Fostering critical reflective learning to equip Foundation Phase student-teachers to transform music education practice

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DECLARATION

I the undersigned, Barbara Nagel, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.



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DEDICATION

I dedicate this study to the memory of my late parents, Flip and Barbara de Bruyn, for their love and confidence in me.

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Glory to God Almighty “who is my guide through life” (Psalm 16: 7b)

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ABSTRACT

Key terms

reflection; critical reflection, individual reflection; collaborative reflection; music education, transformative learning; foundation phase

The literature expresses concern about the decline in music education in schools worldwide, citing a number of issues. The idea that music is not a necessary part of the curriculum in schools, despite a wealth of academic research confirming the contrary, is reported as one of the main causes for this decline. Changing this unfounded belief in order to transform music education practice starts with teacher education programmes. Fostering transformative learning in music education as part of Foundation Phase teacher education programmes offered by South African Universities, is therefore, essential to transform music education in Foundation Phase classrooms.

Grounded in the work of seminal educationalists (Mezirow, 1990, 1991, 1997, 2003; Shulman & Shulman, 2004), the theoretical-conceptual framework of this thesis embraces rational discourse (Mezirow, 2003) and critical reflection (Mezirow, 2003) in transformative learning (Mezirow, 1990, 1991, 1997, 2003), while also acknowledging that transformative learning is dependent on a sound knowledge base of music education practice (Shulman & Shulman, 2004). The literature highlights the role of individual and collaborative critical reflection on previously held assumptions in transformative learning. This study thus sets out to explore how individual and collaborative critical reflection can be fostered in a music education module to equip Foundation Phase students to transform music education practice.

The design of the qualitative study draws on pragmatic paradigm (Denzin & Lincoln, 2000), acknowledging the realities of the natural world and the changing nature of knowledge when establishing what is working. In a pragmatic paradigm knowledge is generated through lived experiences and interpretation. Design-based research which is pragmatic in nature, was thus regarded as fitting to explore ways to incorporate both individual and collaborative critical reflection in a music education module that forms part of a teacher education programme. Although DBR is a fairly new approach to educational research, the literature affirms the practical value of this approach in doctoral studies. Employing DBR brings researchers and practitioners together to design practical solutions to context-based educational problems. DBR is also reported to be a scientific way to connect educational theory and practice through the practical testing and refining of design principles that are grounded in theory, leading to new theoretical

understandings. The DBR approach enabled the researcher to collaborate with the practitioner, which in this study was the lecturer as designer and presenter of the music module, to improve the design of reflective learning activities that form part of the music education module. Collaboration focused on improving the design of reflective learning activities.

The study population comprised two cohorts of Foundation Phase students registered for the music education module in 2021 and 2022 respectively. This module forms part of the second-year curriculum of a Foundation Phase BEd programme offered by a South African higher education institution, offered via contact and distance learning modes of delivery.

The design-based research comprises three phases namely a *preliminary phase*, a *prototyping phase* and a *reflective phase.* In the *preliminary phase*, information was collected from the literature and related documents that informed the initial design of individual and collaborative reflective strategies. Reviewing the literature is, therefore, regarded as a crucial part of the first phase of the DBR. During 2021 and 2022 the designed strategies were implemented in two cycles in the *prototyping* phase. This phase followed the cyclic steps of collaborative and reflective designing, implementation, evaluation and redesign or adaption of reflective learning strategies by the design team, comprising the researcher and the module lecturer. After the first cycle of the *prototyping phase,* the literature was again consulted to inform the redesign of the reflective learning strategies. In the first cycle, blogging and WhatsApp groups were employed as vehicle for individual and critical reflection respectively. Based on the findings on the first cycle, journaling uploaded on the LMS, and WhatsApp were implemented in the second cycle of the *prototyping phase.* Individual interviews were conducted at the end of each cycle to determine participants' experiences of the critical reflection strategies and the way it supported transformative learning.

Data consisted of student individual and collaborative reflections as well as data collected through the individual oral, virtual interviews. A hybrid approach of deductive and inductive analysis was employed in a thematic analysis of the data. Results from the analysis of the two cycles showed that fostering critical reflection in a music education module holds value for transformative learning. Although the reflective tasks fostered critical reflection by participants about their own perceptions of music education practice and contributed to individual knowledge building and the collaborative identification of challenges in music education, the findings showed that the reflective learning strategies need to be planned with prudence. A lack of self-directed learning skills and intrinsic motivation to participate in reflective learning activities may hamper critical reflective and transformative learning. The findings indicated the need for support for the development of self-directed learning through structured and scaffolded reflection tasks guided by the module lecturer and group leaders. The data analysis identified content knowledge and

skills as a prerequisite for student competencies such as, vision, motivation, a positive attitude, and self-confidence. The incorporation of individual and collaborative reflection in a reflective practice, with critical reflection at the core of the transformation of music education, is recommended in teacher education programmes.

The suggested cyclic framework demonstrates that *if* students have opportunities to engage in structured and scaffolded individual and collaborative critical reflective tasks, and *if* these opportunities are founded in relevant music education content knowledge and skills that promote teacher competencies (including vision, motivation, positive attitude and self-confidence), and through which they have opportunities to explore and solve problems on individual and collaborative levels, *then* the design principles reflected in the framework will ultimately equip students to transform music education practice in the Foundation Phase.

Reflective learning was implemented in this study to equip students to transform music education practice in schools with the potential to mitigate the decline of music education in the South African school context. Reflection and specifically critical reflection is necessary to motivate students to think differently about music education and to enter practice with an appreciation of the role music education plays in learning. The study contributes a framework with design principles to improve Foundation Phase student reflective learning in a music module. Although critical reflection was not applied often, the findings showed necessary design features to foster critical reflection by Foundation phase students in a music module including structured and scaffolded individual and collaborative reflective tasks, fixed submission timeframes, allocation of marks to motivate participation in reflective tasks, as well as lecturer and group leader presence in collaborative tasks. A framework is suggested constituting design principles to scaffold critical reflection to motivate transformative learning by the student teachers and thereby equipping them to transform music education practice.

OPSOMMING

Sleutelterme

refleksie; kritiese refleksie; individuele refleksie; samewerkende refleksie; musiekopvoeding; transformerende leer; grondslagfase

‘n Afname in musiekonderrig is ‘n wêreldwye tendens in skole weens verskeie faktore. Die siening word gehuldig dat musiek nie ‘n noodsaaklik komponent in die skoolkurrikulum is nie ten spyte van volop bewyse in die literatuur van die teendeel. Hierdie siening word gerapporteer as een van die hoofredes vir hierdie afname. Pogings om hierdie ongegronde aanname te verander om sodoende musiekonderrigpraktyke te transformeer, sal eerstens gesetel moet wees in onderwyseropleidings-programme. Transformerende leer in musiekonderrig in Grondslagfase onderwyseropleidings-programme aan Suid-Afrikaanse universiteite is daarom noodsaaklik om musiekonderrig in Grondslagfaseklaskamers te transformeer.

Die teoretiese raamwerk, gegrond op die werk van deurwinterde navorsers (Mezirow, 2003; 1990, 1991, 1997, 2003; Shulman & Shulman, 2004), behels rasionele diskoers (Mezirow, 2003) en kritiese refleksie (Mezirow, 2003) in transformerende leer (Mezirow, 1990), met die erkenning dat transformerende leer afhanklik is van ‘n deeglike kennisbasis van die musiekonderrigpraktyk (Shulman & Shulman, 2004). Die literatuur beklemtoon die rol van individuele en samewerkende refleksie op vorige aannames as die kern van transformerende leer. Die doel van die studie was dus om ondersoek in te stel na die manier waarop individuele en samewerkende kritiese refleksie in ‘n musiekonderrigmodule ondersteun kan word om Grondslagfase-studente toe te rus vir die transformering van die musiekonderrigpraktyk.

Die ontwerp van die kwalitatiewe studie is ontleen aan ‘n pragmatiese paradigma (Denzin & Lincoln, 2000), met erkenning aan die realiteite van die natuurlike wêreld en die veranderende aard van kennis wanneer werkbaarheid bepaal word. In ‘n pragmatiese paradigma word kennis gegeneer deur geleefde ervaring en interpretasie. Ontwerp-gebaseerde navorsing, wat pragmaties van aard is, is dus beskou as ‘n geskikte benadering om ondersoek in te stel na die manier waarop beide individuele en samewerkende kritiese refleksie in ‘n musiekonderrigmodule geïnkorporeer kan word as deel van ‘n spesifieke onderwyseropleidingsprogram. Alhoewel ontwerp-gebaseerde navorsing ‘n relatief nuwe benadering tot opvoedkundige navorsing is, bevestig die literatuur die praktiese waarde van hierdie benadering in doktorale studies. Ontwerp-gebaseerde navorsing bring die navorser en die praktisyn bymekaar om praktiese oplossings te ontwerp vir konteks-gebaseerde uitdagings in die onderwys. Ontwerp-gebaseerde navorsing

skakel verder opvoedkundige teorie met praktyk deur die praktiese toets en verfyning van ontwerpsbeginsels wat gegrond is in die teorie, wat lei tot nuwe teoretiese begrip. Die ontwerp-bebaseerde navorsingsbenadering het die navorser in staat gestel om nou saam te werk met die praktisyn – in die konteks van die studie die dosent wat verantwoordelik is vir die ontwerp en onderrig van die musiekmodule. Samewerking het gefokus op ‘n verbeterde ontwerp van reflektiewe leeraktiwiteite wat deel uitmaak van die musiekonderrigmodule.

Die studiepopulasie het bestaan uit twee groepe Grondslagfase-studente wat geregistreer was vir ‘n musiekonderrigmodule in 2021 en 2022 onderskeidelik. Die module vorm deel van die Grondslagfase BEd-program wat deur ‘n Suid-Afrikaanse hoër onderwysinstansie aangebied word as kontak- en afstandsleerprogramme.

Die ontwerp-gebaseerde navorsing bestaan uit drie fases naamlik, ‘n *vooraf-fase*, ‘n *prototiperingsfase* en ‘n *reflektiewe fase*. Die *vooraf-fase* het bestaan uit die insameling van inligting vanuit die literatuur en verwante dokumente om die aanvanklike ontwerp van individuele en samewerkende refleksies toe te lig. Die literatuurstudie vorm dus ‘n belangrike deel van die eerste fase van ontwerp-gebaseerde navorsing. In 2021 en 2022 is strategieë in die vorm van refleksietake geïmplementeer in twee siklusse as deel van die *prototiperingsfase.* Die fase bestaan uit vier sikliese stappe naamlik, samewerkende en reflektiewe ontwerp, implementering, evaluering en herontwerp of aanpassing van reflektiewe leerstrategieë deur die ontwerpspan, bestaande uit die navorser en die dosent van die musiekonderrigmodule. Na afhandeling van die eerste siklus van die *prototiperings fase* is die literatuur weer geraadpleeg om te besin oor die herontwerp van die leerstrategieë. Die gebruik van blog en WhatsApp groepe is in die eerste siklus geïmplementeer ter ondersteuning van individuele en samewerkende refleksie onderskeidelik. Gebaseer op die bevindings van die eerste siklus, is joernale, wat op die LMS gelaai is, en die gebruik van WhatsApp groepe tydens die tweede siklus geïmplementeer. Individuele onderhoude is aan die einde van elke siklus gevoer om deelnemers se ervaring van kritiese refleksie te bepaal asook die wyse waarop kritiese refleksie transformerende leer ondersteun het.

Die data het bestaan uit studente se individuele en samewerkende refleksies asook die data wat deur die individuele virtuele onderhoude ingesamel is. ‘n Hibriede benadering van deduktiewe en induktiewe analise is toegepas in ‘n tematiese ontleding van die data. Die bevindinge van die analise van die twee siklusse het getoon dat die bevordering van kritiese refleksie in ‘n musiekonderrigmodule waardevol is vir transformerende leer.

Alhoewel die kritiese refleksietake die deelnemers ondersteun het om krities te reflekteer oor hul vorige persepsies van musiek-onderrigpraktyk en bygedra het tot die bou van individuele kennis

en die identifisering van uitdagings in samewerking met ander, het die bevindinge aangedui dat reflektiewe leerstrategieë sorgvuldige beplanning vereis. ‘n Gebrek aan self-gerigte leervaardighede en intrinsieke motivering om deel te neem aan kritiese reflektiewe aktiwiteite, impliseer gesteierde studente refleksies met die ontwikkeling van kritiese refleksie as doel. ‘n Raamwerk met ontwerpbeginsels van gesteierde kritiese refleksie word vir implementering voorgestel in modules om die transformering van praktyk deur middel van transformerende leer moontlik te maak. Die bevindinge dui op die behoefte vir self-gerigte leer deur gestruktureerde en gesteierde refleksietake asook begeleiding deur die dosent en groepleiers tydens refleksie. Die data-analise het inhoudskennis en vaardighede as ‘n voorvereiste vir studente se bevoegdhede soos visie, motivering, ‘n positiewe ingesteldheid en selfvertroue geïdentifiseer. Die inkorporering van individuele en samewerkende refleksie in ‘n reflektiewe praktyk met kritiese refleksie as die kern van die transformering van musiekonderrig, word vir onderwyseropleidings-programme voorgestel.

Die raamwerk van herhalende siklusse wat deur die navorser voorgestel word, demonstreer dat, *indien* studente die geleentheid kry om deel te neem aan gestruktureerde en gesteierde individuele en samewerkende reflektiewe take wat begrond is in onderwyserbevoegdhede, naamlik inhoudskennis en vaardighede van musiekopvoeding, asook die geleenthede om probleme te ontgin en op te los op individuele en samewerkende vlakke, *behoort* hul goed toegerus te wees vir die transformering van musiekonderrigpraktyk in die Grondslagfase.

Reflektiewe leer is in die studie geïmplementeer om studente in staat te stel om musiek-opvoedingspraktyke in skole te transformeer met die potensiaal om die afname van musiekopvoeding in die Suid-Afrikaanse skoolkonteks te verminder. Refleksie en spesifiek kritiese refleksie is nodig om onderwys-studente te motiveer om anders te dink oor musiekonderwys en die praktyk te betree met die nodige waardering van die rol van musiek in leer. Die studie se bydrae is die voorstelling van ‘n raamwerk met ontwerpbeginsels om Grondslagfase studente se reflektiewe leer in ‘n musiekmodule te ondersteun. Alhoewel kritiese refleksie nie dikwels geïmplementeer is nie, toon die studie ontwerpbeginsels wat nodig is om kritiese refleksie in ‘n musiekmodule te ondersteun naamlik gestruktureerde en gesteierde individuele en samewerkende reflektiewe take, die stel van ‘n spesifieke tydsraamwerk vir refleksietake, puntetoekenning om deelname te verhoog, en die teenwoordigheid van die dosent sowel as groepleiers in samewerkende groepe.

‘n Raamwerk met ontwerpbeginsels van gesteierde kritiese refleksie word vir implementering voorgestel in modules om die transformering van praktyk deur middel van transformerende leer moontlik te maak.

ABBREVIATIONS AND ACRONYMS

ATLAS.ti™	A computer-based qualitative data analysis system
BEd	Bachelor of Education
CAPS	Curriculum Assessment Policy Statements (National South African School Curriculum)
CAQDAS	Computer-assisted qualitative data analysis software
CoP	Community of Practice
CR	Critical reflection
CRTP	Culturally responsive teaching practice
C1	Cycle one
C2	Cycle two
DBR	Design-based research
DBE	Department of Basic Education
DHET	Department for Higher Education and Training
DL	Distance learning
FP	Foundation Phase
Grade R	Reception year (before Grade 1)
Grade RR	Pre-Grade R
HEI	Higher Education Institute
ICT	Information Communication Technology
LS	Life Skills
LMS	Learning Management System
LoTL	Language of Teaching and Learning
LTM	Learning and Teaching Material
MRTEQ	Minimum Requirements for Teacher Education Qualifications
NWU	North-West University
PCK	Pedagogy Content Knowledge
PDF	Portable document file

PMP	Popular Music Pedagogy
SDL	Self-directed learning
TL	Transformative Learning
TLT	Transformative Learning Theory
TPrac	Teaching Practice
UK	United Kingdom
USA	United States of America
WIL	Work-Integrated Learning
§	Section

KEYWORDS

Collaborative reflection
Design-based research
Distance learning
Foundation Phase
Individual reflection
Collaborative reflection
Pedagogical content knowledge
Reflective teaching practice
Self-directed learning
Teacher competences
Transformative learning

SLEUTELWOORDE

Samewerkende refleksie
Ontwerp-gebaseerde navorsing
Afstandsleer
Grondslagfase
Individuele refleksie
Samewerkende refleksie
Pedagogiese inhoudskennis
Refleksiewe onderrigpraktyk
Selfgerigte leer
Onderwyser bevoegdhede
Transformerende leer

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CHAPTER 1 INTRODUCTION, PROBLEM STATEMENT AND MOTIVATION FOR THE RESEARCH

1.1 Introduction

Ancient Greek society regarded music as a crucial part of education for boys and believed that music should be carried from one generation to the other (Mark, 2013), while Greek philosophers, Aristotle and Plato, strongly believed in the influence of musical instruments and musical attributes in building character (Maas, 2019). Several authors (Beer, 2015; Maas, 2019; Varner, 2019) argue that this high regard for the essential role of music in education should still be held today. However, the disregard for the value of music in schools is reported both in the context of developing countries (Adjepong, 2020; Chadwick, 2012; Jansen van Vuuren & van Niekerk, 2015) and developed countries (Angel-Alvarado, 2020; Aróstegui, 2016 Browne, 2022; Burland, 2020; Cutietta, 2012; Legg, 2013; Murillo & Tejada, 2022), hence it is a global problem.

In the context of South Africa, the essential role of music in child development is reported in the literature (Auerbach & Delport, 2018; Beer, 2015; Harrop-Allin & Kros, 2014; Van Vreden, 2018). However, educationalists express concern about the decline in music education in South African schools (Swart, 2020; Van Vreden, 2018; Jansen van Vuuren, 2022). Elizabeth Oehrle already expressed concern about this decline in South African schools in 1990:

> *One of the most pressing [concerns] is the phasing out of music programs in the schools; as the country experiences grave economic difficulties, there is a constant struggle for the survival of music education in the schools because music has not been considered to be part of the core of education (Oehrle, 1990/2010/2021, p. 3).*

The reprint of this publication in 2010 and again in 2021, is indicative that this concern is prevailing as confirmed by Laurika Steenkamp (2019), a music teacher and former winner of the Western Cape Cultural Affairs awards (2013/2014):

> *Sadly, most schools in South Africa do not have formal music training (or even informal) due to lack of the realization of the powerful tool that music provides in reconciliation, nation building and just the celebration of being human.* (para 1)

Various authors report on the state of music education in South African schools and explored possible ways to enhance music education.

Considering the decline of music education as well as teacher reluctance to teach music, pre-service as well as in-service teachers should be guided to critically reflect on the role of music in education, as well as ways to address the determinants that may hamper the effective

implementation of music in the classroom. Through critical reflection[1] own assumptions are challenged (Mezirow, 1990, 1991, 1997, 2003). Fostering this critical reflection should start with Higher Education Institutions (HEI) offering teacher education programmes. Mezirow's argument motivated this research study with its focus on discovering and articulating the way critical reflection could be fostered in a music education module in a BEd Foundation Phase[2] teacher education programme. Informed by the literature, the researcher proposes that fostering critical reflective learning can serve to motivate students, as prospective FP teachers, to transform FP music education practice. This chapter provides an orientation to the study. The research questions, aim and objectives as well as the methodology are explained after explicating the background to the problem, motivating the rationale for the exploratory research design, and unpacking the theoretical-conceptual framework.

1.2 Background to the problem and rationale for the research

The background and rationale for the research study are explicated below to provide context to the study.

1.2.1 Background to the problem

In the past few decades, various concerned educationalists called for the recognition of the important role of music in the formal education of young learners (Hennessy, 1995; Mark, 2013; Rickson & Skewes-McFerran, 2014; Varner, 2019), while the role of music in the holistic development of learners is widely accepted (Auerbach & Delport, 2018; van Vreden, 2018; Varner, 2019). Varner (2019) emphasises academic improvement in Mathematics, as well as in language and literacy through music engagement, together with the enhancement of emotional and social capabilities. Although the body of scholarship in this field is limited, scholars agree that music education in the FP in the South African context is underappreciated (R. de Villiers, 2017; Jansen van Vuuren & Van Niekerk, 2015; van Vreden, 2014). The assumption that music is a "filler subject" (Jansen van Vuuren & Van Niekerk, 2015, p. 273) needs to change if music is to take its rightful place in FP classrooms.

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[1] Critical reflection (CR) occurs when we question or challenge our assumptions that give meaning to our existence and our world (Mezirow, 1990, 1991, 1997, 2003) and involves the evaluation of assumptions of a moral, social, and political nature (Farrell, 2015; Mezirow, 1998). Scholars confirm the role of CR in transformation (Kember et al., 2008; Larrivee, 2000).

[2] In South Africa, the Foundation Phase (FP) of education refers to the first formal educational phase in primary schools (Norms and Standards for Educators, DBE, 2000), intended for learners who range from six to nine years of age, and who are in Grade R (reception year) to Grade 3.

Apart from the disregard for music education, more reasons reported for the neglect of music in schools, include teacher education programmes failing to equip student teachers[3] with music teaching competence (Beukes, 2016; Christiansen & Bertram, 2019) insufficient support from the school management to provide resources such as music instruments (Jansen van Vuuren & Van Niekerk, 2015; Ntshole et al., 2023), a lack of music skills and knowledge to teach Western Art as well as indigenous African music (R. de Villiers, 2017; Herbst, et al., 2005), and low confidence in music teaching (R. de Villiers, 2017). The generalist approach to FP teaching and teacher preparation in South Africa is also blamed for the lack of knowledge, motivation, confidence and competence to teach music once these teachers enter practice (Jansen van Vuuren & Van Niekerk, 2015). A major concern is the FP curriculum structure that allocates minimal notional time to music as one of six subdisciplines of Life Skills (Dixon, 2018; Ntshole et al., 2023).

The multiple curriculum changes post-1994 are also blamed for the decline in music education (R. de Villiers, 2017; Harrop-Allin & Kros, 2014; Ntshole et al. 2023). South Africa experienced multiple curriculum reforms post-1994 as explicated by Gumede and Biyase (2016). The reforms started with Curriculum 2005, the Outcomes Based Education (OBE) curriculum, introduced in 1997, with its focus on learning outcomes that embraced critical and creative thinking. It soon became clear that teachers were not well prepared for their role as creators of learner centered learning opportunities and the responsibility to select relevant content and teaching strategies. OBE was thus replaced by the National Curriculum Statement (NCS) in 2002. The Revised National Curriculum (RNCS) replaced the NCS in 2009 to make the curriculum understandable for educators. However, more changes were suggested by a task team and the current curriculum, the Curriculum Assessment Policy Statements (CAPS), was introduced in 2012. Due to challenges experienced in the OBE, the CAPS provided teachers with detailed guidance concerning content and teaching and learning strategies. The CAPS for FP is structured according to three learning areas, namely Language, Mathematics and Life Skills which include Beginning Knowledge, Personal and Social Well-being, Physical Education and Creative Arts with subdisciplines Drama, Dance, Visual Arts, and Music (DoE, 2011).

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[3] The student teacher is a contact or DL student, enrolled for a qualification in education in preparation for professional practice as a teacher in public or private schools. Contact students refer to students enrolled as full-time students who attend face-to-face lectures. Distance students are mostly already employed, do not attend face-to-face lectures and rely on online learning as the delivery modality. The study population in this research study involved both contact and distance student teachers enrolled in a BEd Foundation Phase programme and they are hereinafter referred to as ‘students’ or ‘Foundation Phase students’.

The merging of six subjects as part of Life Skills lead to much critique (De Villiers, Harrop & Kros, 2014; Ntshole et al. 2023). Apart from teachers not being capacitated with the knowledge and skills to meaningfully integrate these subjects as intended by the curriculum (Ntshole et al, 2023), Harrop and Kros (2014) maintain that the CAPS's "reductionist approach to knowledge" (p. 71) runs counter to the curriculum's declared goals of developing critical and creative thinkers who can navigate their way in the twenty-first century. Ntshole et al. (2023) specifically highlight the consequences of the multidisciplinary structure of Creative Arts for music education. These authors postulate that the little time allocated to music deprives learners from opportunities to master the basic skills in music. The value of music as opportunity to "identify and solve problems and make decisions using critical and creative thinking" (p. 2) are also lost to FP learners.

Studies by Carver (2017; 2020), Drummond (2015) and Harrop-Allin and Kros (2014) do not focus on music education in the Foundation Phase per se, but rather critique the slow transformation of music education from Western-based practices to a more culturally responsive approach including Indigenous African music in schools. Harrop-Allin and Kros (2014) warn that the implementation of music with dominating Eurocentric characteristics deprive South Africa's learners from opportunities to develop critical thinking and creativity through learner engagements. Apart from insufficient teacher knowledge for music education, they point out that the merging of six subjects as part of Life Orientation in the CAPS (DBE, 2011), leaves little time for music. In agreement with Harrop-Allin and Kros (2014), Carver (2017) suggests the decolonization of the CAPS (DBE, 2011). Carver however admonishes that framing 'Indigenous African' music by a Westernised understanding of music will result in a disjuncture between African musical practice and Western musical theory that prevents learners from cumulatively constructing knowledge about African music. This disjuncture thus hampers Indigenous African music from developing as a specialised field in music. Critical reflection on learners' cultural background will therefore have to precede the planning for a culturally responsive music teaching practice.

Few recent studies report on the current state of music education in the FP. A study by R. de Villiers (2017) adds to the decolonising debate by proposing Western Classical and Indigenous African music should both form part of teacher education programmes at HEIs. Data collected from music lecturers at four South African universities suggest flexibility in adapting to new directives for music education that incorporate the Africanisation process, while not totally ignoring the value of the past music curriculum. R. de Villiers (2017) suggests that music lecturers model "multicultural characteristics in different music genres" (p. 232) to prepare prospective FP teachers for innovative music practices. This author emphasises the need for critical reflection by

FP lecturers on the role of culture in their music teaching practices while also enabling their students to "apply the knowledge reflectivity". (p. 222)

In a mixed-method study Jansen van Vuuren and Van Niekerk (2015) collected data from practicing FP teachers. The authors report lacking knowledge of generalist FP teachers, a shortage of resources, and insufficient support as among the reasons for the poor quality of music education in this important phase. They also found that music does not enjoy the same status as Mathematics, language and the sciences and is therefore often regarded as a "filler subject" (p. 273). Such a view of music exacerbates the neglect of music in schools.

Socio-economic factors is yet another aspect FP teachers need to consider in their planning for music education. The socio-economic status reportedly influence the quality of education in South African schools (Ogbonnaya & Awuah, 2019; Pooley, 2017; Van Dyk and White, 2019). Socio-economic inequality is also a determining factor in the quality of music education in the South African educational context (Drummond, 2015; Harrop-Allin, 2016; Pooley, 2016). Harrop-Allin (2016, p. 44) explains the socio-economic inequalities in schools that affect music education as follow:

> *Music and arts education is both present and substantial in most South African private schools or in good government schools that were historically for Whites[4] (but now open to all). In historically "Black" and rural schools, poorly trained teachers experience challenges implementing "Creative and Performing Arts" in the Curriculum Assessment Policy Statement (CAPS) curriculum (Department of Education, 2011) and the Revised National Curriculum Statement before it (Department of Education, 2002). (p. 44)*

Schools in South Africa are classified based on socio-economic status. Learners attending quintile 1 – 3 schools are mostly from low socio-economic background and are exempt from school fees, while more affluent former model C schools are classified as quintile 4 and 5 schools (Maistry, 2020). Apart from inadequate funding from government, determinants hampering education in low quintile schools include a lack of resources and inadequately trained teachers resulting in poor learner achievement (Du Plessis & Mestry, 2019; Ndimande, 2020). Learners in higher quintile schools benefit from the advantages of quality education in smaller classes due to the financial support from communities and parents providing the necessary resources, making cultural activities in smaller classes possible (Maistry, 2020). These schools will, for obvious reasons, also be better equipped with resources for music education. In the same vein, Pooley (2017) distinguishes between music education practices in public and private schools. Public

[4] These schools are referred to as model C schools

schools report various challenges such as, time constraints, underqualified teachers, and a lack of musical instruments. This author however found that, although private schools offer high quality individual music tuition, the focus is on Western Art music at the cost of indigenous African music.

To overcome the mentioned barriers, teachers will firstly have to believe in the value music brings to the learning environment, implying a change in unfounded assumptions about music as a non-essential subject. Grounded in the transformative learning[5] theory of Mezirow (1997), critical reflective learning could serve to transform previously held beliefs and consequently motivate a transformation of music education practice. Critical reflective competence furthermore equips students to adapt to inevitable change in 21st century societies and schools, thereby preventing teacher stagnation (Benade, 2015). HEIs who have the responsibility to prepare prospective teachers as agents of this transformation, therefore, need to explore ways to foster critical reflective learning, specifically in music education components of teacher education programmes. This thesis reports on a designed-based research (DBR) approach to such an investigation to determine strategies relevant to the specific context of the target student population and the learning environment.

1.2.2 Rationale for the research

As a qualified specialist music teacher, the researcher is currently a lecturer at another HEI responsible for the teaching of a music module in a FP teacher education programme. Before moving to the HEI environment, the researcher was a generalist FP teacher for a few years. Firsthand experience in music education environments, together with confirmation in the literature that music is relegated to the backseat in FP classrooms, contributed to the researcher's concern about the neglect of music education resulting in young learners missing out on valuable development opportunities through music.

The literature mentioned before highlights the challenges hampering music education in the FP. These challenges including socio-economic factors, neglect of music education as part of the LS curriculum (A. de Villiers, 2015; R. de Villiers, 2017; Pitts, 2017; Jansen van Vuuren & Van Niekerk, 2015; Kriger, 2020; Ntshole et al. 2023), and a lack of transformation from a Westernised music framework to an inclusive curriculum that accommodates African music (Carver, 2017,

[5] "Transformative learning (TL) is learning that transforms problematic frames of reference – sets of fixed assumptions and expectations (habits of mind, meaning perspectives, mindsets) – to make them more inclusive, discriminating, open, reflective and emotionally able to change…" (Mezirow, 2003, p. 58).

2022; R. de Villiers, 2017; Drummond, 2015; Kidula, 2019; Kriger, 2020; McConnachie, 20121). FP teachers furthermore view music as less important than the academic subjects, namely language, science, and Mathematics (Kriger, 2020). This assumption of teachers is often transferred to the learners (Kriger, 2020).

Sustained transformation of music education starts with HEIs that have the responsibility to develop accomplished FP teachers. Apart from the FP student's perceptions of music as component of Life Skills, two critical factors, namely, the small component allocated to music in BEd FP programmes and a lack of reflective engagement with music in these programmes may hinder students from acknowledging the vital role music should play in FP classrooms (Herbst et al., 2005; Jansen van Vuuren & Van Niekerk, 2015). These factors may be mitigated by introducing a practice of reflection[6] to develop teacher vision for education, based on a "mission and professional identity" (McNay & Graham, 2007, p. 226).

Grounded in the literature (Mezirow, 1997), the transformation of music education practice starts with a change in teacher thinking and understanding as well as a change in attitude towards the purpose of music education in the FP classroom. Although teachers may not be able to address the mentioned challenges, challenging unfounded assumptions through critical reflection can change teachers' attitudes and motivate them to create innovative solutions to implement music despite these challenges.

The best place to start the transformation is in teacher education programmes. Once teachers enter practice it becomes more difficult to 'unlearn' and 'relearn' and to change previous education practices (Cochran-Smith, 2003).

Considering the role of critical reflection in transformative learning (Mezirow, 1997), HEIs have the responsibility to guide students to consider the role of music in the FP and critically reflect on their own assumptions of music education as well as that of others.

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[6] Mezirow (1998) refers to reflection as "a 'turning back' on experience" (p. 185), with the intention to become aware of actions, feelings and thoughts. Grounded in the notion of reflection-on-action (Dewey, 1933) and reflection-in-action (Schön, 1983), Farrell (2017) suggests reflection to be understood in the context of "[to] direct a teacher's future decisions (reflection-for-action)" (p. 1)." All three reflective contexts inform a reflective practice (Farrell, 463 2017).

It was thus deemed important to explore how to foster individual and collaborative critical reflection[7] in a music module that forms part of a BEd FP teacher education programme.

Fostering CR is crucial in creating an awareness among these students of the valuable role that music can and should play in the holistic learning of young learners. When CR leads to a new awareness that contradicts one's own frame of reference, it holds the potential to motivate transformative learning (TL) (Mezirow, 1997). In the context of teacher learning, such TL could change students' "visions, motives and understandings into a functioning, pragmatic reality" (Shulman & Shulman, 2004, p. 259). To support accomplished teacher[8] development through the music education module, which is the focus of the study, students should, therefore, be guided to critically reflect on their learning. The music module comprises reflective learning tasks where students engage in individual and collaborative reflection as self-directed learning[9] (SDL). Applying principles of SDL (Knowles, 1975), students are guided to question their established assumptions about music education, identify lacking knowledge that may influence their assumptions of music, followed by the implementation and evaluation of the necessary actions to improve their learning of music education. Supporting learning on this level will necessitate the implementation of innovative teaching strategies that support critical reflective learning in FP teacher education programmes.

1.2.3 Gap in the literature

The initial review of related recent literature revealed a paucity in the body of scholarship with focus on FP music education in the South African school context as well as in the context of FP teacher education with focus on music. The limited literature with focus on music in the early school years is also mentioned in the international sphere (Clark, 2020; Rickard et al., 2010).

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[7] Collaborative critical reflection provides a platform for rational discourse (Mezirow, 2003) whereby teachers challenge their own "judgments, beliefs, assumptions and expectations" (Briscoe, 2017, p. 43) in a small group context, with the potential to disrupt previously held assumptions of teaching and learning.

[8] An accomplished teacher is a member of a professional community who is "ready, willing, and able to teach and to learn from his or her teaching experiences." (Shulman & Shulman, 2004, p. 259). Informed by the model suggested by Shulman and Shulman (2004), the dimensions of accomplished teacher development include the teacher's understanding, motivation, practice and vision, and is grounded in critical reflection by the teacher, both at the individual and communal levels of teacher development.

[9] Self-directed learning (SDL) is viewed following the definition of Knowles (1975), as "a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p. 18).

More than two decades ago Rickard et al. (2010) noted “the need for research into the value of school-based music education is urgent given its diminishing role in many school curricula” (p. 38).

Exploring recent literature on the role of reflection in context of FP music education in the South African context showed limited results. Moore et al. (2023) examined the perspectives of teacher educators on challenges concerning music in initial teacher education in schools in Ireland. These authors argue for the establishing of communities of practice where music teachers collaborate to overcome the multiple challenges that music teacher educators face amidst the uncertainties concerning the status of music. Through collaborative reflection music teacher educators are given a voice in an educational environment where policy directions are destabilizing “the hard-fought status of music education across many parts of the globe.” (p. 12).

Research involving reflective learning in context of music education mostly employed reflection to improve music practice or knowledge of music. Delaney (2011) explored elementary general music teachers’ evaluations of their own instruction and the instruction of that of a colleague through collaborative reflection on recorded music lessons. Teachers appreciated this opportunity to share knowledge and found the strategy helpful as professional development opportunity. Mok (2016) reports on a study investigating action learning conducted by undergraduate pre-service music teachers. Findings confirmed that the action research supported pre-service teachers to reevaluate how learners learn music and to reflect on their own teaching effectiveness. Baumgartner (2011) examined one elementary pre-service teacher’s reflective learning about music practice during TPrac[10]. While the findings do not specifically mention enhanced knowledge or skills concerning music education, the reflective activities such as written guided reflection and classroom observations provided opportunity for developing a reflective approach to practice. The reliability of these results is however called into question by concentrating solely on the experiences of one student.

No literature could be found with focus on fostering critical reflection in a teacher education programme to equip FP students to transform music education practice.

Although technology is progressively used as strategy to support reflective learning in the context of HEIs (Choo et al., 2016; Lau & Meyers, 2013; Skinner, et al., 2016), the researcher could not

[10] The HEI where participants in this research study were registered uses the term TPrac to refer to teaching practicum.

identify previous investigations with focus on the use of technology to foster reflective and critical reflective learning by students in a music education module.

The strong confirmation in the literature of the value of music in the holistic development of young learners (Auerbach & Delport, 2018; Van Vreden, 2018; Varner, 2019), as well as the concern that music is often not implemented in FP classrooms as envisioned by the South African school curriculum (CAPS, DBE, 2011) (R. de Villiers, 2017; Jansen van Vuuren & Van Niekerk, 2015; Van Vreden, 2014), underscore the need for more investigations on how to change the *status quo*. The thesis aims to fill the gap in the literature on the role of CR on music education to improve the way teacher education programmes prepare FP teachers for music education practice.

1.3 Theoretical-conceptual framework

A theoretical-conceptual framework was developed for this study as it keeps the researcher focused on the research problem (H. Green, 2014) and directs all aspects of the research methodology (Grant & Osanloo, 2014; H. Green, 2014; Imenda, 2014; Maxwell, 2004). The theoretical-conceptual framework also assists in recognising concepts and interrelated variables related to the problem and supports the researcher in identifying "potential validity threats to conclusions and to help justify the research" (Maxwell, 2004, pp. 33-34). The TL cycle suggested by Johnson and Olanoff (2020), which they adapted from the TL Theory of Mezirow (1997), in conjunction with the framework suggested by Shulman and Shulman (2004) for the development of accomplished teachers, constitute the theoretical-conceptual framework of this study.

Mezirow (2009) labelled TL in 1978 when his wife (and other women) returned as adults to college to complete an undergraduate degree. Mezirow's original TLT consists of ten phases namely, "a disorienting dilemma; self-examination with feelings of fear, anger, guilt or shame; a critical assessment of assumptions; recognition that one's discontent and the process of transformation are shared; exploration of options for new roles, relationships and action; planning a course of action; acquiring knowledge and skills for implementing one's plans; provisional trying of new roles; building competence and self-confidence in new roles and relationships; and a reintegration into one's life on the basis of conditions dictated by one's new perspective" (p. 94).

Johnson and Olanoff (2020) reduced Mezirow's ten phases of the TLT to a subset of four phases in their study on prospective Mathematic teachers in the elementary school. The cycle of TL by Johnson and Olanoff (2020) form the core of the theoretical-conceptual framework. These phases include a "disorienting dilemma" (to challenge assumptions), "critical reflection" (to become aware of a lack of knowledge), "rational discourse" (to discuss the dilemma) and "action" (to connect

earlier beliefs to changed knowledge) (p. 739). This four-phase cycle of TL was used by students in reflective learning. The oscillation between CR, and rational discourse, enable ongoing CR and rational discourse.

The framework for accomplished teacher development (Shulman & Shulman, 2004) had its origin in teacher community learning. The authors envisioned to “create a teacher-education experience that would prepare teachers to recreate, sustain and educate in a ‘community of learners’ (Shulman & Shulman, 2004, p. 1).

In this study, CR, as pervasive self-directed behaviour during all learning phases rather than a once-off step in the TL process, is placed central to the framework, thereby grounding the other three phases of the theory in CR.

The impact of TL is expected to directly influence the dimensions of accomplished teacher development postulated by Shulman and Shulman (2004). This framework comprising competencies such as, teachers’ “understanding, motivation, practice, and vision” (p. 394) grounded in CR as the five features of individual teacher learning, was chosen for its utilisation to improve teacher competencies, representing the first level of individual teacher development, suggested by the model of Shulman and Shulman (2004). The second level includes a sixth feature that focuses on teacher collaborative critical reflective learning as part of a community of learners, elevating the levels of teacher learning to “a shared knowledge base”, “a shared commitment and supported incentives”, “a community of practice” with “a shared vision or ideology of practice” (Shulman & Shulman, 2004, p. 257). FP teachers should be supported to develop these teacher competencies.

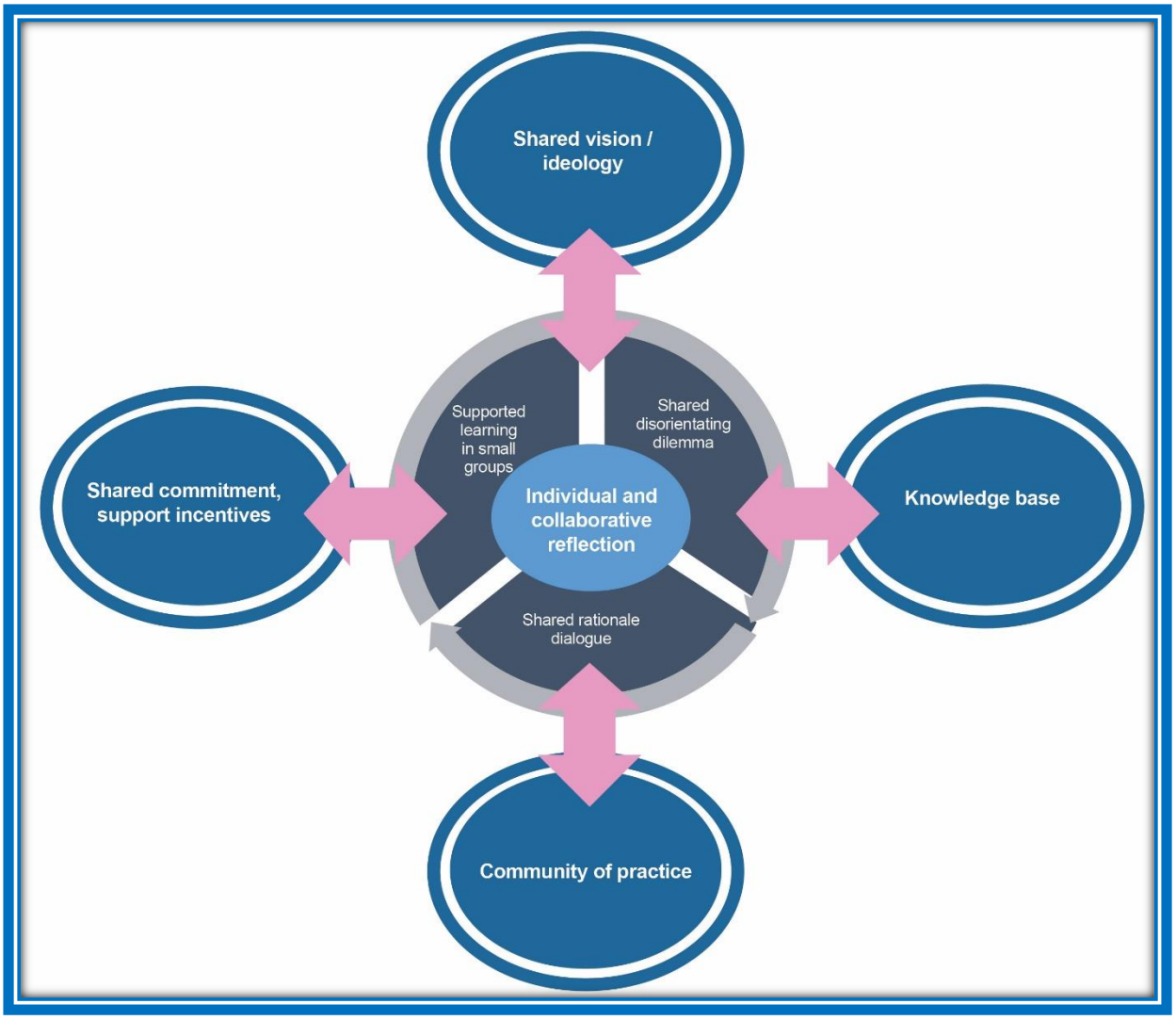

Figure 1.1: The theoretical-conceptual framework

1.4 Problem statement

The concern expressed in the literature that music education is not being implemented in the FP as intended by the CAPS (DBE, 2011) (R. de Villiers, 2017; Jansen van Vuuren & Van Niekerk, 2015), emphasises the need for the urgent transformation of music education in South Africa. At the core of the research problem is the role of HEIs in supporting students with knowledge and skills, a vision and motivation to transform FP music education by engaging in critical individual and collaborative reflection. Strategies to foster students' critical reflective learning to equip them for a transformative music education practice warranted investigation.

The reasons identified for the neglect of music education in FP classrooms are, socio-economic and contextual factors in schools and societies (R. de Villiers, 2021; Harrop-Allin, 2016; Jansen, 2019), overcrowded classrooms (Hartell & Steyn, 2019; Matshipi et al., 2017; Molapo & Pillay,

2018), a lack of funding and resources (Du Plessis & Mestry, 2019; Hartell & Steyn, 2019; Makaleni & Sethusha, 2014, Van Vreden, 2018), poor curriculum implementation (Lerumo, 2018; Molapo & Pillay, 2018), multiple curriculum reforms (Harrop-Allin & Kros, 2014; Ntshole et al., 2023), time constraints (Arasomwan & Mashiya, 2021; Lerumo, 2018; Loubser, 2012; van Vuuren, 2022), and a lack of teacher knowledge, skills, abilities, vision, willingness, attitude and confidence (Arasomwan & Mashiya, 2021; Cloete & Delport, 2015; Jansen van Vuuren & van Niekerk, 2015; Kriger, 2020).

HEIs are increasingly employing both contact learning complemented by blended learning, and distance learning (DL) as parallel modes of delivery for teacher education programmes. Contact students registering for fulltime studies in the BEd FP programme mostly have little experience of music teaching practice other than their own school years or the schools visited for TPrac. Students enrolling for DL may include practicing underqualified teachers with some practice experience. Students' prior experience of music practice will thus vary depending on their context and the type of schools they have been exposed to. The BEd FP teacher education programme is delivered as fulltime and DL modes. The different delivery modes hold their own unique advantages and challenges for teacher educators, especially when aiming to support mental processes such as reflective learning (Natanasabapathy, et al., 2011). The implementation of teaching and learning strategies to support BEd FP students' critical reflective learning will need to accommodate students registered as contact as well as distance students in the changed higher education landscape. The dual delivery mode therefore necessitates the use of technology as platform to foster reflective learning with both fulltime and DL students.

Concern about the way HEIs create an awareness with FP students of the value of music education through critical reflective learning, is at the core of the problem statement. Based on Mezirow's (2003) TLT, CR in a music education module as part of a FP teacher education programme, holds potential to equip students to transform music education practice. Collaborative CR furthermore holds value to support a shared vision for music and develop teachers who "are ready, willing [motivated], and able to teach and to learn from his or her teaching experiences" (Shulman & Shulman, 2004, p. 259).

