how a virtual choir context significantly changes the traditional role of choristers. Where children were used to attending weekly practices – all meeting in the same or different venue – there were opportunities for socialising with friends. These socialising aspects often tended to be the most important motivational aspect in continued choir participation, as Caren indicated:

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[8] A 'click-track' is "an audible metronome" so that that the individual choristers' performances can be synchronised to the "exact same tempo" (MasterClass, 2022, para. 1).

"They all mentioned that they missed to see their friends and they missed to touch friends. They missed that a lot." (Caren)

However, the way that choristers interacted, and their other roles in a virtual choir context, changed significantly as indicated in the following subthemes.

4.2.1 Support structures

Within the new virtual choir context, the choristers received valuable support from their conductors, music teachers, and parents. In some instances, the support was on an individual basis, and in other instances, there were support staff helping choristers with specific matters. Caren, for example, had four music teachers assigned to assist with voice groups, each working with a distinct voice group during rehearsals. Her choristers also knew which teachers to ask when they had queries related to various choir aspects:

"I set up a certain way of doing things, like, if it's music-related or score-related, ask the accompanist, or, if it is related to choir uniform or other things, please ask thát one." (Caren)

Several conductors made time to liaise with their choristers on a one-on-one basis by giving individual advice, examples, and feedback, as described in the quotes below:

"I would say to a child, for example 'I think your voice is changing, can you stay behind at the end?' and then I would say 'alright, fine, can you sing the following passage' and I would say 'alright, fine, you're definitely not a treble anymore, your voice is definitely starting to change, I think, so, next time when we sing something, don't choose the treble part, rather choose the alto part and see whether it works better than the treble part'. And then there would be a reaction again and an interaction about that." (Benjamin)

"I would sing examples to them, I would tell them about phrasing, so I would sort of coach them individually." (Jonathan)

"When they record themselves, […] I had to gently [say] 'that's what you sound like, so get used to it, do it more frequently'. [..] Instead of saying [to themselves] 'I got to put out two hours in a week', sing your song every day, just plug in, put your earbuds in, take the music and sing it once." (Jonathan)

"They would send their videos, and I would say: 'great video, but, guess what, you never open your mouth, it looks terrible, have you looked at it?' You know, like, 'your eyes are dead, you're singing a happy song but you [look] like you are about to die, you know'." (Jonathan)

"It was almost as if the children got individual music lessons, singing lessons. […] I could work individually on diction, breathing and pronunciation." (Caren)

"Singers had to send me cellphone recordings of themselves, singing along to the tracks, which I responded to by sending each participant an individual voice note with my feedback." (Jonathan)

In some instances, senior choir members could assist novice choristers:

"The seniors in the choir assisted with the assessment of the juniors." (Benjamin)

Moreover, the choristers' parents played an important role in supporting their children at home with various aspects, ranging from technology to choreography:

"We did a virtual song for a competition and I wanted movements with it, so all the parents could sit in [the virtual choir rehearsal] and I could show them how to keep the phone […] landscape and not portrait, and I could show them the movements. […] Not only the children […] were involved, also the parents became involved in this whole thing. Because usually, it is between the choir and me and my helpers. But now, because of virtual choir practising, the parents became a part of the whole process, they were very involved." (Caren)

"I said, please, one parent with every child in the Zoom meeting […] to help the children […] with the technology." (Jonathan)

[With] the little ones [younger choristers], the parents were more involved, obviously, because they had to have consent and all that, […] and they were driving it. [With] the type of kids we have, […] the parents are really involved, like I think, [in] most children's choir set-ups." (Alex)

Jonathan mentioned how he had to constantly motivate his choristers during VC sessions and via WhatsApp messages:

> "On the [WhatsApp] groups I would send encouraging messages: 'Hey guys, happy Friday, hope you're doing well?'. 'Have you been singing today?', 'Awesome job'." (Jonathan)

4.2.2 Chorister challenges

The participants mentioned several pitfalls that challenged their choristers during the time of isolation when no face-to-face rehearsals were possible. These included a loss of interest, causing choristers not to commit to long-term involvement with the virtual choir. Some choristers also experienced additional challenges because they do not have sufficient musical knowledge to work on music pieces when isolated from the rest of the choir, and lack the confidence to sing individually.

4.2.2.1 Isolation, loss of interest and commitment

Some of Jonathan's choristers felt isolated. They also struggled to stay engaged during rehearsals as his normal skills of keeping them focused on the music did not work in the virtual context:

> "Children and their parents often said, 'I didn't join the choir to sing by myself at home'." (Jonathan)

> "In a [face-to-face] rehearsal, I could use all my experience and all my skill to keep everybody's attention and to make sure that everybody stays with me. [In the virtual setting] it was harder for […] some of them to stay connected to receive instruction." (Jonathan)

Moreover, Jonathan saw a decline in audio recordings sent by choristers as time passed:

> "Receiving their audio recordings, this started off alright, but the number of those actually participating by recording and sending it in, steadily declined." (Jonathan)

Several of Benjamins' choristers lost interest in attending rehearsals over time:

"I could see some of them I'm losing. […] Some of them started to come late for rehearsals or not turn up at all, and then, eventually, I realised that it's a novelty that worked for a period of time, and definitely, wore off." (Benjamin)

4.2.2.2 Insufficient musical knowledge and skills

Benjamin mentioned that choristers who lacked theoretical knowledge struggled to stay on track due to their inability to read the music:

"But the boys who don't have a theoretical knowledge, who did not have the ability to read music already, or had some knowledge [of basic music] theory, did not know what the heck to do. So, they fell off the bandwagon." (Benjamin)

Jonathan noted how most of his choristers experienced difficulties when they had to learn new music in the virtual choir context:

"Most individuals, especially in primary school-aged choirs, found it extremely difficult to engage with brand new material." (Jonathan)

4.2.2.3 Singing individually, hearing their own voices

Each participant explained the challenges their choristers faced during their virtual choir rehearsals and projects, as well as how these challenges impacted the choristers directly. Jonathan, for example, noticed that his choristers became aware that they were expected to perform individually in a VC performance in comparison to a live performance, where they were part of the whole group:

"When they are filmed and recorded, they have to perform in a different way to being sixty [choristers] on a stage." (Jonathan)

Jonathan and Alex both acknowledged that their choristers found it challenging to sing individually or solo during virtual choir rehearsals. Caren did not use this strategy herself, but she talked to other conductors regarding this matter, which probably influenced her own decision:

"I had to chat with other choir masters and they felt that it is […] too personal to expect the children to sing on their own." (Caren)

"So, the hardest thing definitely for them was to sing by themselves. 'It doesn't feel like choir and I don't like the sound of my own voice' [a response from a chorister]. I think that was the hardest [for the choristers]. (Jonathan)

"Nobody likes watching themselves on screen […] or hearing themselves. [So], in terms of guidance, it was interesting to see another side of the people I work with. A vulnerability as well, yah." (Alex)

Jonathan mentioned that some of his choristers felt that their recordings weren't good enough, even after numerous attempts. He also recalled that several choristers disliked hearing their own recorded voices:

"'I recorded seven [takes] but it sounded terrible' [response from a chorister]. I said, 'just send it to me' […]. When they record themselves they go, 'yew', my voice doesn't sound nice on a recording'. […] Most kids hated the sound of their voice on a recording." (Jonathan)

An additional challenge, as explained by Caren, was that her choristers became used to only hearing their own voices and that they heard the harmonies of the songs for the first time once the recordings were finalised:

"They were only used to their own sound, they were not hearing the sounds next to them or harmony sounds. […] They only heard harmony when we sent them a recording [the final product of all the voices combined]." (Caren)

4.2.3 Skills-development

All the participants mentioned how their choristers' skills improved during participation in the virtual choir projects. These included both musical and technological skills as explained in the following sections.

4.2.3.1 Musical skills

Alex mentioned that the additional activities done in smaller groups during the Covid-19 restrictions, especially practising different intervals incorporating tonic Solfa, improved his choristers' musicality and overall musicianship:

"I think musically and [and in terms of] musicianship, my choristers have grown tremendously." (Alex)

Caren felt that the VC platform allowed her choristers the opportunity to enhance their musicianship and ingenuity:

"They had to show creativity and initiative." (Caren)

Jonathan believed that the choristers who fully took part in the rehearsals developed significantly in terms of improving their vocal skills:

"The kids who did engage, who really embraced the process, oh my gosh, the development was exponential! […] I have a few kids in this choir who were fifty-five or sixty percent singers, compared to the best singer. They are now an eighty or an eighty-five. Unbelievable!" (Jonathan)

His perspective is that, due to the choristers' participation in VC projects, they acquired the skills to creatively express themselves. To exploit these new skills, he encouraged them to use facial expressions to convey the message while video recording themselves:

"They were able to learn […] different creative expressive skills, that they never really had to do in that way in a live choir." (Jonathan)

Benjamin found that, for the first time, his choristers had to take personal responsibility for learning their voice parts, as it was something that they weren't accustomed to do pre-Covid:

"The boys had to take personal responsibility for their parts, which they never actually ever before had to do. I think that's what they've learnt – which I hope they've learned – is they had to do something from their side to make it work." (Benjamin)

4.2.3.2 Technological skills

Caren explained how her choristers improved in terms of technological skills:

"They also learnt some computer and phone skills […]. They had […] to do videos [video record themselves] with two phones." (Caren)

Similarly, Jonathan mentioned how his choristers had to acquire the skills to audio- and video-record themselves at home:

> "These kids now experienced what it's like to be filmed, to be recorded, even though they recorded themselves." (Jonathan)

Each participant played a valuable role in supporting the choristers in a changed choir environment, providing assistance in unique ways to assist the choristers in growing their musical and technological skills.

4.3 Summary

The findings of the study reveal that the choir conductors experienced severe challenges during the Covid-19 pandemic, leading to significant changes in the way they planned and executed their rehearsals and performances. However, it also led to new perspectives and opportunities to grow their skills on various levels, as well as to revisit their perceptions of what they expected from choristers. In the next chapter, the results of the study will be discussed and related to relevant research literature.

Chapter 5: Discussion of the results

In this chapter, the findings presented in chapter 4 are discussed and compared to the recent research literature on similar topics. New insights and a deeper understanding of the research problem are described according to the two themes: i) Adapting to a virtual choir context, and ii) Choristers' VC participation.

5.1 Theme 1: Adapting to a virtual context

Over the past two years, choir conductors all over the world had to adapt to ensure the continuation of their choirs at the onset of the Covid-19 pandemic. South African children's choirs could no longer get together to rehearse or perform in venues due to imposed restrictions and regulations during the Covid-19 lockdown period. Apart from becoming innovative in their approach to pursuing future choir activities. conductors had to acquire novel skills and adapt to new roles and challenges within the virtual choir realm. Moreover, they had to adapt their normal face-to-face rehearsals to virtual platforms and had to implement innovative strategies for their choirs to survive. Additionally, they had to create effective communication platforms to communicate with their choristers and their parents.