The iterative and exploratory nature of design-based research (DBR) (Abdullah & Wegerif, 2014), with focus on how to improve programme design, motivated the use of this research approach. Typical to DBR, the focus of the design process was directed at the design of a specific programme, in this case the BEd FP programme offered by one South African HEI, with specific focus on the music education module that forms part of the programme. As lecturer, the researcher is also responsible for a music module within a BEd programme offered by another

HEI situated in a different province of South Africa. Due to ethical issues such as power relations when using one's own students, the researcher could not use her own students to investigate the problem. The music lecturer at the HEI where the study was eventually conducted, showed interest in becoming involved in the DBR, based on her interest in improving the way the music education module within the BEd FP programme supported reflective learning. The researcher and this lecturer, therefore, collaborated as the design team in the DBR to explore how to foster individual and collaborative CR to equip Bed FP students as agents of change to transform music education practice.

Research questions directed the investigation to achieve the research aim and objectives.

1.5 Research questions

The dimensions of Shulman and Shulman's model (2004) of accomplished teacher development and Mezirow's TLT (1990, 1995, 2003), informed the principal and sub-research questions.

1.5.1 Primary research question

The following research question emerged from the problem statement: How can individual and collaborative critical reflection be fostered in a music education module to equip Foundation Phase student teachers to transform music education practice?

1.5.2 Sub-research questions

The sub-research questions guided the three phases of the emergent DBR methodology, namely the *preliminary phase*, the *prototyping phase* and the *reflective phase*. Although the DBR is explained in more detail in Section 1.7 and Section 4.4.3, a brief description of the three DBR phases is necessary here to position the sub-research questions in the DBR process. A main characteristic that distinguishes DBR from most other qualitative research approaches is the "collaborative efforts of researchers and practitioners [in this study the lecturer and designer of the music module] to design, develop, implement and evaluate" (Donaldson et al., 2024, p. 23). Information collected in the *preliminary phase* through reflective discussions between the researcher and the lecturer[11], an evaluation of previous reflective learning activities, a review of the literature, and an analysis of documents such as study guides and tutorials, informed the design of the initial reflective tasks and answered to the first sub-research question. The tasks

[11] The researcher and the lecturer collaborated in the design process and constitutes the design team.

were implemented in two cycles[12] in the *prototyping phase*. Each cycle was followed by collaborative reflection and redesigning of strategies and guided by the second sub-research question. Student's individual and collaborative reflections and individual interviews served as data. The third sub-research question was informed by the *reflective phase* of the DBR and focussed on the findings of both the *preliminary phase* and the *prototyping phase* of the DBR to suggest strategies to foster individual and collaborative CR in a music module that forms part of a teacher education programme. The following related sub-research questions thus directed the investigation:

- What individual and collaborative critical reflective strategies can be employed in a teacher education music module to effectuate transformation in music education practice?
- How can individual and collaborative critical reflection in a music education module equip Foundation Phase student teachers to transform music education practice?
- How do the findings of the design-based research explicate design principles for the fostering of individual and collaborative critical reflection in a music education module?

To guide the search for answers to the research questions, the following research aim and objectives have been extrapolated from the identified problem:

1.6 Research aim

The research set out to determine how individual and collaborative critical reflection can be fostered in a music education module to equip Foundation Phase student teachers to transform music education practice.

1.6.1 Objectives

The following sub-objectives directed the investigation:

1) To determine which individual and collaborative critical reflective strategies can be employed in a teacher education music module to effectuate transformation in music education practice.

[12] The term 'cycle' is used in the study and refers to micro-cycle implemented in the *prototyping phase* of the DBR.

2) To determine how individual and collaborative critical reflection can be incorporated in a music education module to equip Foundation Phase student teachers to transform music education practice.

3) To determine how the findings of the design-based research explicate design principles for the fostering of individual and collaborative critical reflection in a music education module.

1.7 Research methodology

A research methodology that includes the research design and the approach followed to investigate the problem, is influenced by the researcher's paradigm or worldview.

1.7.1 Research paradigm

The proposed philosophical paradigm is pragmatism. This worldview incorporates actions and their consequences for research methodologies (Creswell & Creswell, 2018). Action is required in the form of designing support measures that foster CR in the studying of a music education module to equip FP students to transform music education practice. Although pragmatism is mostly used in mixed-method research, it is equally relevant in qualitative research (Creswell, 2014; Denzin & Lincoln, 2000; Goldkühl, 2012). Pragmatism is not dedicated to a specific philosophy, and allows the use of a diversity of methods, giving researchers the freedom to choose those methods that will answer the research questions successfully (Creswell & Creswell, 2018).

Proponents of pragmatism suggest change, because life is not static, but dynamic (Goldkühl, 2004 & 2012; Kaushik & Walsh, 2019; Sharma et al., 2018). Change must be useful and purposeful to human beings (Adeleye, 2017; Sharma et al., 2018), and is moved by continuous reflection. Research motives reflecting pragmatism include its application in the natural world, the changing nature of knowledge, meaning making and the truth, continuous improvement, establishing what is working and supporting praxis (Johnson & Onwuegbuzie, 2004). Pragmatism views 'truth' as not fixed but changing constantly due to changes in time and space (Adeleye, 2017; Creswell, & Creswell, 2018; Johnson & Onwuegbuzie, 2004). This paradigm, therefore, complements the suggested DBR approach to knowledge generation through learning (Alghamdi & Li, 2013; McKenny & Reeves, 2013), with the focus on change through the collaborative development of strategies to foster CR with students in a music education module. Change as an aim of the research is, therefore, not only applicable to the redesigning of teaching and learning strategies in a music education module, but also reflects the way these students are equipped to effectuate the transformation of music education practice as the ultimate aim of the DBR. A

paradigm influences the research approach in the domains of axiology, ontology, epistemology, methodology and rhetoric (Kaushik & Walsh, 2019). These paradigmatic implications for DBR as implemented in this research are explicated in Chapter 4.

1.7.2 Research design

A qualitative design was followed to investigate human behaviour and human interaction in a natural environment (Creswell & Creswell, 2018; Lichtman, 2014). The collection of rich data and the narrative nature of planned data collection methods, including individual and collaborative reflection (Appendix A) as well as individual interviews (Appendix B), make a qualitative design relevant for this research. The suitability of qualitative research to explore and describe a complicated scenario and to gain a deeper understanding of a specific incident (Creswell & Creswell, 2018; Johnson & Onwuegbuzie, 2004), reinforces the rationale for a qualitative approach. This design allows for the focal point of the thesis to be adapted during the research process, which is typical of DBR, where the design can be revised based on the participants' and researcher's first-hand experiences of its usefulness in the real world (Amiel & Reeves, 2008).

1.7.3 Design-based research

The researcher chose DBR methodology to improve reflective learning through iterative cycles of interventions in a music education module in the context of FP teacher education. It is critical to note that DBR seeks to develop theory and understanding in addition to practice improvement (Collins et al., 2004). DBR does not aim to prove the impact of design features in education in general. On the contrary, the importance of context is emphasised by DBR, which strengthens the research's knowledge claims. However, to gain understanding about how individuals learn, researchers study cognition in context with the overarching objective of creating statements that are supported by data collected in natural settings (Barab & Squire, 2004). Subsequent research and practice are then guided by this new understanding of learning.

The study's DBR methodology is derived from and aligns with DBR methodology proposed in the literature (Anderson & Shattuck, 2012; Goff & Getenet, 2017; Herrington et al., 2007; Karsten & Van Zyl, 2022), while a literature review is imperative to inform the DBR context and phases (Anderson & Shattuck, 2012). DBR is a 21st century practical research methodology to fill the gap between theory and practice (Anderson & Shattuck, 2012). DBR is used in educational contexts, mostly in the USA, with the purpose of solving complex educational problems and occur often in

K-12[13] and post-secondary sectors with the focus on science. The versatility of DBR allows utilisation in online mobile technologies (Anderson & Shattuck, 2012).

DBR has its origin in technology research design (Amiel & Reeves, 2008; Wang & Hannafin, 2005), but has since been used in various contexts including the social sciences (Christensen & Wes, 2017; Zheng, 2015). Barab and Squire (2004) define DBR as: "a series of approaches, with the intent of producing new theories, artifacts, and practices that account and potentially impact learning and teaching in naturalistic settings" (p. 2). Wang and Hannafin (2005) describe DBR as:

> *a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design development and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually sensitive design principles and theories. (pp. 6-7)*

DBR involves social interaction (Bell, 2004) and is grounded in a pragmatic orientation (Cobb et al., 2016; Goldkühl, 2012), serving as impetus for this design genre to render design principles for a specific educational context. Amiel and Reeves (2008) accentuate that teachers (in the case of this research study referred to as lecturers) should be actively involved in the DBR "as partners in identifying priorities for research and contributors throughout the research process itself" (p. 36). Researchers and practitioners are allowed to work together to improve practical problems for the enhancement of practice by applying appropriate changes to practice (Goff & Getenet, 2017). Karsten and Van Zyl (2022) refer to an African proverb, thereby emphasising the reason for collaboration: "If you want to go fast, go alone, but if you want to go far, go together". The researcher and the lecturer responsible for the music education module collaborated in a teacher education programme to design educational solutions (Goff & Getenet, 2017). Karsten and Van Zyl (2022) propose the name 'research team' for the collaborators, while the researcher prefers to use the term design team, since the lecturer was not a co-researcher but rather a co-designer of the reflective learning tasks. The lecturer responsible for the teaching of the module under investigation, was also the designer of this second-year module. The lecturer, therefore, holds knowledge of the module outcomes, aims and theoretical content which students should be able to apply once they enter practice. Experience of the students' contexts and previous performance in this module further enables the lecturer to contribute by making informed judgements of the

[13] K-12: In the South African context these school grades or levels are equivalent to Kindergarten to Grade 12

manner in which the individual and collaborative learning[14] experiences support students to link theory to practice (Wrenn & Wrenn, 2009).

A DBR model proposed by Abdallah and Wegerif (2014) was implemented in this study due to its three phases being more suitable for doctoral research. Although Goff and Getenet (2017) agree with Abdallah and Wegerif (2014) on a more streamlined approach to DBR for doctoral studies, they critique this model by describing it too broad with a lack of guidance in doctoral research. However, the three phases replacing the initial four phases as suggested by Reeves (2000) and Amiel and Reeves (2008), provided a flexible framework reflecting the pragmatic nature of the study with the research problem as the main focus.

The benefits in the use of DBR are the enhancement of professional development of all people involved (Herrington, et al., 2007) and the opportunity to make adjustments through interventions (Karsten & Van Zyl, 2022). DBR is specifically suggested to enhance education practice and to develop methodology and theory, while applying it to a specific context and study (Abdallah & Wegerif, 2014). Amiel and Reeves (2008), Christensen and West (2017), and Cobb et al. (2016) concur on the value of DBR in *theory* building. Karsten and Van Zyl (2022) identify the *practical contribution* of DBR in that it provides practical solutions to the problem, reflective implementation of DBR phases makes a *methodological contribution*, while the *theoretical contribution* refers to the rendering (producing) of design principles that adds to the theory of teaching and learning.

The input, process and output of the DBR is explained in Chapter 4 (Table 4.3). The DBR model suggested by Abdallah and Wegerif (2014) guided the DBR process through three phases summarised briefly:

- **Phase 1 – The preliminary phase**

In this phase, knowledge was generated concerning the 'why' and the 'how' to incorporate individual and collaborative reflection in the music education module. The preliminary phase serves as a needs analysis and includes document analysis and a review of the literature

[14] Collaborative learning occurs when two or more students collaborate to solve a problem (Kumar, 1996; Laal & Ghodsi, 2012; Lai, 2011), to produce a product (Laal & Ghodsi, 2012), and aim to gain knowledge (Noh & Yusuf, 2018). Collaborative groups are similar to cooperative group learning in the sense that, in both approaches, group members are responsible for reciprocal learning (Davidson & Major, 2014; Gokhale, 1995). However, collaborative groups differ from cooperative groups by not having assigned group roles. In collaborative groups, groups manage themselves and members operate independently from instructors (Davidson & Major, 2014).

(Abdallah & Wegerif, 2014, Anderson & Shattuck, 2012). Anderson and Shattuck (2012) explain the importance of this phase as follow:

> *The creation begins with an accurate assessment of the local context; is informed by relevant literature, theory, and practice from other contexts; and is designed specifically to overcome some problem or create an improvement in local practice. (p. 16)*

Although reflective activities did form part of the previous year's student tasks, CR was not included as aim of these activities and collaborative reflection was not incorporated. This phase therefore started with collecting information through a literature review, document analysis, and evaluating the design of the reflective tasks implemented for the module in the previous year. Documents explored included the Minimum Requirements for Teacher Qualifications (MRTQ) that are set out by the South African Department of Higher Education and Training (DHET, 2015), the HEI's vision for reflective teaching and learning, and the module outcomes with a focus on reflective learning. The literature and these documents were scrutinised for criteria related to CR in teacher education. A reflective discussion by the design team, grounded in the literature, determined which individual and collaborative strategies can be employed in the teacher education music module to effectuate transformation in music education practice. An initial preliminary design framework was created by the design team that included both individual and collaborative reflection strategies.

- **Phase 2 – Prototyping phase**

The findings from data collected from the literature and document analysis informed the design of individual and collaborative reflective learning tasks that were implemented in phase two, which consisted of two cycles. Data was collected by the researcher in cycle 1 and consisted of participants' reflective tasks and individual interviews. After the researcher analysed the data, the findings as well as the lecturer's experiences of the implementation of the reflective learning tasks formed the focus of the design team's collaborative reflective discussion on the outcomes of the strategies. After this discussion by the design team, the next step was the redesigning of strategies for implementation in cycle 2 of the *prototyping phase* to improve the way the strategies support critical reflection. The researcher was solely responsible for the collection and analysis of all data.

- **Phase 3 – Reflective phase**

Collaborative reflection by the design team and retrospection by the researcher on knowledge generated through the first two phases rendered design principles as the suggested design framework for fostering individual and collaborative critical reflection in a music education module, contributing to theory, methodology and practice. Identifying challenges that need further exploration in follow-up cycles, also form part of this phase.

The reflective model that guided the reflective process in this study followed Stahl's model (2000) where individual reflection[15] is followed by collaborative reflection for knowledge-building, but also to elicit critical reflection.

1.8 Stahl's model of collaborative knowledge-building (2000)

The model by Stahl (2000) incorporates individual and collaborative understanding or learning. Individual learning occurs initially and becomes social learning when individuals use language to enter group discussions for knowledge sharing. The articulation of own understanding by each student through individual reflection served as basis for rational discourse in collaborative reflective activities to articulate a shared understanding.

[15] Individual reflection is informed by Stahl's model (2000), whereby students first reflect on problems on their own, before sharing their reflections with peers. The individual's reflections are influenced by a personal interpretation of the problem, prior experience, and background.

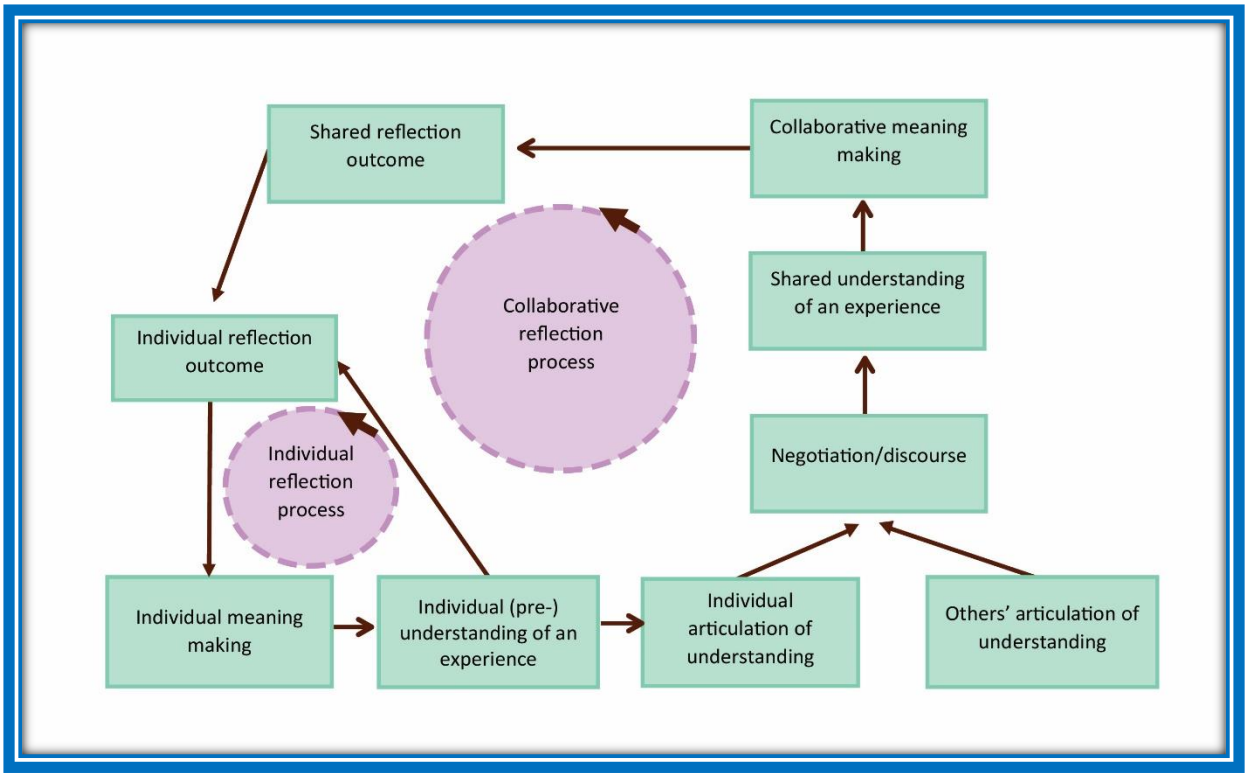

Figure 1.2: Stahl's (2000) model of collaborative knowledge-building

1.9 Methods

The research methods include the selection of the research sample from the population as well as the data collection and analysis procedures in the DBR process.

1.9.1 Population and sampling

The HEI offers a four-year BEd FP teacher education degree. The generic module with a focus on music education in the FP forms part of the second semester of the second year of the BEd FP programme. Both contact and DL are employed as delivery modalities of this teacher education programme and data were collected from both contact and DL students. The population comprised all second-year students of the HEI registered for the BEd FP programme.

Voluntary sampling (§4.4) as a form of purposive sampling (Murairwa, 2015) was used in the recruitment of the sample from the expected ±400 enrolled students in 2021 and 2022 by employing the HEI's electronic Learning Management System (LMS). An independent recruiter uploaded a recruitment letter (Appendix C) to the LMS to invite all second-year BEd FP students from any gender or cultural group to participate. A letter of consent (Appendix D) was uploaded to Google Drive for interested participants by the independent recruiter. The sample size depended on the number of students who opted to participate by a) providing consent that their

reflective tasks could be included in the data set and b) by participating in an individual interview conducted by the researcher after each DBR cycle. The information provided in the recruitment leaflet and informed consent letter, explicated the value of the research for prospective teachers, together with the need for social learning (Croft et al., 2010; Garrison, 2003), whereby five students gave consent for participation in cycle one (2021) and eight students in cycle two (2022).

All BEd students were expected to have access to the Internet and to devices such as a smartphone or a computer (HEI Prospectus, BEd, 2020), which played a significant role in the meaningful individual and collaborative reflection tasks. Participants received data bundles to ensure access to WhatsApp for reflective tasks as well as for participation in the individual virtual interviews after each cycle to secure the data collection process.

1.9.2 Data collection

Multiple techniques were implemented in the collection of data in *the prototyping phase* in cycles one and two to strengthen trustworthiness through triangulation (Lincoln & Guba, 1985). Data were collected in both the *preliminary phase* and the *prototyping phase*. The data collected in the *preliminary phase* informed the initial design of the reflective strategies while data collected in the *prototyping phase* explored how the strategies supported CR and how to adapt the design to strengthen CR as outcome. In the *prototyping phase* data were collected through two cycles implemented as explicated above (Figure 1.2). The analysis of the problem and the planning of solutions (DBR phases 1 & 2) were documented in a researcher journal, to strengthen dependability by “ensuring that the process is logical, traceable, and documented” (Lincoln & Guba, 1985, cited by Patton, 2015, p. 685).

Data collected from participants during the first cycle of the *prototyping phase* included individual and collaborative CR using blogs and collaborative WhatsApp groups. Unstructured focus group discussions on the LMS were also included to allow students to engage in collaborative discussions. Individual reflective journals as well as collaborative WhatsApp groups were implemented in the second cycle. These communication platforms were specifically chosen for their reported convenience and effectiveness in supporting reflective learning and rational dialogue. These platforms thus served as vehicles for reflections on possible disorientating dilemmas concerning music education as experienced in the music education module. In 2021 (cycle one) reflective questions (Appendix A) that guided blogging were uploaded to the LMS by the module lecturer to be accessed by students enrolled for the music module. Blogging was implemented as both individual and collaborative critical reflective strategy. After posting individual blogs based on the guiding questions, students were expected to engage in rational dialogue by commenting on each other’s blog postings. Reflective questions guiding the

collaborative reflection in cycle one, were sent via WhatsApp to participants who had provided their consent to explore this platform as an additional vehicle for collaborative critical reflection.

Individual reflective responses in cycle one were submitted to the LMS for assessment. The researcher had access to the LMS to collect the contributions of participating students. The researcher collected the collaborative reflective tasks from WhatsApp as a silent observer and did not participate or engage with students (Kawulich, 2005).

The findings from the first cycle showed poor motivation from participants (second-year BEd FP students in the HEI) for collaborative reflection. The design team, that constituted the researcher and the lecturer of the music education module, decided to use individual reflective journals to scaffold critical reflection, and discourse in WhatsApp groups for the collaborative reflective tasks in the second cycle. Guiding prompts (Appendix A) were uploaded onto the LMS by the module lecturer that specifically aimed to foster CR on disorienting dilemmas to foster transformative learning. Individual as well as collaborative journals in cycle two were submitted in portfolios onto the LMS for assessment and the researcher had access to the LMS to collect reflective learning of participating students.

Semi-structured individual interviews (Addendum B) of approximately 45 - 60 minutes were conducted and recorded using Google Meet after each of the two DBR cycles. Interviews were arranged according to set dates and times that best suited participants and were recorded with prior consent from participants. During the interviews, extensive information was collected from the participants on their experiences and views of how the individual and collaborative reflective tasks supported the dimensions of accomplished teacher development with the focus on music education practice.

1.9.3 Data analysis

Data analysis in cycles one and two followed a qualitative hybrid approach (Fereday & Muir-Cochrane, 2006). Deductive a-priori coding was applied by using the TL cycle (Johnson & Olanoff, 2020) and the five dimensions from the framework for accomplished teacher development (Shulman & Shulman, 2004) to construct a codebook (Fereday & Muir-Cochrane, 2006). The five dimensions of accomplished teacher development (Shulman & Shulman, 2004) in the context of music teaching as well as the principles of transformative learning through CR (Mezirow, 1990, 1995, 2003) were applied as lenses for the analysis of data to determine if and how the individual and collaborative critical reflective tasks equipped students to transform music education practice. An inductive coding approach followed as codes emerged from the raw data, whereafter codes

were labelled, followed by the construction of themes and patterns (Braun & Clarke, 2012; Fereday & Muir-Cochrane, 2006).

All data collected during 2021 in cycle one were transcribed electronically to enable thematic analysis through ATLAS.ti 23 (Friese, 2019) (CAQDAS), that served as a tool for coding and analysing of transcripts after each cycle to enable interpretations and new planning by the design team to refine and test the revised strategies. After the completion of cycle two, data were analysed and interpreted to answer the research questions and to render design principles for individual and collaborative CR in the context of the music education module of the teacher education programme.

1.10 Role of the researcher

While the strength of DBR lies in the collaborative approach where the researcher and the practitioner combine forces to connect theory and practice, this collaboration is also the focus of critique on DBR design for doctoral studies. It is therefore important to elaborate on the researcher's roles in this study. Christensen and West (2017) unpacks the multiple roles of a researcher in a DBR namely that of researcher, designer, theorist and project manager. In this study the researcher's *role as researcher* included the managing of the DBR process constituting the review of the literature to identify design features, the collecting, documenting, analysis and interpretation of the data with focus on the research questions. In the *role as designer* the researcher worked closely with the lecturer as design team while at the same time striving to reconcile the conflict between the researcher's and designer's roles. Collaboration with the lecturer as practitioner ensured that the design features are contextualised and match the specific learning aims and learning environment. Concerning the *role as theorist,* it should be noted that the iterative nature of the DBR process does allow for the testing of theory (Christensen & West, 2017; Hoadley, 2004), but rather contribute to theory relevant to a specific education context. The researcher collaborated with the lecturer who has the experience and knowledge of the music module. Anderson and Shattuck (2012) explain the partnership between the researcher and teacher [lecturer] from the onset of the research. The lecturer brought her experience and knowledge of the module design, the outcomes of previous participation by students in reflective activities and challenges in the implementation of reflective tasks to the 'drawing board', while the researcher conducted a thorough review of the literature to determine possible design features to apply to the design of reflective activities. Combining knowledge of the practical problem and theory enabled the design team to reflectively design and implement interventions in a way that accommodates contextual factors and module challenges (Anderson & Shattuck, 2012).

As *project manager* the researcher had the responsibility to coordinate all processes which includes the collaboration with the practitioner. While the strength of the DBR is situated in its collaborative nature, whereby knowledge and experience of practice are collaboratively connected to theory, the success is highly dependent on the way the collaboration between the researcher and the practitioner is coordinated (Christensen & West, 2017). The researcher plays a core role in managing and "maintaining a productive collaborative partnership with participants in the research context" (Design-Based Research Collective, 2003, p. 7).

Although the collection of rich data in qualitative research is an advantage due to the close contact between researchers and participants, the dual role as researcher and co-designer, illuminates the role of researcher objectivity (Anderson & Shattuck, 2012; Van den Akker, 1999; Wang & Hannafin, 2005). Patton (1999) refers to the personal interest of the researcher and the way he/she observes, reads, and analyses data as well as the researcher's background, skills, training, and experience that determine the credibility of the findings. In this study, the researcher's personal interest to effectuate change in the way students critically reflect on music education practice and the module content, served as motivation to objectively analyse the data to render practicable and productive solutions.

Creswell and Creswell (2018) refer to researcher characteristics such as, reflexivity, cognisance of past experiences, and researcher values and background to mitigate bias in qualitative studies. Although the researcher was present in the participant collaborative WhatsApp groups in cycle one of the *prototyping phase*, the researcher was a silent observer to ensure authentic data was not influenced by the researcher. The recruitment of participants also acknowledged protocol to prevent coercion of students to participate. Collaborating with the lecturer who has a personal interest in the module design and learning outcomes, further motivated researcher objectivity in the collecting and analysis of the data.

Students who refrained from collaborative reflection, was experienced as a challenge, due to rudeness from other students and a fear of exposure. The challenge was addressed by the researcher by allocating a mark as extrinsic motivation to increase the submission of reflective tasks.

1.11 Trustworthiness

The trustworthiness criteria suggested by Lincoln and Guba (1985, pp. 301-327) used in a qualitative research approach, include: *credibility, transferability, dependability and conformability*. Morrow's framework (2005) was applied to guide adherence to these criteria. The criteria is discussed in more detail in Chapter 4.

1.12 Ethical considerations

Ethical clearance was requested annually from the Faculty of Education's Research Ethics Committee (Appendix E) and permission to conduct the research was obtained in writing from the Research Data Gatekeeper Committee of the HEI (Appendix F). Informed consent by the participants explained how safe and comfortable participation would be ensured in the research. Consent letters (Appendix D) for participants were uploaded to Google Drive that explained voluntary participation and that students could withdraw from the research at any stage of the research with no consequences.

The researcher approached participants with respect and all participants were informed to respect their reflective group members in collaborative learning tasks. The researcher recognised that students were from diverse backgrounds and socio-economic environments, and no participant was excluded due to prejudice from the researcher. Findings are reported anonymously to protect participants' identities and the results of the research are available to the participants through a hyperlink to the report. Although this research was considered to be low risk, the researcher ensured that any discomfort to the participants was minimised.

1.13 Conclusion

The chapter provided an orientation to the research by outlining the research problem and the rationale for the research as well as the theoretical-conceptual framework within which the study was conducted. The framework incorporates a TL cycle by Johnson and Olanoff (2020) adapted from the TLT by Mezirow (1990, 1991, 1995, 2003) and Shulman and Shulman's framework (2004) of accomplished teacher development. The research methodology incorporate a DBR approach consisting of three phases presented together with the collection and analysis methods and procedures. Characteristic of a DBR, a literature review is regarded as part of the *preliminary* and *prototyping phases*. Information gained from a literature review informed the design of individual and collaborative reflective tasks implemented and refined in the *prototyping phase*. Chapter 2 reports on the utilisation of music education in the holistic development of FP learners.

CHAPTER 2 MUSIC EDUCATION IN THE FOUNDATION PHASE

> Music education catapults a child's learning to new heights, and because of this, it should always be considered a pivotal part of a child's educational process.
> (Amanda Martin, 2020)

2.1 Introduction

This literature review draws from scholarly research in the fields of music education in early childhood education, prominent music education pedagogies and the holistic development of young children.

The literature discussed in this chapter is grounded in a concern for the way current neglect of music education in the FP is preventing learners from benefitting optimally from the role music education can play in their optimal development and provides the rationale for the transformation of music education grounded in the literature.

First of all, as backdrop to the rationale, the significance of music in education is argued from a global perspective, followed by prominent pedagogies to teach music education as well as recent developments in music education. Literature confirming the role of music in the holistic development of FP learners is then unpacked, followed by factors reported to inhibit the implementation of music education in a global as well as a national context.

The chapter concludes with an argument for the transformation of music education in FP classrooms of South African schools, with a focus on the role of HEIs to empower students as change agents through their music education practices.

2.2 Music in education: A global perspective

Aristotle, the Greek philosopher, described music as an integral part of human nature, which in turn prompted high regard for including various art forms such as music, dance, play and poetry in childhood education in ancient Greece (Maas, 2019). The pragmatic nature of Greek education that grounded music in practice (Mark & Gary, 2013), is echoed by Regelski (2017) who describes music as a social activity for the benefit of the society. The notion of music as social practice is still reflected in modern times where the role of music in churches, societies, and schools is viewed as a practical, social and cultural activity (Barton, 2018; Small, 1999).

While music is generally viewed as embedded in societies' cultural education and passed on to the next generations (Ogunrinade, 2015), countries have different perspectives regarding music

education in schools (Kallio, et al, 2021; Kertz-Welzel, 2021). Consequently, some countries acknowledge the importance of music in schools, while in others music is relegated to the education backseat. Although an in-depth exploration of the literature on the current state of music education programmes globally, does not fall within the scope of this chapter, a brief overview of current related literature on music education in a few prominent countries is provided as an illustration of the global concern about the depreciation of music education and initiatives to turn around the decline in music education.

Although Suomi et al. (2022) express concern about less focus on music in primary school teacher education programmes in Finland during the last decades, Nordic countries in general have well established school music programmes (Aróstegui, 2016; Kriger, 2020; Nysæther et al., 2021). In the context of the Netherlands, there is a renewed awareness of the value of music in education. Jaschke et al. (2018) report on improved academic achievement and executive functions because of a large-scale and long-term music education intervention in primary schools, developed in collaboration with the Ministry of Research and Education. In contrast, music education seems to be neglected in the United States of America (USA) and the United Kingdom (UK), due to a lack of funding, resources, and teacher training (Bath, et al. 2020; Pacini, 2019; Sarrazin, 2016; Savage, 2021).

As is the current case in many countries, the music teaching responsibility in primary grades in Australia shifted from the specialist music teacher to the generalist teacher who teaches all subjects, while only some private schools still have the luxury of a specialist music teacher (De Vries, 2015). Among other reasons to which educationalists attribute the decline in the quality of music education in Australian schools over the past few decades, is the generalist teacher approach in primary schools as well as these generalist teachers' lack of knowledge of music education (De Vries, 2015; Russel-Bowie, 2013; Welch, 2020).

In Japan too, a country lauded for its education excellence, voices are raised about the lesser focus on music in schools (Arostegui, 2016; Kitayama, 2021). Although not much has been published recently on music education in Japanese schools, Kitayama (2021) is of the opinion that historically "cultivating morals" (p. 36), as an objective of music education offered in schools in the past, contributed to the economic development of Japan. However, education reform initiated in 1985, focused education on "internationalisation and individualisation" to the detriment of the "cultivation of aesthetics through an appreciation of the beauty of music." (Kitayama, 2021, p. 36).

Similarly, in the South African context, scholars reported the scarcity of music teaching in FP classrooms (R. de Villiers, 2017; Jansen van Vuuren & Van Niekerk, 2015; Van Vreden, 2014) is

due to a lack of teacher knowledge (R. de Villiers, 2017; Herbst et al., 2005) and a lack of resources (Jansen van Vuuren & Van Niekerk, 2015) to name but a few. The decline of music teaching could further be ascribed to the view that music is non-essential and languages and Mathematics are more important due to regular written assessments (informally and formally) (CAPS, DBE, 2011). This is confirmed by Kriger (2020) who found that an absence of music assessment could be a reason for the decline in music education. Kriger's (2020) doctoral thesis investigated teachers' music understanding in Grade 1. The CAPS requires continuous assessment and formal assessment of the Creative Arts (music included) by using "discussion, role-play and demonstration" once a term (p. 66), in contrast with the requirements for languages and Mathematics.

Historical events also had an impact on music and music education on the African continent. In Africa, for the survival of Indigenous African music, traditional music is carried from one generation to the next through narratives and performances (Mapaya, 2018). However, the colonisation of African countries had a negative impact on indigenous cultures and traditions, including traditional music (Auriacombe & Cloete, 2019; Carver, 2017; McConnachie, 2021). Auriacombe and Cloete (2019) describe the colonialisation of African countries by the stronger European countries as a takeover whereby unique African identities were oppressed, neglected, and replaced by colonial politics, economies, social traditions, cultures, and languages. However, music is incorporated as part of everyday social events in indigenous African societies (Otchere, 2019; Owino & Akuno, 2019). Music from European colonists is often still regarded as the standard for music teaching in Africa, resulting in the neglect of African music education (Kidula, 2019; McConnachie, 2021). This concern is also expressed in the context of education in South Africa (Kriger, 2020, McConnachie, 2021; Muthivhi & Kriger, 2019; Van Rensburg, 2020).

On the positive side, there is a new awareness of the need to nurture indigenous art forms that resulted in interventions and support to revive African music in teaching and learning – not only at school level but also at the level of HEIs in Africa (Kidula, 2013). Adjepong (2020) reports on a study conducted in Ghana with a focus on the role of music integration in the holistic development of learners by focusing on cultural preservation and identity. Similarly, in South Africa, voices are raised to preserve and revive the rich indigenous music culture that existed before the colonialists arrived (R. de Villiers, 2021; Joseph, 2012; Nompula, 2011). A new awareness exists in South Africa of multicultural responsiveness, (§2.2).

Consequently, indigenous music is included in the South African school curriculum across phases including the FP LS curriculum through listening, singing and interpreting indigenous music and songs (CAPS, DBE, 2011).

An overview of prominent music education pedagogies and more recent music education approaches provides a context for the transformation of music education from a theoretical perspective.

2.3 Prominent music education pedagogies

Several prominent early and current day pedagogues developed music education pedagogies to introduce the young child to music learning. While FP students are not prepared as specialist music teachers but rather equipped as generalist teachers, this section provides a brief summary of prominent music education pedagogies that are typically included in teacher preparation programmes to enrich students' music knowledge base. Although knowledge of these pedagogies will influence their music teaching practices, students should be guided to critically reflect on their specific teaching context and adapt pedagogies by adhering to a CRTP to meet unique learner needs once they enter practice (Barton, 2018; Russel-Bowie, 2013). Although music pedagogies are not the focus of this study, knowledge about pedagogies that are prominent in music education shape our practice and could enable the transformation of music education practice.

Prominent music education pedagogies include the Kodály method, Dalcroze eurhythmics and Orff Shulwerk, to name but a few and are summarised in Table 2.1. These approaches focus on important musical aspects and skills such as listening, singing, creating, rhythm, movement and instrumental playing in groups, still relevant in current day music education for the young learner.

Table 2.1: Seminal music education pedagogies

Music education approaches	Principles
Kodaly method Developed by Zoltán Kodály (1882-1967) Country of origin: Hungary	Group music teaching by engaging in the mother tongue while singing, listening, and creating, by using folk music.
Dalcroze eurhythmics Developed by Emile Dalcroze (1865-1950) Country of origin: Switzerland	Group music teaching by engaging in solfege, improvisation and eurhythmics. Emphasis on experiencing and responding to music through movement in space.
Orff Schulwerk Developed by Carl Orff (1895-1982) Country or origin: Germany	Group music teaching from a young age by engaging in rhythm, movement, improvisation, composition and instrumental playing. Barred instruments and non-pitched percussion instruments are used.

Music education approaches	Principles
	Focus on integrating music, dance (movement) and drama (speech) through playful, discovery-based learning.

(Compiled from sources: Dilek, 2012; Habron, 2016; Ibbotson et al., 2021; Mete & Dündar, 2020; Sarrazin, 2016)

These music pedagogies involve music exposure during the early childhood years in a playful manner with the focus on sound before symbol as well as incorporating young children's natural inclination of speaking, listening, singing and movement in a playful manner. Therefore, the inclusion of these pedagogies and their underlying theories in generalist teacher education programmes could contribute to students' music knowledge and skills that can inform their music education practices. These approaches further provide important strategies for facilitating authentic and meaningful musical learning in young learners. Similarly, knowledge of recent developments in music education approaches are crucial to equip generalist teachers with the knowledge and skills to make informed decisions on how to integrate music in meaningful ways in their education practices.

2.4 Recent developments in music education approaches

With the 21st century focus on learner autonomy, current music education approaches should strive to endorse learner-centered approaches to education by reflecting an appreciation for learners' active involvement in the learning process (Beirnes, 2022; O'Neill,2014). O'Neill (2014) views informal music as transformative when learners engage, collaborate and enter into dialogue in classrooms. Although the learners in the study by Beirnes (2022) were elementary instrumentalists, the use of popular music and the freedom to choose their instruments resulted in motivated and interested learners. Therefore, approaches speaking to current-day education challenges that could contribute towards transformed learner-centered music education practices, were identified from the literature. These approaches are classified as informal music education, integrative music education, and culturally responsive music education.

2.4.1 Informal music education

Although informal and formal learning have always been part of education (Jenkins, 2011) in recent years, researchers have specifically explored informal music education as a method to motivate learner participation in music learning activities (L. Green, 2006; Jenkins, 2011; Papazachariou-Christoforou, 2023). Muthivi and Kriger (2019) emphasise that "music instruction

in school may serve the critical role of connecting formal learning, on the one hand, to children's spontaneous musical performance and knowledge repertoires, on the other hand" (p. 6). Lucy Green (2002, 2006, 2008) did groundwork in the field of informal music education, and, although her research mainly focused on older school learners, she emphasises that especially young learners benefit from an informal approach to music education. In a study conducted in 2006, Lucy Green collected data from 13- to 14-year-old learners after implementing five characteristics of an informal approach to music education, namely:

> *1) allowing learners to choose the music; (2) learning by listening and copying recordings; (3) learning in friendship groups with minimum adult guidance; (4) learning in personal, often haphazard ways; (5) integrating listening, playing, singing, improvising and composing.* (p. 109)

Lucy Green (2006) reports that through informal music education learners experience the relevance of music that instils a passion and appreciation for music. This approach was found to broaden learners' knowledge and improve their understanding through increased commitment, while satisfaction and enjoyment were also observed. The author associates the informal approach with the use of popular music and suggests that informal learning can promote learners' appreciation of all kinds of music, including classical music.

Although Jenkins (2011) advocates for both formal and informal learning in the context of music, the author posits that, when applied meaningfully, informal music practices support learners in developing an identity of the self within the context of the broader world. While formal education is needed to guide learners in mastering specific knowledge and skills, informal education equips learners to make decisions in the real world.

After implementing a case study in a primary school in Cyprus, Papazachariou-Christoforou (2023) affirms Lucy Green's (2006, 2008) findings, stating that informal music education benefits young learners' musical skills. The principles of an informal approach to music education motivated learners to "experiment, interpret, and discover the possibilities of musical practice in their own way" (p. 339) while moving and singing and having fun. The young learners in Lucy Green's study (2006) were able to build music knowledge through active engagement and could connect music to their own culture which allowed them to identify with the music, reflecting a social-constructivist approach to music education. Lucy Green (2006, 2008) believes that such an approach could serve to motivate learners to get involved in music activities and to value music. Knowledge of these approaches and the importance thereof for learning in the FP, paired with a motivation to apply principles associated with prominent and current music education approaches could furthermore enable students to facilitate authentic and meaningful music learning experiences in the FP, ultimately leading to transformed music education practice.

Green and Narita (2015) believe that informal music learning can counter the “banking model” (n. p.) that was a concern of Freire (1970). To Freire (1970) the banking model, which he described as an “instrument of oppression” (p. 71), follows a teacher-centered approach of direct teaching where learners are regarded as passive receivers of information. Hence, in a transformative approach to a learner-centered music education, informal learning encourages learners to be actively involved in the music making process (Papazachariou-Christoforou, 2023). The accurate following of instructions is thus not the focus of this approach but rather the active involvement of learners in the music activity. Aural music learning instead of note reading that offers fair and equal treatment of all learners in support of social justice, is at the core of an informal approach to music education (Green & Narita, 2015; Hess, 2020). Principles of informal music education are also observed in integrative music education and culturally responsive music education.

2.4.2 Integrative music education

The model for an integrative approach to music integration, as suggested by Bresler (1995), is still regarded as seminal today. Bresler identified four styles of integration namely “subservient integration, co-equal integration, affective integration and social integration” (p. 5).

Subservient integration occurs when learners sing songs that align with topics in other subjects. This is also mentioned by Barret et al. (2012), who view singing as an inborn skill of the young child to be integrated into other domains for content clarification. Therefore, this type of integration uses music to support other subjects.

Although *co-equal integration* is promoted in the literature, it is difficult to implement and requires specialised knowledge and skills from teachers. Co-equal integration prioritises higher-order thinking and reaching outcomes in multiple subjects simultaneously. Findings from Bresler’s study (1995) revealed how the teacher incorporated composers from different music periods and how learners discussed what people did in the different periods. The teachers, therefore, integrated music with another subject with both subjects having equal importance.

Affective integration as defined by Bresler (1995) is associated with two categories. Firstly, a freedom to act in learners’ own space, often used in lower elementary grades, and secondly, listening to music for relaxation to change learners’ mood.

The last style of integration is called *social integration* and refers to the use of play, dance and song in school concerts and festivals for the community to appreciate (Bresler, 1995).

Jansen van Vuuren (2022), on the other hand, proposes the *synergy model* of integration, to enhance the quality of teaching in music education. Within the synergy model, LS, Mathematics

and languages are used in an integrated way by honouring the significance of each subject. Researchers such as Zhao (2017), Harney (2020) and Van Vreden (2016) propose alternative strategies for music integration that have value for this study and could contribute toward transformed music education practices.

Zhao (2017) suggests that the transformation of music teacher education programmes in China entails preparing students to integrate literature and visual arts into music modules with large student groups, leading to increased understanding and critical thinking. Harney (2020) conducted an empirical study in the USA regarding teacher educators' perspectives about music integration in teacher education programmes. The author found music integration played a secondary role in elementary classrooms due to a lack of school support and a lack of teacher knowledge and experience, agreeing with what is experienced in the South African school context.

In an attempt to strengthen an integrated approach to music education in Grade R, Van Vreden (2016) generated a conceptual framework grounded in scholarly literature and empirical data, that suggests six aspects to direct the integration of music namely teaching and learning *about* music, *from* music, *on* music, *with* music, *in* music and *through* music (p. 5-8). *About* music refers to theoretical music knowledge and *from* music when music stimulates a different activity, that is not the initial activity, during free play. *On* music refers to practical activities such as, singing and movement that are linked to musical concepts, while *with* music is for example music accompaniment during concerts. *In* music means to experience the elements of music and *through* music is to use music for a non-musical purpose such as the expression of emotion. Van Vreden (2016) posits that "constant interaction between various activities emphasises the blending of simultaneous methods of integration, while the development of Grade R learners is promoted" (p. 5).

Sarrazin (2016) refers to the use of arts integration as a learning method to be applied in classrooms by stating "arts integration, when done correctly, transforms both the art and the non-art subject area into a whole greater than the sum of its parts" (p. 250). In a similar vein, Cloete (2015) advocates for the meaningful integration of music with other subjects in the FP and argues that the Orff approach (§2.3) to music education supports the holistic development of the child, with the focus on cognitive, physical, social and musical development.

The rationale for including music in the South African FP curriculum (§1.2) envisioned the integration of music in other subjects to support the holistic development of learners, including the "social, personal, intellectual, emotional and physical growth of learners" (CAPS, 2011, p. 8). The South African FP curriculum (CAPS, 2011) suggests the integration of FP subjects across

the curriculum to support and strengthen the teaching of core subjects, namely, languages (Home and First Additional) and Mathematics. Since there often is a perception that there is insufficient time to accommodate music teaching and learning in FP classes (Kriger, 2020; Lerumo, 2018), Jansen van Vuuren's (2022) suggestion of a synergy model serves as a motivation for the integration of music education in the FP, while meeting outcomes in multiple subjects at once. This also aligns with Van Vreden's (2016) definition of learning through music. Despite strong evidence of the value of an integrated approach, various studies report on FP teachers' inability to apply an integrated approach to accommodate LS education (Beni et al., 2017; Dixon et al., 2018; Kriger, 2020; Stroebel et al., 2017). Meaningful learning opportunities facilitated by generalist teachers, who are responsible for the teaching of all subjects in the FP, may therefore be lost.