As indicated in chapter 4, this theme revealed multiple findings at different levels. In the following sections, these findings are compared and verified with relevant literature.

5.1.1 Mind shifts and role changes

Several role changes were experienced by each participant in this research, as their responsibilities steered away from being choir conductors to becoming that of producer, sound engineer, sight-reading coach, manager, and music educator. Some conductors had to re-evaluate the way they approached their choristers and were forced to undergo a mind shift by changing and adapting their roles to accommodate and overcome technological challenges. The new choir format had significant implications on their choristers and the conductors were compelled to adapt their approach on an interpersonal level. This meant engaging choristers with a different tactic compared to the approach they were accustomed to during live choir rehearsals.

5.1.2 Wellbeing of the conductor

The various mind shifts and role changes the conductors were compelled to make had significant implications on their personal lives and wellbeing. If Covid-19 circumstances have "negatively affected the mental health and well-being of individuals worldwide" (Kim et al., 2022, p. 299), then this may have influenced on the wellbeing of choir conductors, as was evident from the participants' responses. Although several studies have been conducted on the effect of Covid-19 circumstances on school children and tertiary students, there is limited research exploring the effects of the pandemic on educators (Lee, 2020), and even less literature related to the effect of the pandemic on music educators or choir conductors.

5.1.3 Divergent thinking

According to UNESCO's (2020) education policy during Covid-19, "teachers around the globe were largely unprepared to support continuity of learning and adapt to new teaching methodologies" (p. 15). Other literature indicates and confirms the findings in this study, namely that the online mode of teaching "compelled [teachers] to discover innovative strategies to maintain an inclusive classroom [… and] to make it engaging" (Aliyyah et al., 2020, p. 103; Khanna & Kareem, 2021, p. 1). Feng et al. (2021) furthermore suggest that "recent reports have discussed the importance of student engagement and the use of various technologies" in order "to improve students' performance" (p.314). Similarly, educators globally had to use "blended modes of delivery to improve student engagement" (Joseph & Lennox, 2021, p. 252), a finding confirmed in this study by one of the participants who noted that "you need to have variety in terms of activity" to improve the engagement of choristers. New technologies, however, require that teachers should acquire new skills and that "teachers must continuously equip themselves with skills and knowledge and pursue transformative teacher professionalism to cope with crises and challenges that arise in the future" (Cheng & Lam, 2021, p. 221). It became evident that the participants in the current research transformed their skills and knowledge in terms of technological advancement. The choir conductors all had to learn how to operate different technological devices, applications, communication platforms, as well as audio and video editing software programmes.

The results of this study confirm findings from research literature as indicated above, namely that the virtual realm forced the choir conductors to acquire innovative and divergent thinking skills, and to allow continued engagement with their choristers. Each conductor, therefore, had to

explore and research new methodologies to continue with their respective choirs. Most of the choir conductors embraced the change and used it to their advantage by utilising choir timeslots to explore alternative avenues, such as developing the choristers' sight-reading skills, adding listening and choreography exercises, as well as finding new ways of engaging with their choristers.

Another significant finding that emerged in this research was that all choir conductors had to acquire interpersonal skills, musicianship skills, and personal growth. The interpersonal skills of the choir conductors improved due to increased one-on-one relations with choristers by getting to know them on an individual and more personal level. They had to provide the choristers with additional support in terms of emotional support and guidance, as well as meeting new specialists in the IT, audio, and audiovisual fields, and liaising more with colleagues. These interpersonal skills have been confirmed in the findings of a recent study by Martinec (2020). Moreover, in that study, conductors' musicianship skills also improved due to new methodologies such as teaching sight-reading.

In the current study, the findings revealed that all the choir conductors experienced personal growth in various aspects of their lives, such as:

- Having undergone introspection and reflection to let go of being perfectionistic, and to adapt to the new circumstances,
- Gaining a broader perspective of how their role as choir conductors fits in as well as moving out of isolation to learn from other choirs across the world, and
- Realising that work and personal matters should be balanced to achieve contentment and peace of mind.

The conductors all realised that the new virtual context offer opportunities such as:

1. Creating virtual auditions at any given time to ease the process,
2. Newly learnt skills, for example, audio and visual editing can create new avenues to generate an income,
3. Engaging and connecting with choirs, both nationally and internationally,
4. Ability to utilise and extract audio and audiovisual repertoire and music notation software (such as Sibelius) for choristers to learn their respective voice parts,
5. Exposing choristers to recordings of the same repertoire made during former years,
6. Improving choristers' sight-reading skills, and

7. Providing choristers with individual feedback.

5.1.4 VC Challenges

Several factors contributed to the challenges and undue stress on the conductors' wellbeing during the Covid-19 pandemic, such as creating and managing a new virtual choir environment with limited resources. These findings correspond with recent research as indicated in the discussion of each section.

5.1.4.1 Weak virtual choir rehearsal attendance by choristers

All the conductors remarked that the choristers' attendance of virtual rehearsals was very weak in comparison to face-to-face rehearsals, ranging between 50% to 80%. This corresponds with an educational study conducted in India where 54% of the students "were attending online classes less than 3 days per week" (Kapasia et al., 2020, p. 3). Another study indicated that 33% of high school students failed to log in regularly after only three weeks of online teaching and that, "in many schools, fewer than half of students participated in online schooling" (Squire, 2021, p. 2). Aliyyah et al. (2020) hence encourage educators to continuously "seek ways to maintain student enthusiasm for learning" (p. 99).

5.1.4.2 Increased workload and emotional distress

Current research indicates that educators experience added anxiety and emotional distress caused by the additional workload and major adaptions required for online teaching during the Covid-19 pandemic (Ozamiz-Etxebarria et al, 2021). Similarly, the virtual format of choir activities led to the conductors experiencing an increased workload, exacerbated if they compared themselves to what other conductors were doing. Although the current study focused on the perceptions of choral conductors in a virtual environment, other studies related to online teaching reported similar results namely a drastic increase in teachers' workload (Spieker & Koren, 2021), and the high "toll this type of added stress" (Shaw & Mayo, 2021, p. 7) places on both the physical and mental health of educators (Allen et al., 2021).

Stress factors that the conductors experienced concur with findings from educational studies where teachers reported feelings of "fear, discomfort, nervousness, and anxiety" (Cheng & Lam, 2021, p. 211). Yi et al.'s (2021) research indicate that "an overall prevalence of anxiety of 13.67% among teachers" (p. 1199) was associated with online teaching during Covid-19, compared to earlier findings of only 4.98% in 2013. Several researchers report that educators have experienced

a loss of job security and a reduction of income during the Covid-19 pandemic (Daubney & Fautley, 2020; Pather et al., 020), as was the case with one of the participants in this study. The majority of primary school teachers in India, for example, "feared that their school management would ask them to leave their job" (Khanna & Kareem, 2021, p. 4).

5.1.4.4 Technological challenges and financial implications

The current study revealed that technological equipment is a necessity in a virtual choir environment. Recent research literature corroborates this, as "the availability of data packages and internet connections, and ownership of cellular phones or laptops" are essential to implement online learning (Aliyyah et al., 2020, p. 98; Squire, 2021, p. 6). Two of the participants in this study mentioned that they had to personally finance some of the technological equipment and expenses for their online rehearsals to function. Similarly, in other educational contexts, teachers were at times personally responsible to cover their technological expenses (Addimando et al., 2021, p. 66; Aliyyah et al., 2020). The additional financial burden due to online rehearsals and teaching as reported by the choir conductors was also found in other studies (Aliyyah et al., 2020, p. 103; Khanna & Kareem, 2021, p. 4)

The participants in this research indicated that all their choristers had access to computers, cell phones and other devices, indicating that the children's choirs represented are mostly from affluent communities. Howewver, they sometimes experienced problems with load-shedding and weak internet connection. Research literature indicates that learners from predominantly affluent families mostly have access to material capital, such as computers and physical space (Addimando et al., 2021; Parikh et al., 2020; Squire, 2021). This factor is especially problematic in South Africa where the majority of school children are from disadvantaged communities with limited resources.

Online teaching requires several technological platforms to communicate and interact with learners. Recent studies show that most educators made use of communication platforms such as Zoom, Discord and WhatsApp (Aliyyah et al., 2020; Pather et al., 2020; Spieker & Koren, 2021; Squire, 2021). In this study, the choir conductors predominantly used WhatsApp to set up communication groups to inform their choristers and parents of important notices. Additionally, social and media platforms such as FaceBook, Twitter, Instagram and personal websites were used by the choir conductors to promote their VC projects, a finding that concurs with Martinec's (2020) research. In the current study, the participants found the Zoom platform to be unsuccessful in allowing multiple voices to be heard simultaneously, a finding that corresponds with Martinec

(2020). This caused the conductors to resort to alternative means of rehearsing, including separate voice groups during online rehearsals, for example, and asking the choristers to sing their parts individually or with singers taking turns while completing a longer melodic phrase while keeping the flow of the music using a regulated tempo.

Technology challenges, such as poor connectivity or latency due to poor internet signal or stability during in-person online meetings, also correspond with the findings of other studies (Aliyyah et al., 2020; Parikh et al., 2020; Squire, 2021). Although the participants in this study developd their technological skills by experimenting with different communication and social platforms, they faced severe technological challenges, often lacking suitable equipment for the virtual platform This finding is corroborated by several studies, including Aliyyah et al. (2020), Daubney and Fautley (2020), Parikh et al. (2020), and Squire (2021).

5.1.5   New ways of rehearsing and performing

Similar to the results of the current study, Spieker et.al. (2021) found that "not all teachers embrace technology to the same degree" (p.75). As with the research participants in this study, educators across the globe had to seek support from colleagues to assist with helping them with their online teaching. Feng et al. (2021) for example, mention that "in terms of faculty support […] online courses are usually designed through a team-based approach" (p.314). Other studies indicate that music educators incorporate sight-reading strategies into their online rehearsals. (Spieker & Koren, 2021), as have two of the participants in this study.

The choir conductors had to plan their rehearsals and projects carefully, ensuring effective communication, navigating technological difficulties and challenges, as well as compiling rehearsal tracks for their choristers. They had to adapt by planning new and effective strategies to keep their choristers engaged during virtual rehearsals. These activities included sight-reading and listening exercises, choreography, as well as interpretation of texts of songs. Most of the choir conductors received support from other staff members in rehearsals preparing vocal rehearsal tracks for the choristers to rehearse and record with at home, as well as to assist with voice group. Staff members also assisted some of the choir conductors by revising some of the audio and visual files sent in by the choristers.