However, scholars concur on the various academic advantages of the integration of music into languages, Mathematics and LS (Jansen van Vuuren, 2022; Kriger, 2020; Oellermann, 2020). Jansen van Vuuren (2022) proposes that music integration in the FP should be promoted as a time saver, to stimulate creativity and social skills, and to support core subjects in the crowded curriculum. In addition, Oellermann (2020) found that music integration links school experiences to the real-life world of the learner, which supports the aim of LS teaching set out in the CAPS, namely, to prepare learners for the world they are living in (DBE, 2011). Findings by Kriger (2020) suggest music integration by generalist teachers enhances language and mathematics learning, while also supporting learner creativity. Kriger's (2020) study, however, also revealed that music integration is not common practice in FP classrooms, but rather emerges unintentionally. There is ample evidence of the role that music integration can play in language development (Bokiev et al., 2018; Bokiev & Ismail, 2021; Džanić & Pejić, 2016; Knight et al., 2016; McCormack & Klopper, 2016), as well as in the mastering of Mathematics (An et al. 2013; Halam, 2010). Hallam (2010) and An et al. (2013) propose music integration to enhance mathematical spatial awareness with positive outcomes in Grade 1 and Grade 3 respectively.

Van Vreden (2016) furthermore refers to the role music integration can play in accommodating culturally diverse learners in the South African context. Since music is inherently a social activity, integration of music could enable learners to identify with the learning content and thereby contribute to cultural and social cohesion (Barton & Riddle, 2022). Therefore, accommodating diverse cultural representation in the choice of music and music activities through the integration of music, is crucial in multicultural classrooms.

2.4.3 Culturally responsive music education

Culturally responsive teaching emanated from multicultural teaching (Gay, 2015; Walter, 2018) and emerged as a dominant pedagogy at the start of the 21st century (Walter, 2018). Gay (2015), states that a culturally responsive teaching practice (CRTP) calls for serious consideration regarding "what to teach, why to teach, how to teach, and to whom to teach with respect to ethnic, racial, cultural, and social diversity" (p. 125), while encompassing the content, reason, and pedagogy of learning in diverse contexts. A CRTP implies respect and equal accommodation of learners from different backgrounds in the same classroom (UNICEF, 2009).

Since music is grounded in culture, CRTP is of particular importance in music education. Bond (2017) suggests music educators should acknowledge multicultural societies and transform practices to meet the needs of diverse learners in schools. Recent literature emphasises that it is crucial to embrace culturally responsive music education in a world where cultural diversity in classrooms is becoming the norm (Bond & Russel, 2019; Westerlund et al., 2022). Good-Perkins (2021) argues that the sole use of Western Art music with its foundation in colonialism, is not appropriate to represent multicultural education in 21st century classes. This author illuminates that the Western Art approach to singing, with the focus on the cognitive, without body movement, is in dire contrast with non-Western approaches (Good-Perkins, 2021). Barton and Riddle, (2022) also advocate for a shift from Western Art music methods which focus on written music notation ignoring other modes of teaching and learning such as auditory, gestural, spatial and visual modes. This argument supports the importance of prominent music education pedagogies (§2.3). To avoid excluding diverse learners and neglecting their social and cultural needs, music learning should prioritise auditory learning which should be at the core of music learning (Barton & Riddle, 2022). Therefore, Barton and Riddle, (2022) declare learning should be: "related to own personal frames of reference" (p. 2), by acknowledging specific contexts and cultures. Educationalists in South Africa are also advocating for a move away from Western Art and Eurocentric approaches of music education as it is a legacy of the era of colonialism (Mapaya, 2018; Nompula, 2011; Odendaal, 2020; Oehrle, 2021).

The Declaration of the Constitution of South Africa (1996) addresses societal imbalances and hegemony while promoting the country as a democratic state by endorsing "human dignity, the achievement of equality and the advancement of human rights and freedoms" (p. 3). These values imply the recognition of the cultural heritage of different racial groups represented by the South African society. Although multi-cultural music teaching is embedded in the CAPS (DBE, 2011), South Africa is still a racially divided country due to the long history of Apartheid and colonialism

(Odendaal, 2020), therefore, the author proposes a practice of cultural humility in music education to accommodate diversity in South African classrooms

Since cultural hegemony of Western Art music has always been evident in the South African educational system, curriculum transformations, specifically aimed to accommodate a diversity of cultural traditions, are needed (R. de Villiers, 2021). However, transforming the curriculum to recognize all cultural groups represented in South Africa in music education, remains a challenge.

Equipping students with knowledge of the above-mentioned learner-centered approaches to music education will contribute to teachers' pedagogical content knowledge. Knowledge of the way music supports the holistic development of learners can further serve as motivation for FP teachers to integrate music as an indispensable component of their teaching practice.

2.5 Benefits of music for the holistic development of learners

The literature concurs that music has an important role to play in all developmental domains of young learners. Although Allen and Kelly (2015) report on various categories for the different developmental domains in the literature, arguing these different classifications is not within the scope of this research study. However, there is strong support in the literature that music could and should play a significant part in supporting the holistic development of young learners (Adjepong, 2020; Lee & Liu, 2021; Swarts, 2020; Van Vreden, 2016; Varner, 2019). The developmental domains are interdependent (Allen & Kelly, 2015; Donald et al. 2014) and, while each plays a crucial part in learning and development, they cannot easily be separated. Stodden et al. (2023) concur with the interrelatedness of domains and propose a framework for holistic childhood development comprising physical, cognitive, social, emotional and psychological domains, explored in this section.

Donald et al. (2014) hold that a "teacher will only be effective to the extent that they facilitate all aspects of development and their interconnectedness" (p. 98). In a learning environment that supports the holistic development of learners, the teacher purposely plans and implements learning opportunities to support all developmental domains. An integrated approach to education is reported to strengthen holistic development (Darling-Hammond & Cook-Harvey 2018; Krogh & Morehouse, 2014). Similarly, Krogh and Morehouse (2014) explain that young learners naturally master different knowledge domains simultaneously and that the integration of different subjects contribute to the holistic development of the young learner.

Adjepong (2020) is of the opinion that music is as important as the core subjects, science, English and Mathematics in primary schools and should, therefore, be used to promote the holistic

development of learners. He argues that teachers should promote learning through music over and above engaging in music as a specialised subject, thereby, resonating with this current research study that explores strategies to equip generalist FP teachers to transform music education practice.

2.5.1 The role of music in physical development.

The CAPS (DBE, 2011) regards the inclusion of music through music making, movement and play as important to increase motor skills. This is supported by Krogh and Morehouse (2014) who propose the use of music for fine and gross motor development to enable the functioning of the body as a unit for increased functioning and learning in the real world. Hallam (2016) agrees that playing musical instruments improves fine motor skills in young learners.

Konukman et al. (2012) report on a qualitative study which focuses on the role of music in physical education. After teachers were asked to present physical education lessons with and without music, feedback from the teachers highlighted the positive effect that music had on learners. Findings revealed that music contributed to learners' excitement and motivated learner engagement in the activities. On the contrary, in the classes where no music was used, learners lost interest and concentration waned resulting in "more off-task behaviour" (p. 11). The study further revealed that the use of music in physical education "as a classroom management tool that might maximize student learning and participation and minimize student misbehaviour" (p. 11) which can further contribute to the positive outcomes of physical activities.

Music not only helps learners to become more confident (DiDomenico, 2017; Hallam, 2016; Sarrazin, 2016), and to actively participate in learning, but the use of music in classrooms is also reported to enrich the lives of learners by complementing cognitive development when integrated with the learning of core subjects (Sarrazin, 2016).

2.5.2 The role of music in cognitive development

Cognitive development is described by Sodian (2009) as changes in language and perception as well as abilities and mental processes at a higher level of functioning such as planning, classifying, conceptualisation, reasoning and problem solving. The literature concurs that music contributes to cognitive development (Bihartz et al., 1999; Costa-Giomi, 2015; Jaschke et al., 2018; Sala & Gorbet, 2020; Schlaug et al., 2005; Tervaniemi et al., 2018). A study by Lee and Liu (2021) found enhanced cognitive abilities of children with developmental setbacks after engagement in a holistic music approach. The relationship between music, movement, and cognitive processes, in particular, is regarded as an important reason for including music to support learning. DiDomenico

(2017) explains that the body releases dopamine and norepinephrine during physical activities that enhance long-term memory. Physical activities or movement are also known to engage young learners in learning activities that are dependent on active processing of information in the brain (Palaiologou, 2021). Using music to motivate movement in support of cognitive processes effects learning with specific implications for the learning of language and Mathematics.

The relationship between music ability and language competence is confirmed by several studies (Engh, 2013; Hallam, 2016; Pino, et al., 2023; Tierney & Kraus, 2013). Hallam (2010, 2016), Hugo and Horn (2013) and Collins (2014) advocate for music exposure in early childhood to foster listening skills for language learning. Hallam (2016) proposes that music engagement enhances aural skills to identify sounds and patterns in language, while Muthivhi and Kriger (2019) document the role of music in reading development. Although Gordon et al. (2015) perceived that "findings of the current meta-analyses are somewhat inconclusive with regards to the hypothesised impact of music education on reading-related skills" (p. 11), Hallam (2016) ascribes the inconsistencies in findings relating to the value of music in language learning to the research design and diverse settings in which these studies have been conducted. Nonetheless, considering the role of language in the learning of all subjects, the literature strongly supports the role of music in supporting the development of listening, reading, and writing skills (Arasomwan, 2020). These skills are core to all learning, including Mathematics.

Multiple studies confirm the role of music in Mathematics (Arasomwan, 2020; Chao-Fernández et al. 2003; Hallam, 2016; Holmes & Hallam, 2017; Lovemore et al., 2021; Rajić, 2021). Tervaniemi et al. (2018) suggest the use of music to develop problem solving and analytical thinking skills. These are not only applicable to mathematics learning but are also core to 21st century learning. Although Hallam (2016) acknowledges mixed views in the literature on the role of music in mathematic achievement, a study she conducted with Holmes (Holmes & Hallam, 2017), confirmed a relationship between music and spatial reasoning skills required for Mathematics. There is also evidence of the value of music to support mathematics learning by learners with special educational needs (Ribeiro & Santos, 2019; Rodriguez et al., 2019). Ribeiro and Santos (2019) specifically refer to the role of music in supporting learners with developmental dyscalculia, which refers to mathematical deficits associated with anomalies in brain functioning. Rodriquez et al. (2019) report on a music programme intervention to support school children with low achievement in Mathematics, that showed significant improvements in "numerical cognition and working memory, as well as the reduction of mathematical anxiety symptoms" (p. 405). Music and rhythm-based intervention has also been found to benefit children having predominantly dyscalculia (Esteki, 2013; Ribeiro & Santos, 2019). If learners are to develop holistically, and when they have the opportunity to participate in music-related activities that promote movement

and cognitive development, they must also participate in music as a social practice which could in turn support psychosocial development.

2.5.3 The role of music in psychosocial development

Various scholars and religious leaders of the past, like Aristotle, Plato, Pestalozzi, Luther and Calvin, acknowledged music education as a social need (Varadi, 2022). Music also influences the social development of learners in the school context by broadening their frames of reference through introducing diverse societies, people, and cultural traditions (Hogenes et al., 2014; Tervaniemi et al., 2018). Holford (2021) also notes that these social engagements in schools result in increased confidence while singing, composing, and playing musical instruments with an elevated feeling of well-being.

Malti and Noam (2016) are advocates for the advancement of the socio-emotional development of the child. Various scholars similarly advocate for the role of music education in the social and emotional development of learners (Adjepong, 2020; Blasco-Magraner et al., 2021; Ogunrinade, 2015; Holford, 2021; Rickard, 2020; Varadi, 2022; Vasil, 2019). Ogunrinade (2015) and Holford (2021) suggest music as an opportunity for the expression of feelings and emotions, while Pacini (2019) argues the value of music for alleviating emotional stress, and consequently support learner well-being (§2.5). Grkić Ginić (2019) mentions singing, movement and instrumental playing as means to express emotions which play a role in the development of emotional intelligence. In addition, Sun (2022) explains this positive impact of music on learners' emotional development, which, in turn, enhances inventiveness as a crucial skill for success in the 21st century as follows:

> *Through stimulating students' imagination and association, music education may enhance students' interests, emotions, and other non-intellectual variables, fulfilling the goal of nurturing students' inventive personalities. (p. 4)*

The above statement emphasises the role of music in the holistic development of the child in becoming an emotionally balanced human being who is receptive to learning. Considering the interrelatedness between social and emotional development (Pacini, 2019) and psychological well-being (Croom, 2015; Sun, 2022), it can be inferred that music will also contribute to the psychological well-being of learners.

2.5.4 The role of music in psychological well-being

Psychological well-being is related to positive psychology. Gable and Haidt, (2005) argue that the role of positive psychology is to:

> *… understand the factors that build strengths, outline the contexts of resilience, ascertain the role of positive experiences, and delineate the function of positive relationships with others. Positive psychology needs to understand how all of these factors contribute to physical health, subjective well-being, functional groups, and flourishing institutions. (p. 103)*

The apparent role of the school and the teacher in supporting learner well-being, and the relationship between psychological well-being and academic success, warrant the exploration of the role music can play to support psychological well-being. Research discussed in this section typically strives to understand the factors that contribute to the total well-being of learners. Investigating the role of music in learner well-being, Lee et al. (2017) used Seligman's (2010) PERMA well-being model comprising "positive emotion, engagement, relationships, meaning and accomplishment" (p. 236) and identified the relationship component as the most referred to, due to value placed on relationships among people. Results indicated enhanced abilities and skills in learners when relationships are at the centre of music programmes (Lee et al., 2017), confirming the importance of relationships in a social learning context and the role of music as a social construct in learner well-being.

The role of music in learner psychological well-being is strongly supported in the literature (Bokiev et al., 2018; Croom, 2015; Hallam, 2016; Oellermann, 2020; Perkins et al., 2020). Hallam (2016) and Bokiev et al. (2018) argue that the therapeutic value of music is what benefits health and well-being. However, Croom (2015) and Perkins et al. (2020) attribute a thriving life with increased psychological well-being to music participation. The value of singing is also reported in a study by Oellermann (2020) who confirms the positive effect of music education on learning outcomes when learners engage in singing and dancing in-between academic work, emphasising the interrelatedness between learner well-being and academic learning. DiDomenico (2017) highlights the motivational role of music when learners who experienced music in the classroom as fun, showed increased motivation. DiDomenico (2017) explains that "music makes children happy and happy children learn better" (p. 14). The value of music education in supporting the psychological well-being of learners could therefore result in increased motivation and positive academic achievements.

Similar to the use of Western Art music for psychological well-being, the therapeutic use of Indigenous African music is acknowledged in societies (Hugh, 1963). Swarts (2020) advocates for the benefits of music education for previously disadvantaged South African learners when music education upholds the spirit of Ubuntu. In the African culture, Ubuntu is defined "by a person's relations with other people" and "behaving well towards others or acting in ways that benefit the community" (Thompsell, 2019, para 1). Swarts observed that music programmes offered to disadvantaged learners instil a sense of discipline and confidence in these learners and

give them a sense of purpose in life. Such experiences are supportive of positive psychology and thus also learner well-being (Gable & Haidt, 2005). Based on the definitions of positive psychology (Gable & Haidt, 2005) as well as CRTP (Gay, 2015) (§2.4), learners can better relate to learning when their cultures are valued and accommodated, making learning a positive experience which will contribute towards their well-being.

Confirmation in the literature of the role music can play in the holistic development of learners emphasises the need for transforming the current music education practice by considering approaches that will support learner developmental needs. If the above-mentioned holistic developmental needs are met, learners could reach their full potential and flourish in their personal and school environments. The same power of music that impacts learners' social and emotional development is at play when music is used to motivate learner engagement in cognitive and physical activities, which all play an interrelated role in learner well-being. Considering the multifaceted role of music in the holistic development of the learner, it was deemed crucial to explore the factors that inhibit music education.

2.6 Factors inhibiting music education in South African schools

Although many researchers concur on the role music plays in formal education of young learners (Auerbach & Delport, 2018; Nysæther et al., 2021; Van Vreden, 2018; Varner, 2019), globally there is concern about the decline of music education in schools (Aróstegui, 2016; Bath et al., 2020; Kriger, 2020; Savage, 2021) (§2.2). In contrast, the framework for 21st century learning includes art as a core subject in education (P21, 2007). This suggested framework however does not seem to halt the decline of music education. It is thus necessary to explore the reasons for this decline from an international and national perspective. Various reasons for this decline are suggested in the literature with three key factors emerging, namely curriculum design and implementation (Arostegui, 2016; Bath et al., 2020; Loubser, 2012; Pacini, 2019; Savage, 2021), socio-economic factors in school environments (Hartell & Steyn, 2019) and teacher competence, with specific reference to music teaching competence (Cloete & Delport, 2015) that are discussed in the subsequent section.

2.6.1 Curriculum design and implementation

The role of curriculum design and reform initiatives that do not do justice to the nature of music education which is a global concern (Arostegui, 2016; Bath et al., 2020; Pacini, 2019; Savage, 2021). Globally teachers are confronted with various challenges in music implementation due to different views by practitioners and researchers regarding the benefits of music in education (Pitts, 2017) and the conflict between policy and practice by teachers (Savage, 2021). Savage (2021)

attributes the poor quality of music education in UK schools to the “fragmentation of music education as a result of curriculum reforms” (p. 478). After many years of criticism over the inferior quality of music education, the UK government regarded the National Plan for Music Education suggested in 2011 and the National Curriculum for Music implemented in 2013, as interventions to address the problem. Savage (2021) comments on the disconnection between music teachers and policy makers where music teachers are obliged to comply without consultation. Music teachers require their voices to be heard in policy making and have called for a democratic practice. Policy and practice are too far removed; therefore, the suggestion is that policy makers and music teachers should collaborate in future (Savage, 2021).

Nysæther et al. (2021) attribute the gap between the anticipated and enacted music curriculum in Norwegian schools to insufficient time allocated to music in the curriculum, as well as to the training of generalist teachers who are responsible for music education. The distorted focus on core subjects answers to the economy-based curriculum demands while negating the invaluable role of music “to greatly facilitate and steer productive educational directions in response to the current demands of our world” (Arostegui, 2016, p. 102). Considering the role of music in the holistic development of learners (Auerbach & Delport, 2018; Van Vreden, 2018; Varner, 2019) with specific reference to learner psychological wellness, neglecting music may have dire consequences for learners’ mental health.

Molapo and Pillay (2018) point out inconsistencies in the curriculum implementation in the South African context with “the ‘optimistic’ view of the Department of Basic Education (DBE, 2011) to improve curriculum implementation” on the one hand and “the ‘pessimistic’ scenario where educators consistently refer to obstacles to curriculum implementation” (p. 1) on the other. The authors describe poor curriculum implementation as a non-priority due to politics in the education system and barriers to implementation such as a lack of leadership and resources in schools, as well as insufficient teacher training. Although Asmal (2000, as cited by Kriger, 2020), minister of education from 1999 until 2004, announced a reduced budget allocation for music education in 2000, he emphasised the importance of music and requested the presence of music education and sufficient resources in schools. Despite his efforts and the inclusion of music in the official curriculum as a discipline of LS, music is not implemented in the FP as envisioned by the current curriculum (Lerumo, 2018).

The time allocated for music teaching in the South African curriculum is cause for concern due to the focus on core subjects at the cost of the arts, which includes music, by not allocating sufficient time for LS teaching on teaching timetables (Arasomwan & Mashiya, 2021) and depriving

students of the opportunity to apply theory practically during teaching practicum[16]. Teachers find it challenging to implement music in the limited time allocated to music teaching in the curriculum (Lerumo, 2018; Loubser, 2012; Jansen van Vuuren, 2022). Only two notional hours per week are allocated for the comprehensive discipline of Creative Arts, comprising performing arts (music, drama, dance) and visual art, leaving very little time for music education (Dixon et al., 2018; Mitas, 2014). As a strategy to ensure learner development still benefits from the value of music education within the limited timeframe, Jansen van Vuuren (2022) suggests the integration of music education in the FP through a synergy model (§2.4). Teachers will however need to be prepared and motivated to implement such approaches to transform music education practices.

A unique curriculum implementation challenge (Deacon, 2015; A. de Villiers, 2015) observed in schools, is overcrowded classrooms which is often mentioned as a factor hampering the enacting of the music curriculum envisioned by the South African FP curriculum (Hartell & Steyn, 2019; Matshipi et al., 2017; Molapo & Pillay, 2018). To counter the influence of overcrowded classrooms on education, the South African department stipulated in 1995 that the teacher-learner ratio should not exceed 40:1 in primary schools as proposed by the Minister of Basic Education, Mrs Motshekga (2012) and cited in Matshipi et al. (2017). However, the large teacher-learner ratio remains a challenge in rural schools (Hartell & Steyn, 2019; Hebron, 2015; Makaleni & Sethusha, 2014; Marais, 2016), where undue stress is placed on teachers because of the large classes. Overcrowded classrooms and related challenges further contribute to and often increases experiences of limited time for music education (Marais, 2016).

In a democratic dispensation, diverse cultural groups represented in a multicultural educational context should be accommodated and respected by school curricula. Since music is embedded in cultural traditions (A. de Villiers, 2015; Nompula, 2011), it is important to implement culturally responsive music education (Bond, 2017; McKoy & Lind, 2023). Although the South African curriculum envisions teachers who acknowledge cultural diversity in their practice (Lerumo, 2018; Loubser, 2012; Jansen van Vuuren, 2022), scholars reported that this theory does not always culminate in music education practice, due to the focus on Western Art music in music education at HEIs (Kriger 2020). As South Africa acknowledges 11 official languages representing diverse

[16] Various terminologies are used in the literature when referring to students' practical experiences in schools. The teaching practicum, as used in this research study, is "an exploration of the actual practice of teaching under the supervision of a mentor, typically involving actual teaching as well as duties related to this profession" (Barnett, 2023), "enabling students to integrate into practice the knowledge and skills they have acquired in their university coursework" (Allen et al., 2013, p. 1). Work-Integrated Learning (WIL) refers to work placements to prepare students for future employment (Jackson, 2017).

cultural groups in schools, it remains a challenge to equip students with the knowledge to accommodate the different cultural values to make culturally responsive choices for music education (Buthelezi, 2016). Teachers are faced with further challenges such as a lack of funding (Arostegui, 2016; Pacini, 2019; Savage, 2021) and insufficient resources for music education (Bath et al., 2020; A. de Villiers, 2015; Hoffman, 2013). This pertains particularly to the South African society and school context.

2.6.2 Socio-economic factors in society and school

School environments depend on and are influenced by the socio-economic levels of societies. Therefore, school safety, climate of schools and learner well-being are related (Kutsyuruba et al., 2015) and significant in teaching and learning. Coulombe et al. (2020) add a positive classroom climate to enhance learning. Szücs (2022) reports that parents of learners from low socio-economic groups tend to be less concerned about the role of music in their children's development and therefore less inclined to motivate activities such as singing and playing music with their children. When society does not value music as important for learner development, it will further demotivate teachers to spend time on music in the classroom (West, 2012).

The inequality of educational opportunities for learners from low socio-economic communities is also prominent in the scholarly literature (R. de Villiers, 2021; Jansen, 2019; Spaull 2019). R. de Villiers (2021) specifically refers to the limited access to quality music education for these learners. Harrop-Allin (2016) confirms the poor quality of education and inequalities observed during a community music project in primary schools in a deep rural area of Venda. In addition, rural schools experience a high staff turnover as teachers do not stay long due to isolation and a lack of career opportunities (Du Plessis & Mestry, 2019). Insufficient infrastructure and poor facilities are also evident in rural and township schools (Du Plessis & Mestry, 2019; Makaleni & Sethusha, 2014) which hampers teaching and learning. Various studies have also emphasised the debilitating effect of a lack of resources on music education in rural and township schools in South Africa. (Beer, 2015; Hartell & Steyn, 2019; Van Vreden, 2018). Beer (2015) conducted a critical analysis on the literature in a Masters' dissertation regarding music pedagogies in childhood development. The author found that, although teachers experience a lack of resources and music knowledge, as well as time constraints, music pedagogies can still be utilised in the CAPS (DBE, 2011). Implementing the national curriculum while acknowledging challenging socio-economic factors is further complicated by teachers' incompetence to teach music in South African FP classrooms.

2.6.3 Music teaching competence

Teaching competence is the main factor that determines if and how learning takes place. While in the past a specialist approach to music education was followed in the FP, music education across the globe is moving towards a more generalist approach to music teaching in lower grades (De Vries, 2015). While specialist music teaching is presented by a professionally trained music specialist, a generalist teacher teaches all the subjects, including music, in an integrated approach to teaching which is the approach followed in the first four years of schooling internationally (De Vries, 2015) as well as in South Africa (R. de Villiers, 2017). This approach implies that HEIs need to equip these FP teachers with music teaching competence (§3.3). However, the literature concurs on the lack of teachers' preparedness to ensure young learners benefit optimally from the value of music (Hash, 2010; Pacini, 2019; Sarrazin, 2016) (§2.2).

While it is unlikely that FP education models will revert to a specialist approach to music education, the generalist approach holds benefits for an integrated and holistic approach to teaching and learning. It is therefore crucial that generalist teachers are equipped with the necessary knowledge and skills that will enhance their confidence towards implementing meaningful music education (De Vries, 2015; Holden & Button, 2006; Ibbotson & See, 2021; Jansen van Vuuren & Van Niekerk, 2015).

The music teaching competence of generalist teachers is reported as a barrier to ensuring that learners benefit from the advantages of music education (Pacini, 2019; Sarrazin, 2016, Scripp & Gilbert, 2016). Factors that could contribute to a lack of teacher competence are inadequate teacher training (Beer, 2015; Savage, 2021), a lack of teacher confidence (Garvis & Lemon, 2013; Kriger, 2020; Pacini, 2019), under-qualified teachers (Cloete & Delport, 2015) and a lack of self-efficacy (Garvis & Lemon, 2013). Cloete & Delport's (2015) empirical study involved three Grade R non-specialist music teachers in a PALAR research study. The authors found Grade R teachers became confident to use their own musical abilities in the classroom after collaborative interventions and, therefore, suggest effective and appropriate in-service training by stakeholders.

The South African school curriculum (CAPS, DBE, 2011) envisions that teachers should be competent to "equip[ping] learners for meaningful and successful living in a rapidly changing and transforming society" (DBE, 2011, p. 8). However, Arasomwan and Masiya (2021) refer to deficiencies in the way FP teachers are prepared for education practice. Participants in a study by R. de Villiers (2017) reflected a negative attitude towards music education due to a lack of background music knowledge and skills, which changed to a positive attitude after practical music engagement. Fingers are generally pointing to the way HEIs prepare South African prospective teachers for music education (Cloete & Delport, 2015; Kriger, 2020; Makaleni & Sethusha, 2014;

Nkosi, 2013). Nkosi (2013) and R. de Villiers (2017), on the one hand, point out inadequate, incompetent, and inferior pre-service teacher education offered by HEIs and suggest additional and in-service teacher training. Hartell and Steyn (2019), on the other hand, refer to inadequate in-service training and support by the DBE.

Stakeholders and educationalists are devising support mechanisms to enhance teacher competence. While Lerumo (2018) suggests School Management Teams (SMTs) should provide professional development opportunities for teachers, trade unions have identified the need to provide in-service training for teachers as a measure to fill the knowledge and skills gap (Nkosi, 2013). Since the transformation of music education through government intervention seems not to materialise, Dixon et al. (2018) suggest the need for lifelong learning through self-directed learning by students and in-service teachers as imperative to develop music teaching competence.

Considering the challenges reported such as having to accommodate diverse learners in overcrowded classrooms with a lack of resources and space for movement, dance, and instrumental playing, it is understandable that teachers may be demotivated to implement music education in their classrooms. The various benefits of music for learner development and well-being, discussed earlier in this chapter, confirm the urgent need to reposition and transform music education in FP classrooms of South African schools. Addressing factors that inhibit the implementation of the music curriculum in the FP is therefore a matter of urgency to enact such a transformation whereby the status of music education is elevated to the benefit of the learners.

2.7 A quest for transforming music education in the Foundation Phase

The literature concurs on the value of music education in support of the holistic development of the FP learner (§ 2.5). Music is also reported to enhance academic achievement in the core subjects (§2.5) and learner well-being (§ 2.5). Evidence of a dissonance between the envisioned and enacted music curriculum (§1.4), and the various factors hampering the implementation of music in practice (§2.6), point to the need for research to investigate how to prepare FP students to transform music education practice. Although limited research could be identified with a focus on the transformation of music education practice in South African schools, more voices are raised for a change in music education on various educational levels (Cloete & Delport, 2015; R. de Villiers, 2021; A de Villiers, 2015; Kriger, 2020; Mkhombo, 2019; Jansen van Vuuren, 2022). A de Villiers (2015) conducted a critical literature review on education policy post-1994. Although the revised curriculums promised transformation of music education in a diverse context, domination of Western Art music is still evident in schools. Detrimental to music education in

schools is the government's inability to provide resources and enhancement of teachers' music skills.

Aspects related to the importance of music education in the FP classroom emerged from the literature, emphasising the need for transformation. To begin with, music education practices do not meet the criteria for music in LS as prescribed by the CAPS (DBE, 2011) document (R. de Villiers, 2015; Lerumo, 2018; Van Vreden, 2016; Jansen van Vuuren, 2022), pointing to teachers' inadequate knowledge and skills for music education, as well as the misperception that music has less value than the core subjects. Secondly, diversity in South African schools, requires a consciousness of the way teaching approaches meet learners' unique cultural and developmental needs (R. de Villiers, 2021; Kriger, 2020; Mkhombo, 2019; Van Vreden, 2016). The latter points to the need for a more culturally responsive approach to music education (R. de Villiers, 2021; A. de Villiers, 2015; Kriger, 2020; Mkhombo, 2019).

Transforming music education practices implies the transformation of teacher education programmes to empower teachers as agents of change also suggested by A. de Villiers (2021) and R. de Villiers (2017).

2.8 Conclusion

This chapter rationalised the role of music in education as motivation for the need for the transformation of music education in the FP and equipping teachers for this transformation. The chapter initially explored music education from a global perspective and gave an overview of the theoretical underpinnings that influenced music teacher education over the years. Then, music education pedagogies as well as recent developments in music education approaches were discussed regarding the meaning of each for music education practice in the FP classroom. Further, the benefits of music in the holistic development of the learner were motivated and the factors that may hamper meaningful music education in the FP were argued. The chapter concluded with a motivation for the transformation of music education with a specific focus on equipping students with relevant knowledge and skills for music education.

Building on Chapter 2, Chapter 3 reports on competencies that need to be supported in a teacher education programme to equip FP students for the transformation of music education practice. The role of CR in transformative learning and strategies to foster CR with FP students in a music module to equip them to transform music education practice are also explored.

CHAPTER 3 FOUNDATION PHASE TEACHER EDUCATION APPROACHES TO TRANSFORM MUSIC EDUCATION PRACTICE

3.1 Introduction

The current neglect of music education in South Africa's FP classrooms is at the core of the problem stated in Chapter 1. In light of the rationalisation in Chapter 2 of the invaluable role music plays in the holistic development of young learners, calls for the urgent transformation of music education in this crucial learning phase are warranted (Adjepong, 2020; Lee & Liu, 2021; Swart, 2020; Van Vreden, 2016; Varner, 2019). Transforming music education in the FP classroom will depend on the way teachers are equipped with music teaching knowledge and skills, as well as their perceptions of this important component of the curriculum (Valdebenito & Almonacid-Fierro, 2022). Motivated by the work of Mezirow (1990, 1991, 1997, 2003), CR on own perceptions is necessary to change unfounded assumptions and to drive transformative learning. If teacher education programmes are to prepare FP students as agents of change, programme designers will have to explore and incorporate approaches that will not only equip students with the relevant music education knowledge and skills but also guide them to challenge their own perceptions of music education through CR.

This chapter first discusses delivery modalities used by HEIs for teacher education which play a determining role in the design features of a programme. Second, principles to consider in teacher education programme design when aiming to develop competent FP teachers are explored, with a specific focus on preparing generalist teachers for music education. Third, the role of critical reflective learning in the context of teacher education is unpacked. This focus on CR, influenced by Mezirow (1990, 1991), emphasises the function of individual and collaborative CR in transformative learning. Lastly, strategies suggested in the literature to facilitate individual and collaborative reflection in a teacher education programme, with a focus on blogs, WhatsApp and reflective journals as mediating instruments, are reported as motivation for incorporating these strategies in the music module that is the focus of this research study.

3.2 Delivery modalities for teacher education programmes

HEIs make decisions concerning methods used to deliver instruction or content to students that will best meet the needs of the student population (Wickramage, 2022). Wickramage (2022) highlights three primary delivery modalities namely, face-to-face, online, and hybrid deliveries. Although references to hybrid and blended learning are used interchangeably, they are not the

same (Krantzow, 2022). Blended learning is a combination of traditional face-to-face learning and online learning (Neelakandan, 2021), and is explained by Krantzow (2022) as face-to-face learning complemented by online learning. Neelakandan (2021) describes hybrid learning, which was first suggested by Beatty (2019) as the opportunity for students to choose the learning that suits them best, such as face-to-face or online. Krantzow (2022) elaborates on hybrid learning as synchronous face-to-face and online learning happening simultaneously. Unforeseen circumstances such as the Covid-19 pandemic, forced HEIs to find alternative modalities such as a hybrid-flexible course design.

The mode of delivery in any education programme has implications for the choice of educational strategies and the responsibilities of the teacher educator and students (Rodríguez-Hernández & Rincon-Flores, 2023). Research also reports on the effect delivery modes may have on educational outcomes (Imran et al., 2023; Smothers, et al., 2020). Contact and DL are offered at HEIs, with blended learning complementing contact learning. This combination of delivery modes creates new opportunities in student education due to innovative teaching and learning strategies for teacher educators and students (Ananga & Biney, 2017). The teacher education programme at the core of this research is delivered as a contact programme complemented by blended learning as well as a DL programme.

3.2.1 Contact learning

Contact learning, also referred to as full-time studies or face-to-face learning, is regarded as the traditional mode of teaching and learning (Mpungose, 2020). Although design features of HEIs are grounded in different teaching and learning policies, this approach is often described as a teacher-centered approach where the lecturer controls teaching and learning by conveying knowledge to students (Ananga & Biney, 2017; Mpungose, 2020). Students in contact learning depend on teacher educators (Khalid et al., 2020) and fellow students (Lalima & Dangwal, 2017) for learning. Advantages of contact learning include the social presence of students with the opportunity for face-to-face social interactions (Bali & Liu, 2018; Gherhes et al., 2021; Yen et al., 2018) as well as the presence of the teacher educator (Keis et al., 2017; Parlakkilic, 2014), to support learning on a continuous basis.

More advantages include the opportunity for clear instructions, sharing of specialised knowledge, the heightened interest of students (Mather & Sarkans, 2018), immediate student feedback (Keis et al., 2017) as well as establishing a culture of mutual respect and an opportunity for student expression (Lalima & Dangwal, 2017). The challenges reported are a diversity of students in group work (Mather & Sarkans, 2018), and a lack of flexibility (Paul & Jefferson, 2019). Lazarevic

and Bentz (2021) also report that shy and vulnerable students experience elevated stress levels in face-to-face interaction.

Teacher educators are progressively making use of technology to support a more student-centered and self-directed approach to learning in contact learning to accommodate the diverse learning methods of students. The implementation of a flipped classroom approach (Eppard & Rochdi, 2017) and the use of a technological platform for learning such as WhatsApp (Hamad, 2017), are being employed in a blended learning approach.

Although different definitions and understandings exist of what blended learning entails (Smith & Hill, 2018), it is generally understood as an approach to teaching and learning whereby students are exposed to diverse methods of teaching and learning through the use of ICT (Lalima & Dangwal, 2017). Although blended learning is viewed by some scholars as a combination of contact and DL or online learning (Ananga & Biney, 2017; Greener, 2021; Neelakandan, 2021), Hrastinski (2019) describes blended learning as more than a mere combination of face-to-face and digital learning. This author argues that blended learning should be described as a continuum based on the proportion allocated to "fully online and traditional face-to-face settings" used for teaching and learning (Hrastinski, 2019, p. 565). Lalima and Dangwal (2017) refer to the contact delivery modality, including blended learning, as a strategy to add to the benefits of contact learning. Although Smith and Hill (2018) contend that blended learning is not fully implemented in tertiary education yet, significant changes are evident in higher education due to the flexibility of blended learning (Dziuban et al., 2018). Students describe blended learning as effective due to their preferences for an effective learning environment in line with 21st century student lifestyles (Dziuban et al., 2018). Blended learning provides the benefit of face-to-face supported learning while out-of-class tasks support SDL as indispensable 21st century competence. Karatas and Zeybek (2020) report a positive relationship between 21st century skills and SDL skills and propose rich environments for 21st learners [students] to foster SDL skills for lifelong learning. Not all students are able to enrol as full-time students, therefore, the opportunity by HEIs to offer DL education due to 21st century technological developments to attain a qualification or to further their own studies is welcomed. The teacher education programme investigated is offered as a contact and DL programme. Strategies to prepare FP students to transform music education practice are employed in both delivery modalities.

3.2.2 Distance learning

HEIs globally experience a shift to DL (Greener, 2021) that broadens teaching and learning possibilities (Castro, et al., 2022; Natanasabapathy et al., 2011; Sadeghi, 2019). Although the literature refers to various DL offerings such as e-learning, online learning and DL (Moore et al.

2010), these modalities share one common characteristic, namely, the physical separation between the institution and the students (Ananga & Biney, 2017; Greener, 2021; Sadeghi, 2019). The incorporation of DL was accelerated during COVID-19 when teaching on all levels of education was compelled to shift to remote learning (Gherhes et al., 2021). However, there are various reasons why students prefer to enrol for DL programmes.

DL allows students the opportunity to continue working and earning a salary while studying (Letseka et al., 2018). Role players can communicate from anywhere (Moore et al., 2010; Natanasabapathy et al., 2011) and at any time (Adu et al., 2014; Mather & Sarkans, 2018; Moore et al., 2010; Natanasabapathy et al., 2011). This modality is therefore convenient for students who live far from HEIs and who do not have the finances or time for travelling (Castro, et al., 2022) or where family commitments prevent them from enrolling for fulltime studies (Castro, et al., 2022; Natanasabapathy et al., 2011).

Apart from advantages such as promoting collaboration and reflection (Gurjar, 2020), DL provides opportunities for lifelong learning (Gillett-Swan, 2017; Natanasabapathy et al., 2011) and flexibility (Lazarevic & Bentz, 2021; Mather & Sarkans, 2018; Varshneya, 2017; Watts, 2016). However, successful DL is dependent on SDL (Greener, 2021; Natanasabapathy et al., 2011; Shumack & Burns, 2017). The literature shows that in general self-directed learners prefer DL (Khalid et al., 2020; Laine et al., 2022; Maphalala et al., 2021) and that students enrolled in DL programmes tend to take more initiative to advance their learning (Maphalala et al., 2021). Khalid et al., (2020) furthermore report that in general DL students are more self-directed than their counterparts enrolled for fulltime contact courses. However, this is not always true for all students enrolled for DL programmes offered by HEIs, especially in the South African context (Maphalala et al., 2021).

Despite the advantages of DL in the 21st century, barriers that may hamper student learning include a lack of motivation and time constraints (Watts, 2016), a lack of technological skills (Natanasabapathy et al., 2011; Watts, 2016), cultural differences and a physical and psychological distance between students and teacher educators (Kataoka & Mertala, 2017). Socio-economic barriers result in a digital divide and inequalities, hampering successful DL programmes in remote regions (Gherhes et al., 2021; Lembani et al., 2020). The successful delivery of DL depends on reliable internet access which is often not available in remote and previously disadvantaged regions (Varshneya, 2017), especially in developing countries (Heydenrych & Prinsloo, 2010; Varshneya, 2017).

Heydenrych and Prinsloo (2010) report on a feeling of isolation by students in learning tasks of DL programmes. DL programme design should therefore include mentoring and clear communication to support independent learning (Khine et al., 2003), as well as encouragement

(Mohamad et al., 2013; Mumford & Dikilitas, 2020; Zandi et al., 2014). Garrison (2003) suggests design features to support teaching, and cognitive and social presences to sustain online learning, while Ananga and Biney (2017), and Fehrman and Watson (2021) recommend the presence of teacher educators to guide, support and motivate students in DL.

In South Africa, DL is employed to address teacher shortages experienced in especially rural schools attended by African learners (Moon & Villet, 2017; Welch, 2008). DL provides a flexible school-based professional development opportunity to qualify practising unqualified teachers from indigenous cultural groups teaching in remote rural areas (Welch, 2008). The effective use of digital platforms in these programmes is, however, limited due to students' lack of technology literacy and the limited access to the Internet in remote areas (Kehinde & Jere, 2022). Using digital platforms in DL teacher education programmes in the South African context should therefore accommodate the diverse backgrounds of the student population. When a teacher education programme aims to prepare generalist teachers as agents to transform music education practice in the FP, in particular, teaching and learning strategies should recognise and accommodate different socio-economic backgrounds and cultural diversities of students.

3.3 Preparing Foundation Phase students for music education practice

The literature confirms that the quality of tertiary education determines the success of the school education system (Darling-Hammond et al., 2017; Wolhuter, 2006). However, concern is expressed about the current standard of FP teacher education in South African (Beukes, 2016; Christiansen & Bertram, 2019). Christiansen and Bertram (2019) report on insufficient FP teacher education at HEIs in South Africa, while Beukes (2016) highlights the neglect of Creative Arts programmes in teacher education programmes as a concern. As discussed in Chapter 2, FP teachers often find it challenging to teach music as part of the LS curriculum, pointing to, amongst other factors, a lack of teaching competence. A study exploring student experiences during TPrac furthermore reports students observing a misalignment between the school curriculum and the way teachers implement the curriculum in the classroom (Arasomwan & Mashiya, 2021). The misalignment could be due to several reasons as discussed in Chapter 2. The reasons include a lack of music knowledge and skills, time constraints and a lack of resources.

Mentor teachers[17] are role models during TPrac and should support and allow students to share their opinions and ideas in the classroom (Izadinia, 2015). Students who experienced a positive

[17] Mentor teachers are experienced teachers who engage with novice teachers in 'co-learning' (Van Ginkel et al. 2016).

mentor relationship, resulted in confident teachers with a strong teacher identity who will stay longer in the teaching profession (Izadinia, 2015). Grounded in the TLT (Mezirow,1990, 1991), through critical reflection on observed education practice during TPrac, students will become aware of discrepancies between theory and practice which can serve as motivation for a change in perceptions.

The government initiated and supported interventions in the recent past to elevate the quality of teacher education programmes by designing a 'policy' and a 'Plan'. The Revised Policy on the Minimum Requirements for Teacher Education Qualification (MRTEQ, DHET, 2015) declares students hone their competencies during TPrac where integration of practical learning is required, and which must result in teacher competencies required for the BEd degree in education. The focus on practical learning is in line with a music teaching practice in FP classrooms with the learners at the centre of music engagement namely, a learner-centered approach. A learner-centered approach refers to moving away from teaching to learning, as well as moving away from the teacher to the learner (Shah, 2020). Although learner-centeredness is described as complicated and not suitable in all teaching contexts, it is described as pragmatic and flexible (Bremmer, 2019). Learner-centered methods imply active learner participation in their own learning and include activities such as small group work, co-operative learning and class discussions (Van Wyk & Tshelane, 2016). While student teachers should be equipped with the knowledge and skills to implement learner-centered strategies, HEIs should also apply a student-centered approach in the tertiary education context. Reflective learning, which is at the core of the empirical study, supports a student-centered approach whereby students take ownership of their own learning process (Perkan Zeki & Sonyel, 2014; Rodman, 2010).

It also suggests students should be exposed to the diversity of contexts in South Africa with the requirement to teach all four subjects as professional teachers in future. Therefore, HEIs are responsible for preparing prospective teachers adequately with knowledge and skills to comply with the requirements to teach all the subjects in the FP classroom (MRTEQ, 2015), hence the necessity to prepare and support students to become reflective practitioners as generalist teachers in FP classrooms. Kriger (2020) ascribes the absence of music in classrooms to the level of teacher confidence, therefore, appropriate music knowledge and skills are necessary to teach music with confidence (De Vries, 2015; Jansen van Vuuren & Van Niekerk, 2015). R. De Villiers (2017) states students' level of confidence depends on the practical music experience in teacher education programmes. Teacher education programmes that prepare students for multicultural music teaching as required by the CAPS (DBE, 2011) should equip students for a CRTP by accommodating diverse learner populations in rural schools.

A summit held in 2009 resulted in the Integrated Strategic Planning Framework for Teacher Education and Development in South Africa, 2011–2025 (DBE & DHET, 2011), known as the 'Plan'. Various stakeholders and experts contributed to the 'Plan' (DBE & DHET, 2011) to address poor teacher subject knowledge and PCK to "Improve the quality of teacher education" (p. 4), with teachers at the centre of the 'Plan'.

The Norms and Standards for Educators (DBE, 2000) describe teacher competencies that should be developed by HEIs such as, "practical competence, foundational competence and reflexive competence" (p. 14). Practical competence aligns with the compulsory Teaching Practicum in schools, while foundational competence requires the application of content knowledge in classrooms and reflexivity refers to self-examination of thoughts, beliefs, and practices to become reflective, reflexive, and accomplished teachers. These teacher competencies align with the components of the accomplished teacher development framework by Shulman and Shulman (2004). Their model influenced educationalists' initiatives to transform teacher education programmes globally (Hertz, et al., 2022; Kruger et al., 2016; Lee, et al., 2023; Stutchbury & Woodward, 2017). Shulman and Shulman's model (2004) therefore serves as the framework for unpacking teacher competencies to be fostered with FP teachers, not only to prepare them for practice, but also to equip them as agents of change to transform music education practice.

3.4 Shulman and Shulman's (2004) framework of Accomplished Teacher Development

Shulman and Shulman (2004) suggest a model to guide the development of accomplished teachers comprising six domains of teacher learning that include "Vision, Motivation, Understanding, Practice, Reflection, and Community" (p. 259). They regard these teacher competencies as crucial when "preparing teachers to work effectively in the uncertain, complex, and often unpredictable settings of schools" (Shulman & Shulman, 2004, p. 4). These authors argue that teacher education programmes should equip students with these competencies if HEIs are serious about preparing students as agents of change in education reform.