Practical strategies needed to be applied by each choir conductor to ensure that their choristers remained engaged so that the virtual choir performances could be completed. These strategies included:

- Choristers had to rehearse their parts, record their parts, as well as upload their recorded parts online,

- Repertoire had to be broken down into smaller passages so that the rehearsals became more manageable. Focus had to be given to finer details of the sheet music,

- Vocal technical exercises were incorporated to develop the choristers' vocal technique,

- Separate voice group rehearsals, some with the assistance of other staff,

- Sending choristers their vocal tracks to practice their voice parts at home,

- Sending choristers sheet music via WhatsApp groups or hard copies, so that they could follow their parts when practising on their own using rehearsal tracks at home, or during online rehearsals,

- Requesting choristers to submit their audio recordings, or to sing their parts live individually in an online rehearsal so that the choir conductor or other staff members could ensure that they knew their particular parts well,

- Asking choristers to activate their cameras during a rehearsal to ensure that they were all engaging,

- Deep listening to previous recordings repertoire that their choir performed, to reflect on how to improve

- Two of the participants incorporated sight-reading strategies with their choirs. One of them attempted to do sight-reading on the virtual rehearsal platform but found that it was challenging and not as successful when compared to face-to-face rehearsals. The other participant maintained in-person rehearsals with small groups of five to ten choristers at a time, guiding and teaching them intervals using tonic solfa. During these sessions, he was able to guide and engage more effectively with his choristers and found a remarkable improvement in their sight-reading and intonation skills.

- The number of rehearsals ranged from one to two weekly sessions per choir. Some conductors were able to maintain their usual rehearsal times, whereas others had to decrease their rehearsals due to the cost of internet data.

- Conductors realised that, due to the virtual context, the focus of rehearsals had to change. Instead of listening to a choir as a collective, they had to optimise the opportunity to zone in on individual choristers' vocal skills and intonation accuracy.

- The virtual choir performance demanded another form of stage presence and conductors had to find new ways to tap into the creativity of the choristers. One example was that the conductor asked the choristers to make extensive use of facial expressions so that this

nonverbal communication would be easily recognisable to viewers on a virtual platform such as YouTube.

5.2 Theme 2: Choristers' VC participation

Although the second theme is not as prominent as Theme 1, it relates to how the choir conductors perceived the chorister's experiences of virtual choir participation. This theme also highlights the roles each choir conductor had in relation to their choristers. The findings from the three sub-themes are discussed in the following sections.

5.2.1 Support structures

Online teaching and having to isolate during the pandemic posed challenges as choristers missed socialising with their friends. This is confirmed by a recent study where "the majority [of learners] said that they missed […] their classmates […] as if they had not felt complete" (Addimando et al., 2021, p. 65) and that "students missed social interactions, peers, and their school" (Kaden, 2020, p. 75). As with the participants in the current study, educators across the globe had to find ways of ensuring effective communication with their learners to provide support during these anxious times. As a result, teachers have been more in contact with their students than ever before, "even if this contact was asynchronous" (Calderón-Garrido & Gustems-Carnicer, 2021, p. 148).

One of the most important aspects of developing children's singing voices are that parents should be involved "with singing activities as much as possible" (Williams, 2018, p. 34). Recent research literature reveals the central role that parents play in supporting their children with music activities at home (Addimando et al., 2021; Joseph & Lennox, 2021; Khanna & Kareem, 2021; Squire, 2021). Furthermore, family involvement in "many activities [and] music was able to help foster family relationships" (Calderón-Garrido & Gustems-Carnicer, 2021, p. 145).

The conductors had to implement several support structures to assist the choristers and to ensure the functioning of the online choir activities. These included:

- Asking other staff to serve as a support network to inform choristers which staff members they could contact regarding certain choir related matters, such as score-related questions or choir uniforms for virtual performances,
- Making themselves available for one-on-one sessions with their choristers, either in-person or on WhatsApp. This allowed them to guide, advise and mentor individual

choristers with their particular questions or needs, and assist them to master their voice parts. This included advice in terms of vocal technique, facial expressions, awareness of sound, motivation, and technical aspects such as diction, breathing, and intonation.

- Requesting the parents to assist the choristers at home, ranging from technological matters to recording techniques and choreography.
- Notifying choristers of homework a week in advance of the online choir rehearsals so that they were prepared for the following week's online rehearsal. The conductors or their support staff sent rehearsal tracks or voice notes electronically to the individual choristers so that the children could practice and submit their homework as assigned. The conductors also had to send instructions to the choristers on how to make audio and visual recordings of themselves at home. The choristers were then asked to send the audio and visual recordings of their parts back to the choir conductor or assisting staff members so that these recordings could be evaluated.

5.2.2 Choristers' challenges

The new online format of choir rehearsals meant that the choristers were required to sing individually while practising at home as well as during the online rehearsals. Under normal circumstances, choir practice implies group singing with support from other choristers in the same voice part, therefore the choristers are not usually confronted with individual singing. Welch et al. (2014) indicate that performing individually produces higher levels of performance anxiety, therefore it is to be expected that the children were stressed to sing individually as required from them during online rehearsals. In this study, findings reveal that the choristers found it extremely challenging to sing individually when practising at home. They especially disliked hearing their own voices when making recordings. Choristers also found it stressful to practice their parts on their own without the help of their voice groups. Not being able to hear the other choir parts being sung, or experience the harmonies of all the voice parts blending, made them feel insecure and caused anxiety. Choristers, therefore, had to adapt the way they were performing individually and were required to focus on specific aspects such as facial expressions, diction, and intonation.

Similar results were found in another study where choristers' wellbeing was significantly lower when they were asked to sing individually (Lonsdale & Day, 2020). In Daffern et al.'s (2021) study, choristers who were offered an opportunity to collaborate in a multi-track experience did not want to participate because they felt anxious to share the "solo track they had recorded" (p. 10). However, some children seem to enjoy the opportunity to sing individually and to showcase

their unique skills, delighting in the "opportunity to reflect on their own vocal technique and the chance to re-record tracks until they were happy" (Daffern et al., 2021, p. 10). Similarly, Schladt et al.'s (2017) study revealed that singing individually contributed positively to the chorister's wellbeing.

5.2.3 Choristers' skill development

The Covid-19 pandemic led to choristers developing new musical and technological skills during their virtual choir experiences. Although the choristers felt isolated and missed the camaraderie and socialisation during face-to-face rehearsals, some of the conductors believe that those who persevered improved their musicianship, for example, enhanced aural skills through the use of solfege, whereas others believed that some of their choristers who truly engaged, improved in areas such as vocal ability, creativity, expression, taking initiative and responsibility. The findings also indicated that choristers acquired several new technological skills, including:

- Learning to use devices such as cell phones and computers to download, upload and record their music,
- Operating communication platforms such as Zoom and WhatsApp,
- How to audio and video record themselves at home by incorporating the correct techniques required for high quality audio-visual recordings.

5.3 Summary

In this chapter, the data was compared and corroborated with relevant and current research literature. By engaging in virtual choir activities, the conductors faced numerous challenges; both as conductors and as music educators. The analysed data revealed two themes. These are adapting to a virtual context, and choristers' VC participation. In the next chapter, the research questions are answered. Lastly, recommendations for future research are presented.

Chapter 6: Conclusion and recommendations

In the final chapter of this dissertation, a synthesis of the research findings is provided. The research questions are presented and answered to highlight how the gaps in the existing research literature are extended. The limitations of the study are outlined and the chapter ends with suggestions for possible future research.

The research problem of this study focused on the radical changes that the Covid-19 pandemic caused for South African children's choir conductors. They had to swiftly find new and innovative ways to ensure the continuity of their respective choirs. This posed numerous organisational, technological, and financial challenges posed by virtual teaching modes and online platforms. A qualitative research approach utilising a collective case study design was chosen, and I purposefully selected four children's choir conductors in South Africa to gain meaning and insight into their virtual choir experiences. This allowed an in-depth understanding of how they managed to create and maintain their choirs in a virtual context.

6.1   Findings related to the research questions

The findings revealed in chapters 4 and 5 provide significant answers to the secondary research questions as posed in chapter 1. These questions formed the foundation in developing new insights and perspectives related to the main research question. For this reason, the following sections will yield in-depth answers to the secondary questions to support and ultimately answer the main research question.

6.1.1 Secondary research question 1

What are children's choir conductors' perspectives regarding the virtual mode of the choir during Covid-19?

Theme 1 as described in the data analysis, provide multi-faceted answers to this question:

Choir conductors had to think divergently to envisage and construct creative and innovative ideas to maintain their choirs, driving them to move to virtual modes of rehearsing and performing.

New teaching methodologies were required to teach their choristers virtually – ranging from teaching on virtual platforms, incorporating new activities such as sight-reading, listening exercises, aural training, choreography, as well as interpretation of music.

Several technological challenges affected the choir conductors: slow internet connections affecting online Zoom rehearsals, lagging due to interrupted connectivity, not being able to have multiple voices singing simultaneously, not being able to gauge whether their choristers were participating while their cameras were off in an attempt to improve the quality of the Zoom sessions and lack of suitable equipment necessary to produce virtual content.

The financial impact on choirs' budgets was severe, and for some conductors, such financial burdens affected their personal budgets. Due to the audio and visual editing required for a virtual performance, the cost of producing such a product was expensive. Some participants had to personally purchase electronic equipment including computer components to improve the capacity and capabilities of the computer, studio microphones to create rehearsal tracks for their choristers, and in some instances, advanced audio and/or audio-visual recording equipment and editing software.

Each participant acquired or improved their skills on various levels. These include (i) technological skills by learning how to operate new communication platforms, rehearsal platforms, and audio and visual editing software; (ii) inter-personal skills by liaising more frequently and directly with choristers and their parents, and with musicians or technologists in the music industry, (iii) pedagogical skills by finding new ways to transfer musical skills to their choristers, and (iv) musicianship skills by refining and perfecting their own vocal and/or piano performance skills when recording voice parts for the choristers.

These new skills allowed the choir conductors to experience personal growth in multiple facets related to their teaching and beyond. By acquiring new teaching methodologies, improving their musicianship skills, and becoming technologically adept, they achieved a higher level of competence that would benefit them in future, whether in virtual or real-life contexts. With these new skills, most of the choir conductors can create work opportunities for themselves, for example by recording choir rehearsal tracks for other conductors, by assisting other musicians to create virtual performance platforms, and by doing audio or visual editing of online choir performances.

6.1.2 Secondary research question 2

In what ways do the virtual mode of the choir influence the roles of conductors?

Theme 1 further shed significant light on how the choir conductors had to adapt their roles to accommodate the virtual choir mode. These new roles were acquired to assist their choristers in

understanding what was expected of them, how they had to execute their homework and take responsibility and ownership of learning their voice parts and to support the choristers emotionally to make sure that they coped with the virtual choir circumstances. Moreover, each participant had to broaden their singular role as choir conductor to encompass multiple new roles. Apart from their usual (i) musician's role to interpret the sheet music, dynamics, phrasing, and text, they had to develop (ii) a management role to organise all activities involving the choristers, their parents, and supporting staff, (iii) a researcher's role to study new online educational methods, exploring new methodologies to keep choristers engaged on virtual platforms, (iv) a technological role to create electronic voice tracks, make audio-visual recordings, and to direct online rehearsals, (v) a social role to keep choristers informed, liaising directly with choristers and their parents, and to connect and collaborate with musicians/sound engineers/conductors of other virtual choirs, (vi) a psychological role to regularly check up on choristers' wellbeing and to support them on an emotional level, (vii) a pedagogical or facilitator role to instruct choristers, providing advice to choristers and parents on using electronic devices, and to explain and support expectations for homework, (viii) a producer role to create online content for their choristers, such as rehearsal tracks and instruction manuals explaining how to audio- and video record themselves at home, and (ix) a music coach role to hone choristers' sight-reading skills and develop their aural abilities so that they were able to practice their voice parts independently.