Shulman and Shulman (2004) describe the accomplished teacher as:

> *a member of a professional community who is ready, willing, and able to teach and to learn from his or her teaching experiences. Thus, the elements of the theory are: Ready (possessing vision), Willing (having motivation), Able (both knowing and being able 'to do'), Reflective (learning from experience), and Communal (acting as a member of a professional community). (p. 259)*

Applied to the context of music teacher competence in the FP, teachers should be ***ready*** to teach music; readiness is motivated by a clear vision of professional skills as well as the required knowledge and resources to ensure music contributes to the holistic development of learners;

'Vision' not only serves as a goal to direct self-directed teacher development through metacognition, but also motivates the teacher to develop lacking skills and is knowledge driven by a deep "dissatisfaction with the status quo" (Shulman & Shulman, 2004, p. 259).

As implied by Shulman and Shulman (2004), equipping FP students for music education practice requires that they are ***willing and motivated*** to gain knowledge and skills to develop their music teaching competence. In the case where the curriculum is not implemented as envisioned, motivation to change the status quo will be core. Shulman and Shulman (2004) indicate that envisioning the kind of education necessary to support learning is futile without teacher motivation and willingness to change in that direction or when teachers are "inadequately supported by his or her context or peers to take the risks of forgoing extant practices or exert the efforts needed to change" (p. 261).

Informed by the model of Shulman and Shulman (2004), the FP teacher who is ***able*** to teach music first has a deep understanding of pedagogical content knowledge (PCK) applicable to music education. In the context of music education, this knowledge base includes knowledge of music as a subject; knowledge and understanding of where music fits into the curriculum; and knowledge of how to manage and organise the classroom when implementing and integrating music. Knowledge of and for assessment of music learning are also critical together with knowledge of how to include others in building a competent communal teaching force; and understanding how learners learn and develop in the physical, cognitive, psychosocial and psychological well-being domains through music. Second, being ***able*** implies such teachers' capacity to apply their music knowledge base in practice. This competence entails intelligent and adaptive action in practice. In line with Shulman and Shulman (2004) the 'able' teacher is skilled in a variety of strategies. Practice competencies include the ability to adapt the curriculum to accommodate music and managing classroom activities in the learning of multiple subjects simultaneously while at the same time conducting formal and informal assessments of diverse learners. Amid these strategies, the teacher should also integrate "deep disciplinary understanding with sustained motivation and interactions among learners" (Shulman & Shulman, 2004, p. 263).

Reflective competence enables the teacher to learn from experience through reflecting on their own actions and consequent learner behaviour. Teacher reflectivity supports the capacity for purposeful change through learning from practice, while "At the heart of that learning is the process of critical reflection" (Shulman & Shulman, 2004, p. 264). Since Mezirow (1990, 1991) emphasises the role of CR in transformative learning and considers the need for change in the

way music is implemented in the FP classroom, this teacher competence could play a core role in activating the transformation of music education practices.

A final competence suggested by their model (Shulman & Shulman, 2004) namely, ***communal competence*** requires that teachers are equipped for collaborative reflection. When providing students an opportunity for "deliberation, collaboration, reciprocal scaffolding, and distributing expertise" (p. 265) they are prepared to act as members of professional communities of learning through collaborative reflection. Shulman and Shulman (2004) indicate that when students or teachers reflect collaboratively, metacognitive awareness and analysis of one's own learning processes are supported. Metacognitive awareness is key to monitoring own understanding and the transfer of knowledge to practice to effectuate change (Shulman & Shulman, 2004). Guthrie (2018) also emphasises the role of engaging in collaborative reflection whereby teachers can develop the necessary flexibility to curb resistance to change in an education context requiring transformation. Strengthening students' competence to collaboratively reflect with peers and colleagues on issues related to music education, holds value for improved music education practice as a result of reciprocal support and distributed expertise.

There is general agreement in the literature on the important role of reflection in teacher education (Jay & Johnson, 2002; Mavric & Medic, 2022). Focusing on the role of CR in transformative learning (Larrivee, 2000; Liu, 2015; Mezirow, 1990, 1991; Philp-Clark & Grieshaber, 2023) and on transforming practice (Benade, 2015; Guthrie, 2018; Zeichner, 1987) are at the core of DBR which is implemented to determine how individual and collaborative reflection can be employed to equip FP students to transform music education practice in the South African context. Reflective learning and CR are, therefore, explored in more depth in the literature.

3.5 Reflective learning and practice

Despite the rich body of scholarship in support of reflective learning, this concept is also contested. In the past some educationalists even refuted the existence of reflection (Ixer, 1999). Even in more recent times questions are asked concerning the impact of reflection on learning outcomes (Wass & Harrison, 2014; Platt, 2024). Especially the influence of personal bias and beliefs, based on previous experiences on reflective learning outcomes, is highlighted in the literature (Kegan & Lahey 2009; Schaepkens, & Lijster, 2023). However, researched evidence confirms the relationships between reflection, and specifically CR and creative thinking as 21st century skills, as well as the effect of CR on academic achievement (Akpur, 2020). The strong support in the literature for the value of CR as a mover for transformative learning and consequent transformation in education (Dirkx, 2000; Johnson & Olanoff, 2020; Mezirow, 1997; Taylor, 2009),

serves as the rationale for teacher education programmes to support the development of CR (Briscoe, 2017; Fook, 2015).

Although reflective learning has been a matter of interest since Dewey conceptualised the term in 1933, the role of reflective learning in education has been trending recently based on concern for the effect that technology and specifically artificial intelligence (AI) may have on people's reflective thinking processes. On the contrary, Pea et al., (2023) and Yim et al. (2023) argue that prehensive implementation of technology can serve to enhance reflective learning.

Dewey (1933), one of the first scholars to clarify reflection in his writings, defined reflective thought as:

> *active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends. (p. 9)*

This definition is still regarded as seminal in the field of teacher reflectivity and emphasises reflection as the moral responsibility of teachers. Teachers should not only foster reflective learning in the classroom but also reflect on their own unfounded beliefs of their teaching practices that may influence the way their practices support learners to master the learning aims. Loughran (2002), advocating for active and practical student engagement in the reflection process, states: "If learning through practice matters, then reflection on practice is crucial" (p. 42). Fook (2015) is of the opinion that reflection is not a natural process and should be done in a structured way and in a climate of respect and trust to uncover assumptions. Machost and Stains (2023) indicate that, when teachers understand the value of reflective learning, not only for their learners but also for themselves as educators, they will be more motivated to apply reflectivity in their professional learning in and on practice. This same principle is also applicable to teacher educators who have the responsibility to create reflective learning opportunities for their students through reflective teaching. However, Zeichner (1990, p. 56) who did seminal work on reflective teacher learning, warns that teachers' behaviour will not necessarily change because of deliberate and intentional reflection, but "establishing clear priorities for the reflection that emerges out of a reasoned educational and social philosophy" should precede reflective teaching. Building onto the foundational work of Dewey, Zeichner (1990) suggests a "social reconstructionist conception" (p. 57) of reflective teaching that provides a moral basis for practice. The notion of a social practice, where teachers support and sustain each other's growth when they reflect collaboratively as a community of teachers has a purpose beyond the classroom walls. Authentic collaborative reflection will consider a variety of factors that impede equity and justice in education which has strategic value for the transformation of practice that does not benefit learning (Zeichner, 1990).

In the context of South Africa, there is a growing body of literature exploring ways to support reflective learning. Reed et al. (2002) identified a correlation between reflective teaching and good teaching as well as successful reflection due to teachers' pedagogic and subject knowledge. Adler et al. (2002) agree on the importance of subject knowledge in reflective practice and identified a correlation between subject knowledge and subject confidence. Findings often report on a lack of reflective competence. Reed et al. (2002) report on superficial reflection by teachers, who describe teaching events without deeper analysis of their practice. These authors recommend that professional development programmes support teachers to develop a reflective approach to learning from practice through case studies and questioning prompts to guide reflection. Teachers in the mentioned study indicated that support from colleagues enhances reflective practice, as echoed by Pretorius and Ford (2016) who suggest mentoring, prompts and scaffolding to develop a reflective approach to learning from practice. In the context of learning by healthcare practitioners, Pretorius and Ford (2016) recommend a self-discovery approach in small group collaboration to uncover the meaning of reflective practice to motivate spontaneous self-reflection in learning.

It is important to note that reflection is dependent on language competence (Reed et al., 2002; Robinson & Rosseau, 2018). When reflection activities must be in a language other than one's mother tongue, it will be more difficult to express authentic reflections. Although prompts can serve to scaffold reflective learning by students experiencing language barriers (Kruger, 2020, Renner et al., 2016), Kruger (2020) warns that detailed prompts may influence the authenticity of reflections and should be removed once a student or learner has developed reflective competence in the language of teaching and learning.

The myriad of studies conducted to support reflective learning on all levels of education is evident of the need identified in this regard. Various barriers may hamper reflective learning including language diversity (Kruger, 2020; Reed et al. 2002; Robinson and Rosseau, 2018), knowledge of reflective learning (Brookfield, 2017; Jemadi et al., 2023) and reflective learning competence (Brookfield, 2017; Kruger, 2020; Slade et al., 2019). Although not all reflection will lead to intended or anticipated learning outcomes (Chen & Chen, 2022), Slade et al. (2019) provide statistics as evidence that "reflective practice directly impacts teacher candidates' knowledge, skills, and dispositions related to pre-K-12 education" (p. 6). Evidence such as this necessitates a deeper look at the role of reflection in teacher education.

3.5.1 The role of reflection in teacher education

Numerous scholars have contributed to the knowledge field of teacher reflection. Some of the features of reflection that are emphasised include higher-order thinking (Ghanizadeh, 2017; Mezirow, 1990), the action-driven nature of reflection (Brookfield, 2017; Mezirow, 1990; Schön, 1983), flexibility (Dewey, 1933; Guthrie, 2011; Van Laar, et al., 2017), rational discourse (Brookfield, 2017; Mezirow, 1991), and the role of reflection in supporting lifelong learning (Bradshaw, 2018; Hanemann, 2015; Van Laar et al., 2017). Reflection is also mentioned to play a role in motivating new ways of thinking about practice and consequently a change in practice (Brookfield, 2017; Dewey, 1933; Mezirow, 1991; Van Laar et al., 2017) that implies teacher SDL in and from practice.

Knowles (1975) positions reflection at the core of SDL, where the self-directed learner determines their own learning needs, goals, resources, and directs learning strategies to attain set goals. SDL is a learner-centered approach (Garrison, 2003) where the self-directed learner is a critical thinker (Garrison, 1997). Considering the characteristics of a self-directed learner as suggested by Maphalala et al. (2021), teachers as self-directed learners will act independently and autonomously and engage in self-reflective and collaborative learning to improve their own practice through new ways of thinking. New ways of thinking and a change in practice as the outcome of teacher reflection could be instrumental in the transformation of education practice.

Different terminologies refer to new ways of thinking about education as spurred on by Dewey (1933) who refers to reflective thinking as the “better way of thinking” (p. 15), to “ponder” (p. 90) and to “stop and think” (p. 285), implying a deeper level of thinking that requires time for decision making. While Dewey (1933) refers to new ways of thinking, Brookfield (2017) focuses on new ways of learning namely “alternative ways” (p. 163), with the focus on reflective learning by teachers. This view is echoed by Van Laar et al. (2017) who suggest students should be equipped with an alternative learning approach which includes reflection to support 21st century education competencies. These views emphasise the need to develop reflective competence with students to prepare them as reflective teachers.

Mezirow (1990) refers to the action-driven nature of reflection by distinguishing between reflective action and non-reflective action. Reflective action on the one hand, is a process of thoughtful reflection where deep thinking is necessary to change assumptions, while non-reflective action on the other hand, refers to thoughtful action without reflection. Therefore, thoughtful reflection, involving deep thinking skills to uncover assumptions, should thus be applied to teacher education to equip them to transform practice through reflective action.

Reflective practice with the focus on deep thinking, in conjunction with flexibility and a flexible mind when thinking (Dewey, 1933; Van Laar, et al., 2017), involves an open mind by acknowledging different strategies and ways of reasoning. Dewey (1933) argues that a young child's mind is open and flexible, but when reflective thinking is neglected from a young age, a lack of mental flexibility occurs in adult thinking. Guthrie (2011) contends that mental flexibility does not emerge naturally and needs to be cultivated gradually. Therefore, teachers and students who lack flexibility in their practice will experience new strategies and transformation of practice as a challenge.

The South African body of scholarship with focus on reflection in teacher education, largely concur on students and teachers' inadequate knowledge and understanding of reflection on and in practice (Badenhorst & Ndlovu, 2019; Conelly et al., 2020; Dison, 2016; Frick et al., 2010; Kruger, 2020; Segalo & Dube, 2022). A study conducted by Badenhorst and Ndlovu (2019) revealed difficulties experienced by lecturers at HEIs to assist student reflective learning in education practice and suggest the need to improve reflective and critical reflective skills in teacher education programmes. While Dison (2016), Kruger (2020) as well as Segalo and Dube (2022) explored reflective journaling in a postgraduate teacher certificate to support reflective learning, Barends et al. (2023) and Carl and Strydom (2017) employed portfolios to scaffold reflective learning by student teachers. Chikiwa and Graven (2023) used video recordings of students own teaching as focus for reflection. Although they suggest more support for students to develop reflective learning skills, they found this strategy useful.

In the socio-economical and culturally diverse South African context, it is imperative that students and teacher educators have the same understanding of reflective practice and its goal. Robinson and Rosseau (2018) collected data from BEd FP teacher educators from four South African universities as well as from their students, to determine their views on reflective practice. The findings show that students and teacher educators have contrasting views regarding reflective practice, while students demonstrated a limited understanding of the nature and purpose of reflective practice. Students were only prepared to reflect when a mark allocation was involved, and admitted they reflected in a way that is expected by the teacher educator. While teacher educators referred to reflective practice as a process for improvement, students viewed it as a product to earn marks. These findings emphasise that teacher educators should establish and explain clear priorities and goals for reflective tasks before being implemented (Zeichner, 1990).

Against the background of the many challenges hampering music education in FP classrooms of South African schools and considering that mere reflection does not guarantee a change in teacher behaviour or beliefs (Zeichner, 1990), it is imperative to explore ways to support critical

reflection as mover for transformation. Robinson and Rosseau (2018) emphasise that critical reflection has the potential to produce “critical, independent and socially committed teachers, able to position themselves in relation to the inequalities of South African education” (p. 1). Supporting reflective thinking in higher education (Ghanizadeh, 2017) and in schools (Yaacob et al. 2021) needs to be prioritised to enhance the quality of teaching and learning. However, deeper thinking skills as a precursor to CR, are needed and are imperative to challenge assumptions about music practice and motivate the necessary action to transform music education practice to benefit all learners.

3.5.1.1 Supporting critical reflection in teacher education

There is concurrence in the literature that teachers should be equipped with CR competence, as the highest level of reflection (Brookfield, 2009; Kember et al., 2000; Lundgren & Poell, 2016; Mezirow, 1991). Different terminologies are used by scholars to explain CR in the context of education. The model of CR suggested by Kember et al. (2000) comprises four levels of reflective thinking with CR as the highest order; this resembles Mezirow’s (1991) premise reflection where one becomes aware of the reasons why one behaves in a certain way. Brookfield (2009) concurs that CR focuses on the consequences of one’s actions beyond the here and now of learning in the classroom context. Supporting CR in teacher education implies that students are guided to challenge their own assumptions (Mezirow, 1990) while engaging in higher-order thinking (Fook & Gardner, 2007).

Although different terminologies are used, scholars mostly concur that CR strategies guide students to question, uncover, analyse or critique assumptions (Fook & Gardner 2007; Knowles & Saxon, 2010; Liu, 2015; Taylor, 1998; Wang & Torissi-Steele, 2016). Mezirow (1991) proposes the uncovering of deeply rooted assumptions through rational collaborative discourse motivated by a discrepant event that disrupts previously held assumptions. Brookfield (2017) elaborates on this view, but with a focus on autonomous reflection in rational discourse as dialogue without instructor intervention to enable students to become aware of different viewpoints. Discourse stimulates a self-awareness (Ajayi, 2011; Kondrat, 1999; Mezirow, 1991; Sutton, 2016) that may lead to change through CR (Brookfield, 2004; Fook & Gardner, 2007; Kember et al., 2000; Knowles & Saxon, 2010; Mezirow, 1990).

Studies exploring ways to scaffold CR were also conducted in the South Arican context. The identification of a discrepant event as focus of collaborative discourse to motivate CR (Mezirow, 1990, 1991) served as impetus for a study conducted by Kruger and Buley (2022). In this international study FP students from South Africa were paired with FP students from Canada for collaborative reflection via WhatsApp. The reflection task included the construction and sharing

of a metaphor collage as tacit arts-based illustration of their reflections. The aim of reflection was the meaning-making of diversity in language education as ethical issue which served as discrepant event and scaffold for CR. The researchers anticipated that student diversity and the building of a trusting relationship between the reflective partners, will create an environment for CR. Although challenges were experienced such as the difference in time zones and the structure of academic semesters, students experienced the benefits of critical reflective learning and were able to label their beliefs and assumptions influenced by their past experiences to support a change in their thinking and future practices.

Although the study by Robinson and Rosseau (2018) conducted in South Africa, as mentioned above (3.5.1), did not specifically focus on CR, they recommend HEIs should redefine CR to support social responsive student teacher education by including moral, ethical, political, spiritual and emotional aspects of reflective practice. Such an approach is in concurrence with the notion of Zeichner (1990), that CR should be directed by a goal beyond the learning outcomes of a lesson. Fook and Askeland (2007) agree that educators and students should have the same understanding of the professional goal of CR, but also warn that CR goals and strategies should consider the appropriateness thereof for different students and the emotional implications for the use of self-disclosure through CR. These authors emphasise the need "to set up an appropriate alternative cultural environment for the purpose of critical reflection" (p. 1).

Although numerous benefits of CR enhance learning, challenges are illuminated by scholars that should also be recognised in the context of teacher education. Challenges observed in CR include students who refrain from CR to protect themselves from disclosing personal aspects of their lives (Gorski & Dalton, 2020). Liu (2019) found that students mostly do not grasp the concept of CR by describing experiences on a technical reflective level and lack the ability to put reflection into action as a criterion for transformative learning. Furthermore, CR takes time and as a non-observable phenomenon, the outcomes may only become evident long after the CR interventions (Helyer, 2015). This may demotivate educators to spend time on critical reflective learning activities.

Educationalists often confuse reflection and critical reflection, requiring an explication of the specific principles of CR that differentiate this construct from mere reflection.

3.5.1.2 Principles of critical reflective practice

Teaching and learning encompass more than pedagogical and content knowledge and should also adhere to social justice issues relating to socio-economical, ethical, moral, and political issues of teaching practice that are evident in the literature. Larrivee (2008) refers to reflection on

ethical and moral practices, while Fook and Gardner (2007), Knowles and Saxon (2010) and Wang and Torissi-Steele (2016) highlight the importance of CR on social and political aspects in a professional context. Brookfield (2017) elaborates on CR in education when considering "social, political, cultural and economic" (p. 42) factors that learners bring with them to the classroom. Apart from social and political aspects, Liu (2015) acknowledges the role of CR in ensuring social justice for learners in the educational context. Teachers need to reflect on these principles in a culturally diverse and unequal society to ensure equal opportunities for learning (Behizadeh et al., 2019).

Teachers who consider and acknowledge the context of a society can limit "socio-cultural distortions" (Mezirow (1990, p. 15) where some societies function in an ideal way while others are socially and culturally distorted. Teaching and learning grounded in critical reflection principles are therefore crucial to align music teaching practice in South African FP classrooms with the intended LS curriculum that should consider political, ethical, and moral factors ever present in the diverse cultural-historical background of the country. Furthermore, preparing learners for successful moral lives in a diverse global world, Darling-Hammond (2010) suggests that teachers support their learners to develop a consciousness of issues of social justice and equity. Teachers who are conscious of the way these principles influence the learning culture in a classroom, will strive to support their learners to develop moral and ethical values and to establish a culture of respect for diversity in their classrooms. Collaborative critical reflection provides a platform for students to develop this consciousness.

3.5.1.3 Collaborative critical reflection in teacher education

The literature concurs that learning does not happen in isolation (Taylor, 1998; Turuk, 2008), and that collaborative learning enhances social learning (Stahl, 2000) and critical reflection (Clara et al. 2019; Erdogan, 2019; Mezirow, 2000; Shumack & Burns, 2017), as well as solving problems (Kumar, 1996; Laal & Ghodsi, 2012; Lai, 2011). Scholars agree on shared goals (Gokhale, 1995; Kuo, 2013; Lane, 2016), discourse (Lane, 2016; Lau & Meyers, 2013; Shumack & Burns, 2017) and a student-centered approach (Chan & Sher, 2014; Gokhale, 1995; Kuo, 2013) in collaborative learning. Social learning through collaboration holds the potential to support CR by students. Shumack and Burns (2017) point out that meaningful collaboration requires purposeful dialogue and social interaction from participants. This view relates to Mezirow's (2000) suggestion of rational discourse in his TLT, which serves to critically uncover assumptions and to reach a mutual understanding. Taylor (1998) endorses rational discourse as a vehicle for CR and action in education. Grounded in the work of Mezirow (2000), teacher education programmes aiming to foster students' critical reflective competence, need to create opportunities for the kind of

discourse that supports critical reflection in an environment where students experience trust, security, and compassion.

Stahl (2000) warns that facilitating meaningful collaborative learning is complex and requires thorough planning. Although there is concurrence in the literature on the role of collaborative learning in support of CR, various challenges may hamper the implementation thereof such as students' preference to study in isolation or refraining from participation in collaborative learning tasks (Lane, 2016). More challenges include domineering students and those who prefer to learn from experts rather than from fellow students, while some have their own pace of learning which could slow the collaboration process to cause resistance among other students (Lane, 2016). Chan and Sher (2014) mention challenges such as a lack of motivation and critique that the explaining of concepts to peers is time-consuming. Furthermore, teacher educators who plan to implement collaborative learning strategies, may find it difficult to accept the role of a facilitator in a student-centered approach to collaborative learning (Lane, 2016).

Educationalists in support of collaborative learning suggest various solutions to challenges that may inhibit collaborative learning in support of CR. To deepen reflection through collaborative learning, Clara et al. (2019) suggest "open facilitation to permit the emergence of different voices" on the one hand, while, on the other hand, also providing "more directive facilitation to make these voices converge and engage in dialogue with each other" (p. 176). It is important in a transformative paradigm that collaborative learning supports CR. Mezirow (1991), Fook (2017) and Fook and Gardner (2007) support reflection in small collaborative groups to strengthen the opportunity for CR and to prevent isolation.

The significance and advantages of collaborative learning to promote CR, and thereby serve as a mover for transformation in practice is reflected in the literature reported above. However, despite this evidence, Farrell (2017) argues CR is seldom observed in students' reflective groups. Considering the need for transformation in music education practice, it is crucial to explore innovative strategies to support collaborative CR in teacher education programmes.

3.5.1.4 Strategies to support collaborative critical reflection in teacher education

The value of student collaboration in contact (Lane, 2016; Loes et al., 2018) and distance learning (Gillett-Swan, 2017; Lane, 2016; Maphalala et al., 2021; Varshneya, 2017), as well as the importance of CR in contact (Harry & Salvador, 2021; Lane, 2016) and distance learning (Gillett-Swan, 2017; Lane, 2016) cannot be disputed. Liu (2017) emphasises the role of teacher educators in directing CR through a dialogic approach during teaching practicum when students visit schools. The support is imperative to foster CR on learning in and from practice to stimulate

transformative learning. Van Rensburg et al. (2018) concur on the presence and support of teacher educators to support collaborative CR, while Wang et al. (2019) propose a classroom climate of honesty, trust and safety to motivate CR. Jiang and Zheng (2021) suggest a comfortable and relaxed reflective climate to enable results-driven discourse and sharing of ideas as strategies to advance collaborative reflection.

Various reflective learning strategies are applied to support CR in different teaching modalities[18] such as reflective writing (Garrison, 2003), blogging (Hookway, 2008), dialogues (Deng & Yuen, 2011), WhatsApp (Gasaymeh, 2017; Thaba-Nkadimene, 2020), reflective observations (Redmond et al., 2022) as well as recordings, questionnaires, group discussions and reflection on critical incidents (Farrell, 2017).

'Critical incidents' is a concept at the core of Mezirow's (1990) TLT and described by him as "disorienting dilemmas" (p. 13). Through CR on these incidents, a student discovers a dissonance between previously held assumptions of the truth and a new awareness of alternative realities, based on experience. Educators aiming to support transformative learning should thus create a learning environment that provides an opportunity for reflection on critical incidents.

3.5.1.5 Critical reflection to support transformative learning

The relation between two seminal theories in adult education, TLT and critical theory is reported in the literature (Brookfield, 2017; Wang, et al., 2019). The uncovering of assumptions in CR, relevant in TLT, is grounded in critical theory (Brookfield, 2017). Wang et al. (2019) concur on the relation by arguing TLT is grounded in experience that results in reflection and critical thinking, while reflection and critical thinking are promoted by critical theory. Critical theory was constructed by theorists who were involved in society (Horkheimer, 1972) with the focus on the existence of ideologies, and political and social aspects (Corradetti, 2013). In critical theory, rational dialogue is emphasised to identify and analyse contradictions in society to bring about a more fair and just society (Fuchs, 2015). Similarly, the use of discourse and CR is proposed by Mezirow (1991) and Taylor (1998) for transformative learning in education including a fair and just teaching environment.

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[18] The teacher education programme that anchors this research study is delivered as a contact and distance learning programme. The contact mode of delivery includes blended learning that complements face-to-face teaching and learning in the classroom (Bouilheres, et al., 2020). The distance learning (DL) mode of delivery relies on technology for teaching and learning, using different platforms and materials at various locations and times to support learning (Moore, et al., 2010).

Influenced by the work of Freire and Habermas, Mezirow (2003) defines transformative learning as: “the process by which we transform problematic frames of reference […] to make them more inclusive, discriminating, open, reflective and emotionally able to change” (p. 58). The definition refers to the use of CR to uncover and change frames of reference or assumptions (Mezirow, 1997). Transformative learning, often related to adult education (Johnson & Olanoff, 2020; Mezirow, 1997), involves CR and collaborative learning that result in action on perceptions (Taylor, 2008). Through critical thinking on a disorientating dilemma, an individual becomes aware of their own assumptions which is the onset of transformative thinking (DeAngelis, 2022; Mezirow, 2003). CR considers contextual factors such as social, psychological, educational, moral and ethical issues that may hinder social justice in transformative learning (Mezirow, 1997, 2003).

Johnson and Olanoff (2020), who refined on the TLT of Mezirow (1990, 1995, 2003), proposed a four-stage model to support transformative learning by students in the context of mathematics education. Their model consists of “a disorienting dilemma, critical reflection, rational dialogue, [and] action” (p. 739-740). The disorientating dilemma is identified and followed by CR and discourse before applying suitable action (Johnson & Olanoff, 2020). Informed by the literature, individual and collaborative reflection by students and teachers hold value in making them aware of their assumptions and surroundings with a possible change in their own approach to practice and the consequent transformation of education practices.

Opportunities to create a reflective learning environment and strategies to support CR will depend on the delivery modalities of a programme. Technology is progressively used to prepare 21st century teachers for a reflective approach to practice. Considering the contact and distance learning delivery modalities of the programme at the core of this research study; digital applications are explored to guide students’ CR on discrepant events to motivate transformative learning.

3.6 Technology to support collaborative critical reflection

Traditionally the use of digital technology for reflective learning tasks was associated with the DL context only, until 21st century technological innovations also motivated reflective learning in the context of contact learning. Two digital applications for reflective learning namely, blogs and WhatsApp were used in the DBR and, therefore, explored in more depth. Online journaling is explicated in the literature to support reflective learning, and also utilised in the research.

3.6.1 Blogging

Blogging is widely accepted as an opportunity for collaboration and knowledge sharing (Boyd et al., 2013; Kuo et al., 2017; Zandi et al., 2014). Although studies by Killeavy and Moloney (2010) and Taole (2013) found little evidence of CR through blogging tasks, there is concurrence that blogging holds the potential to support CR in a conducive learning environment (Hall, 2018; Mohamad et al. 2013; Novakovich, 2015; Yang, 2009). The informal writing used in blogging is typical of the way students communicate, which makes this platform popular with students (Hookway, 2008). This view is echoed by Novakovich (2015) who emphasises that students mostly relate to blogs and feel comfortable with blogging.

Dennen (2014) describes blogging as a social digital learning activity, incorporating the personal and professional lives of bloggers. Blogging stimulates interaction among participants where people are motivated by blog responses and feedback from others to continue with the blogging process in a community of practice (CoP). While the value of blogging for social interaction is reported (Habib et al., 2018; Hookway, 2008; Lee, 2018), it is also becoming popular to support learning. Reports of positive blogging experiences by students strengthen the argument for the use of blogs as a learning strategy in teacher education (Boyd, et al., 2013; Mitchell et al., 2019).

Blogging is a suitable instrument to enhance professional learning, however, professional development and growth are determined by the content quality of blog responses (Ciampa & Gallagher, 2015; Garza & Smith, 2015; Kurt & Yildirim, 2021; Mitchell et al., 2019; Zandi et al., 2014). A notable observation by Ciampa and Gallagher (2015) is that students respond more regularly to original feeds from teacher educators than to blog entries from fellow students. The reason could be that students are obliged to comment on teacher educators' entries for assessment purposes (Ciampa & Gallagher, 2015), reflecting a lack of intrinsic motivation as the driver of reflection in blogging.

Although there is support in the literature for the value of blogging as a medium to develop the critical reflective competence of students, teacher educators need to take heed of the advantages and challenges of blogging.

3.6.1.1 Advantages and challenges of blogging

Novakovich (2015) compared digital collaborative blogging with traditional paper-based collaboration workshops. The results indicated improved student achievement and "a higher level of critical thinking" among students in digital collaborative blogging (p. 23). The advantages of blogging in DL include the low cost of blogging (Hookway, 2008), evidence of discourse

(Chawinga, 2017; Hookway, 2008; Yang, 2009) and interactivity among students (Chawinga, 2017; Wopereis et al., 2010). Students read blogs and learn from each other by giving and receiving feedback (Wopereis et al., 2010) with no time and space limitations (Yang, 2009). Yang (2009) reports that students found it easier to challenge fellow students in an online context than in face-to-face learning. Furthermore, blogging in education is described by Alsamadani (2018) as easy, user-friendly, convenient and versatile. A “sense of community” and a feeling of security is created by blogging (Lee, 2011, p. 99). Garza and Smith (2015) agree that blogging in a community of students provides a platform to sustain learner presence in the learning processes and thereby counters the emotional isolation of distance learners.

Top et al. (2010) propose that high group learning through blogging resulted in high subject contentment and learning despite technical capabilities hampering successful blogging. The social need for interactivity when blogging is mentioned by Top et al. (2010), while Wopereis et al. (2010) refer to the reading of comments, feedback and learning from others as benefits of blogging. Eutsler and Curcio (2019) contend that reflective blogs give students the opportunity to develop their identities as professional teachers as well as a sense of deeper reflection and self-awareness. Blogging can also motivate participation due to the popularity of social networks in the lives of young people where space and time limitations are removed (Cetinkaya, 2017). Although advantages are evident in blogging, teacher educators should be aware of the challenges that may hamper the successful implementation of learning.

Students often lack the abilities to blog (Wang & Hsua, 2008), while Wopereis et al. (2010), and Ciampa and Gallagher (2015) report teachers and students experience blogging as time intensive when they must read, think, write and respond in the blogging process. Ciampa and Gallagher (2015) add a lack of technological knowledge, technical problems, and a delayed response as challenges. Although some challenges are due to student conduct or incompetence, several challenges are beyond students’ control. While access to and the availability of the Internet in developed countries make blogging easier (Muncy, 2014), a contrasting scenario is evident in developing countries where a lack of stable, affordable internet connection has an impact on digital learning (Wijaya, 2018). Considering socio-economic inequalities, HEIs should therefore provide the means for students to use social media such as blogging for academic purposes (Chawinga, 2017). Financial restraints are a reality in South Africa, therefore, expensive data and a lack of Wi-Fi facilities may hamper the successful implementation of student blogging.

Additional aspects hampering the success of blogging, are students’ personalities, backgrounds, experiences, and environments (Mumford & Dikilitas, 2020). Students fear blogging in the public domain due to the feeling of exposure when their work is visible in the virtual public sphere

(Waycott et al., 2017), therefore, preference for closed group blogging that allows student access only (Wopereis et al., 2010). Students prefer to separate their personal and student identities and should know who has access to their reflections. A study by Mohamad et al. (2013) confirms student fear of public exposure when blogging. In their study, more than 50% of students stated that although blogging made deeper learning and critical thinking possible, they found active participation in reflection difficult and preferred to observe rather than comment on posts. Blogging in the public sphere was experienced as threatening and resulted in the reading of blogs only. However, reading without commenting on fellow students' blogs, was found to encourage students' own creative thinking and developed an awareness of the community among students, therefore, observation should be considered as a way of learning despite the lack of learning evidence (Mohamad et al., 2013).

Although several studies explored the way blogging supports reflective learning, Wopereis et al. (2010) and Top et al. (2010) warn that blogging does not encourage deep reflection if the blogs are used for information sharing only. Killeavy and Moloney, (2010) and Taole (2013) found reflection in blogs to be superficial. Based on a study conducted in the South African context, Taole (2013) suggests that blogging should be guided to ensure that it enhances reflectivity. The second digital application used for reflective learning in this research was the WhatsApp application.

3.6.2 WhatsApp

WhatsApp as a smartphone application has become a popular instrument to mediate learning in tertiary education and is a medium whereby a sender shares information to an individual or a group (Barhoumi, 2015). Communication can be synchronous (Agrawal & Mittal, 2019; Alqahtani et al., 2018) or asynchronous (Cetinkaya, 2017) and can be in the form of text, audio messages and videos (Alqahtani et al., 2018; Dahdal, 2020; Gon & Rawekar, 2017; Wijaya, 2018).

Wijaya (2018) mentions the frequent use of smartphones, notebooks, and tablets by students. Educationalists concur that WhatsApp is a popular and relatively easy way to support collaborative learning (Alubthane & ALYoussef, 2021; Gasaymeh, 2017; Thaba-Nkadimene, 2020) and reflective learning (Annamalai, 2019). Cetinkaya (2017) reported on students' positive attitudes towards the use of WhatsApp. WhatsApp is furthermore used to ask questions, assist others, and provide solutions to problems (Ajid et al., 2018; Choo et al., 2016a), as well as to learn from each other (Choo et al., 2016a; Shaaban, 2020). It is compatible with the mainstream operating systems, Android and IOS (iPhone Operating System) (Choo et al., 2016a), which broadens the use of the application for utilisation by multiple smartphones.

In this day and age students are highly dependent on their mobile phones for socialisation (Ajid et al, 2018; Gasaymeh, 2017), therefore, smartphones are constantly in use for educational and social engagements (Dahdal, 2020). A study by Mpungose (2020) identified WhatsApp as the most suitable and informal social and digital communication application while most students are positive about the integration of WhatsApp with learning (Ajid et al., 2018). The statistics reported by Alqahtani et al. (2018) and Shaaban (2020) strengthen the rationale for the use of WhatsApp in education since it is used in more than 180 countries with more than 50 million messages sent every day. WhatsApp can be used as supportive technology to enhance traditional education approaches (Cetinkaya, 2017), while Alqahtani et al. (2018) and Barhoumi (2015) suggest WhatsApp for collaborative learning to complement contact learning.

Alqahtani et al. (2018) propose the use of WhatsApp for group teaching and learning as well as socialising among students. WhatsApp creates a collaborative and reflective learning environment to serve as an opportunity for professional growth (Choo et al.,2016a; Mpungose, 2020). Although WhatsApp is used to share informal experiences in student-centered learning contexts (Mpungose, 2020), the application is also reported to foster critical thinking when students analyse and evaluate learning content (Kustijono & Zuhri, 2018).

Smartphones with the WhatsApp application are used in a diversity of learning environments (Shaaban, 2020), including at previously disadvantaged HEIs in South Africa, where laptops and desktop computers are not always accessible to students (Gasaymeh, 2017). Prerequisites for the use of WhatsApp are access to a smartphone, a stable network and sufficient data (Gon & Rawekar, 2017). Despite all the positive features of the WhatsApp application mentioned in the literature, it remains an instrument controlled by human beings who are unique and unpredictable due to diverse characteristics, backgrounds, and contexts. Knowledge of possible pitfalls will prepare teacher educators for possible challenges in supporting students to benefit optimally from the advantages of this application when used for learning.

3.6.2.1 Advantages and challenges of WhatsApp

Adding to advantages implied by the use of WhatsApp for teaching and learning discussed above, WhatsApp is also described as inexpensive (Agrawal et al. 2019), user-friendly (Dahdal, 2020; Wijaya, 2018), a medium for easy communication (Ajid et al., 2018; Choo et al., 2016a; Gasaymeh, 2017; Khalil et al, 2017; Mpungose, 2020; Shaaban, 2020), and a platform for interactions (Alubthane & ALYoussef, 2021; Mpungose, 2020), that encourages dialogue (Ajid et al., 2018). Students do not need excessive training to use WhatsApp (Gasaymeh, 2017), with the benefit that collaborative communities are established while using WhatsApp (Agrawal et al. 2019; Ajid et al., 2018). More advantages include the support for collaborative learning and

discussions (Thaba-Nkadimene, 2020) and stress-free and enjoyable collaborative WhatsApp writing (Khalil, 2017). Wijaya (2018) conducted a study that confirmed advanced learning in a HEI with the use of WhatsApp and Alqahtani et el. (2018) assert improved motivation, attitude and confidence of students using WhatsApp.

Immediate feedback makes it possible for the sender to know when a message is received and read by the receiver (Gasaymeh, 2017) as well as the time and date accessed with an indication whether a person is online or offline (Thaba-Nkadimenle, 2020), enabling students to monitor WhatsApp messages that were sent to fellow students. Motivated by various advantages of WhatsApp for education mentioned in the literature, Gasaymeh, (2017) and Ajid et al. (2018) propose the formal integration of WhatsApp in teaching and learning due to its functionality. Although various advantages of WhatsApp prevail, challenges are evident and need mentioning.

The use of WhatsApp causes eyestrain and the reading of an abundance of messages can become time-consuming (Annamalai, 2019; Gon & Rawekar, 2017; Kustijono & Zuhri, 2018). Although WhatsApp enhances active learning and collaborative learning, Dahdal (2020) found that the application in its current form does not build collaborative content, while Annamalai (2019) identified a lack of deep learning due to small screens when used for learning tasks and essays. Furthermore, creating WhatsApp groups for collaboration results in challenges such as a lack of privacy and security (Gasaymeh, 2017; Shaaban, 2020). Cetinkaya, (2017) reports that students tend to lose attention when using WhatsApp for a learning task. This is confirmed by Ajid et al. (2018) who report student deviation from learning on a mobile device with its social features. Cost implications of smartphones and technical problems add to the challenges when using WhatsApp for learning (Annamalai, 2019; Shaaban, 2020).

Recommendations are made in the literature for the use of WhatsApp that may alleviate some of the challenges. These include the prevention of nonprofessional conduct, ensuring clarity of instructions delivered via WhatsApp, laying down rules and setting time limits for student responses, stimulating activities, and meaningful use of synchronous as well as asynchronous interactions to maintain students' interest (Shaaban, 2020). Alubthane and ALYoussef (2021) suggest the designing of a policy for WhatsApp groups to ensure students' questions are adequately addressed and to prevent diversion from topics at hand. Some of these challenges are beyond the students' control and difficult to resolve.

Both blogging and WhatsApp hold promise as opportunities for rational discourse to motivate transformative learning as suggested by Mezirow (1990). The use of journals to support reflective learning is reported in the literature.

3.6.3 Journals to support critical reflective learning

Researchers agree on the value of journals to support critical reflective learning in the context of teacher development (Brookfield, 2017; Dreyer, 2015; Lowe et al., 2013; Moon, 2006). Although alternative terms are mentioned in the literature such as learning journals (Moon, 2006), reflective journals (Lowe et al. 2013; Maarof, 2007) or reflective learning journals (Thorpe, 2004), Moon (2006) argues that, ultimately, reflective learning remains the purpose irrespective of the name given to the document. Moon (2006) mentions the shift to electronic journals that are replacing written journals. Although journals may have features such as easier editing and allowing more parties access to one's writing, the author argues that the same principles apply irrespective of the medium (Moon, 2006).

Thorpe (2004) describes a reflective learning journal as a "written document that students create as they think about various concepts, events, or interactions over a period of time for the purposes of gaining insights into self-awareness and learning" (p. 328). This definition concurs with the view of Moon (2006) who did seminal work on journals in the context of education. (Moon (2006) defines a learning journal as "an accumulation of material that is mainly based on the writer's processes of reflection" (p. 1). This definition emphasises that developing reflective competence is a lifelong process. Therefore, the purpose of learning journals is to enhance learning through reflective writing over a period of time (Moon, 2006; Thorpe, 2004).

Advantages of a learning journal include its motivating and guiding role in the learning process (Murillo-Llorente et al., 2021; Moon, 2006). Learning is enhanced when students document their understanding, lived experiences, opinions, thoughts and personal feelings (Hiemstra, 2001; Murillo-Llorente et al., 2021; Snyder, 2014). Through journaling students are guided to link and compare prior knowledge and new knowledge (Moon, 2006). Hiemstra (2001) further identify cognitive growth and opportunities for self-reflection and to solve problems as advantages of learning journals. Similarly, Moon (2006) argues that learning journals contribute to cognitive growth with emphasis on metacognition through reflecting on one's own learning process. Lowe et al. (2013) add that a teacher journal can serve as an instrument to articulate teaching experiences including challenges, coping mechanisms, and changed frames of reference. Linking to Mezirow's TLT (1990, 1995, 2003), a journal can therefore assist transformative learning motivated by a rational discourse with the self. In this way a journal can foster critical self-reflection on assumptions and the limitations of one's frames of reference concerning teaching practice (Shandomo, 2010).

Moon (2006) highlights the role of a learning journal as a vehicle for critical reflection. This view is echoed by Lowe et al. (2013) who propose journaling to assist the process of CR:

> *By implication, critical reflection involves the ongoing ability to take a wider view of a situation and work through ways forward for the individual within situations they find themselves in, and journaling offers a powerful medium for helping with this process. (p. 4)*

Measuring the level on which students reflect was not the aim this study. However, acknowledging the levels on which critical reflection is demonstrated in written text is crucial when striving to support CR through journaling (§3.6). Hatton and Smith (1995, p. 48) provide criteria for reflective writing with the lowest level described as *descriptive writing* followed by *reflection* with evidence of a rationale for one's thinking. The third level, namely d*ialogic reflection* implies the "stepping back" from one's action and "mulling about discourse with self and exploring the discourse of events and actions". (p. 10). The highest level, namely *critical reflection* is characterised by "an awareness that actions and events are located in and influenced by multiple historical and socio-political contexts" (p. 19). Dialogic and critical reflection as outcome of reflective writing link to Mezirow's (2003) theory of transformative learning through discourse (§1.4). This relationship strengthens the surmise that a reflective journal has the potential to support the level of reflection to be developed by teachers essential to motivate an alternative approach to practice when necessary.

Despite the strong support for journals as instrument to enhance learning, challenges reported should be acknowledged when using journals to support CR. Some cultures with a focus on verbal learning find writing down their experiences and thoughts in journals challenging (Snyder, 2014). This statement echoes the argument by Hatton and Smith (1994) that the use of language in reflective writing may be hampered by students' socio-economic backgrounds and vice versa. Students who are uncomfortable with sharing their reflections, may experience a constant fear of judgment when their journals are scrutinised by others (Snyder, 2016). Hatton and Smith (1994) furthermore argue whether it is morally justifiable to assign marks for student journal reflections and if this assessment is a valid reporting of student learning. A major challenge when employing journals to support CR is students' lack of reflective competence (Jarvis & Baloyi, 2020). Jarvis and Baloyi (2020) suggest scaffolding of reflection in a "phased introduction of reflective journaling" (p. 6). Although Moon (2006) regards unstructured reflective journals advantageous due to its flexibility, she suggests that it may be necessary to start with a journal that is relatively structured before moving to a freer format. Considering the strong support in the literature for journals as instrument to mediate transformative learning, journals should be explored as instrument to equip prospective teachers to transform practice.

These strategies were therefore explored as communication platforms to guide students in rational discourse to equip them as critical reflective teachers who can play a role in transforming music education practice.

3.7 Conclusion

Chapter 3 reported on the literature explored to inform approaches to equip FP students for the transformation of music education practice. The literature initially focused on aspects that need to be considered when designing strategies to prepare FP students as agents of change in music education. These aspects include delivery modalities used by HEIs for teacher education and principles to consider when aiming to develop generalist FP teachers competent to teach music. Motivated by the concurrence in the literature on the role of reflective and critical reflective learning in transformative learning, these social constructs were further explored in the context of teacher education. To inform strategies to be devised and implemented in the phases of the DBR, research focusing on the use of blogs, WhatsApp and online journaling to mediate individual and collaborative critical reflective learning was documented. Chapter 4 outlines the methods used in generating, collecting, and analysing data during two cycles of a DBR.

CHAPTER 4 RESEARCH METHODOLOGY AND DESIGN

4.1 Introduction

The research problem explicated in Chapter 1 is a real-world problem exacerbated by the perception that music is an insignificant adjunct to the South African FP curriculum. Considering the value of music for FP learners' development (§2.5) and the current decline in music education in the FP (§2.2), the transformation of these perceptions is necessary and important. Critical reflection supports transformative learning that aims to change unfounded perceptions (Mezirow, 1990, 1991). Critical reflection requires a change in the way people think and goes beyond surface level thinking by including ethical and moral aspects in societies and schools (Robinson & Rosseau, 2018). Concurrence in the literature on the role of CR as a vehicle for transformative learning motivated the designing of critical reflective tasks as part of a teacher education programme to transform student thinking about music education and consequently their future music education practices.

A DBR methodology was conducted to attain the aim of the study namely to determine how individual and collaborative critical reflection can be fostered in a music education module to equip FP students to transform music education practice. DBR, with iterative cycles of implementation, reflection and redesigning, is a suitable methodology due to the improvement possibilities rendered by the design.

The sub-research questions guided the answering of the principal research question through the DBR process and were specifically formulated in relation to the focus of the three DBR phases which is illustrated in Table 4.1, that serves as orientation to the DBR.

Table 4.1: DBR Phases and related sub-research questions

Principal research question: *How can individual and collaborative critical reflection be fostered in a music education module to equip Foundation Phase student teachers to transform music education practice?*			
Sub-research questions	**DBR phase**		
i) What individual and collaborative critical reflective strategies can be employed in a teacher education music module to effectuate transformation in music education practice?	**Preliminary phase**	**Prototyping phase - two cycles**	
ii) How can individual and collaborative critical reflection in a music education module equip Foundation Phase student teachers to transform music education practice?			
iii) How do the findings of the design-based research explicate design principles for the fostering of individual and collaborative critical reflection in a music education module?			**Reflective phase**

The conceptual framework links the research question and sub-research questions to the "larger theoretical constructs" and clarifies the study's place within the bigger picture to illuminate the possible relevance of the study to the specific field (Marshall & Rossman, 2016, p. 6).

4.2 Theoretical-conceptual framework

This study is approached from a pragmatic and constructive perspective, with a specific emphasis on reflective student learning. The theoretical-conceptual framework of this study primarily draws on the TLT by Mezirow (1990, 1995, 1997, 2003) and Shulman and Shulman's (2004) framework of accomplished teacher development. Mezirow's theory (1990, 1995, 1997, 2003) is an authentic and evaluated theory, while the framework by Shulman and Shulman (2004) links associated elements of teacher competence to the TLT in a rational and orderly manner (Grant & Osanloo, 2014). Johnson and Olanoff (2020) adapted Mezirow's TLT (1990, 1995, 1997, 2003), by referring to a TL cycle. This adapted cycle and Shulman and Shulman's (2004) framework of accomplished teacher development, together constitute the theoretical-conceptual framework as illustrated in Figure 4.1.

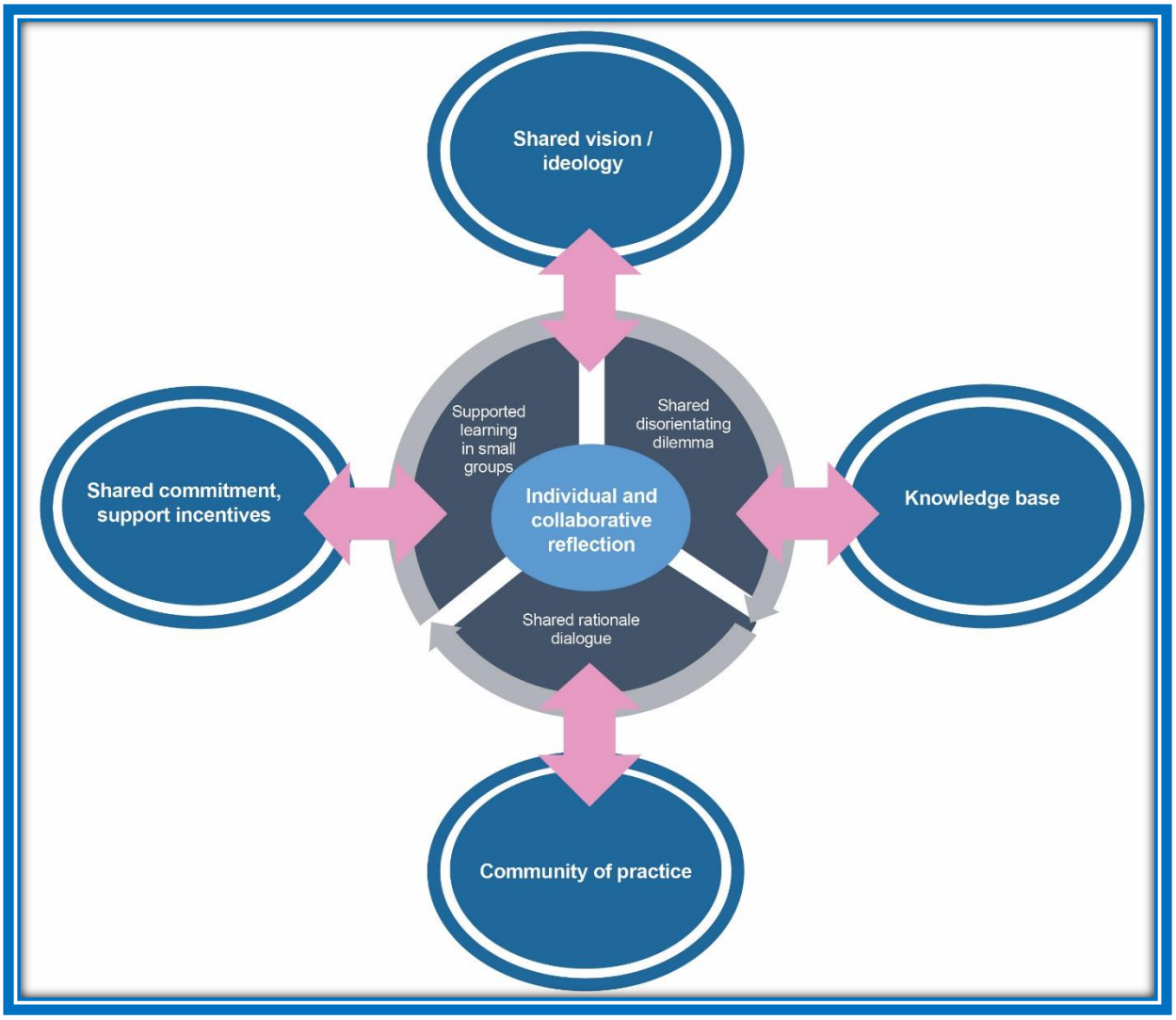

Figure 4.1: Theoretical-conceptual framework

Critical reflection is at the core of both the TL cycle (Johnson & Olanoff, 2020) and the framework of accomplished teacher development (Shulman & Shulman, 2004). This research study, therefore, focused on supporting the features of accomplished teacher development (Shulman & Shulman, 2004) through the fostering of individual and collaborative CR on disorientating dilemmas, with specific emphasis on transformative learning through shared rational dialogue (Johnson & Olanoff, 2020). When transformative learning is at the core of teacher development, it cultivates a change in beliefs and practices and holds the potential for lifelong teacher learning (Nerstrom, 2014). Reflecting critically on disorienting dilemmas is expected to create an awareness of the important role that music can and should play in effective FP music education.

Confirmation in the literature of the way in which CR and collaborative learning[19] complement both accomplished teacher development and transformative learning by teachers, thus gave impetus for the theoretical-conceptual framework (Figure. 4.1).

Chapter 3 (§3.3) elaborated on the concepts that stand central to the conceptual framework of the research comprising the dimensions of accomplished teacher development and transformative learning. The interrelatedness of these features in the context of music teacher competence is acknowledged, and all features are regarded as equally important in securing accomplished teacher development. However, all features of teacher development are directed by "a highly developed and articulated vision" of practice, and collectively contribute to the transformation of practice (Shulman & Shulman, 2004, pp. 260-261). Shulman and Shulman (2004) postulate that their model is equally applicable to pre- and in-service teacher development. HEIs have the responsibility to support the development of these competencies through the provision of pre-service teacher education programmes.

4.2.1 Teacher vision

Shulman and Shulman (2004) uphold the view that an accomplished teacher will typically demonstrate a vision and understanding of student learning as an "active, constructive and metacognitive process" (pp. 260-261) that includes a variety of individual and collaborative learning tasks. To reflect in collaboration with fellow students or colleagues as a CoP, where teachers (or students) encourage and support each other to obtain a vision of the benefits of music engagement and integration for optimal learning in the FP classroom, holds value for the transformation of music education practice. Such collaborative reflection will enable teachers and students to progress from an individual vision to a shared vision in practice (Darling-Hammond & Baratz-Snowden, 2007). A vision guides teachers to reflect on their teaching (Husu & Tirri, 2007), provides a sense of purpose (Darling-Hammond & Baratz-Snowden, 2007) and plays an essential role in teacher motivation (Husu & Tirri, 2007; Maaranen et al., 2016).

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[19] Collaborative learning occurs when two or more students collaborate to solve a problem (Kumar, 1996; Laal & Ghodsi, 2012; Lai, 2011), to produce a product (Laal & Ghodsi, 2012), and aim to gain knowledge (Noh & Yusuf, 2018). Collaborative groups are similar to cooperative group learning in the sense that, in both approaches, group members are responsible for reciprocal learning (Davidson & Major, 2014; Gokhale, 1995). However, collaborative groups differ from cooperative groups by not having assigned group roles. In collaborative groups, groups manage themselves and members operate independently from instructors (Davidson & Major, 2014).

4.2.2 Teacher motivation

Developing a new vision of practice is meaningless when teachers lack the willingness to change their old ways (Shulman & Shulman, 2004; Vaughn & Faircloth, 2013). Shulman and Shulman (2004) suggest that an accomplished teacher may possess a vision for teaching, but may lack the required motivation to change, or the teacher may need the support of colleagues to motivate a change in practice. This principle also applies to students. These authors acknowledge that the presence or absence of internal and external motivating factors could be responsible for teacher motivation or the lack thereof. Teacher motivation is strongly dependent on self-efficacy beliefs (Durksen et al*.,* 2017) while self-efficacy is dependent upon the presence of a strong knowledge base (Mahler et al., 2017). This relationship is echoed by Nikolić (2018) and strengthens the premise that teachers' or students' attitudes to teaching music as anticipated by the school curriculum will be dependent on a good a knowledge and skills base.

4.2.3 Teacher knowledge and skills

Shulman and Shulman (2004) refer to the knowledge that accomplished teachers must acquire, such as content knowledge of various subjects and disciplines, and pedagogical knowledge that enable teachers to distinguish suitable teaching from less suitable teaching, and to realise that learners learn in different ways. In his seminal work in which he describes a professional teacher knowledge base, Lee Shulman (1986) suggests three categories relating to teacher knowledge, namely, "subject matter content knowledge, pedagogical content knowledge, and curricular knowledge" (p. 9). While all knowledge domains play a decisive role in teaching and learning outcomes, Shulman (1986) emphasises that PCK "goes beyond subject matter *per se* to the dimension of subject matter knowledge for teaching" (p. 9). This kind of knowledge is therefore crucial to equip teachers as agents of change by applying pedagogical logic, grounded in a deep understanding of the content, and how learners acquire this content to ensure that learners benefit optimally from education (Ulferts, 2019). Based on the argument raised by Fook and Askeland (2007), a sound knowledge base is necessary to support meaningful CR.

4.2.4 The role of critical reflection in accomplished teacher development

Shulman and Shulman (2004) place CR at the heart of the teacher's learning process. To conduct a "critical analysis of one's own practice and critical examination of how well students [learners] have responded, are central elements of any teaching model" (Shulman & Shulman, 2004, pp. 263-264). A critical analysis of practice is a precursor for CR, which is a requisite for a transformation of practice (Kember et al., 2008; Larrivee, 2000).

Through CR one becomes aware of the contradictions between a vision of meaningful education practice and one's own assumptions. Such an awareness can serve to motivate a change of practice (Hammerness, 2006; Shulman & Shulman, 2004). Various educationalists confirm the role of CR in transformation (Kember et al., 2008; Larrivee, 2000; Shön, 1987). CR is generally regarded as the highest level of reflection that involves higher order thought processes that result in change (Kember et al., 2008; Yost et al., 2000). There is concurrence in the literature that this highest level of reflection questions the underlying assumptions as well as ethical, moral, political, and historical issues that may influence teaching decisions or actions (Campbell, 2008; Jay & Johnson, 2002; Van Manen, 1977; Yost et al., 2000). Ng and Tan (2009) suggest that CR is necessary to lead to corrective change in assumptions or habits that inform teachers' actions. The literature also supports CR as a model for professional teacher development where a moral teaching practice is imperative (Brookfield, 2017; Fook & Gardner, 2007; P. B. Joseph, 2016; Shandomo, 2010).

The literature distinguishes between individual and collaborative CR. Wang and Quek (2015) describe individual CR as the enhancement of one's viewpoint, to promote critical thinking, to improve own intellectual awareness, and to create own transformation. Collaborative CR is depicted by Yukawa (2006) as a mode to use critical thinking to understand and exchange thoughts, and to build knowledge collaboratively.

Grounded in TLT (Mezirow, 1990, 1995, 2003), collaborative critical reflective learning on all aspects of music education by students could serve as a springboard for transformative learning and changed perceptions of music education. Motivated by the literature (Campbell, 2008; Jay & Johnson, 2002; Van Manen, 1977; Yost et al., 2000), the provision of guidance to students to reflect individually and collaboratively on critical incidents encountered in their learning about music education, can create an awareness of moral, ethical and political issues related to the music curriculum or pedagogy used for the teaching of music education in a diverse educational context. When collaborative student learning mediates CR, individual learning is also strengthened through a shared vision, motivation, knowledge and skills (Shulman & Shulman, 2004).

4.2.5 The teacher as a participant in a community of practice

The notion of a CoP was initially put forth by educational theorist Etienne Wenger and cognitive anthropologist Jean Lave in their 1991 book Situated Learning (Lave & Wenger, 1991). In collaboration with colleagues, Wenger did extensive work on the concept. Wenger et al. (2002) later defined a CoP as "a group of people who share a concern, a set of problems about a topic and deepen their knowledge and expertise in this area by interacting on an ongoing basis" (p. 4).

Collaborating as a member of a CoP serves as a quick way to find answers to practice issues while at the same time providing opportunity for the transfer of best practice amongst the CoP members, thereby developing professional skills (Wenger & Snyder, 2000). Shulman and Shulman (2004) refer in a similar way to the CoP as a communal cluster where members are supported through "deliberation, collaboration, reciprocal scaffolding, and distributing expertise." (Shulman & Shulman, 2004, p. 265). Practices and teachers' beliefs of practice are influenced when they become members of a CoP (Shulman & Shulman, 2004; Tam, 2015). Although exploring the establishing of a CoP was not the aim of this research, Shulman and Shulman (2004) suggest that prospective teachers are prepared for professional communities once they enter practice.

The South African DBE (2015) expects teachers to participate in learning communities as an opportunity to "gain a deeper understanding of educational processes through collaborative and reflective inquiry" (p. 7). Learning becomes effective through metacognitive awareness, analysis of own learning, and the support of community members (Shulman & Shulman, 2004). The value of teacher collaborative reflection for support and encouragement as well as to foster learning from and in practice, is evident. When these skills are supported in teacher education, students are prepared for collaborative critical reflection to enhance learning in and from practice (Bolhuis, 2003; Ng & Tan, 2009; Patton & Parker, 2017). Incorporating collaborative learning experiences in teacher education programmes, allows students to benefit from communal support while being prepared for active participation in a CoP. In DL programmes, where students often feel isolated, collaborative learning can support teaching -, social - and cognitive presences to strengthen learning outcomes (Garrison, 2003; Parlakkilic, 2014).

The development of teachers' vision, understanding, practice, skills, motivation, and reflections on "the individual and community levels [of learning] is both independent and interactive" (Shulman & Shulman, 2004, p. 267). Combining individual and collaborative reflection holds value for transformative learning (Kruger & Buley, 2022; Mezirow, 2003; Steyn, 2017). Therefore, DBR was implemented to explore how to incorporate both individual and collaborative CR in a music module that forms part of a teacher education program, as set out in the research methodology.

4.3 Research methodology

A pragmatic paradigm influenced the methodology that involved a qualitative research design following a DBR methodology.

4.3.1 Research paradigm

Patton (1999) describes a paradigm as built on habits, beliefs and assumptions in the real world, while Creswell and Creswell (2018) prefer the terminology 'worldview', based on a discipline and past experiences of the researcher in a real-world research setting. What researchers believe, accept and understand with regards to the world, influence their approach to exploring the world. This paradigm is also reflected in work by Dewey (1948) who proposes 'learn by doing' in his early writings. The truth is never fixed in pragmatism and changes occur all the time, similar to life and reality, therefore, the belief in continual change of the truth (Adeleye, 2017; Sharma et al., 2018). Changes occur due to intervention in real-world scenarios with the focus on what people do to make the world meaningful (Goldkühl, 2004).

Researchers' worldviews influence their research approaches in the domains of axiology, ontology, epistemology, and methodological choices (Kaushik & Walsh, 2019; Kivunja & Kujini, 2017). Kaushik and Walsh (2019) describe axiology as "beliefs about the role of values and morals in research" (p. 1). Ontology is the researcher's assumptions about the nature of reality while epistemology refers to a researcher's "assumptions about how we know the world" and "how we gain knowledge". The authors describe ontology "as the relationship between the knower and the known". A paradigm influences a researchers' methodology based on an "understanding of how to gain knowledge about the world." A paradigmatic choice determines the rhetoric which refers to a "shared understanding of the language of the research." (Kaushik & Walsh, 2019, p 1).

This research is grounded in the belief that moral research should make a practicable contribution to education. Therefore, concerning *Axiology*, the research study had a practice-based aim, namely, to explore how to improve the way critical reflective competence is fostered within students. This competence plays a crucial role when making informed and culturally responsive choices to ensure all learners benefit from the value of music education. Concerning the *Ontology*, the research acknowledges multiple realities influenced by factors such as diverse socio-economic and educational environments in which education should make an impact. True understanding and interpretation of the problem and solutions are thus only possible when investigated from different angles. Therefore, the literature review, the views and experiences of the lecturer together with data collected from participants, informed the analysis and the findings. *Epistemologically*, the researcher's knowledge about the design principles to support transformative learning is informed by social experiences. Each person's knowledge is unique as it is created by her/his unique experiences. It is acknowledged that reality can only be known from hearing the voices of teachers who must implement the music curriculum in diverse and challenging contexts. Therefore, influenced by the axiology, ontology and epistemology, the

methodology focused on hearing the voice of the participating students through individual semi-structured interviews and by documenting their collaborative knowledge-building (Stahl, 2000). As suggested by Kaushik and Walsh (2019), the rhetoric was typically grounded in qualitative methods and data were collected through informal verbal communication. This enabled the researcher to "develop a subjective understanding" (p. 2) of the participating students' experiences and views of the way the CoP supported them in their implementation of the music. Pragmatism stands central to this research study with its focus on what works in a specific context (Creswell & Creswell, 2018; Sharma et al., 2018). While the DBR is deemed suitable for the implementation of interventions (Creswell & Creswell, 2018), the pragmatic paradigm is obvious due to the endeavour of this research to effectuate change in real-world events. In this research, the design features of a music education module were adapted and implemented, followed by reflection and redesigning for improvement of the design to meet the set aim. The expectation in this research is the transformation of music education in the FP by equipping prospective teachers with music competence and reflective skills with CR at the centre, therefore, the implementation of a qualitative research design to investigate real-world problems.

4.3.2 Research design

A qualitative research approach is defined by Gay et al. (2012) as "the collection, analysis and interpretation of comprehensive narrative and visual (i.e., nonnumerical) data to gain insight into a particular phenomenon of interest" (p. 7). Qualitative research is natural research, collected in participants' natural environments (Smith et al., 2011) where participants feel comfortable (Halcomb, 2016; Patton, 2015). Qualitative methods ask and answer questions regarding the meanings, experiences, and personal perspectives of participants (Hammarberg et al., 2016) by focusing on 'how', 'who', when', 'where' and 'why research questions (Gay et al. 2012; Leung, 2015) that cannot be answered in quantitative research (Busetto et al., 2020).

Creswell and Creswell (2018) describe qualitative research as collecting participants' responses and analysing and interpreting data to understand human or social problems. Although qualitative data presents thick and rich descriptions of experiences in participants' own words (Collins & Stockton, 2018; Patton, 2015), Patton (2015) refers to literature by critiquing qualitative data analysis and interpretation based on its subjectivity. However, Patton (2015) emphasises the place of qualitative research when the aim is the understanding of "a person's situation and perspective without judging the person, by communicating that understanding with authenticity, to build rapport, trust and openness" (p. 112).

This qualitative research, within the pragmatic paradigm, employed DBR that follows a process of designing, implementing and evaluating interventions for the improvement of the design.

4.3.3 Design-based research

The use of basic research is described by Gay et al. (2012) as the development of theory without proposing solutions for learning problems in education. DBR is suggested as a contrasting research approach where multiple analyses of data occur to find solutions for educational problems and, therefore, improvement of the design (Ford, et al., 2017; Herrington et al., 2007; Wang and Hannafin, 2005). DBR researchers are agents of change in contrast to traditional researchers who are less involved in the research process (Barab & Squire, 2004). Gay et al. (2012) describe DBR as applied research for "applying or testing a theory to determine its usefulness in solving practical problems" (p.16). DBR is pragmatic in nature (Herrington et al., 2007; Wang & Hannafin, 2005) and anticipates change as an outcome (Abdallah & Wegerif, 2014; Amiel & Reeves, 2008; Wang & Hannafin, 2005). Although Bakker and Van Eerde (2015) describe DBR as a longitudinal and challenging approach due to its duration, the authors declare the use of DBR as rewarding.

The advantages of DBR such as an increase in SDL (Ford et al., 2017) and bridging the gap between research and practice, are reported in the literature (Abdallah & Wegerif, 2014; Anderson & Shattuck, 2012). The cyclical, interventionist approach of DBR (Anderson & Shattuck, 2012; Bakker & Van Eerde, 2015; Christensen & West, 2013) with iterative cycles of designing, reflecting and redesigning innovations (Amiel & Reeves, 2008; Johnson et al., 2014; Wang & Hannafin, 2005), renders design principles that can be further developed in follow-up research in future (Amiel & Reeves, 2008; Anderson & Shattuck, 2012; Cobb, et al., 2003). Learning is manipulated by DBR interventions (Bakker & Van Eerde, 2015) to enable a better understanding of teaching and learning (Juuti et al., 2016). Herrington et al., (2007) furthermore, view DBR as a way to address practitioner problems that include learning from each other. Van den Akker (1999) proposes two goals of DBR intervention, namely, to suggest ideas (focus on the practical) and to generate design principles (to produce knowledge).

Although the researcher and lecturer of the music module collaborated in the process of designing, reflecting and redesigning (Anderson & Shattuck, 2012; Barab & Squire, 2004), the researcher had multiple roles in the DBR methodology (Christensen & West, 2017) including researcher, designer, theorist and project manager, which is explained in more detail in Section 4.7.

Any design decision inherently alters the research. Similarly, research decisions place constraints on the design. Although the iterative nature of DBR does not allow the testing of theory but rather contributing to theory. The contribution of DBR to theory are confirmed by Barab and Squire (2004) and Anderson and Shattuck (2012), while Cobb et al. (2003) propose: "design experiments

are conducted to develop theories not merely to empirically tune 'what works'" (p. 10). The contribution to theory in this study is the rendering of a framework with design principles and is confirmed by Anderson and Shattuck (2012), Barab and Squire (2004) and Cobb et al. (2003).

Earlier work by Amiel and Reeves (2008) suggests four phases in a DBR research study, but the researcher opted to use the shorter three-phase DBR model designed by Abdallah and Wegerif (2014) appropriate for utilisation in doctoral studies.

The methodology followed in this research study is grounded in the DBR model suggested by Abdallah and Wegerif (2014) (Figure 4.2) and consisted of a *preliminary phase, prototyping phase* and a *reflection phase*.

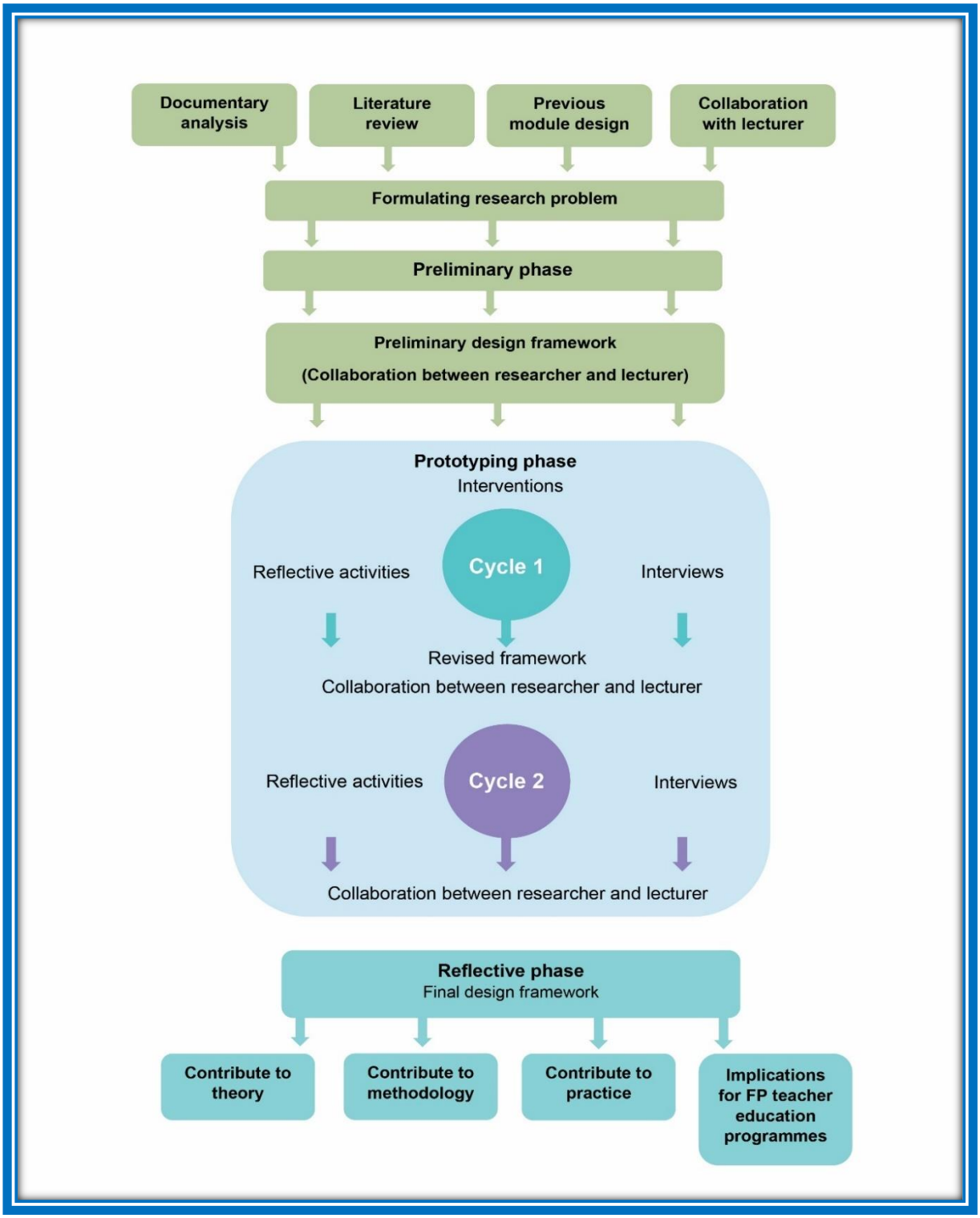

Figure 4.2: DBR model by Abdallah and Wegerif (2014)

4.3.3.1 Preliminary phase

The implementation of the *preliminary phase* contributed to framing the research problem (Wang & Hannafin, 2005) and guided the design of the CR tasks to be implemented in the prototyping

phase. The *preliminary phase* comprised a literature review (reported in Chapters 2 and 3), as well as an analysis of related documents and reflective discussions by the design team on the design of previous reflective tasks.

4.3.3.2 Prototyping phase

Phase two, the *prototyping phase* (Figure 4.3), consisted of the implementation of two cycles which is the minimum cycles to effectuate design improvement (Herrington et al., 2007). The implementation of the design features in each cycle, comprising individual and collaborative reflective strategies, was followed by individual semi-structured interviews with the participants that informed the evaluation of the design features (Abdallah & Wegerif, 2014).

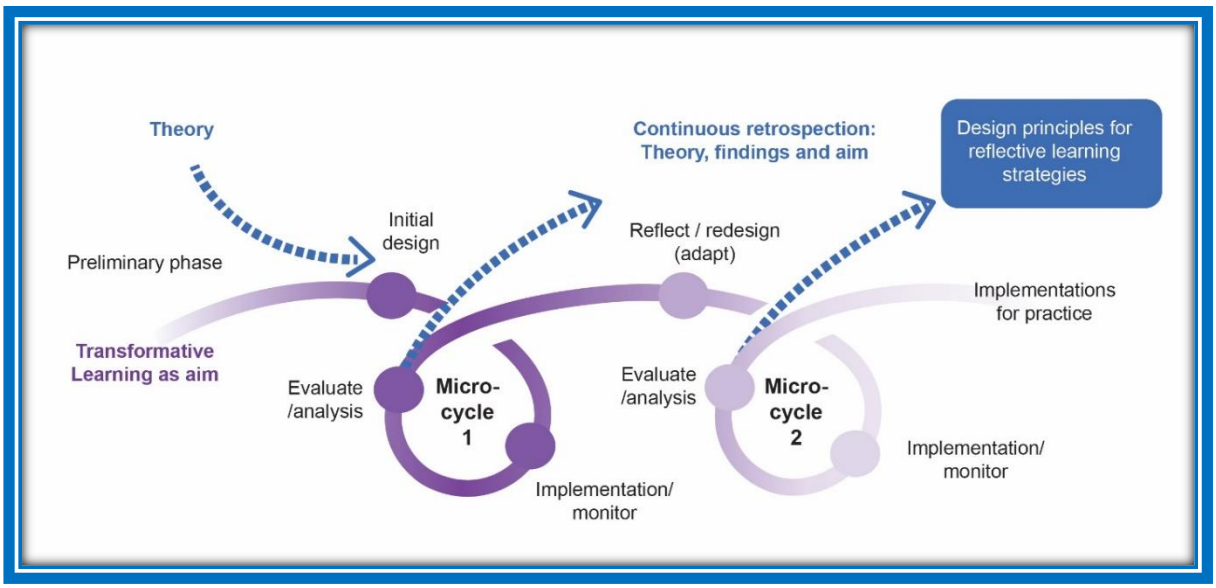

Figure 4.3: Prototyping phase: cycles 1 & 2

Figure 4.3 is a visual representation of the designing, evaluation, and redesigning process of the two cycles implemented in the *prototyping* phase as phase 2 of the DBR model based on the model by Abdallah and Wegerif (2014).

The designing of individual and collaborative reflective tasks was motivated by Stahl's model (2000) of social knowledge-building. Individual and collaborative reflective learning in the music module was scaffolded in two cycles. Scaffolding, reported by Vygotsky and Malik in the literature, identifies the developmental process that learners undergo. In this regard, Vygotsky (1978) mentions the Zone of Proximal Development (ZPD) by referring to what learners have achieved and what is still in the developmental process of maturation (Vygotsky, 1978). Malik (2017) concurs in describing ZPD as the area between learners' intellect and potential intellect that could be obtained through collective guidance referring to a developmental process. Van der Stuyf

(2002) contends that scaffolding provides students with the opportunity to progress from one level of competence to another until they work independently while building on prior knowledge. The prompts provided through collaborative tasks in cycle two especially, served as scaffold for the development of critical reflective skills through collective guidance (Malik, 2017). Task instructions strived to scaffold critical reflection on the module content as well as by progressing from an individual to a collaborative reflective level.

After the researcher analysed the data collected in cycle one, the design team collaboratively reflected on the findings that informed the revision of design features to be implemented in cycle two (Appendix A).

Decisions on the reflective learning strategies as well as platforms used to mediate reflective individual and collaborative meaning making in the two cycles were grounded in findings from the preliminary phase. Findings in cycles one and two are reported in detail in Chapter 5.

4.3.3.3 Reflective phase

Phase 3, the *reflective* or assessment phase (Abdallah &Wegerif, 2014), involved collaborative reflection by the design team on the analysis of the data collected in the first two phases of the DBR. This phase comprised “thoughtful discussion of the main strengths and weaknesses in the light of the main design principles” (Abdallah & Wegerif, 2014, p. 20). Reflection by the design team in this phase informed the designing of a framework for supporting individual and collaborative CR in a teacher education programme to equip FP teachers as agents for the transformation of music education practice.

Although each phase plays an indispensable role in the design process, the reflective phase of the DBR is of specific importance based on its contribution to methodology, practice and theory (Abdallah & Wegerif, 2014).

4.4 Methods

The DBR phases discussed above provides context for the specific methods used to generate data. Although crucial information about the module design and student tasks were obtained from the lecturer who formed part of the design team, it was important to collect data from the students as study population. Hearing the voice of the students based on their lived experiences was crucial to understand the meaningfulness of the reflective learning activities and to adapt the design based on their lived experiences of the module and the reflective activities.

4.4.1 Population and sampling

The population sampled for the study consisted of second-year full-time contact and distance students enrolled for a BEd FP degree, as well as the module lecturer as the design partner. The lecturer who developed the study guide for this music module, and who was responsible for the teaching and learning of this module, had a personal interest in exploring how to improve the reflective tasks that formed part of the assessment plan, to support transformative learning.

Voluntary sampling as a form of purposive sampling (Murairwa, 2015) was employed. Thus, all students who were registered for the module and who opted to participate were included in the sample. While the reflective questions and tasks implemented in the two cycles formed part of the assessment plan for the module, only reflective tasks of students who opted to participate were included in the data set. An independent staff member uploaded a recruitment letter (Appendix C) on the institutional electronic LMS to recruit participants for the two DBR cycles. For both cycles, a letter of consent (Appendix D) was uploaded onto Google Drive and downloaded by willing participants. Those who opted to participate, completed, signed, and emailed the consent form to the researcher providing consent that their individual and collaborative reflections may be included in the data set and that they may be contacted for an individual interview. For cycle one, implemented in 2021, five students opted to participate and for cycle two, implemented in 2022, eight students opted to participate.

A qualitative design focuses on small samples where purposeful sampling results in a deep understanding of the case study, event or experience (Lester et al., 2020; Patton, 2015; Pawar, 2020). Furthermore, Patton (2002) and Smith et al. (2011) propose an in-depth investigation of data as more significant in qualitative research compared to the large numbers of participants in quantitative research. The smaller number of participants enabled the researcher to manage the data collected in two DBR cycles. To have access to the Internet and technological competence is a prerequisite for student registration at the HEI. Access to the Internet is a requirement for individual reflection on the zero-rated LMS of the HEI. Although there was no compensation for participation, participants received reimbursement for data to connect via WhatsApp for collaborative reflection, as well as for the individual semi-structured virtual interviews. The participant sample comprised contact and distance students who volunteered to participate in the research study. Data were collected from five participants in 2021 and eight participants in 2022. Tables 4.2 and 4.3 summarise the biographical information of the participants in 2021 and 2022 respectively.

Table 4.2: Participant information in 2021

Participant	DL / Contact	HL	Age	Previous Qualification	Current work experience	Other previous work experience
A	DL	Afrikaans	24 y	N/A	Teaching Gr 3 5 years	N/A
B	DL	Isizulu	50 y	Dip in Gr R Ed. Level 1 ECD	Teaching Gr R 17 years	N/A
C	DL	Afrikaans	25 y	N/A	Au Pair 2 years	N/A
D	Contact	Setswana	23 y	Dip in Sport Science	N/A	N/A
E	DL	English	47 y	Edu-care National Dip in Gr R Ed.	Teaching Grade RR & R 13 years	Hairdresser

Table 4.3: Participant information in 2022

Participant	DL or Contact	HL	Age	Previous Qualification	Current work experience	Other previous work experience
R	DL	Afrikaans	20 y	N/A	Teaching Gr 3 2 years	N/A
S	DL	Afrikaans	35 y	BA (Consumer Studies)	Secretary 7 years	Catering Secretary
T	Contact	Setswana	29 y	BA (Psychology)	N/A	N/A
U	DL	English	37 y	Chef qualification Certificates in retail and marketing management	Marketing Fundraising Events planning 2 years	Chef Food manager Marketing manager

Participant	DL or Contact	HL	Age	Previous Qualification	Current work experience	Other previous work experience
W	DL	Afrikaans	35 y	Advanced diploma in Somatology	Teaching FP 2 years	Somatologist Sales representative Air hostess Waitressing
X	Contact	Sepedi	22 y	N/A	N/A	N/A
Y	DL	Afrikaans	30 y	BA; PGDip Journalism MA Media Studies TEFL	TEFL lecturer 3 years	Au Pair Grade R assistant
Z	DL	Afrikaans	24 y	N/A	Teaching Grade 3 2 years	N/A

The average age of the thirteen participants in this research is 30 years and eight months and the average work experience in education among the ten working participants was three years and nine months. The relatively older average age of participants is due to their work experience prior to enrolling for a BEd degree. Ten of the participants were working while enrolled for DL education, which is regarded as a benefit of the DL delivery mode (§3.2). The majority were distance students due to the convenient option offered by HEIs to further their studies while gaining work experience and earning a salary at the same time. Students' individual and collaborative reflections were based on the reflective tasks implemented in each cycle and were analysed and interpreted with a focus on emerging teacher competencies necessary to act as agents of change.

4.4.2 Data collection in the two cycles

Data were collected through individual and collaborative reflective learning tasks and semi-structured interviews. Reflective tasks using blogs, online focus discussion groups, reflective journals and WhatsApp communication, provided information about the way the design of the reflective learning tasks supported CR. The individual interviews probed deeper understanding to

explore the real-life experiences of participants on the way these tasks supported their critical reflective competence.

Abdallah and Wegerif (2014) explain that DBR "is conducted in the real, complex, and messy learning/teaching contexts through iterative cycles of analysis, design, development, and implementation mediated by some interventions" (p. 5). The cyclic collection and analysis of the data in each phase and each cycle is an important part of DBR and was applied throughout the process.

The lecturer of the module and the researcher as the design team, collaboratively designed the individual and collaborative reflective strategies (Table 4.1). While the lecturer facilitated the implementation of the reflective tasks, the researcher collected and analysed the data in each cycle. The findings were shared with the lecturer during reflective discussions after each cycle. The design team then evaluated the outcomes of the tasks considering the specific aim of the DBR, namely, to foster CR with FP students through individual and collaborative reflective strategies, and thereby equip them to transform music education.

At the end of each cycle semi-structured interviews were also conducted via *Google Meet* with each participant that lasted 45 – 60 min. The comprehensive interview schedule for cycle one comprised twenty open-ended questions as well as follow-up questions to collect data on participants' opinions, ideas, and thoughts about the reflective learning strategies. The questions focused on biographical information and aspects related to teacher competencies, SDL, reflective learning, transformative learning, CoPs, the use of technology for reflective learning tasks as well as participant experiences of individual and collaborative reflection (Appendix B). The interview schedule for cycle two comprised only nine questions as well as follow-up questions focusing on: changed perceptions of music education; relationships, quality of reflections and the level of participation; willingness to share information and knowledge as well as participant experiences of individual and collaborative reflection (Appendix B). As suggested by Gay et al. (2012), the researcher strived to listen attentively during the interviews and avoided leading questions.

4.4.2.1 Data collection in cycle one

The data set of the first cycle comprised the individual and collaborative reflections as well as the data collected through the semi-structured interviews. The researcher had access to the LMS, onto which students' blogs were uploaded, as well as to the WhatsApp groups where students reflected collaboratively. Individual and collaborative reflective responses on both these platforms were downloaded during the course of semester two in 2021 and transferred as text in Word format. The researcher was an inactive partner in the collaborative reflective WhatsApp groups

for data collection. The individual semi-structured interviews conducted and recorded on *Google Meet*, were downloaded and transcribed manually by the researcher. Transcriptions were sent to the participants for verification at the closure of cycle one.

4.4.2.2 Data collection in cycle two

Revised reflective tasks in cycle two entailed that students submit two reflective portfolios on two separate due dates, the first in the middle and the second at the end of the semester. Individual and collaborative reflections to be compiled in the first portfolio focused on the content of units 1 and 2 and the individual and collaborative reflections to be compiled in the second portfolio focused on the content of study units 3 and 4. The compulsory individual reflections consisted of two reflective journals, with five questions each to guide the reflection (Appendix A). The two compulsory collaborative reflection tasks comprised three questions (Appendix A) to focus discourse on WhatsApp groups. Individual and collaborative tasks were submitted for assessment as PDF documents to the LMS as part of the respective reflection portfolios. Semi-structured individual interviews were again conducted with all participants at the end of the semester (Appendix B). As in the first cycle, the individual semi-structured interviews conducted and recorded on *Google Meet*, were downloaded and transcribed manually by the researcher. Transcriptions were sent to the participants for verification at the closure of cycle two.

4.4.3 Analysis of data collected in the two cycles

The researcher followed the data analysis steps proposed by Creswell and Creswell (2018) to analyse data collected in both cycles, namely, organising, transcribing and reading of the data, followed by coding and developing of themes and descriptions, and finally presenting the themes and descriptions. A thematic analysis recommended by Braun and Clarke (2006) and Lester et al. (2020), was applied. Braun and Clarke (2006) define thematic analysis as: “a method for identifying, analysing, and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail” (p. 6). Thematic analysis is flexible, useful and relatively easy to apply (Lester et al., 2020), and is suitable for rendering a report of real-world experiences and meanings of the participants in any theoretical framework (Braun & Clarke, 2006).

The researcher analysed and interpreted all data collected after each cycle. Findings on the data collected from the first cycle, informed the reflective adaptions to the design of the reflective learning tasks implemented in the second cycle. The data comprised all transcriptions of individual and collaborative reflections as well as the transcribed semi-structured individual interviews that enabled the researcher to compile a comprehensive view of participant experiences.

A hybrid approach of inductive and deductive analyses was followed. Inductive analysis refers to the recognition of patterns emerging from the data and the development of themes while deductive analysis refers to predetermined data selection where codes and definitions are recorded in a codebook as suggested by Creswell and Creswell (2018). This approach is described as a flexible, comprehensive, and balanced view of data analysis (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006; Xu & Zammit, 2020). First, a deductive theory-driven analysis (Crabtree & Miller,1992; DeCuir-Gunby et al. 2011; Xu & Zammit, 2020) was implemented whereby themes and categories were developed a priori, based on the theoretical-conceptual framework and the research questions as a lens for the identification of codes for the code book. Since the sub-research questions of this research study are directly linked to the concepts that make up the theoretical-conceptual framework, the code book directed the search for answers to the sub-research questions, that collectively informed the main research question, as suggested by Fereday and Muir-Cochrane (2006). A data-driven inductive analysis followed, to identify emerging determinants that play a role in students' reflective learning based on their lived experiences influenced by their personal knowledge, background, and views. These emerging codes assisted in linking theory to the contextual realities of teacher education in the South African context in the reporting of the findings.

The analysis approach used semantic and interpretative methods for meaning making (Braun & Clarke, 2006), where semantic analysis involves mainly surface level meaning or description, while interpretative analysis, in contrast, refers to deep level meaning that requires interpretation of the data. The software computer programme, ATLAS.ti™23 (Friese, 2019), was used for coding and categorising qualitative data to inform the development of themes needed for report writing. Data collected from blogs, WhatsApp text messages, and reflective journals, as well as semi-structured interviews collected in the two cycles were transcribed before the digital analysis. Networks were developed through ATLAS.ti™ to explore the relationships among themes and categories which guided the discussion of the findings reported in Chapter 5.

In the *reflective phase* of the DBR, retrospection on all data and findings emanating from the *preliminary* and the *prototyping phases* enabled the design team to conclude "whether the solution or intervention meets the pre-determined specifications, resulting in recommendations for improving the intervention." (Abdallah &Wegerif, 2014, p. 17). The *reflective phase* was thus deemed as a significant step in this research study.

4.5 Trustworthiness

Lincoln and Guba (1985, p. 301-327) suggest trustworthiness criteria to be used in a qualitative research approach and include “credibility”, “transferability”, “dependability” and “conformability”. Morrow’s framework (2005) was applied to guide adherence to these criteria.

4.5.1 Credibility

Credibility involves trust in the findings (Connelly, 2015) and refers to the consistency of the research that was ensured by the reflexive and collaborative nature of this research study. Collaborative reflection by the design team on the data collected from students ensured a fit between the students’ real-life experiences and the researcher’s interpretation thereof. The use of the participants’ direct quotations further strengthened credibility.

4.5.2 Transferability

Transferability refers to external validity (Hammarberg et al., 2016) which allows generalization of the findings to other contexts. Gay et al. (2012) view generalisation as not a concern of the qualitative researcher, therefore, more cases in case study research do not result in external validity nor does it enhance the possibility of generalisability. However, to enable other researchers to make an informed decision of the way the findings can be applicable to other settings, a transparent account of the analysis is reported (Connelly, 2015). Transferability is further strengthened by the detailed reporting of the DBR process to produce design principles for possible application in future research of a similar nature and context.

4.5.3 Dependability

Dependability refers to evidence of reliable data (Connelly, 2015). Korstjens and Moser (2018, p. 121) suggest an audit trail that serves to strengthen dependability by “transparently describing the research steps taken from the start of a research project to the development and reporting of the findings”. Keeping track of all processes in a researcher journal ensured detailed and transparent reporting of the DBR process that guided the representation of findings based on the data analysis.

4.5.4 Confirmability

Conformability is related to dependability and refers to the consistency of the study (Connelly, 2015). As for dependability, Korstjens and Moser (2018) emphasise the importance of an audit trail to strengthen confirmability. The researcher must provide evidence of researcher objectivity

and that the findings correspond with the data. Although the researcher acknowledges possible bias in this qualitative study, the relationship between the DBR processes, the data, and the findings, were clearly explicated to enable the reader to perceive the findings as adequate. The use of multiple data collection methods such as different data sources, reduces bias (Patton, 1999) and strengthens trustworthiness through data triangulation (Wilson-Lopez et al., 2019; Gay et al., 2012). Gay et al. (2012) propose two or more data sources as sufficient for triangulation. Semi-structured interviews as well as the analysis of text submitted as reflective tasks were analysed and interpreted continuously and retrospectively, thus providing an opportunity to support the findings from different angles. Collaborative reflection on the data with the lecturer of the music module, further served as a check that interpretations were linked to the data. The researcher kept a journal to record the entire collaborative design process as suggested by Cobb et al. (2003).

4.6 Ethical considerations

Ethical clearance was granted by the relevant Research Ethics Committee of the HEI in 2021 (Addendum E) to approach students for participation in cycle one and renewed in 2022 (Addendum E) to recruit students as participants in cycle two. Permission to conduct the research was obtained in writing from the HEI's Research Data Gatekeeper Committee in 2021 and 2022 (Addendum F). To prevent coercion to participate, an independent staff member uploaded a recruitment letter on the LMS (Addendum C) to invite second-year BEd FP students to participate in the research. The purpose of the research study and the roles of the participants were explained to participants after which they had the opportunity to ask questions. Students who opted to participate signed a letter of consent that explained all measures that would be employed to ensure safe, comfortable and voluntary participation in the research. Participants were also informed that they could withdraw from the research study at any stage of the research with no consequences.