6.1.3   Secondary research question 3

What are the conductors' perceptions of the choristers' experiences and participation in the virtual choir?

Theme 2 provides in-depth answers on choristers' experiences, as perceived by their choir conductors. The findings indicated that choristers needed significant support structures in comparison to normal choir circumstances. To help and guide them on their virtual choir journey, these structures included (i) support from the conductor who frequently had to liaise with choristers on an individual basis to assist them with learning their voice parts and provide emotional support, (ii) support from parents to assist their children to operate technological devices and platforms, helping them learn choreography or record their homework, and (iii) support from other choir staff members to assist with separate voice group rehearsals and other choir related matters.

The conductors realised that the choristers experienced several challenges. These included technological challenges, for example learning how to operate different electronic devices and

online platforms. The young choristers were expected to use multiple devices to record themselves, using platforms such as Zoom or Discord. They also incurred social challenges by feeling isolated from their friends. Furthermore, they found it very demanding to sing individually without the backing of their voice group or not hearing the harmony of the whole choir.

While these challenges placed a huge burden on the children, it also built resilience and resulted in the choristers acquiring new skills. These ranged from new technological skills in learning how to operate online platforms, and how to make audio or audio-visual recordings of themselves. It also significantly improved the choristers' musicianship skills as they were required to practice their parts independently. These skills include sight-reading, intonation, aural abilities, and the interpretation of score directions such as dynamics and phrasing. The development of all these skills led to a refinement of the individual choristers' overall musicality. The conductors expressed that these musicianship skills are aspects that they will continue to hone in their choristers, whether choir rehearsals and performances are face-to-face or in an online format.

6.1.4 Answering the main research question

The main research question guiding this study was:

What are conductors' perspectives regarding the creating and sustaining of a virtual children's choir during Covid-19 in South Africa?

All the findings as presented as answers to the secondary questions above support the main research question, explaining how choir conductors had to navigate their virtual choir experiences. The results of this study provide valuable insights to arrive at an in-depth understanding of virtual children's choirs in South Africa during the pandemic. While two of the participants in this study embraced the challenge and indicated that they intended to continue with some aspects of their online virtual choir activities in the future, even if it was not necessary, the other two participants experienced the virtual choir context negatively and noted that they would not pursue a virtual choir mode in the future as they did not experience it as being fulfilling or rewarding.

6.2   Limitations of the study

This qualitative collective case study involved only four participants, albeit experts in the field of children's choirs in South Africa. Due to ethical reasons and infringement of the confidentiality

of the children's identities, I could not observe the online virtual choir rehearsals. The findings are therefore limited to the conductors' perceptions. Although no generalisations can be made, the findings of this study may enhance the understanding of virtual choirs in similar contexts.

6.3   Recommendations for future research

Limited research has been done investigating choir conductors' experiences of virtual choirs. Since the findings of this research are based on a collective case study with only four participants, it could be useful to widen the study to a broader base of conductors in South Africa, particularly concerning the emerging virtual choir reality and the new roles required from conductors as established in this study.

This study focused only on children's choirs, therefore it could be extended to include youth and adult choirs.

Research on new online methodologies could be conducted to explore how this affects choristers' sight-reading skills.

A quantitative study could be beneficial to gather a broader perspective on choir conductors' virtual choir experiences.

Further research can be conducted to investigate new online teaching methodologies for choir conductors as part of courses at tertiary institutions.

6.4   Conclusion

The findings of this research indicate that there are several aspects related to virtual choir rehearsals and performances that conductors need to consider to make the overall virtual choir experience conducive, sustainable, and effective for both choir conductors and choristers across the globe. This includes exploring new teaching methodologies, effective technology solutions, and finding more effective ways of maintaining the wellbeing of both the choir conductor and the choristers. A vital part of any choir is the interpersonal connections and relationships between the conductor and the choristers, as well as between choristers. It is therefore imperative that these unique attributes of choir participation continue during an online virtual mode. Choir conductors should plan and manage future rehearsals and performances well in advance to ensure that they

have adequate teaching support, financial backing, technological equipment and skills needed to run their virtual choirs in an effective and conducive manner.

The perspectives of the participants in this study allowed me to gain an in-depth understanding of the roles of virtual children's choir conductors in a time of a worldwide crisis. It is evident from the conductors' perspectives that choir involves the act of music making at many levels, validating and encouraging participation even in dire circumstances such as the Covid-19 pandemic:

> "I loved discovering a new creative outlet for myself and truly enjoyed the challenge of turning each new piece of repertoire into a unique audio-visual expression."
>
> (Jonathan)

> "To show the children there's a world [out there]. The world can be a part of our choir."
>
> (Caren)

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Appendix A: Semi-structured interview schedule

- How did you experience the changes during Covid-19 in your role as choir conductor?
- How would you describe your interaction with the choristers during virtual choir activities?
- How does the interaction differ when compared to normal circumstances with live choir rehearsals at school or at your regular rehearsal venue?
- What are your perceptions of the way that the choristers experienced the virtual choir?
- In what ways do you think the virtual choir changed the dynamics of socialisation between the choristers; and between the choristers and yourself?
- What types of things do the choir members communicate about on shared social platforms?
- In what ways do you think the virtual choir influenced individual chorister's wellbeing?
- In what ways do you think the changeover to the virtual choir influenced your personal wellbeing?
- What are the challenges you experience as conductor of a virtual choir?
- What are your views on continuing with some of the virtual choir practices in the future when circumstances return to normal? Please provide details to motivate your answer.
- Please share any additional experiences and perspectives regarding your virtual choir.