Signed letters of consent were emailed to the researcher allowing the researcher to use their individual and collaborative tasks as well as to contact them for virtual semi-structured individual interviews that were recorded with their consent. The researcher approached participants with respect, while participants were informed to respect other participants during collaborative reflective tasks. The letter of consent ensured the participants' privacy and anonymity regarding the reflective tasks and the individual interviews.

The researcher acknowledged that participants (second-year FP students enrolled for a BEd degree) were from diverse backgrounds and socio-economic circumstances, and no participant was excluded due to prejudice from the researcher. Findings were reported anonymously to

protect participants' identities and participants were informed that the results of the research will be made available to them through a hyperlink to the report. Although this research study is considered to be low risk, the researcher ensured that the risk of possible participant discomfort was minimised. The well-being of participants outweighed the researcher's desire to solve the problem as suggested by Gay et al. (2012). All reflective data and recorded interviews were saved as password protected documents on an external hard drive and on Google drive and will be safely stored for a duration of five years. All personal information of participants were removed and a letter from the alphabet was assigned to each participant for the reporting of the findings.

4.7 Conclusion

Chapter 4 outlined the research methodology applied in this qualitative study with reference to the DBR methodology using a three-phase DBR model, namely, the *preliminary*, *prototyping* and *reflection phases*. The methodology followed in the DBR was grounded in the pragmatist paradigm.

The design strategies implemented in the *prototyping phase* were summarised followed by an explication of the methods implemented to collect and analyse the data collected in this second DBR phase. The objective of the *prototyping phase* was to explore how to design individual and collaborative critical reflective tasks in a music education module that forms part of a FP teacher education programme. This objective links to the aim of the DBR research study namely to determine how individual and collaborative critical reflection can be fostered in a music education module to equip FP students to transform music education practice. The chapter also motivated strategies employed to strengthen the trustworthiness of the qualitative study as well as steps taken to adhere to ethical issues.

Chapter 5 reports on the findings of the *preliminary phase* and unpacks the analysis of the data collected in the *prototyping phase* of the DBR, by discussing and interpreting the findings. The *reflective phase* of the DBR and the way the findings addressed the research questions, are motivated in Chapter 6.

CHAPTER 5 PRESENTATION OF RESEARCH FINDINGS

5.1 Introduction

The research problem stated in Chapter 1 was motivated by a personal concern about the decline in music education in the FP. This concern is echoed in the literature, pointing to a need for the transformation of music education in South African FP classrooms. Based on Mezirow's TLT (1990), equipping students as agents for this transformation requires that they are not only furnished with the relevant knowledge and skills to teach music, but should also be supported to develop critical reflective competence to challenge their own assumptions of music education. Transformative learning by students is requisite to equip them to transform their music education practice. This argument informed the principal research question of the research, namely:

> *How can individual and collaborative critical reflection be fostered in a music education module to equip Foundation Phase student teachers to transform music education practice?*

The DBR methodology explicated in Chapter 4 was implanted to address the sub-research questions with focus on the three DBR phases suggested by Abdallah and Wegerif (2014), namely, the *preliminary, prototyping*, and *reflective phases*.

5.2 Findings: Preliminary Phase

The findings on the data collected in the *preliminary phase* were concerned with information collected from the literature reported in Chapters 2 and 3, as well as with the analysis of related documents and reflective discussions by the design team on the design of previous reflective tasks. This information informed the design of the reflective tasks implemented in the second phase of the DBR, namely the *prototyping phase.*

The *preliminary phase* was informed by the design team's collaborative reflection, evaluation and redesigning of the reflective tasks implemented for the module in the previous year (2020). The significance of music education in the holistic development of young learners is endorsed by the literature reported in Chapter 2 (§2.5). Grounded in related literature, teacher competencies and critical reflective skills that should be developed through teacher education programmes to equip students for effective music education as stipulated by the CAPS (DBE, 2011), were reported in Chapter 3 (§3.3).

5.2.1 Document analysis

The three documents analysed included the Minimum Requirements for Teacher Qualifications (MRTQ, DHET, 2015), the HEI's vision for teaching and learning, and the module outcomes with focus on reflective learning.

Table 5.1: Documents analysed in the DBR preliminary phase

Documents	Requirements
MRTEQ	To foster a teacher competence for individual critical reflection as well as collaborative critical reflection with colleagues.
HEI's vision	To develop and educate critical thinkers.
Module outcomes	To equip students with knowledge and skills for the holistic development of FP learners.

The South African government prioritises reflective competence as part of the MRTQ (DHET, 2015). This document emphasises the importance of reflection as a teacher competence in the integration and application of knowledge, with specific reference to the role of reflection in work-integrated learning (TPrac) in schools. It is stated that students should be supported by "learning from practice (e.g., observing and reflecting on lessons taught by others), as well as learning in practice (e.g., preparing, teaching and reflecting on lessons presented by oneself)" (p. 10).

The Faculty of Education of the HEI offering the BEd programme that includes the music module at the core of this investigation, includes the following in its mission: "Inspiring professional educators to be agents for change" (HEI website, 2012). The HEI thus unequivocally envisions their education programmes to support the development of a critically reflective competence within all students to empower alumni to make a difference through practising their professions after attaining their qualifications.

The music module which is the focus of the study (refer to Chapter 1.2.2), furthermore aims to "equip student-teachers with the necessary knowledge and skills to use music to attain non-musical goals in the FP while affording learners the opportunity to engage in fun, meaningful, authentic learning activities while fostering their creative and critical thinking skills" (p. 1). This module clearly aims to prepare students to implement music as set out in the CAPS for LS (DBE, 2011) that should "create a foundation for balanced creative, cognitive, emotional and social development" (p. 9).

For reasons reported in Chapter 1 and 2, music is not implemented in FP classrooms as envisioned by the CAPS (DBE, 2011). The researcher can testify from personal experience in the FP classroom and as lecturer of a music module in the BEd FP programme offered at another HEI, that the music component of the LS subject is largely neglected in schools and in the BEd FP curriculum. Concurrence in the MRTQ (DHET, 2015) and the mission of the HEI, that professionals should be equipped with critical reflective competence to effectuate change through their professions, influenced the design team to critically reflect on the design of the reflective tasks. The literature reviewed (Chapter 3) served as benchmark for the evaluation of previous reflective tasks and considered ways to improve support for critical reflective learning.

5.2.2 Evaluation of previous reflective learning in the music module

The reflective discussions by the design team focused on the lecturer's prior experience of the way the previous design features implemented in 2020 supported reflection and CR and possible adjustments to improve support for the development of critical reflective competence of students.

An individual reflective task was implemented in 2020 for the first time and required that students diarise their music journey in reflective blogs at least once a week for the duration of one semester. The final blog task comprised reflections regarding the value and meaningfulness of the module, challenges, and changes experienced. The lecturer evaluated and rated the reflections as superficial with limited impact on learning outcomes. She ascribed the limited impact to an informal approach, loosely structured instructions, and the low mark allocation to these tasks. The individual reflections counted 10% towards the module mark. Collaborative reflection among students was not required. Critical reflection was also not mentioned to students as criteria for their reflections. After the reflective evaluation of the previous reflective tasks (2020) and considering the findings from the literature and documents, tasks were adapted by the design team.

5.3 Findings: Prototyping phase

In order to interpret the findings on data collected in this phase, it is necessary to unpack the design changes across the two cycles implemented in the *prototyping phase*.

5.3.1 Individual and collaborative task design in the two cycles

The reflective and cyclic analysis, design, development, and implementation of the individual and collaborative reflective strategies, together with the individual interviews at the end of each cycle, served as data sources. Informed by the findings of the *preliminary phase*, the design team (the researcher and module lecturer) collaboratively designed reflective tasks. In the first cycle it was

decided to use blogs and WhatsApp (§3.6) as communication platforms for the reflective tasks. Through the analysis of the data collected during the first cycle, and a reflective discussion with the lecturer after the first cycle, adaptions were made to the reflective activities. In the second cycle individual reflective e-journals (§3.6) and collaborative reflective WhatsApp groups were used as platforms for the reflective activities as summarised in Table 5.2.

Table 5.2: Design features implemented in the two cycles of the prototyping phase

Cycles	**Cycle 1 (C1):** **Blogging as opportunity for individual and collaborative critical reflection.** **WhatsApp implemented with research participants as a pilot** **Open time frame**	Data analysis, evaluation, reflection & redesign	**Cycle 2 (C2):** Individual reflective journal and collaborative reflection in WhatsApp groups submitted as reflective tasks in two separate reflective portfolios Portfolio 1: Study units 1 & 2 – due: midterm Portfolio 2: Study units 3 & 4 – due: end of term
Individual reflection	**Blogging:** **Prompting questions guided individual CR on each study unit:** **Two to four specific prompts guided CR per each of the study units.** **Final blog post: 3 longer questions with sub-questions to guide reflection on holistic experience of the module.** **Blogs submitted on LMS,** **Own timeframe.** **Marks allocated: 20% of module mark.**		**Compulsory individual reflective journals compiled in each portfolio:** Five prompts scaffolded compulsory CR on specific study units. Journal 1: Study units 1 & 2 (Portfolio 1) Journal 2: Study units 3 & 4 (Portfolio 2) Marks allocated for individual reflection: 6.25% towards module mark Marks allocated: Reflective portfolio (including individual and collaborative reflective tasks): 12,5 % towards module mark

Collaborative reflection	**Blogging – discourse**. Students were expected to comment on each other's blogs to elicit discourse. (no marks allocated) Focus: group discussion – students engaged in unstructured collaborative discussions. (no marks allocated) **WhatsApp:** Participants grouped by the researcher for collaborative CR on the prompts that guided individual reflections on each study unit. No marks allocated – piloting of WhatsApp as communication platform.		**WhatsApp: Compulsory collaborative reflective tasks compiled in each portfolio:** Students selected WhatsApp group members. Evidence of WhatsApp discourse included in each portfolio. Three questions to scaffold collaborative CR. Module lecturer and a facilitator present in the WhatsApp groups to redirect CR. Marks allocated: Marks allocated for collaborative reflection: 6.25% of module mark Reflective portfolio (including individual and collaborative reflective tasks): 12,5 % of module mark
Marks allocated	Only individual reflections assessed. Marks allocated: contributed 20% towards module mark.		Portfolios comprising individual and collaborative CR contributed 25% towards the participation mark and 12.5% towards the module mark.

5.3.1.1 Individual and collaborative reflective strategies: *Cycle one*

Informed by findings from the *preliminary phase*, blogging was used as platform for both individual and collaborative reflection (Table 5.2). Prompting questions guided individual CR on each study unit in their blogs (Appendix A). A final blog post further required students to reflect on their holistic experience of the module. Blogs were submitted on the LMS any time before the end of the semester and contributed 20% towards module mark. The individual reflective tasks focused on knowledge and confidence to integrate music, making a choice between Music Education and Physical Education, knowledge to accommodate diverse learners in the classroom, and participants' views on arts integration, assessment, and learning from reflection.

For the collaborative reflection, students were motivated to reflect on the blogs of their peers. It was anticipated that this commenting on each other's blogs would elicit critical discourse. In this cycle no marks were allocated to the collaborative reflections on their blog posts. Unstructured focus discussion groups with no mark allocation were uploaded on the LMS by the lecturer to allow students to comment on discussions.

Although WhatsApp was not implemented as a platform to support reflection by all students in the first cycle, the design team decided to explore the possibilities of this medium for collaborative reflection. Participants were grouped by the researcher for collaborative asynchronous CR with a peer on related prompting questions to guide their collaborative reflections (Table 5.2). These guiding questions (Appendix A) were sent to the WhatsApp groups by the researcher and participants reflected together on these reflective questions in their own time during the course of the semester. Implementing this strategy was regarded as a pilot only and no marks were allocated for participation or reflections.

5.3.1.2 Individual and collaborative reflective strategies: Cycle two

The design team collaboratively adapted and redesigned the reflective tasks for implementation in cycle two (Table 5.2), to improve the way the tasks support critical reflection.

Although the analysis of students' reflective blogs, confirmed the value of this electronic communication platform to support reflective learning, evidence of CR was weak due to reasons in Chapter 3 (§3.6). It was found that students tended not to use the blogging for collaborative reflection as intended. Therefore, it was decided to replace blogging with an individual reflective e-journal (§3.6) in cycle two with guiding questions based on the relevant study units of the module (Appendix A). Motivated by the literature as well as the findings from the pilot exploring WhatsApp in cycle one, showing the value of this platform for social learning, WhatsApp was employed in cycle two to mediate collaborative reflective leaning by all students. This platform was chosen based on convenience and accessibility (§3.6). The participants grouped themselves into the collaborative reflection groups and identified a group leader.

The lack of participation in the collaborative reflections in cycle one could be linked to poor SDL skills. As extrinsic motivation, marks were, therefore, also allocated to collaborative reflection in cycle two. The compulsory individual and collaborative reflective tasks were compiled in two separate portfolios which each contributed 6.25% to the module mark. The reflective portfolios (including individual and collaborative reflective tasks) thus contributed to12,5 % of the module mark. The module lecturer and a facilitator were present in the WhatsApp groups to redirect CR. The portfolios comprising individual and collaborative reflective tasks were submitted on the LMS on specific submission dates.

Communication on these platforms, together with individual semi-structured interviews conducted after each cycle, served as data sources.

5.3.2 Analysis of the data collected in the prototyping phase

The discussion of the findings is structured according to two themes. The codes related to the themes were generated during cycle 1 (C1) and cycle 2 (C2) of the *prototyping phase* of the DBR. Therefore, in the discussion of these themes, continuous reference is made to the data source per cycle to also reflect developments related to teacher competencies as the focus of reflections, based on the design developments in each of the cycles.

Abbreviations assigned to the different data sources served as identifiers to link participant quotations to data sources for the two cycles that guided the design process (Table 5.3).

Table 5.3: Identifiers - cycles, data sources, abbreviations and participants

Year	Data source		Abbreviation	Participant referencing
2021 Cycle 1 (C1)	Blogging		B	A, B, C, D, E
	WhatsApp collaboration		COL	
	Focus discussion group		FGr	
	Individual interview		Int	
2022 Cycle 2 (C2)	Reflection portfolio (submitted in 2 sections)	Individual reflective journal	IJ	S, T, U, W, X, Y & Z
		Collaborative reflective task (WhatsApp)	COL	
	Individual interview		Int	

The two themes, *Features of accomplished teacher development* (Theme 1) and *Transformative learning* (Theme 2), were deductively derived from the theoretical framework. Grounded in Johnson and Olanoff's TL cycle (2020), the aim of the two cycles specifically sets out to explore design features that will support reflection on own learning with a focus on CR as outcome of the reflective tasks. The ultimate aim was to equip FP students with critical reflective competence to serve as motivation for the transformation of music education practice. Reflections should, however, be grounded in sound subject and pedagogical knowledge (§3.3). Outcomes of a programme design aiming to prepare prospective teachers as agents of change should, therefore, include features of accomplished teacher development, including teacher knowledge, skills,

vision, and motivation (Shulman & Shulman, 2004), as well as critical reflective skills (Mezirow, (1990, 1995, 2003) (§3.5).

5.3.2.1 Theme 1: Features of accomplished teacher development

Through deductive reasoning, codes and categories were informed by the components of accomplished teacher development (Shulman & Shulman, 2004). The discussion of Theme 1 includes emerging categories related to student development namely, *cognition, willingness to teach music, vision for music education* and *reflective learning* (Table 5.4). Explicit evidence of the competencies reflected by the categories are not implied, and it is acknowledged that reflections are influenced by factors other than the reflective tasks. However, the literature strengthens the notion that reflection on these competencies, either individually or collaboratively on the communal level, supports an awareness of the significance of these teacher competencies (§3.3).

Table 5.4 Theme 1 - Features of accomplished teacher development

Categories	Sub-categories
Cognition	Knowledge: music as subject Knowledge: value of music education Knowledge: value of music/art integration Knowledge: music supports holistic development
Willingness to teach music	Attitude towards music education Confidence to teach music Motivation to teach music
Vision for music education	Significance of music education Cultural diversity in music education Transformation of music education
Reflective learning	Value of reflective learning Factors hampering reflective learning

A network created through ATLAS.ti™ 23, provides a visual representation of the categories and sub-categories in Theme 1 (Figure 5.1)

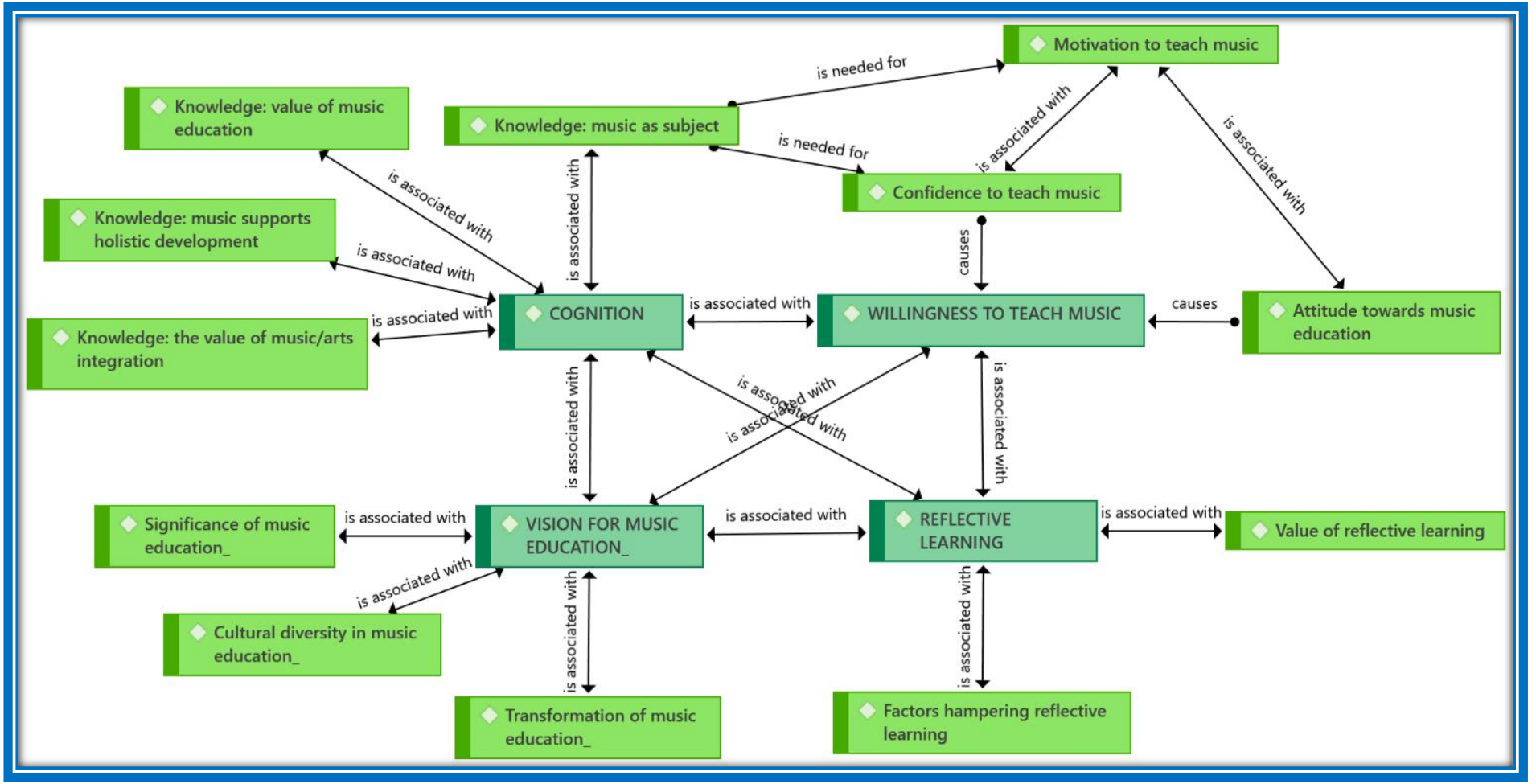

Figure 5.1 Theme 1 - Features of accomplished teacher development

The relations among categories and sub-categories of Theme 1, *Features of accomplished teacher development* (Figure 5.1)*,* need explication. Not all relations are indicated in the network for the sake of clarity, although the logical interrelatedness of most categories in Theme 1, as well as the sub-categories under each, are acknowledged. The competencies in the development of accomplished teachers (Shulman & Shulman, 2004) that align with the four categories in Theme 1, are interrelated. The discussion focuses on those relations that were most informative in the search for answers to the principal research question and the related sub-question of this research study. *Cognition*, which draws on learning and knowledge construction, constitutes the first category in theme 1. Each of its sub-categories plays a core role in a teacher's *willingness to teach music*, which is the second category. While knowledge and willingness to teach act as reciprocal teaching competencies, a teacher's "vision of the desirable and the possible" (Shulman & Shulman, 2004, p. 261), will greatly determine the way an educational goal is set and attained, which is the third category.

Vision for music education, implies a readiness for music education motivated by a set goal, and is informed by *cognition* and the w*illingness to teach music*. The category *reflective learning,* which is the focus of the learning tasks explored in the research study, involves individual and collaborative reflection by participants. Informed by the literature (§3.5), reflective learning serves as a springboard for critical reflection, which is requisite for transformative learning (§3.5). Each of the categories and sub-categories are discussed in the next section.

A) Cognition

The category *cognition* refers to teacher understanding and knowledge in relation to music education practice and is outlined in four sub-categories namely, *knowledge of music as a subject, knowledge of the value of music education*, *knowledge of the value of music/art integration* and *knowledge of the holistic development through music education*.

(1) Knowledge: music as subject

The reflective tasks implemented in ***Cycle 1*** required students to reflect on their music subject knowledge. Confidence in own competence as well as motivation to teach music, as requisites for meaningful music education, are dependent on a teacher's knowledge of music education (Figure 5.1). Participant E demonstrated an awareness of the role teacher knowledge plays in the implementation of the anticipated curriculum: "What the curriculum expects of the teacher, because teachers got to be able to understand and teach what the curriculum requires of them" [C1/Int]. Participant B reflected on skills necessary for music education: "I think a teacher can teach music with fair notation reading skills in one or more instruments with background

knowledge and a solid sense of rhythm" [C1/COL]. Although participant A acknowledged that the module provided her with a good foundation for music education, she shows an awareness of the need to apply SDL in practice for further development:

> *I believe I have developed the necessary knowledge … now that I have completed this subject. I know this is not where it should stop. One must continuously broaden your knowledge to teach music successfully. But the module laid a good foundation for what is expected from us … to teach it in the school. [C1/Int]*

The mentioning of FP teacher agency by participant A above holds promise for the way the reflective mastering of the module content equips students as agents of change to transform music education through continuous self-directed professional development.

During the interview at the end of ***Cycle 2***, participant Y indicated that the module sufficiently equipped her with knowledge for: "… the teaching of elements of music and planning music activities to suit music concepts" [C2/Int]. Participants agreed that the module provided adequate knowledge for music education.

(2) Knowledge: value of music education

While a global phenomenon of the disregard for the value of music is reported in developing and developed countries (§1.1), the value of music education in the foundational years of schooling is emphasised in the literature (§2.2). The research study material of the music education module also emphasised this. Linking onto the literature, the reflective tasks implemented in ***Cycle 1*** required students to reflect on the value of music education to support development in other domains. These tasks motivated reflection on the module content and the role of music education in the FP classroom as illustrated by the reflection in the collaborative learning task expressed by participant C: "Music can play an important and crucial role in the foundation phase" [C1/COL]. Participant E, who has 13 years of teaching experience also reflected in her blog: "I learned how important music is to learning" [C1/B]. These participants gained knowledge of the value of music education to position music at the centre of teaching and learning in FP classrooms.

The stronger scaffold provided for reflective tasks in ***Cycle 2*** facilitated extensive reflection on the value of music education as indicated by participant Y: "Yeah, I wish every school would see the value of it and make the space for it" [C2/COL]. This view was echoed by participant Z: "I believe music should be part of a child's education" [C2/COL]. Although participants admitted their initial lack of knowledge, they acknowledged that engagement with the music education module made them aware of the necessity to include music in the curriculum for learner development as confirmed by participant S: "I also feel that before we gained knowledge through the module as a whole, we truly underestimated the value of art, play and music in our classrooms [C2/COL].

Participant T also demonstrated an appreciation for music in education by stating in her journal: “I will treat music lessons with the same importance as any other subjects of the Foundation phase” [C2/IJ].

Data collected in both cycles confirm the contribution of the module content and reflective tasks to create an awareness and knowledge of the value of music education and the intention to include music in future FP teaching. The relationship between cognition and motivation, and the role that reflective activities can play to equip students to change the way music is implemented in FP classrooms, as illustrated in Fig 5.1, is also demonstrated by these reflections. The value of the reflective activities based on the module content was also evident in the way participant reflections showed an understanding of the value of music integration.

(3) Knowledge: value of music/arts integration

Considering the limited time to teach music in the FP (§2.6) and the supporting role music can play in other subjects, the music education module motivates the devising of strategies to integrate music in the FP classroom. An integrated approach is also suggested in the literature, such as the model suggested by Bresler (1995), and the synergy model proposed by Jansen van Vuuren (2022) (§2.4). Informed by the module content, participant reflections in ***Cycle 1*** included a focus on the value of integrating music, not only to support learning but also to prevent the neglect of music education. Participant A motivated for the integration of music in all the subjects: “It [music integration] is the roots that will lead to success in other learning areas as well” [C1/B]. Participant E concurred and referred to the versatility of music for an enriched learning experience through the inclusion of: “Music games, music patterns, rhythm and body percussion during Mathematics, Language and Life skills” [C1/B]. The same participant reflected: “Arts integration in a Foundation phase lesson makes learning more enjoyable through drama, music and song” [C1/B].

Although the reflective tasks in cycle 1 initiated valuable reflective learning, the rationalising of reflections emerged more frequently in ***Cycle 2,*** motivated by the stronger scaffolding provided. Participants in cycle 2 suggested strategies to keep music alive in classrooms that included integrating music as demonstrated by participant T: “One way to prevent neglect of the arts is to integrate it with other subjects” [C2/COL]. The same participant referred to the benefits of music integration in her reflective journal that aimed to scaffold deeper reflection in cycle 2:

> *Music education enhances attentiveness, multitasking and promotes both numeracy and literacy skills. I will therefore involve music education in the other Foundation phase subjects as well. [C2/IJ]*

Besides the benefit of music integration in other subjects, participant Y applied deep thinking skills by reflecting on music integration as follows: “To allow maximum absorption of new knowledge, to support all learners with different learning styles” [C2/COL]. During the collaborative reflection task participant X also demonstrated reasoning when motivating for the inclusion of music to support shy learners: “To be very free, happy and unreserved during music classes”. This participant also expressed an awareness of the value of music in inclusive education by using music: “To enhance learning and assist learners with learning difficulties” [C2/COL].

Participant S demonstrated CR in the incorporation of music integration:

> *The information and knowledge gained from study unit 1 and 2 will allow me as a future teacher to convey values and morals to learners through holistic music education. I hope to develop my skills further to ensure that I integrate music activities in a diverse way to ultimately cultivate, not only a love for music, but also a positive formation of character to develop caring, resilient, responsible, and autonomous individuals. [C2/IJ]*

The focus of the above reflections can be regarded as significant in developing accomplished teachers who will have the knowledge and motivation to use music to promote learning. Although participant S acknowledged the importance of music integration, she also reflected on the realities of practice challenges that teachers will have to contend with to ensure music takes its rightful place in the classroom:

> *To incorporate or integrate music into any curriculum where we will teach. But I totally agree that, with the workload that teachers have, there is not always time. But I think that it should be so part of the lesson that it becomes second nature. [C2/COL]*

Participant X showed her motivation to integrate music to benefit the learners based on her observations in practice:

> *I will use more music and instruments for integration in my lessons. I can see the difference and positive results for the learners and myself. [C2/COL]*

Music education does not only aim to advance knowledge of music, but also acknowledges the role of music in different developmental domains (§2.5). Data collected by the researcher in both cycles were scrutinised for evidence that the reflective tasks supported an awareness of the role of music to support development in these domains.

(4) Knowledge: music supports holistic development

The notion that music could support the holistic development of young learners is not new (§2.5). Reflections of participants in ***Cycle 1*** showed an understanding that music supports the holistic development of learners as indicated by participant A during the collaborative reflection task: “I

believe music education will enhance all aspects of learners' holistic development" [C1/COL]. Participant B also reflected on the role of music in all developmental domains with specific mention of how music supports the interrelated physical and cognitive development:

> *Music in foundation phase catches all the areas of child development and skills for school readiness. It helps the body and mind work together. [C1/B]*

In general, participants in both C1 and C2 demonstrated knowledge as well as a high regard for the relationship between music and bodily movements, that support learning by the typical active FP learner. In ***Cycle 2*** participants reflected on the influence of music education on cognitive, physical, social, and emotional domains. Although participants observed that music as a component of Life Skills is rarely the focus of a lesson (§5.3), reflections do confirm that experiences of music integration support cognitive development in other subjects. Evidence of transformative learning, reported in more detail in (§5.3), was also observed as knowledge of the role of music in supporting the holistic development of the learner. Participant S specifically mentioned changed assumptions concerning the role of music and that she "Underestimated the value thereof in terms of how it contributes to the holistic development of a child" [C2/COL].

Reflecting on her observations during TPrac and the good practice modelled by mentor teachers, had a lasting impression on participant Y:

> *I discovered how music forms part of the holistic development of learners, the most significant observation I made is how young learners learn better through their bodies and how the teachers incorporated music and movement in their lessons. [C2/IJ]*

Reflections on TPrac could motivate and strengthen the use of music with positive outcomes for the holistic development of the FP learners in participants' future classrooms. Reflections on the role of music in supporting specific developmental domains as stipulated by the CAPS document (DBE, 2011), also emerged. These domains include the role of music in supporting cognitive, physical, social and emotional development as well as psychological wellness (§2.5), which are the foci of the following sections.

♪ *Music supports the cognitive development of learners*

Participants in ***Cycle 1*** reflected on the relationship between music and academic achievement by referring to music and song in language learning and Mathematics. Participant C noted that she: "Definitely [saw] how music can stimulate the brain and be an advantage in things like literacy and numeracy" [C1/COL], thereby acknowledging the value of music integration in cognitive development. Participant A reflected in her blog that she found the use of arts in the FP "Very interesting", because she has "learned that it supports the academic achievements of the learners" [C1/B], indicating an awareness of the role of music in enhancing cognitive development

in the FP. Participant A identified patterns as the common denominator in music and Mathematics by stating: “The verses in music are repeated to form patterns, while patterns occur in Mathematics to be used and described” [C1/B]. Reflecting on the role of music to help learners recognise patterns in Mathematics through music, could inform future teaching strategies to support learners who may experience barriers in the mastering of Mathematics (§2.5).

Based on their observations during TPrac, participants in ***Cycle 2*** reflected on the use of music, specifically singing, in the teaching of language and Mathematics. Participant S reflected on her observations of a teacher who integrated songs in every aspect of an IsiXhosa[20] lesson “When they either revised or learned vocabulary - days of the week, greeting phrases, what's your surname, places in town, family members - the teacher used a song” [C2/COL].

Participant Y also reflected on the integration of singing in the teaching of other subjects in a Grade 1 classroom: “She saw how the teacher used songs in all her phonics lessons and in almost all of her Mathematics lessons” [C2/COL]. Participant W also mentioned her observations of the frequent and varied use of music during TPrac: “Music suits Mathematics teaching and learners enjoy the music and remember concepts very well” [C2/COL]. The literature supports the notion that the use of song to support memory and cognitive development in language and Mathematics has various advantages while also adhering to the requirements of the CAPS (DBE, 2011) (§2.5). The integration of music assists in attaining learner attention within a learner-centred approach while also serving as a time saver in the classroom (§2.4). While young learners learn through moving their bodies, and music motivates movement as reported in Chapter 2 (§2.5), reflections also focused on the value of music in supporting physical development.

♪ *Music supports the physical development of the learner*

As reported in the literature, music engagement holds value for physical development (§2.5) that can also benefit emotional wellness, based on the reciprocal relationship between physical development and emotional wellness. Participants from ***Cycle 1*** did not explicitly reflect on physical development through music. However, in the interview, participant D indicated that she would incorporate music in her classroom to include movement: “Yes, because my learners will be using body movements, and they will all participate” [C1/Int]. Participant E mentioned in her blog: “Learners develop their fine and gross motor skills” while engaging in music tasks [C1/IB].

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[20] IsiXhosa is one of the 11 languages used in Foundation Phase education in South Africa to accommodate the diverse population. https://www.education.gov.za/Curriculum/CurriculumAssessmentPolicyStatements(CAPS)/CAPSFoundation/tabid/571/Default.aspx

Reflections in C1 showed that participants understood how music can support body movement to enable the body to function as a unit in learning which links to the literature documented in Chapter 2 (§2.5).

The revised reflective tasks implemented in ***Cycle 2*** elicited reflections on the difference that music can make to improve learner development. Participant Y reflected on the way her mentor teacher integrated music with body movements with enhanced learning as a result: "[I observed] how young learners learn better through their bodies and how the teacher incorporated music and movement in their lessons" [C2/IJ]. In her journal, participant S also proposed the use of body percussion: "To improve physical development" [C2/COL]. The focus of these reflective tasks holds promise for the way these students will include body movement in music motivated by an awareness of the value of music for physical development. Movement through music is also reported in the literature (§2.5) to support psychosocial development.

♪ *Music supports the socio-emotional development of the learner*

The value of music as a social activity contributes toward supporting social and emotional development (§ 2.5*).* Due to the interrelatedness of social and emotional development (Malti & Noam, 2016), the role of these sub-sections in the holistic development of learners is difficult to separate in music engagement. It is therefore acknowledged that supporting the one will most often also influence the other. Participant A was the only participant in ***Cycle 1*** who reflected in a focus discussion group on the benefits of music in building social relationships: "They [learners] express themselves by participating in musical activities. It is a way to build social relationships with other learners" [C1/FGr]. This value of music is also supported by existing scholarly literature highlighting how music promotes social interaction and emotional expression (§ 2.5*).* In the collaborative reflective task in Cycle 1, participant A showed an understanding of the use and benefit of music engagement as an outlet for stress: "To get rid of negative feelings or emotions" [C1/COL]. Through her blog, participant E motivated for the emotional influence and stimulus of music on learners who do not: "even realising that they are learning because they are so busy enjoying the music and movement that the music allows them to express" [C1/IB].

Reflection on the role of music in socio-emotional development also emerged from the data collected in ***Cycle 2***. Collaborative reflections sparked lively responses on the use of music to stimulate learner interaction in the classroom as mentioned by participant Y: "[Music] brings the more shy learners out of their shell which is important at such a young age" [C2/COL]. Participant S also reflected on the notion that music creates a space of comfort and trust for learners: "Students [learners] can engage in conversation and enjoy songs or movements they like together … it offers a safe space where they can grow and learn new social skills without it being very

noticeable or intimidating" [C2/COL]. The same participant also reflected in her individual journal on the benefits and positive consequences of music group tasks to instil social skills in young learners surrounded by fellow learners in the classroom for a number of hours per day:

> *As music activities mostly require collective participation, cooperation, and coordination, it is useful to develop and enhance social skills that are essential for the formation of healthy relationships and new friendships. [C2/IJ]*

The more structured collaborative reflection task in cycle 2 rendered deeper reflection on the role of music in emotional development. Participant S engaged in CR by rationalising her reflective thoughts. She highlighted the crucial role of music in supporting CRTP and employing music to foster a sensitivity with learners for their own and others' emotions:

> *Music is a great way to help deal with emotions that they might not understand completely yet, and engaging in music activities not only teaches learners to be sensitive to their own emotions, but also to the emotions of others. [C2/COL]*

Participant X also shared her view on music engagement as a positive way to assist learners in dealing with emotions: "I personally think that music is beneficial for the development of learners at school. Music can help express their feelings" [C2/COL]. The interrelatedness between socio-emotional development and psychological well-being is apparent. However, literature confirms that school learners are in dire need of a learning environment that prioritises their well-being (Kutsyuruba et al., 2015). Therefore, it was also deemed necessary to code reflections that especially demonstrate knowledge of the role of music in psychological well-being.

♪ *Music supports learners' psychological well-being*

The reflective tasks motivated participants in ***Cycle 1*** to reflect on the role of music in the psychological well-being of learners (§2.5). In the collaborative reflection task, participant A reflected on the positive influence of music on learners' mood and their "Feeling about life" [C1/COL]. In this way music can influence academic learning in all subjects by supporting a positive frame of mind. In her blog, participant E mentioned the affective outcomes when music and movement are incorporated into lessons. She emphasised that music allows: "Learners to feel included, appreciated and accepted even though they may not excel at the subject or in the learning area" [C1/B]. Voicing this value of music demonstrates critical reflection with a focus on the role that music can play to create an inclusive learning environment. Such critical reflective learning can motivate the transformation of how music is implemented to support learner well-being by providing a safe, caring and nurturing space (§2.5) that promotes learning in all subjects.

When learners participate in fun music activities such as dancing and singing activities, as well as playing percussion instruments in-between academic work, they also tend to be more engaged

in the learning of academic subjects (§2.5). Participant A realised: “[Learners] should not be forced to participate in music” [C1/Int], based on her knowledge of the interrelationship between voluntarily learner engagement and motivation. This view links to the reflection by participant E, who highlighted the unintentional use of music during play-based learning: “Learners learn through play without even realising it” [C1/COL].

The scaffolded reflective tasks in ***Cycle 2*** elicited rationalisation of viewpoints concerning the positive influence of music as a mood enhancer that supports learner well-being. Participant X reflected on the many benefits of music: “To raise a person's mood, whereby one can be excited or make one to be calm and relaxed. It improves our health and well-being; it boosts confidence and resilience” [C2/COL]. A positive classroom environment is reported to promote learning through enhanced learner well-being (Coulombe et al., 2020). In this regard, participant U reflected on her observation during TPrac: “If the class was very noisy, she [class teacher] would play classical/ instrumental background music, which set a calmer mood in the room” [C2/IJ]. Learner wellness is promoted by feelings of enjoyment when using music as demonstrated by participant U: “Young children need to find something that they enjoy and can thrive in while learning” [C2/IJ].

When teachers are aware of the multifaceted role of music, they may also be motivated and willing to use music to support learner development in the mentioned terrains.

B) Willingness to teach music

Teachers’ willingness to teach music will play a core role in the transformation of music education practice (§1.3) and depends on *attitude towards music education, confidence to teach music,* and *motivation to teach music* as the sub-categories to be discussed in this category.

(1) Attitude towards music education

Reflection by participant A in ***Cycle 1*** demonstrated her willingness to incorporate music in the classroom to the benefit of the learners: “There are many benefits to include music in the teaching and learning process” [C1/COL]. In her blog, participant C also declared a positive attitude to include music in the FP, possibly due to knowledge gained from participating in the music education module: “I feel that I'm in a good space with music, I love that music is part of teaching” [C1/B]. During the individual interview, she further proclaimed that teaching music may not be everybody’s choice: “I think if you do not have a talent or love for music, it could be difficult or a challenge to teach music” [C1/Int]. Although an affinity for music may motivate the implementation of music in the classroom, implementing music in the FP as required by the CAPS (DBE, 2011)

does not require advanced music knowledge or skills. When teachers realise the value of music and how to incorporate music through simple but effective activities, it could change their attitudes towards music and motivate its implementation (§2.6).

Participant reflections in ***Cycle 2*** also demonstrated a positive attitude towards music education and intentions to include music in their future classrooms. A desire to share one's knowledge is evident in a positive attitude towards the knowledge domain. Participant P exclaimed in the interview that she would be "Happy to share ideas with the rest" [C2/Int]. In addition, participant S mentioned there are: "Various possibilities that music education has to offer" [C2/Int]. The reflective tasks based on the module content could have contributed towards an awareness of the value of music which was shared during the individual interviews. In her reflective journal, participant W demonstrated the intention: "To make music and music integration a priority in lessons" [C2/IJ]. Improving knowledge and skills could consequently also boost confidence in effective music teaching (§1.2).

(2) Confidence to teach music

Music teaching confidence of the generalist teacher, who is responsible for the teaching of all subjects in the FP, is imperative and will determine the way music is implemented. By guiding students to gain the relevant subject knowledge and develop the necessary skills during TPrac, the BEd programme aims to develop students' confidence to teach music. Reflecting on their confidence to teach music could create an awareness of its role in ensuring learners benefit from music education and could point out areas in which confidence is lacking. Reflections in this regard can also alert the teacher educator to issues that may hamper students from implementing music education in the classroom that should be addressed.

Data analysis revealed different levels of confidence in teaching music. In the individual interview conducted at the end of ***Cycle 1***, participant C reported improved confidence as a result of what "I learned from the module content and the tasks" [C1/Int]. Participant A shared the same sentiment: "I can refer to the module for good ideas for music teaching" [C1/Int]. A lack of teacher confidence is one of the reasons for the decline of music education globally, which can also be ascribed to the generalist approach whereby specialist music knowledge or background is not a prerequisite (§2.6), as explained by participant D: "Some teachers could lack confidence in teaching arts especially if they are not qualified for it" C1/B]. A lack of confidence can consequently lead to a lack of motivation to teach music. In the individual interview, participant E shared her lack of confidence in her practical music teaching skills. By comparing her own music teaching competence to those demonstrated by fellow students in a group activity, resulted in a negative evaluation of her own competence:

> *I know that when we made our video, and I looked at the [video], we had to do it in groups, and when I saw how basic my moves were and my body percussion, and I saw how innovative some of the other teachers could be. [C1/Int]*

While collaborative learning can support reflective learning and enhance learning through sharing of knowledge and skills, the above reaction also emphasises the role of the teacher educator in guiding students (§3.3) to focus their reflections on their potential rather than on incompetence that could demotivate learning and result in a negative attitude.

The journal post of participant Z in ***Cycle 2*** showed a high level of confidence: "[I will strive] to engage with the learners in my class with music because I will learn with them! There are so many creative and very easy ideas to use music" [C2/IJ]. Similar to the reporting in cycle 1, the data collected in cycle 2 indicates a generalist approach to teaching in the FP that contributes to the teacher's lack of music knowledge and skills and the consequent lack of confidence (§2.6). In the collaborative reflection task participant S attributed a lack of confidence to a lack of knowledge and skills in music teaching:

> *I think maybe some teachers (like me) can't play instruments or read music and so on. So, they feel they are unable to use music. I think that music integrated with arts can be one of the most challenging tasks for teachers. Simply because most teachers are not confident in their music abilities and feel integrating music into lessons are risky. [C2/COL]*

The significant relationship between music competencies related to knowledge and skills, and students' confidence to teach music, is deduced from the quotations above. This confidence will also play a role in their readiness to transform music education practice as future FP teachers. Apart from the role student confidence will play in their ability to transform music education, student reflections also emphasised the interrelatedness between confidence and their motivation to teach music.

(3) Motivation to teach music

A teacher's attitude towards music education and the confidence to teach music will influence a teacher's motivation to transform music education (Figure 5.1). Motivation, one of the dimensions in the framework of accomplished teacher development (Shulman & Shulman, 2004), depends on a good knowledge and skills base (§3.4). Participant D in ***Cycle 1*** referred to the important relationship between knowledge and motivation to teach music as outcome of the music module: "Since I have learned about this module, I think I am motivated to teach music at school" [C1/Int]. This notion was also emphasised in the interviews conducted at the end of cycle 1. Participant E demonstrated an awareness of the important role of adequate music knowledge as a prerequisite for motivation to teach

music: “I will not be able to teach it [music] and be motivated to teach it, if I am not well educated”. The same participant added the importance of motivation to engage and gain knowledge from the module to be proactive for future practice: “[It is important] to learn from it [the module], otherwise we are disadvantaging ourselves and therefore disadvantaging our learners” [C1/Int]. This participant demonstrated an awareness of the role of self-directed learning skills (§3.5) and a willingness to learn more.

Participant A mentioned the reciprocity of teacher motivation and evidence of positive learning outcomes: “Learners who participate in music activities enhance my motivation” [C1/Int]. This approach reflects the value of a learner-centred approach envisioned by the CAPS (DBE, 2011), where learning outcomes are measured through active learner engagement in developmentally appropriate learning.

Reflections by participant P in ***Cycle 2*** also highlighted the interrelatedness of music knowledge and motivation in music teaching by stating: “Now that I am aware of the benefits of music, I will also be able to teach it with the benefits thereof in mind” [C2/IJ]. Collaborative reflections by participant R focused on the role of the teacher in educational outcomes and pointed out the dire effect of teacher motivation on learning: “Music in the classroom depends on the teacher. We must be enthusiastic and participating teachers in the classroom” [C2/COL]. Similarly, the reflection by participant W further confirmed the role of teacher motivation in learner motivation and attitude towards learning: “Never give up, be the inspiration!” [C2/COL]. This reflection is indicative of the value of reflective tasks to equip students as motivated agents of change. Vision also plays an essential role in teacher motivation (Husu & Tirri, 2007; Maaranen et al., 2016), with knowledge, skills, confidence, and motivation ultimately informing teachers’ visions for music education.

C) Vision for music education

A vision for music education depends on cognition and the subcategories identified in 5.3.1.1 but will also direct the way in which knowledge is applied to attain envisioned educational goals. Similarly, a teacher’s willingness to implement music will depend on the attainability of the goals envisioned while the confidence and attitude as subcategories of *willingness to teach music*, will affect a teacher’s vision for the place of music in the classroom. This interrelatedness between the components of accomplished teacher development (Shulman & Shulman, 2004), is illustrated in Figure 5.1.

Music education is not implemented in the FP as prescribed by the CAPS (DBE, 2011) (§1.2; §2.2). There is thus a need for the development of a strong vision for the transformation of music

education with prospective FP teachers (§2.7). Whereas a vision is defined as “a highly developed and articulated vision that serves as a goal toward which teacher development is directed” (Shulman & Shulman, 2004, p.2), vision plays a core role in directing the transformation of music education towards what it can be and should be. Vision, therefore, also refers to the readiness of teachers to implement the envisioned music curriculum, by applying music knowledge and skills and reflective learning in a critical reflective music practice (Fig 5.1). Students mentioned teacher enjoyment, sharing of ideas and to be prepared as significant aspects in music teaching.

(1) Significance of music education

Participant A in ***Cycle 1*** acknowledged the significance of music education by referring to enjoyment to teach music: “I feel learners must enjoy music, that is my vision for music teaching. It must be a positive experience” [C1/Int], while participant D mentioned a readiness for music teaching:

> *Yes, to be honest, I am looking forward to share ideas with other teachers and to be in front of learners and teaching, because I feel like I am ready to teach now. [C1/Int]*

Reflection by participant Y in ***Cycle 2*** showed a vision for music inspired by knowledge gained through the module:

> *I feel that I am much better prepared to teach a music lesson, even with my lack of formal musical training and experience. Most importantly, I was yet again reminded how important and special music is and plan to make it part of my daily routine in my future classroom. [C2/IJ]*

Participant Z reported in a collaborative task that prospective teachers should not only be trained to use music in the classroom but should be prepared: “To use music effectively in the classroom” [C2/COL]. Considering the literature on the role of music in education, effective music education will employ music in innovative ways to benefit the development of learners in all domains (§2.5). In the South African context effective music also implies accommodating and promoting cultural diversity.

(2) Cultural diversity in music education

A vision for a meaningful music practice in the South African context, should incorporate cultural diversity by accommodating different cultural groups as stipulated by the CAPS (DBE, 2011). Participants in ***Cycle 1*** showed an awareness of learner diversity in classrooms and a willingness to adhere to the requirements as stipulated by the CAPS (DBE, 2011).

Participant B, an experienced practicing student, expressed her willingness to learn from other cultures, although her desire for specialised music competence is not in line with the curriculum requirements:

> *I know all what we do [in my culture], so I want to learn from other cultures, especially [from], sorry to say that, the whites' cultures, like the violins. I like the violins, but I do not know how to use it. And the pianos. The pianos. I like the pianos, but I do not know how to use it. [C1/Int]*

Participant C also shared insight regarding how she wants to strive towards fostering CRTP in culturally diverse classrooms:

> *In the future I would use culturally diverse music or a contemporary music approach. We as teachers must be aware of the cultures in our classroom and what would or would not be acceptable for the learners to interact in. [C1/B]*

Participants in ***Cycle 2*** were similarly aware of CRTP and prepared to incorporate fairness and equity in their teaching practices. Participant Y focused on the accommodation of differences:

> *Incorporation of a variety of music styles and genres. Because everyone is different. This is something I will definitely incorporate into my own musical lessons one day as empathy and respect is a great skill for young learners to gain and utilise throughout their lives. Their differences should be celebrated through musical activities, rather than just tolerated. [C2/COL]*

> *Evidence in the data of reflection on CRTP strengthens the rationale for including reflective learning in any programme that has the transformation of education as its aim.*

(3) Transformation of music education

The literature confirms that music education is not implemented in the FP as prescribed by the CAPS (DBE, 2011), therefore, the need for the transformation of music education (§1.4). Teachers with appropriate knowledge and understanding, willingness and readiness to teach music, are geared to transform music education (§3.3). However, critical reflection on what is required for this transformation and how to effectuate it, is necessary. Participant E indicated in ***Cycle 1*** the need for resources in classes and teacher education to enable the transformation of music education:

> *It is nice to get proper instruments with the true sound of the instruments, so I would like to see teachers with more resources, I would like to see teachers to get better educated to teach music, including myself. [C1/Int]*

Participant Y's collaborative reflection in ***Cycle 2*** revealed that she would like to act as an agent of change with her fellow students in classrooms of the future.

> *I hope that we will be the educators that bring about change in this regard. With our knowledge, appreciation, and creative ideas, we can overcome these barriers and bring music into our classrooms. I hope that we will be able to change how music is seen and done in schools. Let us take our discussions and put it into practice. [C2/COL]*

Mezirow (1991) regards critical reflection as requisite for transformative action. Since the development of critical reflective skills builds onto reflective learning competence, evidence of the way the tasks supported reflective learning was coded, as reported in the following section.

D) Reflective learning

Reflection is at the core of the model of accomplished teacher development suggested by Shulman and Shulman (2004), from where it serves to integrate "vision, motivation, understanding, and practice" (p. 264). Reflective learning was therefore central to the design principles developed through the DBR in this research study. The focus of the analysis of all data collected in the prototyping phase was thus on reflective learning, and all coding of individual and collaborative reflections resemble outcomes of reflective learning, both positive and negative. However, students' mentioning of their experiences of the individual and collaborative reflective tasks were coded and are discussed for each cycle, since their attitude towards the reflective learning tasks determined how and if they participated. Participants acknowledged the value of reflective learning.

(1) Value of reflective learning

Participant E in ***Cycle 1*** expressed an appreciation for individual reflection by mentioning: "I think individual reflection is very important" [C1/Int]. Similarly, participant A viewed reflections as a motivator: "The reflections played a big role, I would not have been interactive in the module if I did not do the reflections. I would have been lost, it motivated me to participate" [C1/Int].

Based on the model of Stahl (2000), individual reflections occurred before entering into collaborative reflection (§1.8). Individual reflections supported students' own articulation of issues related to music education and thereby developed an understanding of each student's own knowledge of the music education and module content. The anticipation was that these individual articulations would prepare them for rational discourse during the collaborative reflective tasks. During ***Cycle 2***, participant R described individual reflection as meaningful for autonomous and independent reflective learning of the individual "[By taking] a deep look at the module content, by not relying on other people but to build your own knowledge" [C2/Int]. During the interview, participant Y proposed individual reflection to be compulsory: "To reflect on your music practice, to determine the success and to allow you to improve, you have to reflect to know whether you

achieved the outcomes" [C2/Int]. Participant S described reflection as a way to empower the teacher: "I feel [reflection] is an important tool to use as a teacher. Reflection should be used to identify problems/shortcomings so that it can be improved in future" [C2/Int]. These views emphasised the role of SDL skills in transformative learning, whereby own learning is evaluated through metacognition with the aim to improve (§3.3).

Collaborative learning in a professional community (§3.6) is a contrasting experience to individual reflection that incorporates dialogue and social interaction (§3.5). According to Taylor (1998), collaborative reflection is valuable as it creates opportunities for sustained learning by students that does not happen in isolation but is instead promoted by collaborative learning and reflection.

Participant E also referred to the benefits of group learning once a teacher enters practice by explaining it creates opportunities for: "Teachers to have a network, so that they can share ideas, and share what works. And when things do not work, they are able to discuss it and help each other" [C1/Int]. Participant A further mentioned evaluation of own knowledge as a benefit of group reflections, which is an indication of SDL skills: "By answering and to read other people's reflections gave me an idea of my knowledge of the module" [C1/Int].

Upon reflection on cycle 1, the design team decided to lessen the individual reflective tasks in ***Cycle 2.*** Instead, there was an increased focus on more structured collaborative reflective tasks with more marks allocated to the tasks as incentive, which seem to have been effective based on the data analysis. Participant S bought into the idea of reflective learning and reported: "It [reflective learning] also assists teachers to identify and build on the positive experiences" [C2/Int]. Similarly, participant Z described reflection as: "Something that one tends to avoid. It forces you to go back and think what you have done. You cannot reflect without doing something" [C2/Int]. An awareness of the value of reflective learning as a cornerstone of SDL is emphasised by these quotations. Individual reflective tasks encouraged students to reflect on their own learning that supported metacognition (§3.5), while collaborative reflection provided an opportunity to challenge their own understanding and perceptions through discourse with fellow students.

Shulman and Shulman (2004) emphasised the value of collaborative reflection to foster connection and a shared vision. When knowledge shared is evidenced by practice, it holds value for a shared vision for music education. The reflective prompts motivated participants to share observations of music education during TPrac in their reflective groups. Participant T found this a valuable learning opportunity that also motivated critical reflection in the way music was implemented in the FP classroom:

> *No, I do not think I would have been successful without the collaboration of the other members. They showed how things are done in their schools, they showed their own opinions how they would like to work with music when they actually become teachers, they showed how … what the teachers did or what they thought the teacher could have done so that the small children could have a better experience with music learning. So it would not have been a success without the collaboration. [C2/Int]*

Participant S highlighted the role of collaborative reflection to support students or teachers' SDL to improve their music education practice:

> *It gave me the opportunity to reflect but also to share. I learned more than what I would have learned if I only had to complete individual reflections. Collaborative reflections will force you to work together in teams, to be a lifelong learner and to keep on improving … all of these which I believe is important if you want to ensure quality education. [C2/Int]*

Although participants viewed individual and collaborative reflection as necessary and an advantage in student learning, they also experienced some challenges associated with the reflective tasks.

(2) Factors hampering reflective learning

Some participants in ***Cycle 1*** experienced the individual reflections as challenging. Although the asynchronous nature of the reflections allowed sufficient time to ponder on the reflective answers, participant B reported:

> *It was difficult to understand what the question says. So, you have to read and then make sure you understand it before you answer it. I was not sure if my answer is based on the topic, or I am just answering. [C1/Int]*

During the interview in **Cycle 2** participant T similarly referred to a lack of understanding of what was required during the individual reflections: "It seems like, I always thought I understood the question, but when the marks come back with the rubric, it seems that I did not understand the question" [C2/Int]. Participant Y was honest when explaining that the formal way of individual reflections did not suit her: "I do not like individual reflections, I do not like the formal and academic way to do it. I cannot express myself, I have to add extras" [C2/Int].

Challenges related to collaborative learning are reported in the literature such as the preference to work alone, domineering students, and a lack of motivation to collaborate (§3.5).

The collaborative reflective tasks aimed to support critical reflection on issues related to music education. Although the data provides evidence of the value of these tasks for reflective learning, various factors may have hampered the optimal benefit from this learning opportunity. The absence of intrinsic motivation demonstrated in ***Cycle 1*** to authentically and purposefully reflect

on learning was obvious and also noted by participant C during the interview: “Many student teachers could not be bothered to do it properly because only few marks were allocated to reflections” [C1/Int]. The absence of intrinsic motivation and the need for external motivation such as a higher mark allocation as incentive to enhance collaborative reflection, also points to a lack of SDL.

Participant A mentioned hinderances that hampered authentic reflection such as time constraints and the difficulty: “To comment on reflections if you do not agree” [C1/Int]. A lack of commitment can hamper meaningful discourse whereby students challenge the views or presumptions of peers in collaborative and critical knowledge construction (Stahl, 2000). Participant B mentioned a feeling of insecurity: “When the other students do not read what I reflect ... I think what I am reflecting, is not interesting for them” [C1/Int]. Participant D voiced her fear to share her views and perceptions: “Some they are rude, some they respond, and sometimes you do not even feel comfortable to ask questions, because you feel like, these students will be rude or ignore your question” [C1/Int]. Fook (2015) also mentions that students may view CR as a threatening experience (Fook, 2015) (§3.5). Especially in the case when domineering students are in the group, students could refrain from CR in collaborative tasks to protect themselves. Challenges or apprehensions mentioned by the students could demotivate participation in collaborative reflection tasks.

Participant Z in ***Cycle 2*** also mentioned that collaborative reflections are time consuming: “The collaborative reflections are quite an effort and time consuming, one must know what to do” [C2/Int]. Other students refrained from collaborative reflection due to a lack of caring as reported by participant U: “Some students are not caring. And maybe they're too young? The subject is not difficult, but it's not very easy to reflect or to do it on paper” [C2/Int].

Based on the strong evidence in the literature supportive of the value of reflective learning in programmes geared to transform education, it is important that programme designers find innovative ways to help students overcome these barriers hampering deep and critical reflection on issues that prevent music education from takings its rightful place in the FP classroom. For reflections to support transformative leaning, the focus should be on the impact of music education beyond the classroom and include issues related to ethical and social justice practice (§3.5). The data was therefore specifically explored for evidence of the way the reflective tasks motivated critical reflection, as discussed in the next section.

5.3.2.2 Theme 2 - Transformative learning

Critical reflection, the highest level of reflective learning, is paramount to transformative learning (§3.5). In the setting of education, CR occurs when we ask questions about our own assumptions and beliefs about moral, social and political issues in the context of our teaching practice (§3.5). In this research study, individual and collaborative reflective tasks were devised and incorporated into the music module and adapted in two cycles (§4.3). The collaborative tasks instructed participants to engage in collaborative discussions on issues related to music education. The design of the reflective strategies was motivated by Stahl's model (2000) of social knowledge-building for a shared understanding (§1.8) and the framework of Shulman and Shulman (2004). This model and framework postulate the role of a shared vision through communal "deliberation, collaboration, and reciprocal scaffolding" (§3.3). It was thus anticipated that collaborative reflection informed by theory will serve to illuminate students' assumptions through critical reflection and thereby serve as motivation to transform music education practice.

Data related to this theme were linked to two categories with a focus on *fostering CR* and *CRTP* as well as sub-categories listed in Table 5.5.

Table 5.5: Theme 2 - Transformative learning

Category	Sub-categories
Fostering critical reflection	Rational discourse Challenging frames of reference Challenges hampering critical reflection
CRTP	Learners' cultural responsiveness Implementing a culturally responsive music education practice

A network created through ATLAS.ti™ provides a visual representation of the categories and sub-categories in Theme 2 (Figure 5.2).

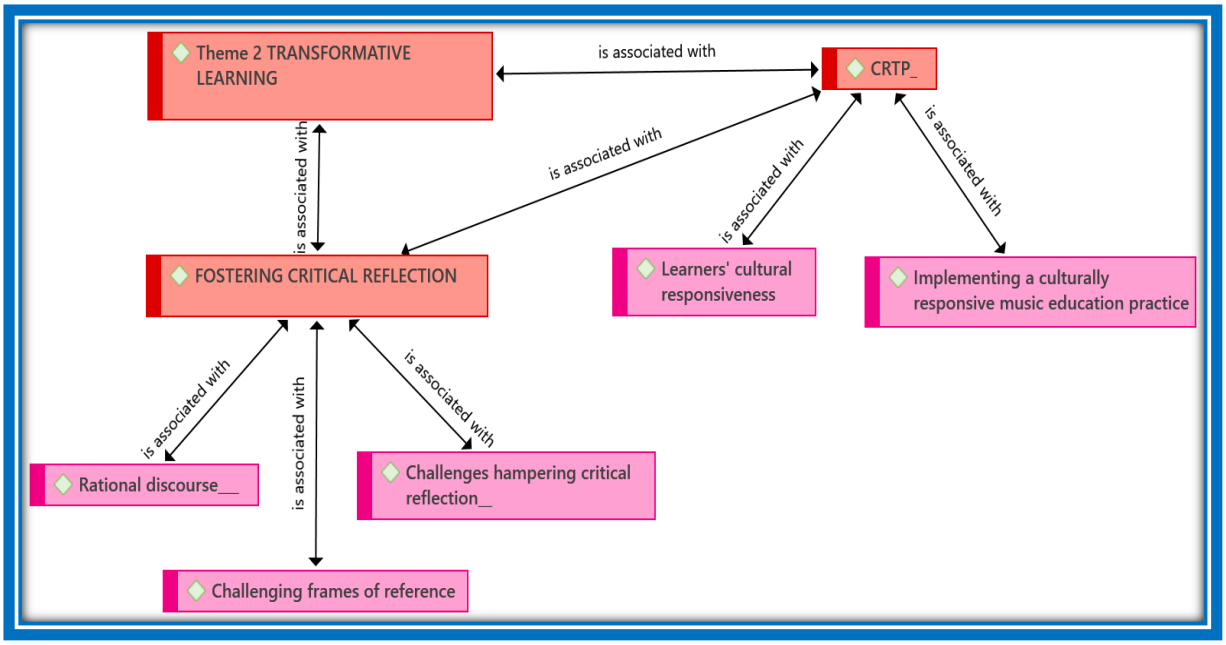

Figure 5.2: Theme 2 – Transformative learning

Two categories emerged from the data namely, *fostering CR* and *CRTP.*

A) Fostering critical reflection

The ability to critically reflect on discrepant events through rational discourse supports teachers in acknowledging and challenging their own frames of reference concerning the place of music in the curriculum based on unfounded assumptions (Dewey, 1933). Three sub-categories emerged from the data namely, *rational discourse, challenging frames of reference* and *challenges hampering critical reflection.*

(1) Rational discourse

Mezirow (1991) regards experience, critical reflection, and rational discourse as the pillars of transformative learning. Rational discourse is a combination of reflection and discourse and is a vehicle for CR whereby the validity of one's own frames of reference are explored, either individually or in collaboration with others. Through rational discourse the depth and meaning of one's own and others' frames of references are explored and reflected upon to determine the validity thereof (Mezirow, 2003). When transformative learning is included as an educational aim, appropriate opportunities for rational discourse should be created.

The design team decided on blogging and WhatsApp as platforms to mediate individual and collaborative reflection in cycle 1. Blogging was intended as an opportunity for both individual and collaborative reflection. Writing blogs was regarded as an opportunity for students to articulate

their understanding of music education and its place in the curriculum (Stahl, 2000), while the sharing of the blogs with fellow students and commenting on each other's blogs, were regarded as creating spaces for collaborative articulation of a shared understanding through rational discourse. WhatsApp was added as a communication platform for participants in the research study to explore how this medium could further support critical collaborative reflection.

Little evidence could be found of collaborative blog reflections as a strategy as it was hampered by factors such as a lack of SDL and marks not being allocated to collaborative reflective blogging. Similarly, limited collaborative reflection or rational discourse took place in the WhatsApp groups. Factors such as a lack of SDL and low intrinsic motivation could have contributed to the lack of collaborative reflection as an opportunity for rational discourse in ***Cycle 1***. Participant B did not view the use of WhatsApp as promotive of reflective learning due to a lack of collaborative discourse by participants: "It was two or three comments and on the last collaboration we were only two or three collaborating. Some students did not reflect regularly while others did not reply" [C1/Int]. Although participant C confirms the lack of meaningful discourse through WhatsApp, she realised the value of collaborative learning:

> *I do not know why they did not do it [discourse]. I think they do not see the need of communication with others. To see other students' view could help. I could read their responses, but we did not have conversations. [C1/Int]*

Through retrospection after the first cycle, the design team decided to use reflective journals for individual reflections and reflection in WhatsApp groups for collaborative reflection in ***Cycle 2***. To scaffold rational discourse and to deepen critical reflection in this cycle, reflective prompts were designed. One of these prompts guided students to identify a discrepant event, as suggested by Mezirow (2003; 1990) as a focal point for collaborative discussions and engagement. This task specifically aimed to create an awareness among students of their own assumptions through CR and consequently promote conditions for transformative learning. However, also in the second cycle, little evidence of true rational discourse emerged from the data, pointing to a need for more support in this regard. Nonetheless, participant U voiced the value of rational discourse:

> *Our group members experienced various discrepant events throughout the semester and [in] these study units it was great being able to discuss these and share ideas and opinions openly and get feedback from each other. [C2/IJ]*

Without critical reflection, a teacher might not be aware of how their own presumptions about social, political, economic, and cultural factors affect their practice decisions or whether these decisions take into account the varied cultural knowledge that students bring from their families. Even though not every participant participated in critical reflective discourse, it gave them a chance to express their frames of reference.

(2) Challenging frames of reference

Discrepant events emerging from students' experiences serve as starting point for transformational learning. As part of the reflective tasks, participants were expected to identify a discrepant event by challenging their frames of reference. A discrepant event can be described as unexpected, unusual, unanticipated, surprising or a conflicting event that evokes a response from the individual (§3.5). Reflective activities in ***Cycle 1*** did not consider reflection on discrepant events. The limited evidence of critical reflection in the participants' reflections during this cycle motivated the design team to include a focus on discrepant events in ***Cycle 2***. Through individual reflection activities, participants were expected to identify content in the music module in conflict with what they believed to be the truth that could serve as a discrepant event or disorienting dilemma (Johnson & Olanoff, 2020). The collaborative reflective tasks in the second cycle aimed to scaffold collaborative CR as an opportunity to make sense of discrepant events by considering the conflict between their prior understanding and new knowledge gained (Johnson & Olanoff, 2020; Mezirow, 1991). Participant S identified music integration as a discrepant event in FP classrooms, by realising the expanded use of music and the benefits of a learner-centred approach (§2.4):

> *I was pleasantly surprised to come to the realisation that arts can be threaded into every single aspect of schooling. I think differently about Life Skills and arts integration as I now know that arts should be integrated with other subjects to ensure authentic, engaging, creative and hands-on learning experiences. [C2/COL]*

Central to critical reflection in transformative learning is the ability to challenge one's own frames of reference (Dewey,1933; Mezirow, 1990; 1991). Therefore, the data was perused for evidence that the reflective tasks challenged students to question their assumptions of music education and of the way it created an awareness of the influence of one's own frames of reference on choices in music education practice.

Frames of reference involve influences and experiences from the past, from home or elsewhere that define a person (§3.5). The blogging communications in ***Cycle 1*** did not reveal a questioning of frames of reference, resulting in limited data to support this reflective competence.

Participant E acknowledged the role of learners' socio-cultural influence on learners' frames of reference which will influence their music preferences:

> *Yes, yes, I think it also depends on, you know, on the kind of friends they are used to, because obviously, their friends, what their friends are listening to, is what they will be exposed to and, what their family is listening to, is what they will be exposed to. [C1/Int]*

An awareness of different frames of reference can be a starting point to challenge one's own assumptions. Responses in ***Cycle 2*** mentioned more explicitly a change in assumptions. Participants who challenged their assumptions became aware of the true value of music education. Participant U admitted her assumption that the only way to accommodate music was the allocation of time to a formal music lesson. Through the reflective tasks she became aware of the role informal music education can play to support learning: "Like literally we can sing, clap your hands, whatever. You can make up little songs" [C2/Int]. Participant S also admitted the value of music in contrast to a prior belief by writing in her journal: "There is more to music education than just having fun and that there is a valid place for music education in the curriculum" [C2/IJ]. The same participant mentioned how the music module influenced her own understanding; she conveyed her knowledge and renewed deeper thinking regarding music education in a collaborative discussion group: "I have honestly never thought music could have such an amazing impact on the kids, I must admit these 2 study units have had a massive impact on me" [C2/COL]. This experience could also be regarded as a discrepant event leading to a change in assumptions and gives hope for informed choices concerning music education in the FP classroom.

Participant T also admitted her distorted view of the value of music education prior to engagement with the module: "I was under the impression that you cannot include music education into other subjects … that musical education is only a subject to let learners take a break from the 'real' learning" [C2/IJ]. It is safe to say that engaging in the module content, together with reflective learning, convinced this participant to change her assumptions regarding music education. Changing students' frames of reference is required when aiming to equip them for the transformation of music education in FP classrooms. The role of music in education (§2.2) emphasises the important role of reflective learning in teacher education (§3.3).

Participant W acknowledged her own frame of reference and the need to adapt to adhere to curriculum requirements:

> *Yes, each person is raised in a different way with a variety of music preferences. I will use my music and culture in the classroom, except if the CAPS prescribes it in another way. I will have to change if the learners enjoy it. [C2/Int]*

(3) Challenges hampering critical reflection

The literature mentions challenges preventing students from participating and engaging in CR such as time constraints and the avoidance of CR due to vulnerability and the threat of exposure (§3.5.). The data analysis confirmed this apprehension about a lack of privacy and security in collaborative reflection (§3.6).

Participant E mentioned that limited connectivity hampered her access to online electronic platforms and proved to be a challenge when she was not at home [C1/Int]. Most quotations in this regard link to a lack of SDL. A lack of SDL as a challenge emerged from data collected in both cycles. Participants in ***Cycle 1*** referred to time constraints and delayed responses from fellow students with negative consequences. Participant A mentioned: "You have to do research before you reflect, and it is time consuming" [C1/Int]. Participant T confirmed the lack of SDL that delayed reflective responses: "You have to wait for a couple of hours or even days for somebody to reply or give her opinion and sometimes it just get missed that one was quite difficult. It is just that we participated at different times" [C1/Int]. Participant E also acknowledged her own lack of self-regulation as barrier that hampered her learning through these reflective tasks: "The only challenge was myself" [C1/Int]. She ascribed her limited participation to being a student and a full-time working mother. The same participant admitted her lack of critical reflection: "I think it is also my fault". She also mentioned an absence of critical reflection by some students: "It will sound harsh, but I think students are not interested in the module or they are lazy or they do not want to put any effort into the module" [C1/Int]. Participant C agreed by declaring: "I would appreciate more responses from other students" [C1/Int].

This lack of SDL by some of the students and the effect it has on collaborative reflection was also emphasised by participant Z in ***Cycle 2***: "You cannot control other students' participation, which complicated the reflection process" [C2/Int].

Participant X reported on active engagement in collaborative reflection where group members assisted each other, while students experienced insecurity in individual reflections: "Some of the other students replied saying they found it difficult to do the individual reflections because they needed somebody" [C/Int]. It is acknowledged that students have different learning styles which was also emphasised by participant T who expressed her preference for face-to-face reflection during the individual interview:

> *I think it will be much better to show somebody a different opinion in a face-to-face manner, because they can actually see the body language, body language counts a lot. Also, the delivery and the tone of the message. Sometimes, the text, when we are reading a text we are reading it from a place of insecurity, we are reading it from a place of sensitivity, we think that somebody is out to get you, or that somebody is smarter than you, so they try to show the entire group they are smarter than you and it is not actually that way. [C2/Int]*

Considering the reports that CR is core to sustained change in behaviour, strategies should be devised to strengthen this teacher competence in teacher education programmes. The lack of SDL and self-regulation emerged as factors hampering CR by the students. As teachers they will be expected to reflect critically on their choices and

actions to warrant a moral and ethical approach to practice that accommodates learner diversity in a culturally responsive teaching environment.

B) Culturally responsive teaching practice

To adhere to the criteria for critical reflection, students should also be conscious of events that may challenge their understanding of culturally responsive practice (Gay, 2015). Participants who engage in the higher-order thinking required for deep reflection, should acknowledge CRTP in FP classrooms for fairness and equity (§2.4). CRTP is grounded in continuous critical reflection on all aspects that may hinder social, just practice.

The literature confirms the role of CR to create a consciousness of social justice issues including socio-economical, ethical, moral, and political issues that relate to CRTP (§2.4). A critical responsive teaching practice speaks to content, reason, and pedagogy of learning in diverse contexts in 21st century classrooms (§2.4). Two sub-categories related to CRTP emerged from the data. Students reflected on the way music can serve as a mechanism to develop a cultural responsiveness in FP learners, as well as the responsibility of the FP teacher to implement a culturally responsive music education practice.

(1) Developing learners' cultural responsiveness through music education

The diverse learner population in South African classrooms provides a rich opportunity to introduce learners to different cultures and to develop an ethos of respect and tolerance. Various participants recognised the role that music can play as a mechanism to support learners in developing this moral principle. Participant E in ***Cycle 1*** reflected on the value of music as a mechanism to develop respect for diversity with the FP learners: "It is important for all learners to become aware of each other's cultural and religious differences and embrace and respect those differences without feeling threatened by them" [C1/B]. The same participant also reflected as follows in her blogging:

> *Music also allows learners to recognize and respect others' cultures and opinions as they learn various music styles, personal music preferences, performance styles and world views with regard to music. [C2/B]*

The impact of the reflective prompts and scaffolded reflections in ***Cycle 2*** was obvious in this sub-category. Similar to participant E in the first cycle, participant X reflected on the way music can help to establish a classroom culture where diversity is respected and celebrated: "Learners gain an understanding of other cultures through music which fosters a lovely acceptance of others" [C2/IJ). This sentiment was shared by participant Y in the collaborative reflection: "We can use multicultural music to promote equality and diversity in a way that learners can understand other

cultures and feel that they are part of a very unique and diverse society" [C2/COL]. Participant Z also emphasised: "Music teaching fosters an interest and appreciation for other cultures' music" [C2/IJ]. The next quotation, a text message by participant Y in a WhatsApp group, expressed a vision of the way she will use music to promote social justice and develop ethical values in her learners:

> *This is why as educators we should encourage learners to respect their peers through the incorporation of a variety of music styles and genres. Because everyone is different, perhaps some learners will not enjoy a specific genre but because another learner may love this genre, the other learner must learn to respect their peers by showing empathy and acceptance. This is something I will definitely incorporate into my own musical lessons one day as empathy and respect is a great skill for young learners to gain and utilise throughout their lives. [C2/COL]*

The above quotation strengthens the case for incorporating collaborative CR in teacher education to scaffold the articulation of one's own understanding of core issues. Through this collaborative reflection activity, the participant articulated the way her willingness to implement music as well as her vision for music education practice, is grounded in her knowledge gained of CRTP.

Participant S indicated the significance of music to sensitise learners about the emotional needs of others: "Engaging in music activities not only teaches learners to be sensitive to their own emotions, but also to the emotions of others" [C2/IJ]. A collaborative reflection by participant U also highlighted that "Music can also be used to teach each other about certain cultures and religions, which is a fun way to teach important lessons such as tolerance of others" [C2/COL]. A journal inscription by participant T further confirms the value of critical reflective tasks to make students aware of the opportunities granted through music education to establish a culture of respect that advances academic learning: "Music education can bring learners of different races, cultures, and languages together and help them learn" [C2/IJ].

Evidence emerging from the data confirming the role of individual and collaborative reflective learning to mediate CR on matters related to CRTP is significant in the South African educational context. In a country with a history of racial segregation and discrimination, music can serve as a mechanism to develop learners as future citizens and leaders who acknowledge, respect, and embrace diversity as a strength to build a united, prosperous country to the benefit of all. When teaching aims reach further than the classroom walls, it reflects a moral and ethical practice (§3.5) as suggested by Brookfield (2009).

(2) Implementing a culturally responsive music education practice

Reflections on teachers' responsibility to implement music in a culturally responsive way, also emerged from the data. In ***Cycle 1*** participants showed knowledge that different cultural music

styles should be accommodated in inclusive classrooms. Participant A acknowledged the use of a variety of music styles in the class in her reflective blog:

> *To ensure all the learners are included in the teaching process, we must be aware that everyone has their differences and that each has the right to choose what they find as enjoyable. [C1/B]*

Participant E confirmed the use of different kinds of music in teacher education: “To get us out of our comfort zone and make us more comfortable listening to and using diverse songs and music and not just the ones that we are used to” [C1/Int].

Due to knowledge gained from the module and reflections on music, culture and religion, participant B showed a commitment and willingness to implement a culturally responsive music education practice: “Now when I am starting with my lesson, I have to include music that accommodates all my learners” [C1/Int]. Participant W in ***Cycle 2*** mentioned that music integration creates a learning environment where learners feel safe. This participant also mentioned that music teaching choices should: “Show respect for learners, their needs and cultures” [C2/IJ].

A lack of a moral and ethical practice may hinder social justice (§3.5). The data showed that the reflective tasks guided participants to articulate their understanding of moral and ethical practice in support of CRTP. Participant E in ***Cycle 1*** focused on the consequences of music and movement for learner well-being:

> *We need to be aware of how the music and movement in our lessons make our learners feel. It is important to always make our learners feel safe and secure in our care and no learner should be made to do or take part in an activity that they are uncomfortable with. [C1/B]*

The revised tasks implemented in ***Cycle 2*** seemed to have elicited even deeper critical reflection on issues of culturally responsive music education practices. This could also be ascribed to the fact that the reflective prompts in the tasks implemented in cycle 2 explicitly focused on ethical and moral practices which were not a main focus during cycle 1. Participant Z reported the need to accommodate learners with: “Specific needs and to adapt music teaching accordingly where possible and necessary” [C2/IJ].

Participant U critically reflected on the responsibility of the FP teacher to implement a socially just music practice that recognises and respects all learners: “Music and dance can also reach past race, sex, culture, socio-economic and religious backgrounds and involve everyone on an equal platform” [C2/COL].

The above collaborative WhatsApp reflection strengthens the notion that learning tasks which foster reflective learning holds value to equip students for the transformation of music teaching practice.

A reflection by participant Y in a WhatsApp group demonstrated a vision for music education practice that celebrates diversity: “Their differences should be celebrated through musical activities, rather than just tolerated” [C2/COL].

Critical reflection plays a significant role in an awareness of cultural diversity (§3.5). Although the CAPS (DBE, 2011) stipulates adherence to CRTP, this noble idea is often not observed in practice (§2.4). Participants in cycle 2 did not only show an awareness that CRTP should be acknowledged in the planning for and implementing of music activities, but also that music can serve as a vehicle to strengthen values of equality, empathy and respect in the FP learners. In their collaborative discussions participants further reflected a willingness to incorporate social justice and ethical practices in music teaching. Considering the current state of music education in South Africa’s FP classrooms, this awareness, together with a willingness to implement the anticipated curriculum, holds promise for how these students will contribute to the transformation of music education.

The analysis of data collected in the prototyping phase provided evidence of the value of individual and collaborative reflective learning in a FP teacher education programme aiming to equip students to transform music education practices. However, various factors hampering the implementation of music education should be recognised when preparing students as agents who can play a role in addressing these factors. The planning of reflective tasks should, therefore, take note of these hampering factors that emerged from the data.

5.4 A reflection on factors hampering music education

Participant reflection on the factors hampering music education could serve as mover for prospective teachers to consider strategies to change the status quo of music education. The data analysis indicated that participants could identify factors hampering the implementation of the envisioned music curriculum which would also limit the way learners can benefit from the value of music education reported in Chapter 2 (§2.6). The executability of the *curriculum* with limited time allocation, *perceptions of music education* and *teacher competence*, as well as a *lack of LTMs* as categories, contribute to the neglect of music education (Table 5.6; Figure 5.3).

Table 5.6 : Factors hampering music education in the Foundation Phase

Categories	Sub-categories
Curriculum design	Packed curriculum Time constraints
Perceptions of music education	Underappreciation of music education Music as optional accessory
Teacher competence	Lack of teacher knowledge Negative attitude towards music education
Lack of LTMs	

Findings on these hampering factors emerged from the data collected in 2021 and 2022 and are reported in an integrated way. The network created through ATLAS.ti™ provides a visual representation of the interrelatedness between the factors hampering music education in the FP, established through logical reasoning grounded in related literature

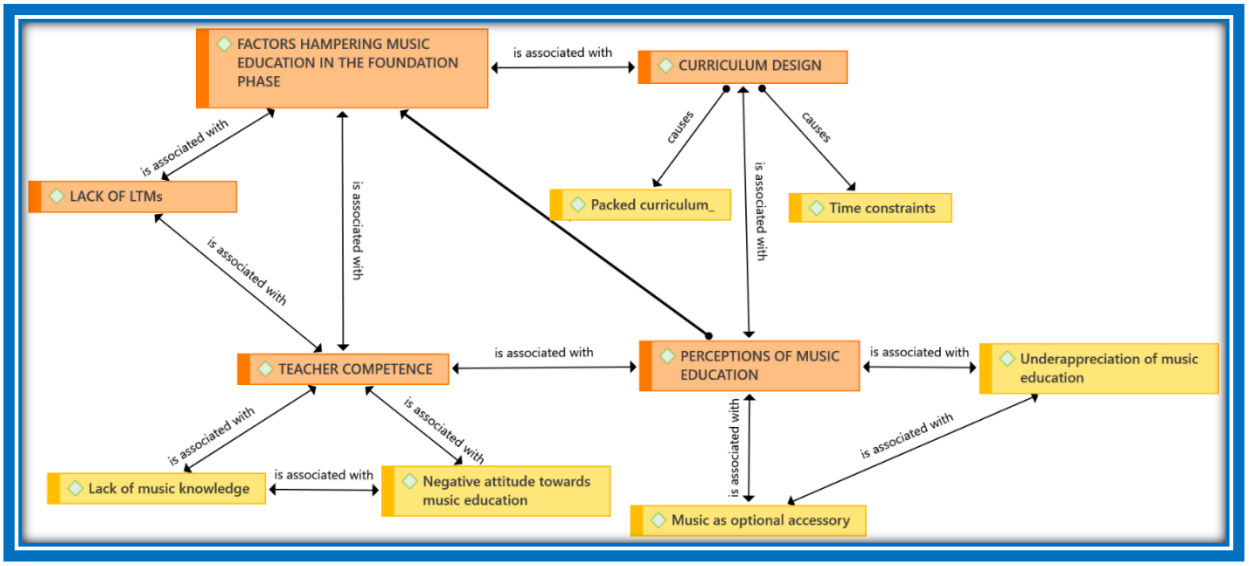

Figure 5.3 Factors hampering music education in the Foundation Phase

Although all categories are related, the discussion focuses on the relations applicable to this research. The categories *curriculum design* and *perceptions of music education* are related due to the influence of the packed curriculum design and the resulting time constraints on teachers' perceptions of the place of music in the curriculum. There is concurrence in the literature that the curriculum design allocates limited time to music education and due to the multiple curriculum requirements, music education is being left behind (§2.6). Concerning the *perceptions of music*

education, it is clear that music education is often not perceived as valuable and imperative, as is evident from the codes categorised in the related sub-categories *underappreciation of music* and *music as optional accessory.*

The categories *perceptions of music education* and *teacher competence* are related. The way teachers perceive music education is due to their competence or a lack of competence. Teachers may not be competent to teach music due to a *lack of music knowledge* and a *negative attitude towards music education* as was demonstrated by codes related to the reciprocal sub-categories.

5.4.1 Curriculum design

The curriculum referred to in this research is the CAPS (DBE, 2011), specifically with reference to the FP, prescribed for public schools in South Africa (§1.4). The perceptions and experiences of participants concerning the curriculum focused on the *packed curriculum* as well as on the resultant *time constraints,* which subsequently reflect the influence of these factors on music education. These two factors further contribute to a negative attitude towards the curriculum. This emerged from the data. Experiences and observations during TPrac informed participant perceptions of the packed curriculum as a factor hampering the implementation of music education.

5.4.1.1 Packed curriculum

The role of the packed curriculum in the fate of music was raised by participant Y in the collaborative reflections:

During the second semester [TPrac] I was placed in Grade 3 where there was a huge lack in terms of arts. My mentor teacher claimed that this was due to the large amount of work that they had to cover in order to stay on target for the semester. [C2/COL]

During the interview, participant A also mentioned: “The CAPS is a packed programme … I think this is the reason why some teachers do not have time for [music education]” [C1/Int]. Participant W even suggested: “The curriculum must decrease due to the pressure on teachers and learners to complete everything in one year” [C2/COL]. Participant W highlighted that “Music education is denied from Foundation Phase learners to enable teachers to complete the curriculum” [C2/COL].

Participants’ reflections on their experiences, either as practising teachers or during TPrac, confirmed that music education is compromised due to the large amount of content to be covered during the year as required by the CAPS (DBE, 2011), albeit that they are not all practising teachers.

5.4.1.2 Time constraints

It is evident that the crowded curriculum as a factor hampering music education is also linked to time constraints (§2.6), leading to the neglect of music education. Participant Y mentioned that, although learners enjoy music, limited time does not permit time spent on music:

> *Maybe [teachers] are so swamped with work that there is just not time to incorporate fun things like music and games. [Fellow] students agree with me that music is not a big deal in their schools. There is no time for music, and learners enjoy music, dance and singing. I've seen in (most) public schools, *someone please correct me if I'm wrong*, but there truly is no time for the 'fun' stuff. Everybody experiences the absence of music in schools as a problem. [C2/COL]*

Reflections such as those demonstrated by Participant Y may also be evidence that teachers lack the required knowledge of how to purposefully integrate music into the curriculum as a mechanism with which to support the holistic development of learners as reported in theme 1. Although she is aware that learning in the FP can be infused with fun and enjoyment associated with music activities, the literature warns that music can and should be planned and implemented with a higher purpose than mere enjoyment (§5.6).

Participant Y observed teachers neglecting music due to time constraints: "Yes! So many teachers are willing to neglect the arts because there is not enough time in the timetable to fit it in with the ever-growing syllabus" [C2/COL].

The quotations provided raise concerns about the influence of the mentor or class teachers' conduct during TPrac, which may influence students' perceptions of music as a non-essential component of the curriculum (§2.2). Students' observations of mentor teachers' attitudes towards music and music education practice are modelled by mentor teachers during *in situ* TPrac at schools, clearly influencing students' developing perceptions of teacher workload and time constraints preventing music education. Preparing students to critically reflect on their observations to make objective informed decisions concerning their own perceptions of practice is therefore crucial.

5.4.2 Perceptions of Music Education

Reflective tasks made students aware of perceptions of music education as a factor hampering the implementation of the music curriculum. As mentioned under *curriculum design* as a hampering factor, the perceptions modelled by mentor teachers during TPrac influenced the participants' developing perceptions of the position of music in education. Codes in this category were linked to the subcategories *underappreciation of music education* and *music as optional accessory*.

5.4.2.1 Underappreciation of music education

Participant observation that teachers view music as a waste of time is indicative of insufficient teacher knowledge of the educational value of music. The lack of appreciation of music as a valuable component in the curriculum emerged from participants' observations. Participant A observed that: "There are so many subjects that are regarded more important and more 'useful' than music or arts, that this subject is regarded as unimportant" [C1/B]. This sentiment was shared by participant Y who declared: "I definitely think they push art and music (fun) aside to make time for the 'more important' subjects" [C2/COL]. The same participant expressed her concern for the negative impact of this practice on the wellness of learners as future adults: "I think we're teaching learners from a young age that the arts and play 'aren't important' and then as adults we neglect it" [C2/COL].

Participants who observed that teachers view music as a less important subject also indicated a lack of teacher knowledge of the value of music. Participant A commented on the unimportance of music: "There are so many subjects that are regarded more important and more "useful" than music or arts, that this subject is regarded as unimportant" [C1/B].

Although the perception exists that music education is not a priority and a teacher can choose whether to include music or not, the incorporation of music, either as a specifically planned music lesson or integrated into other subjects, is prescribed in the CAPS for Life Skills for the FP. However, Participant S explained the avoidance of music in classrooms: "I heard that teachers will go for weeks without doing anything related to art or music" [C2/COL]. This view of underappreciation of music in the classroom is confirmed by Participant Y:

> *I do think that, in the majority of our school, experiences in music have been overlooked; some teachers actually avoid using music in the classroom or just don't even bother using it. [C2/COL]*

Although participants seem to understand the need for music education in the FP, they observed the neglect of music education (§2.2). This neglect was often ascribed to teachers' perceptions of music as being insignificant, pointless or a waste of time, when considering the content that needs to be covered in core subjects.

5.4.2.2 Music as optional accessory

Various values of music were motivated by the participants which mostly focused on the optional use of music to support learning in other subjects or learner wellness, with a focus on the calming effect of music, to express emotion, and to energise learners. Participant E, an older practising and experienced teacher, mentioned that: "Music is very versatile and a great way to grab and

maintain learners' attention" [C1/IB], while participant C observed that: "The teacher will use music for background to calm learners down". Participant W also commented on the use of music for its calming effect as well as the inactive role of learners while listening to music:

> *Music was not used in the Grade 1 class … The teacher played a song after break to calm the learners down and they listened to songs during lessons, with no movements or instruments. [C2/Int]*

Mention was made of the use of music outside of the classroom. Participant R refers to the use of music for special occasions, such as for school concerts, identified by Bresler (1995) as social integration (§2.4): "Music does not occur in the schools as supposed. Music is only in schools when learners practice for a concert" [C2/COL]. Although the valuable experiences and development of various skills during concert preparations and performances should not be underestimated, the educational value of music cannot be realised through concerts, where learners mostly practice songs and movements to near perfection mainly for entertaining purposes.

5.4.3 Teacher competence

Informed by the model of Shulman and Shulman (2004), teacher knowledge, skills, and the motivation or willingness to teach, need to be supported in teacher education programmes to develop competent (accomplished) teachers. Two sub-categories namely, a *lack of music knowledge* and a *negative attitude towards music education,* emerged from the data as factors hampering music education.

5.4.3.1 Lack of music knowledge

Although the implementation of the CAPS requires teacher knowledge and skills to teach diverse cultural art forms (CAPS, DBE, 2011), the literature reports that teachers are not adequately equipped in this regard (§2.6). Generalist teachers who are responsible for teaching all subjects in the FP, should have the relevant knowledge of music education to inform their music education practice and strategies employed to integrate music in their classrooms (§2.4).

A reflective task provided participants with a scenario as a point to ponder. The task placed them in the predicament of choosing between one of two components of LS, namely Physical Education or Music Education, to support the optimal development of the FP learner. Participants were also asked to rationalise their choice in an online blog and WhatsApp (§4.4). Participant reflections on these tasks formed part of the data. Most participants chose Physical Education over and above Music Education in a FP context. Although participants provided valid reasons for choosing Physical Education to support learner development in various domains of learner development,

their arguments demonstrated a lack of knowledge of the invaluable role of music in different domains. Participant A chose Physical Education, “Due to the significance of health and fitness for growing children. Physical engagement improves academic performance” [C1/B]. Participant C also motivated her choice for Physical Education:

> *It does not need many resources; it could be easily incorporated in a school with low resources and limited funding. I think most students [learners] would use their physical skills when their [sic] grownups, but not all would use music skills learned in school. [C1/COL]*

Although Physical Education plays an equally important role in FP LS and holds benefits for learners’ wellness and physical development, the significance of music for the cognitive development of learners was absent due to a lack of knowledge as evident from an honest statement by participant C in an interview “There are many aspects about music that I did not know … to use music for Mathematics and literacy” [C1/Int].

When teachers lack knowledge of the role of music to support cognitive development, they may not be motivated to spend time on music education. Participant T admitted insufficient knowledge regarding the benefits and value of music in cognitive development: “I never really thought that music education would have an impact on a child’s development, more specifically on their cognitive development” [C2/Int]. By not realising the educational value and benefits of music education for holistic learner development in the FP as demonstrated by these quotations, participants may assume that music is only introduced for fun or to create a pleasant atmosphere as reported in the literature (§2.5), while ignoring the multiple benefits of music for FP teaching and learner development (§2.5). A lack of teacher knowledge of music education, as evident from the above, could influence the attitude of teachers towards music education.

5.4.3.2 Negative attitude towards music education

Evidence was found in the data of the way the module content and reflective tasks guided participants to question their own and observed teacher presumptions of the role of music in FP education. Participant D acknowledged her initial ignorance of the value of music in FP education and its role in supporting learners’ holistic development. Her comment also demonstrates the relationship between teacher knowledge and attitude to teach music:

> *Okay, I had negative attitude before, but now, I have a positive attitude, as I was saying, now I watch educators’ music and I watch music and I want to learn how I will be teaching music, or how I will be teaching maybe something in class if … maybe … as learners are struggling to understand something, maybe I can teach them through music, maybe they will learn faster. [C1/Int]*

In the above quotation, participant D attributes her change in attitude and consequent motivation to knowledge gained through the music module. This quotation furthermore emphasises the role of a mentor teacher in shaping the beliefs and knowledge of participants that will influence their future approach to music education.