Appendix B: Open-ended questionnaire

Dear Choir conductor

Your views are very important to me as they shape my views and perspectives regarding the research I am conducting. Many new ideas emerged as I was analysing the data, therefore I kindly request some additional information to create a true perspective of choir participation during the unfamiliar territory of an international pandemic. I truly appreciate your effort to assist me!

Please answer these questions as accurately as possible.

1	Please describe why you CHOSE to or CHOSE NOT to do virtual choir rehearsals or virtual performances.
2	Please explain how you adapted to the Covid-19 restrictions to continue with choir activities
3	What or who motivated you as the conductor to pursue the virtual choir rehearsals and performances?
4	What platform did you use for online rehearsals?
5	If not the same as above, what platform/s did you use to organize online/ virtual concerts/ performances?
6	How did you lead or execute your online rehearsals?
7	What online methods did you use for singing activities?

8	How many rehearsals did you have per week?
9	Did you provide your choristers with sheet music for your online rehearsals? If not, what alternative strategy did you use?
10	What material did you send your choristers during the course of your online rehearsals? (Please provide detail, for example, soundtracks, voice messages etc.)
11	What did you ask your choristers to do in preparation for rehearsals?
12	Did you ask your choristers to send you any homework? If so, please describe such homework activities.
13	The data I have already gathered indicates that some conductors used the online choir format as an opportunity to develop or improve the sight-reading skills of the choristers. If this applies to you, please describe the methods you applied.
14	How did you teach your choir new repertoire on the virtual platform?
15	Were you able to conduct separate voice part rehearsals? If so, how?
16	Please describe how well your online rehearsals were attended.
17	How did you keep track of whether your choristers knew their parts?

18	Please explain in detail what you expected your choristers to send you in order to compile your virtual project/performance.
19	Did you publish any of your concerts/ performances? If so, where?
20	Please list all **technology** used by yourself and your choristers in conjunction with your virtual choir projects. These include communication, audio/visual tools, platforms used, and the purpose each of these served.
21	What technology was used for **audio editing**? (If you didn't use it yourself, please ask the person who assisted with the audio editing).
22	Did you as the choir conductor do any of the **audio editing** yourself? If so, give a summary of what you did. If not, what alternative did you choose?
23	What technology was used for **visual editing**? (If you didn't use it yourself, please ask the person who assisted with the visual editing).
24	Did you as the choir conductor do any **visual editing** yourself? If so, give a summary of what you did. If not, what alternative did you choose?
25	Describe the positive outcomes you experienced due to the virtual format of the choir.

26	In your view, what did your choristers gain from their virtual choir experience?
27	What support systems did you have to assist you as the conductor of a virtual choir?
28	Describe the challenges you faced with the virtual choir format.
29	Describe the stress-related factors you experienced due to your virtual choir responsibilities.
30	What expenses did you as the conductor incur to run your virtual choir?
31	What issues and problems arose that may have affected your online rehearsals?
32	From the start of this research until now, what has changed? Are you currently continuing with the virtual choir? How have the various stakeholders in your choir community responded to the virtual choir format? (e.g. children, choir management/institutional leader or principal, school, parents, or wider community)
33	Please describe how your normal role (before COVID-19) as conductor, music educator, and musician changed.
34	What is your view of your future career as a choir conductor, and how do you feel about that?

Thank you for your kind participation in this research project!

Appendix C: Letter of informed consent

School of the Arts: Music
Date: 12/03/2021

Dear Choir Conductor

I am currently enrolled for my master's degree in music at the University of Pretoria. I am hereby asking your kind permission to involve you as a respondent in my research project regarding your experiences of creating and sustaining a virtual choir at the school.

Title of the study: *Exploring children's choir conductors' perspectives on creating and sustaining a virtual choir during Covid-19 in South Africa*

Aim of the study: The aim of this study is to explore choir conductors' experiences in creating and sustaining a virtual school choir during Covid-19, as well as choristers' reflections of being part of a virtual school choir.

Research procedures:

- You are invited to take part in an online interview via Skype or Zoom which will be audio recorded. This interview will take approximately one hour and will be scheduled at a time convenient to you. I will carefully transcribe the gathered interview data and send it back to you to verify that your views are accurately reflected.
- I will also send you an open-ended questionnaire to fill in where you can add additional perspectives on your experiences with the children's choir during Covid-19 restrictions.

Confidentiality: The school's, institution's, or independent choir's name, and your identity as well as that of choristers will not be revealed during the dissemination of this research. All information shared by you will be treated with strict confidentiality.

Participants' rights, risks and benefits: By participating in this research you will extend the knowledge of school or children's choirs in a virtual setting. The school or children's choir, the choristers and your participation in this study are entirely voluntary and you or any of the choristers may withdraw at any time without any negative consequences. If you are interested in the outcome of this study, an electronic summary of the research findings will be emailed to you.

Storing of data: The data collected will be digitally stored for 15 years in the Department of Performing Arts at the University of Pretoria, during which time it may be reused for further research.

Please contact me or my supervisor should you have any questions about the research.

Sincerely

_____   _____
(Signature of Student)   (Signature of Supervisor)
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