When teachers are textbook or curriculum bound, it may point to their lacking knowledge and self-efficacy, as well as a possible lack of willingness and their attitude concerning music education making them unable to adapt the curriculum to the context of their learners. Participant D commented in her blogging that mentor teachers rigidly teach to the textbook or curriculum without looking for more appropriate resources for enrichment: “Some teachers don’t want to go an extra mile; some see it as a waste of time as learners won’t learn anything” [C1/B]. The comment by participant D further points to the teachers’ lack of SDL (Knowles, 1975) (§1.2). SDL enables teachers to take the initiative to look for additional resources to enrich their knowledge and thereby ensure meaningful music learning experiences.

The literature reports that teachers with adequate knowledge and a positive attitude towards music education will strive to make optimal use of music in the classroom to support learner development (§2.5). However, challenging socio-economic conditions that emerged strongly from the data, may demotivate even knowledgeable and skillful teachers to spend time on music education.

5.4.4 Lack of learning and teaching materials (LTM)

The effect of socio-economic factors on music education has been argued in Chapter 2 (§2.6) and was also mentioned by participants in their reflections. For their TPrac, some participants were placed in no-fee[21] rural schools with dire socio-economic circumstances. Although it is important that students experience the diverse teaching contexts of South Africa, no or limited resources for music can hamper music education in these schools and consequently hamper the opportunity for students to gain experience in music education in these classrooms.

A constant struggle to obtain resources may influence teachers’ decisions to implement music. Some teachers may lose interest due to a lack of access to musical instruments in schools. In this regard, participant D explained: “We have different schools, so if a teacher does not have

[21] These schools were identified in 2007 as quintile 1 and 2 schools comprising 40% of the poorest schools in South Africa. Parents do not pay school fees due to a low income. https://www.etu.org.za/toolbox/docs/government/schoolfees.html

material or anything with regards to teaching music, a teacher will not be interested in that" [C1/Int]. However, participant A, argued that willing and motivated teachers will find a way to teach music, irrespective of the socio-economic circumstances: "If music instruments are not available, recycled materials can be used to make or build instruments" [C1/COL].

Participant Y summarises various factors hampering music education beyond teacher control:

> *Sadly, it is quite prevalent that music education and [its] incorporation is on the back burner of the curriculum and teaching instruction. It seems like this is mostly due to a lack of resources, funding, social contexts, time constraints and ineffective training of current educators in the benefits of music. [C2/COL]*

The analysis of the data revealed evidence that the reflective tasks created an awareness within students of the factors that could hamper music education. The findings concur with barriers reported internationally and nationally, as contributing to the neglect of music education in the early school years (§1.2; §2.2). Collaborative reflections on how to overcome the barriers could further support students in finding workable solutions to transform music education, irrespective of the teaching context in which they may find themselves.

5.5 Conclusion

Chapter 5 gave an account of the continuous and retrospective analysis and interpretation of information and data collected during the prototyping phase of the DBR. The aim of the analysis was to illuminate design features for student tasks that will support reflective, and more specifically critical reflective learning to be accommodated in the music education module. Information collected in the preliminary phase informed the prototyping phase. The body of information analysed and interpreted in the preliminary phase included the literature reviewed as reported in Chapters 2 and 3, as well as document analysis and the collaborative discussions by the design team. This information informed the designing of the reflective tasks through planning, reflecting, implementation, evaluating and rendering design principles as explained in Chapter 4.

Data analysis during the prototyping phase focused on the interpretation of data collected through the two cycles during which individual and collaborative reflection were supported through reflective tasks performed on communication platforms namely, blogs and WhatsApp, as well as individual reflective journals included in cycle two. The analysis and interpretation of the data collected in two cycles (C1 and C2) as well as retrospection on the findings on phase 1 of the DBR, informed adaptions to the tasks. Findings from the DBR and the literature, inform final design principles for reflective tasks to be incorporated in teacher education programmes to equip prospective teachers as activators of change in music education in the FP.

In summary, the findings through DBR phases and the implementation of two cycles revealed the following: Participants showed an awareness of the necessity of knowledge and skills for music teaching while they view music of equal importance to other subjects. There is evidence of a correlation between knowledge and motivation as well as enhanced confidence. Music engagement provides an outlet for learner stress and creates a space for comfort and trust in the classroom. Collaborative reflections motivated participants to participate in reflective learning. Participants indicated an awareness of diversity in classrooms and an accommodation thereof. Insights gained from the reflections include an enhanced level of reflection in cycle 2 due to strategies explicated in the next paragraph. The more structured collaborative tasks in cycle 2 rendered deeper reflection, implying that students need stronger scaffolding to support reflective learning. Some participants showed evidence of SDL and indicated that they want to act as agents of change in the future. The DBR model by Abdullah and Wegerif (2014) deemed appropriate and transferrable to other contexts and suitable for the improvement of reflective learning in a music module in a teacher education programme.

Findings from the DBR and the literature, informed final design principles for reflective tasks to be incorporated in teacher education programmes to equip prospective teachers as activators of change in music education in the FP. Principles such as, structured reflective tasks, scaffolding, a mark allocation, guidance by the lecturer and group leaders in cycle 2 of the DBR, enhanced the level of CR. The findings informed a framework for individual and collaborative critical reflection which is set out in Chapter 6. The principles and design features included in the framework (Table 6.1) proved to support reflective learning in individual and collaborative reflective learning activities. Although evidence of CR did not emerge often, some evidence of reflection on ethical and moral issues of music education emerged. Improving the design in a follow up cycle could further strengthen transformative learning through CR.

The framework was developed and aligned to match the requirements of the specific music module and in context of the observed learning needs of the target student population. With consideration of contextual factors, the framework has the potential to be implemented in a similar South African teacher education context concerned with reflective learning.

Participating students indicated a willingness to become agents of change. Evidence of changed thinking, understanding and attitude with the potential to change music education practice in the classroom, was observed.

CHAPTER 6 CONCLUSION AND SUGGESTED DESIGN FRAMEWORK

6.1 Introduction

Chapter 5 presented the DBR features (Table 5.2) based on the design of reflective student tasks included in a music education module that forms part of a BEd FP teacher education programme. This chapter elucidates how the research questions have been addressed and proposes a framework for accommodating individual and collaborative critical reflection in a music education module to equip FP students to transform music education practice in response to the final sub-research question. The chapter concludes with the limitations of the study and motivates the contribution made by this study.

The problem stated in Chapter 1 (§1.4) was motivated by my personal concern about the decline of music education in the FP, despite the overwhelming support for the role of music in the holistic development of the young learner (§2.5) (Auerbach & Delport, 2018; Van Vreden, 2018; Varner, 2019). The limited reports on the state of music education, specifically in the context of the FP classrooms of South African schools, is an indication of various factors contributing to the decline in music education (§2.2). The confirmation of the neglect of music as a component of the LS curriculum, indicates a need for the transformation of music education practices which require teachers to be equipped as agents of change. Based on Shulman and Shulman's (2004) teacher competencies and Mezirow's TLT (1990,1995, 2003), students should not only be equipped with the relevant knowledge and skills to incorporate music in their practices, but to also develop critical reflective competence that is at the core of transformative learning. To equip teachers as agents of change requires a concomitant development in the two domains namely a sound teacher knowledge and skills base and critical reflective competence that inform each other reciprocatively. On the one hand, a rich knowledge and skills base will meliorate critical reflection, enabling the student to critically consider various factors that may influence effective music education, on the other hand, employing critical reflective competence when confronted with information enables the student to selectively apply knowledge and skills to enhance music education practice.

Although generalist teachers are not expected to have specialised music knowledge and skills, the literature confirms the indispensable role of music as part of the FP curriculum. HEIs should therefore ensure that their teacher education programmes equip prospective FP teachers with the required music education knowledge and skills and instil in them a positive attitude towards music education. These attributes collectively inform teachers' visions for practice that will determine how the transformation of music education in FP classrooms will be prioritised.

The goal to attain the research aim and objectives was informed by the search to address the sub-research questions that led to addressing the principal research question. The following section explicates how the sub-research questions were addressed through the respective sections of the DBR.

6.2 Addressing the research questions

6.2.1 First sub-research question

> *What individual and collaborative critical reflective strategies can be employed in a teacher education music module to effectuate transformation in music education practice?*

Different resources informed the identification and design of individual and collaborative reflective learning strategies to be incorporated into the music module to equip students as agents who can change the current neglect of music in the FP. The initial design was informed by the literature review proposed in Chapters 2 and 3, the document analysis, and the collaboration by the design team in the *preliminary phase.*

The design team found a lack of deep reflection experiences in the blogging when students decided to use the blogs for information sharing only (§3.6). Students experienced hesitation to blog frequently due to the time constraints of blogging (§3.6). Critical reflective tasks (Addendum A) were developed for implementation in the first cycle in 2021 (§4.3) during the *prototyping phase.* Individual and collaborative reflective learning strategies were incorporated into the music module as student tasks to support reflective learning in contact and DL modalities. Motivated by the literature, reflection was mediated by blogs, individual reflective journals and WhatsApp as communication platforms (§3.6). Although the design team expected blogging to be used for both individual and collaborative reflection in the first cycle, this platform was instead used by students for individual reflection with little evidence of collaborative reflection. The literature describes blogging as informal and popular in reflective learning with the potential to support CR (§3.6). Blogs are easy, convenient and user-friendly and suit students due to removing space and time limitations (§3.6). The design team decided after reflective discussions, to employ individual reflective journals in cycle two due to the advantages of self-reflection, and documentation of understanding and lived experiences. In addition, e-journals support critical reflective learning (Brookfield, 2017; Moon, 2006) and is used to enhance learning over a period of time (§3.6).

The participants viewed WhatsApp as the most suitable and informal social and digital communication platform to support collaborative reflective learning while fostering critical thinking (§3.6). WhatsApp is suitable to be used in advantaged as well as previously disadvantaged HEIs

in South Africa where challenges regarding network access and data prevail (§3.6). The advantages to encouraging dialogue and establishing collaborative communities (§3.6) are mentioned in the literature with the disadvantage being a lack of privacy and security in collaborative WhatsApp groups (§3.6), resulting in low intensity engagement.

Addressing sub-research question 2 was attained through the empirical study in two cycles spanning the duration of two years, from 2021 to 2022.

6.2.2 Second sub-research question

Data collected during the *prototyping phase* strived to determine:

> *How can individual and collaborative critical reflection in a music education module equip Foundation Phase student teachers to transform music education practice?*

The literature confirms the role of individual and collaborative critical reflection to effectuate transformative learning (Mezirow, 1990, 1991; Shulman & Shulman, 2004). In the context of this research study, transformative learning could resonate in the changed perspectives needed to transform music education by these students when they enter the FP practice (§3.3). Continuous reflection and retrospection on the findings based on the analysis of data collected through both cycles (§4.4), therefore, focused on evidence of the development of how the reflective learning strategies supported critical reflective competence. This retrospection was always grounded in knowledge gained through the review of the literature.

After the first cycle, the design team reflected on the findings emerging from the data analysis to suggest adaptions. Guided by the literature, lessons learned through the first cycle and the positive experiences shared by the participants in cycle one, planning for the second cycle again involved activities such as reflective journals for individual reflection and WhatsApp for collaborative reflection. Considering the limited critical reflection in the first cycle and motivated by the literature advocating for a ***structured approach to support critical reflective learning*** (Fook, 2015; Stahl, 2000; Taole, 2013), the design team opted for more structured reflections (§5.3) and decided to provide stronger scaffolding for reflection and critical reflection in the second cycle (§5.3). Apart from reflecting, Vygotsky's Socio-Cultural theory (§4.3), this adaption is also grounded in the model of Stahl (2000) (§1.8). Scaffolding was provided in the form of very specific reflective tasks involving prompting questions to guide individual reflective activities that progressed to collaborative reflection for social knowledge-building through WhatsApp. Individual reflection prepared students with the necessary knowledge and understanding (Shulman &

Shulman, 2004) for rational discourse (Johnson & Olanoff, 2020) prior to collaborative reflection engagement.

Students need guidance in reflective learning as indicated by participant E in an interview where she needed teacher educator guidance to focus on her potential rather than on her incompetence (§1.3). Van Rensburg et al. (2018) identified the need for and recommend student support and guidance in CR (§3.5). The role of voluntary leaders as a support feature to strengthen student reflection and to ensure that the members stayed on track, also emerged from the findings.

The outcomes that emerged were related to knowledge-building and problem identification. Participant R referred in an interview to individual reflection as meaningful and autonomous for knowledge-building (§1.4) which is identified as an SDL skill. Participant S mentioned in an interview that reflection was experienced as an enabling tool to identify problems (§2.6). The remark from participant S reminds us of the role of a disorientating dilemma (§1.3; 4.2) emerging from reflective practice to serve as a motivator for change as suggested by Johnson and Olanoff (2020). Both participants R and S referred in their interviews to collaborative reflections that assisted them in knowledge-building during TPrac experiences (§5.3). Collaborative knowledge-building is mentioned in the literature (Lau & Meyers, 2013; Stahl, 2000) (§1.8).

The reflective tasks equipped students to transform their music education practice as well as gaining support for their teaching competencies such as knowledge, vision, motivation attitude and confidence (§2.6). HEIs are responsible for preparing students with the appropriate ***knowledge and skills*** for music education (MRTEQ, 2015) (§3.3), which are prerequisites for teacher vision, motivation, attitude, and confidence. ***Teacher vision*** guides reflection on teaching (Husu &Tirri, 2007), and provides purpose (Darling-Hammond & Baratz-Snowden, 2007) (§1.3). In an individual journal, participant Y referred to knowledge gained through the module that inspired a vision for music education (§1.3), thereby confirming a relationship between knowledge and vision.

Participants can become aware of discrepancies between theory and practice that can motivate a change in practice (Mezirow, 1990, 1991) (§1.3). Participant D declared in an interview that her ***motivation*** for music education stemmed from what she learned in the module. Participant E concurred in an interview that she will only be motivated to teach music after gaining knowledge of music education (§5.3). The important relationship between knowledge and motivation mentioned in the literature (§3.3) was thus echoed by the findings.

Participants reported a need for a positive ***attitude*** to teach music in FP classrooms. Participant C reflected in a blog that she finds herself in a good space to teach music and she loves that

music is part of teaching (§5.3), indicating a positive attitude and a readiness to incorporate music education after engagement in the module and reflective learning. Participant W signalled her intention to prioritise music integration in lessons (§5.3) in an individual journal, thus showing an understanding and enthusiasm for music integration in FP classrooms. These quotations are in line with an observation by R. de Villiers (2017), who states that an initial negative student attitude regarding FP music education changed to a positive student attitude after students' practical music engagement (§2.6). Focusing critical reflection on the value of music in education could have contributed to the positive attitude of participants and the possible change in frames of reference.

Enhancing student ***confidence*** through reflective practice is imperative due to the reported lack of confidence of generalist teachers as well as inadequate teacher preparation by HEIs (Jansen van Vuuren & Van Niekerk, 2025) (§1.2). The relationship between knowledge and skills, and resulting confidence is evident in the literature (§2.6). Adequate knowledge and skills are reported to enhance teacher confidence (De Vries, 2015; Holden & Button, 2006; Jansen van Vuuren & Van Niekerk, 2015) (§2.6). This relationship is highlighted in an interview by participant C who stated she felt confident to teach music due to what she had learned from the module and tasks (§5.3).

The results from the above sub-research questions informed addressing the principal research question.

6.2.3 Addressing the principal research question

> *How can individual and collaborative critical reflection be fostered in a music education module to equip Foundation Phase student teachers to transform music education practice?*

Addressing the principal research question is supported by findings emerging from the three DBR phases as illustrated in Table 6.1.

Table 6.1 : Steps followed to address the principal research question

Input	Process	Output
Blog reflection Individual reflective e-journals Collaborative reflection (mediated by WhatsApp) Implementation in two DBR cycles	Transformative learning model (Johnson & Olanoff, 2020) implemented for critical reflection, supported by teacher competencies (Shulman & Shulman, 2004). Individual and collaborative reflective learning strategies implemented in two cycles to improve reflective learning and foster critical reflection on own held beliefs and that of others.	Design principles proposed after reflection and retrospection on all three DBR phases: **Planning of reflective tasks:** • Structured reflections • Scaffolding reflective learning • Set timeframes for submission • Mark allocation as extrinsic motivation • Guidance by teacher educator • Group leaders **Outcomes of reflections:** • Individual and collaborative knowledge-building • Identifying of problems **Transformation is grounded in teacher competencies:** • Music knowledge and skills • Vision • Motivation • Positive attitude • Confidence

Considering the decline in music education, the DBR provided the opportunity to explore how individual and collaborative critical reflection can be fostered in a music education module to equip FP students to transform music education practice. Findings indicated that individual and collaborative CR can be implemented successfully in a FP music education module to support reflective and transformative learning, however, scaffolding and guidance are crucial to support reflection at this level.

The choice of communication platforms is important when planning to implement individual and collaborative reflection to support TL. There are factors that need to be considered regarding the context of the student population. Blogs, individual reflective journals and WhatsApp were the chosen communication platforms in the study for individual and collaborative CR. These were also supported by the literature and participant responses. Although there is little evidence of CR

through blogging, it holds the potential to support CR, and it is a popular platform that supports learning (§3.6). Blogging is zero-rated (§4.4) when students use the LMS of the HEI which is suitable in developing countries where stable networks are a challenge. Students fear exposure in open blogs, therefore, guidance in blogging is suggested to enhance reflectivity (§3.6). The literature refers to motivation and guidance as advantages of individual reflective journals, to mediate TL (§3.6). Although WhatsApp, the most suitable communication platform used by the participants, creates a collaborative reflective environment and fosters critical thinking, a stable network is needed as well as sufficient data (§3.6). WhatsApp is inexpensive, supports collaborative learning, and is the most suitable application for student learning to be used in diverse environments where laptops are not accessible (§3.6). Of key importance is the accessibility of WhatsApp which proved to be easy and flexible enough (Alubthane & ALYoussef, 2021; Khalil et al., 2017; Thaba-Nkadimene, 2020) to enable collaborative reflection.

Students were equipped to transform their music education practices in the FP through a reflective practice encountered in their preparation as teachers. The analysis of the data indicated the need for components to be considered in the design of reflections, such as the inclusion of structured reflection tasks (set submission timeframes and mark allocation), incorporating scaffolding (reflective prompts; individual reflection followed by collaborative reflection) and providing teacher educator guidance and support in collaborative reflection as well as informal group leaders. The outcomes that were observed as benefits included individual and collaborative knowledge-building and the ability to identify problems. Teacher competencies that need to be fostered in reflective learning comprise music knowledge and skills as a prerequisite for student vision, motivation, a positive attitude, and the confidence to apply CR. These factors will, therefore, influence and contribute to CR on music education practices.

The two cycles rendered final design principles for the improvement of the reflective design of the music module outlined in the third sub-research question.

As part of the *reflective phase* of the DBR, the design team considered the findings from the *preliminary* and *prototyping phases* to address the third sub-research question. This question was chosen as the final question to be addressed due to the rendering of design principles as a contribution by the study.

6.2.4 Third sub-research question

> *How do the findings of the design-based research explicate design principles for the fostering of individual and collaborative critical reflection in a music education module?*

The DBR process started with reflection and the planning of individual and collaborative reflective tasks for implementation in cycle one. Individual tasks were designed as compulsory activities in the curriculum and were submitted in students' own time. These activities were also recognised as contributing to the mark allocation in the module. The collaborative reflections were not compulsory, with no mark allocation, and were submitted in students' own time (§4.3) Since the aim of the reflective tasks was to support CR as a motivator for transformative learning, the findings directed the need to explore additional literature to identify strategies to deepen reflection to a critical reflective level through revised individual and collaborative reflection tasks. After collaborative retrospection by the design team, the reflective tasks were adapted by setting specific reflective tasks linked to the module content that elicit critical reflection (§4.4). The adapted individual and collaborative tasks were deemed compulsory and were assessed for mark allocation. In a different approach to what was followed in cycle one, students submitted their individual reflective journals and WhatsApp collaboration at a specific set time which was implemented in cycle two of the *prototyping phase* (Table 4.3). The data collected after the second cycle were again analysed after which the design team engaged in collaborative reflection, retrospection, and redesigning to propose design principles. It is acknowledged that these principles do not postulate a final design but serve as groundwork for further refinement in a following cycle.

The framework for individual and collaborative CR as strategies to equip students as agents of change who can transform FP music education practice is illustrated in Figure 6.1.

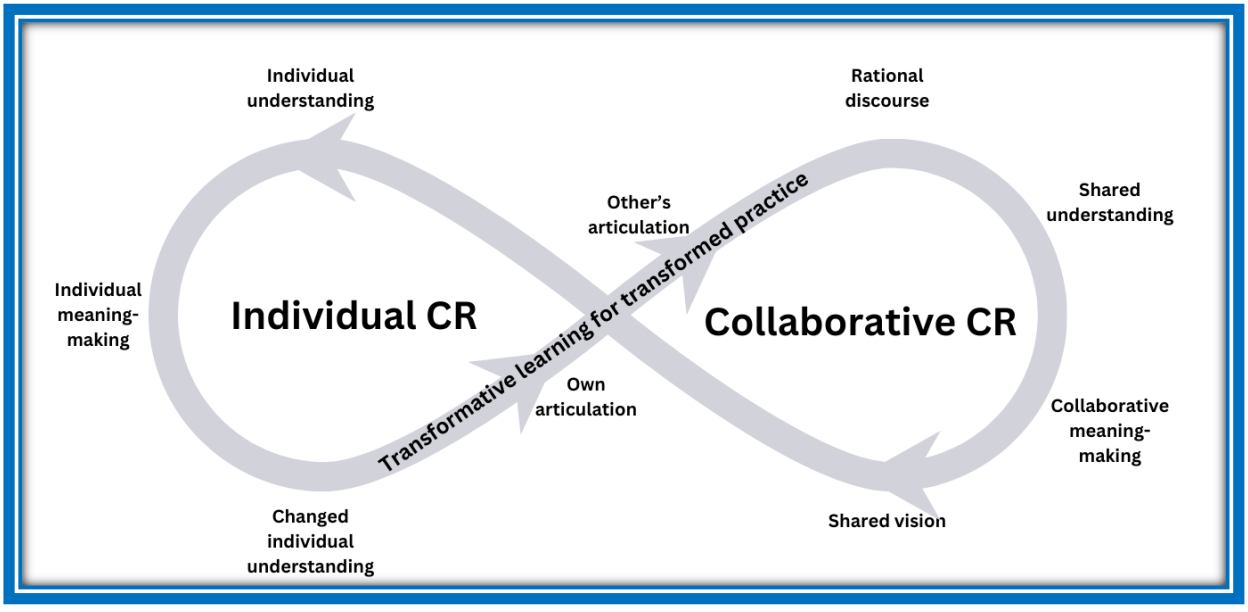

Figure 6.1: The framework for individual and collaborative critical reflection

The proposed framework in Figure 6.1 is adapted from the collaborative knowledge-building model by Stahl (2000) with the incorporation of the TL cycle by Johnson and Olanoff (2020) and the framework for accomplished teacher development by Shulman and Shulman (2004).

The reflective process starts with individual CR by students and progresses to collaborative critical reflection in concurrence with the individual and communal level of reflection suggested by Shulman and Shulman (2004). Students make the module content their own through individual understanding (Shulman & Shulman, 2004) that is supported by structured individual reflection with set timeframes and guided by scaffolded reflective prompts. Due to the lack of SDL, extrinsic motivation for reflection is necessary in the form of a mark allocation to the reflection task. Understanding is followed by meaning-making and a changed understanding through individual reflection which helps students to articulate their own understanding of music education and the factors that may hamper music to take its rightful place in the FP classroom.

This individual articulation is transcended to a more critical reflective level through rational discourse (Johnson & Olanoff, 2020) when students engage in collaborative reflection (others' articulation) to become aware of their own assumptions and unfounded prior beliefs (Brookfield, 2017; Mezirow, 1991). Combining their own articulation with other students' articulation of understanding becomes a shared understanding. Collaborative reflection tasks are effectively supported through employing structured reflective prompts, set timeframes and the allocation of a mark to motivate engagement while utilising the WhatsApp platform.

Collaborative meaning-making through collaborative CR results in a shared vision (Shulman & Shulman, 2004) for the transformation of music education practice (Mezirow, 1990, 2003). The research data indicated that the consequent outcomes of individual and collaborative reflection result in shared knowledge-building and the identification of problems. A shared vision further entails that teacher competencies should be developed as grounding for critical reflective strategies. These competencies (§3.4) include knowledge of music education, music teaching skills, a vision for music education practice, and the motivation to implement the music curriculum. Furthermore, student attitude towards music education and confidence to incorporate music in practices should be supported.

Based on the design team's retrospection, revealing a paucity in critical thinking competence as well as self-directed learning skills, fostering CR as transformative learning within this specific educational context will require that reflective tasks are scaffolded, and that students are guided and supported by teacher educators in the reflection process. Scaffolding through critical reflective prompts is necessary to focus resulting discourse on the discrepancy between theory and practice, and to consider the role of the teacher in changing music education. It is further

recommended that group leaders are identified to direct the reflections in the groups. The suggested cyclic framework demonstrates that *if* students have opportunities to engage in structured and scaffolded individual and collaborative critical reflective tasks, and *if* these opportunities are grounded in relevant music education content knowledge and skills that promote teacher competencies (vision, motivation, positive attitude and self-confidence), and through which they have opportunities to explore and solve problems on individual and collaborative levels, then the design principles reflected in the framework will ultimately equip students to transform music education practice in the Foundation Phase.

This transformation should not only be indicative of the position of music in the FP classroom, but also the needs of diverse South African FP learners. Agreements and disagreements enable an ongoing rational discourse and CR that holds value for the changing of prior frames of reference (Mezirow, 1990, 1995, 2003). Both individual and collaborative reflective strategies have a role to play in effectuating cultural responsiveness as well as a moral and ethical music practice in FP classrooms in the South African context. Such a practice entails a transformation of music education practice.

6.3 Evaluation of the design-based methodology

Reflecting on the way a DBR contributed to the methodology is part of the *reflective phase* of the DBR model suggested by Abdallah and Wegerif (2014). Although the DBR poses various challenges to the researcher, especially when used for doctoral studies (Abdallah & Wegerif, 2014; Goff & Getenet, 2017) it provided a practical approach to explore how to implement CR tasks as part of the module design to support transformative learning in teacher education. The cyclic and productive nature of DBR was a suitable approach to design a framework for reflective learning for the specific educational environment. The approach provided the design team the opportunity to see what works and what needs to be changed and to test new ideas collaboratively.

The collaborative approach whereby the researcher and the lecturer of the module reflected continuously on how to link theory to practice within this specific educational context, strengthened the practical value of the framework. Exploring what works best for this module and the typical student population of this HEI, provided a more realistic and practicable solution to the problem.

The implementing of the DBR was however not without challenges. Abdallah and Wegerif (2014, p. 3) warn: [DBR] “seeks to improve both theory and the educational context itself which is seen as a messy reality that should be studied as it is.” Possibly the biggest challenged was the role of

the researcher to “promote objectivity while attempting to facilitate the intervention” (Design-Based Research Collective, 2003, p. 5). It was important for the researcher to stay focused on the voice of the lecturer and the students, and to continuously question own bias based on own previous experiences and beliefs. Filling the “dual intellectual roles of advocate and critic” (Design-Based Research Collective, 2003, p. 5), was also challenging, especially in this case where the lecturer is a music specialist in her own right. As suggested by the DBR Collective (2003), sound knowledge of the literature is crucial to triangulate and motivate suggested design features during collaborative discussions between the design team. The researcher therefore had to continuously go back to the literature to benchmark suggested design features against accredited sources.

The researcher was challenged by the necessity for several iterations in DBR in addition to time constraints. Other taxing factors of the DBR design included the difficulty to recruit students as participants and the inability of some participants to reflect. Transcribing the large amount of data collected through the reflective activities of each cycle is time consuming. Data were also influenced by the fact that some students refrained from collaborative reflection due to rudeness from others and a fear of exposure. These factors that also link to the limitations of the study, must be considered in future follow up iterations.

6.4 Limitations of the Study

Before concluding on the contribution of the study, the limitations need mentioning. The researcher expected to recruit a substantial number of participants for participation in two cycles. Although all students are expected to participate in the reflective tasks, participation in this study was voluntary. After repeated recruitment efforts by an independent person, only five participants gave consent for participation in the first cycle and eight participants agreed to participate in the second cycle. The reason for the low response could be due to the digital recruitment strategy followed by using the LMS of the HEI. The low number of participants could lessen the richness of the dataset with implications for the research findings.

Due to the two cycles being implemented in two consecutive years, data were collected from different samples in each cycle, involving different student cohorts enrolled for the music education module during these two years. The implication of including two different cohorts prevented a continuous improvement of the reflective design through reflective experiences by the same cohort of students. By implementing two cycles in the same semester could have allowed participants to experience the adapted approaches to the reflective learning strategies, which could have strengthened the conclusions on the effectiveness of the revised design.

However, the converse is also true, in that the second cycle implementation proved its efficacy without the need for prior exposure by the students who participated in the project.

The programme is delivered in different learning modalities and students in contact and DL participated in the research. While contact students engaged in blended learning due to the availability of synchronous contact with the lecturer and asynchronous WhatsApp reflective learning, an asynchronous approach only is followed in the DL programme. Self-regulation and self-directed learning therefore play a prominent role in DL, and students' participation is dependent on self-motivation to access recorded lectures and to participate in the reflective tasks. A lack of SDL exhibited by some participants limited the access to deeper data. The use of students from different learning contexts may have influenced the findings. This study employed reflective learning by using electronic and digital platforms, therefore, DL students may have an advantage and more experience in the use of digital media compared to contract students. At the same time, students who lack technological literacy skills, may have found it difficult to use digital platforms for meaningful reflection.

Research in the literature regarding music teaching by generalist FP teachers is limited, therefore, the researcher was obliged to include master's dissertations to ground the research study in previous research. However, care was taken to only include scholarly work. Other factors could have influenced the findings such as the restricted time to implement more iterative cycles. A third cycle could have provided the opportunity to improve and streamline the framework for critical reflection. Further research is therefore recommended that would implement a third cycle to refine the design principles, or a meso-cycle to explore more innovative reflective learning strategies.

Although students were provided with data tokens to ensure DL student participation, the availability of internet access was a challenge for some students and prevented willing students to participate at specific times in collaborative reflective activities. The diverse cultural contexts in South Africa may also have influenced the findings in several ways. While English competence is a requirement for enrolling in the teacher education programme that is the focus of this research study, students who are not competent in English have no alternative but to enrol for programmes offered in English as the LoTL. Reflections in a language other than their mother-tongue as well as sharing experiences in English during interviews, had an influence on some students' ability to express themselves clearly and hampered in-depth discussions.

A further possible limitation in the research study is the lack of time to investigate the reported conflict avoidance strategy exercised by some group members who did not want to encounter conflict in collaborative reflection. This strategy may inadvertently have led to 'groupthink' among the members in the group as viewpoints may not have been challenged through CR due to a fear

of possible conflict manifesting in the groups. Conflict avoidance among participants may have resulted in superficial reflection during collaborative reflection activities that could have had an influence on the findings

6.5 Contribution of the research

The research study contributed knowledge concerning theory, methodology and practice. The contribution to the existing corpus of theory involves the rendering of design principles. The building of a framework with design principles to support CR, not only holds value in the context of music education in the FP but can be applicable to education in other fields. Motivated by the literature (Choo et al., 2016; Kember et al., 2008; Larrivee, 2000; Mezirow, 1990, 1995, 2003; Shulman & Shulman, 2004) supporting CR in teacher education, holds potential to support transformative learning and subsequently the transformation of educational practice. Collaborative reflective learning is relevant in education in general and can be applied in all fields of education, not only in the field of music education. Mezirow (2007) positions collaboration at the core of adult learning when adults reflect critically in learning communities. The learning support and active participation in a social group thereby hold value for transformative learning. The development of teacher competence through collaborative reflection contribute to the utilisation of reflective practice in teacher education.

The contribution to methodology comprises the use of DBR to improve reflective practice in FP music teacher education in this study. The shorter DBR model (compared to Amiel and Reeve's 2008 model) developed by Abdallah and Wegerif (2014), was chosen for this doctoral thesis to accommodate time constraints in doctoral research. No deviations from the prescribed methodology occurred. The DBR methodology enables the lecturer to continue with additional cycles of strategies for refinement of the design principles. The DBR findings contributed to the researcher's understanding of student SDL and enhanced student competencies. Reporting on the strengths of the DBR allows other researchers the opportunity to make informed choices concerning the use of DBR in future studies, while reporting on the limitations of DBR (§6.4) suggests pitfalls to avoid.

The contribution to practice involves knowledge of the designing of CR tasks as part of reflective learning in a music education module that could prepare FP students for critical reflective practice. Although the tasks specifically focused on the content of a music education module in a FP teacher education programme, the design principles are equally applicable to other subjects in teacher education programmes. Applying and improving these principles in further DBR or action research studies could assist in developing teaching programmes that prepare teachers for reflective practice that can improve the quality of education in South African schools.

The study contributes to the way CR is implemented in a teacher education programme to create an awareness with students about the crucial role of music in the holistic development of FP learners. The study highlights the importance of developing competent, self-directed, and reflective FP teachers through individual and collaborative CR. Imperative findings in the research study propose strategies for fostering individual and collaborative critical reflection, transferable to other reflective FP teaching programmes. The findings of the DBR indicate the need for CR on the role of music in education. Although CR is a requisite for transformative learning, it should be grounded in competencies that include knowledge, skills, vision, motivation, attitude and confidence. Transforming music education through CR to enable all FP learners to benefit from its value – either through the teaching of music as subject or the meaningful integration of music in other subjects – should be a non-negotiable aim. A continuous critical reflective approach to practice is however advocated to support teachers to incessantly and reflectively search for ways to improve their own music education practices.

Not all participants applied CR; those who did, are willing and motivated to implement a moral and ethical practice in future FP classrooms through an awareness and empathy for diversity, which is an extension of the notion of CR. Considering South Africa's history of apartheid, this incorporation is imperative and necessary in the educational context.

6.6 Reflection by the researcher

Although the third person was used in the research study to refer to the researcher, introspection into my own experiences in this section requires referring to myself as the researcher in the first person.

Through the research, I developed an initial proposal to investigate student critical reflective learning from and in practice during TPrac which usually involves experiencing learning in a FP classroom for 15 days per semester. The occurrence of the COVID-19 pandemic prevented students from entering schools, therefore, the initial proposed study could not be implemented. The already accepted proposed study had to be adapted to focus on the reflective learning of the music module content. This shift in focus resulted in the loss of a year's study time. However, overcoming this challenge helped me to build resilience and adaptability.

Barriers experienced by me as an outsider researcher who was also part of the design team, included recruiting enough participants to participate in reflective learning in two cycles. Furthermore, DBR is known as a lengthy and slow process comprising collaboration between the design team members who were not residing in the same town. Although the longitudinal study required patience from the researcher, it contributed to deepening my own knowledge and

understanding of the problem. The experience and support provided by the module lecturer, as the designer of reflective learning, is acknowledged as an advantage in the research process.

Exploring the literature enriched my knowledge and understanding of CR in teacher education. I became aware of the need for a more Africanised theoretical framework. Through the study, I developed a new awareness of the complexities of supporting CR in a diverse African context and the need to explore more inclusive approaches to promote critical reflective practice in future FP teacher education curricula.

Coming from a specialist and westernised music education background, as researcher, I also had to apply critical self-reflection to uncover my own presumptions of what music education should look like in the FP classroom in the South African context. As teacher educator at another HEI responsible for teaching music to mostly black students representative of different African cultural groups, the research study forced me to challenge my own views and prior beliefs about preparing South African FP teachers for music education. A new awareness of the implications of a CRTP will also have an effect on my own teaching approach.

I also had to make the necessary paradigm shift to come to a place where I could acknowledge the value a generalist teacher can bring to music education in the FP classroom. As a teacher responsible for the teaching and learning of all subjects, the FP teacher is in the ideal position to integrate music, not only to ensure learners benefit from the value of music, but also to promote learning and development in all domains. It is crucial to prepare teachers with knowledge, skills and motivation to integrate music with the FP curriculum and thereby improve the educational standards in our schools.

6.7 Conclusion

The decline of music education in the FP due to various hampering factors, including curriculum implementation, socio-economic factors and teaching competence, is evident in the literature and reported in participant data. On the other hand, the value of music for the holistic development of FP learners reported in the literature, emphasises the need for explorations to transform music education practice to ensure all learners benefit from music education.

Informed by the findings of this study, the incorporation of structured individual and collaborative reflections to prepare students for the transformation of music education practice is suggested. Critical reflection is specifically aimed at supporting reflection based on a culturally responsive, moral and ethical music teaching practice. While critical reflective competence is core to effectuate change, CR should be grounded in sound teacher competencies including knowledge,

skills, vision, motivation, attitude and confidence that collaboratively play a role in music education in the FP classroom. Motivated by the literature, this study aimed to determine how to develop FP students' critical reflective competence in contact and DL delivery modalities through blogs, individual journals and WhatsApp groups. The value of these strategies to promote CR as motivator for the transformation of music education practice as suggested in the literature, is supported by the research findings.

The focus on transformation through CR in this study was not aimed at the transformation of music *per se*, but to transform (change) student thinking and thereby their motivation to engage in the module content. In this way students will be more equipped with knowledge and skills as well as the motivation to play their part in the transformation of music education in FP classrooms. Some students demonstrated through their reflections a change in thinking, understanding and attitude towards music teaching. Indications of a new awareness of the importance of music in the FP emerged from the data. Although the researcher anticipated stronger evidence of critical reflection as a result of the reflective activities, evidence of this new awareness is an indication that the framework is a step in the right direction. Reflective discourse with their peers motivated reflection with enhanced confidence due to a better understanding of the various ways music can be incorporated into the curriculum. A change in thinking and perceptions of prospective teachers could strengthen their vision of themselves as agents of change, with the potential to transform music education practice in FP classrooms. Positive experiences of the way collaborative reflection strengthens teachers' knowledge and teaching confidence may also motivate future participation in a CoP to enhance their practices.

Instilling a positive attitude in students towards music education may be the biggest contribution of a critical reflective approach to learning about music education. A positive attitude will be imperative to motivate change, not only in music education practice, but also in the way teachers apply SDL to explore new ways to implement music in the FP. Despite the value of music in learner development, music education will never revert to a specialised approach in the FP, therefore, there is the need to motivate prospective teachers through CR to integrate music in innovative ways to advance the holistic development of learners.

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APPENDICES

APPENDIX A: INDIVIDUAL AND COLLABORATIVE REFLECTION TASKS (C1 & C2)

Blog and WhatsApp reflections

Unit 1 Question 1

Would you please describe your confidence in your current knowledge and skills to teach music through movement in the Foundation Phase as you start your module journey? In your answer, please also refer to your confidence to integrate music into your teaching practice currently.

WhatsApp

Unit 1 Question 1

Why would you suggest the integration of music into teaching practice?

Blog

Unit 1 Question 2

When thinking about facilitating holistic development in the Foundation Phase, we need to consider, for example, cognitive development, personal development, social development, emotional development and physical development. We also need to consider literacy and numeracy skills, language acquisition, creativity, problem solving and midline crossing.

Both music and physical education play important roles in the holistic development of the young learner. However, if you have to choose between incorporating Music education **OR** Physical education in the Foundation Phase curriculum to meet the **holistic development** needs of learners, which would you choose? In your answer, please **explain** which would be the best choice to ensure the opportunity for the holistic development of the learner and **motivate** your answer.

WhatsApp

Unit 1 Question 2

Why do you think the choice you made in the blog question of Unit 1, Question 2 (choice between MUSIC or PHYSICAL education for holistic development) could be workable for most teachers or student-teachers?

Unit 1 Question 3

With your partner/s, please discuss your opinion on the role of music education in the Foundation Phase.

WhatsApp

Unit 1 Question 3

Why is music important in the Foundation Phase?

Blog

Unit 2 Question 1

As a FP teacher you have to choose between teaching indigenous African music, Western Art music or contemporary commercial music (including popular music and film music). Which would you choose? Please motivate your answer.

WhatsApp

Unit 2 Question 1

You made your choice in the blog question of Unit 2, Question 1 regarding indigenous African music, or Western Art music or contemporary commercial music. Explain the reasons why you chose your option.

Blog

Unit 2 Question 2

Do you think that the examples and content offered in SU 2 are inclusive? Please **motivate** your answer.

WhatsApp

Unit 2 Question 2

Why do you think the given examples in unit 2 are necessary? In which way could it work if you could choose your own examples as a student-teacher or professional teacher?

Unit 2 Question 3

What suggestions do you have for making the content more inclusive? Please provide examples of how the content and activities presented in SU 2 could be changed or adapted to be more inclusive.

WhatsApp

Unit 2 Question 3

Why did you choose those examples in study unit 2 question 3? (did you create your own examples?) Just give your opinion on Unit 2's examples, are you satisfied, are they useful and motivate your answer.

Blog

Unit 2 Question 4

With your partner/s, please reflect on your Foundation Phase years when you were a learner in school. Please recall and narrate any experiences about music in the classroom. Use the following prompts to reflect on the experiences and guide your collaborative discussion:
What fond memories do you have of engaging with music when you were a FP learner?
Can you recall any less fond memories of engaging with music when you were in the FP?

What happened? Why did it happen?

What would you change if you had the opportunity?

WhatsApp

Unit 2 Question 4

With your collaborative partner, please reflect on your Foundation Phase years when you were a learner in school. Please recall and narrate any experiences about music in the classroom. Use the following prompts to reflect on the experiences and guide your collaborative discussion:

a) What fond memories do you have of engaging with music when you were a FP learner?

b) Can you recall any less fond memories of engaging with music when you were in the FP?

c) What happened? Why did it happen?

d) What would you change if you had the opportunity?

Blog

Unit 3 Question 1

You are a grade 2 teacher at your local primary school. Your class has 27 learners from diverse socio-cultural and economic backgrounds. Consequently, learners have different home languages, cultural backgrounds, and religious beliefs. Your grade 2 class engaged in a traditional Zulu stone passing game this morning. The song that they sang was Bhombela. To listen to the song, please visit: *https://youtu.be/RYUuplhQ0Bw or https://youtu.be/aqsckFLjYdQ*

This song is about praising a steam train for transporting fathers to and from the busy cities where they work and returning with gifts for their children. However, since your focus is playing the game, you focused on teaching the song to learners in a phrase-by-phrase manner paying attention to the overall pronunciation of words (without explanation), rhythm and melody before practising and playing the stone passing game. During the game, each learner received a small stone to pass around the circle while singing the song. The song was sung repeatedly until you indicated “Stop!”. At that time, the learner with the most stones in front of them was out. After that, the game continued a few times.

Later in the day, as a brain break activity, you played another circle game. This time, learners were engaged in dance. First, learners were grouped in a circle, standing. You then played Amapiano songs and learners were encouraged to engage in some free dancing – boys and girls each taking turns improvising in the middle of the circle for a set amount of time.

After the activities, the change in learners’ engagement and motivation levels were apparent. The activities contributed to fun, interactive teaching and learning activities and learners were eager to engage. Learners were excited and happy. However, two learners approached you at the end of the day to express their concern about the games. One learner was not happy with

the use of a Zulu song which he did not understand, while the other learner, a girl, felt uncomfortable dancing in front of boys and to house music due to religious reasons.

Please analyse the scenario above by using the following prompts as guidelines:
What possibly made some learners uncomfortable during these activities?
Why were some learners uncomfortable?
Can you think of ways to address these issues in future? What will you change?
How can we accommodate diverse learner profiles in our classrooms? What must we be beware of?

WhatsApp

Unit 3 Question 1

If you were a learner in a classroom with the same scenario as explained in study unit 3 blog question 1, (where two learners felt uncomfortable after two class activities) explain what your response would be if you felt uncomfortable?

Blog

Unit 3 Question 2

What is your opinion about utilising music games in culturally diverse FP classrooms?

WhatsApp

Unit 3 Question 2

What is your opinion about utilising music games in culturally diverse FP classrooms?

WhatsApp

Unit 3 Question 3

What else will you as a professional teacher in future do to promote arts integration in the classroom?

WhatsApp

Unit 3 Question 4

How will your interests and challenges experienced in unit 4, influence you as a teacher in future?

Blog

Unit 4 Question 1

Some people might say that arts integration is a waste of time in Foundation Phase education. Please explain how you would respond to such a statement by explaining your view on arts integration in the Foundation Phase.

WhatsApp

Unit 4 Question 1

With your reflective partner, please discuss the aspects of study unit 4 that you would change if

you had the opportunity.

Blog

Unit 4 Question 2

Which aspects of study unit 4 did you find the most interesting and challenging? Please use the following prompts to reflect on your experience:

What did you find interesting? Please explain why.

What did you find challenging? Please explain why.

Blog

Unit 4 Question 3

In your groups, please discuss the aspects of study unit 4 that you would change if you had the opportunity.

Blog

Unit 5 Question 1

In the foundation phase especially, assessment of performing arts is often neglected. Your school also recently appointed a HOD who does not emphasise or prioritise the assessment of music activities to any degree. As a new FP teacher, and considering your training as BEd student, you recognise the importance of assessment as an integral part of the teaching and learning process. You are of the opinion that assessment must be used to enhance both teaching and learning practices.

Please reflect on and evaluate the scenario above by using the following prompts as guidelines:

What could the possible reasons be that assessment is neglected in Performing Arts and Music in the Foundation Phase?

Please explain how you would advocate for and heighten awareness about the importance of assessment when speaking with your HOD about your concerns in this regard.

WhatsApp

Unit 5 Question 1

Would it work if teachers replace the traditional way of assessing the Performing arts by using alternative methods? Discuss your view on it.

Blog

Unit 5 Question 2

In your collaborative groups, please reflect on and discuss how your teaching and learning and assessment strategies will be inclusive and informed by and accommodate cultural diversity.

WhatsApp

Unit 5 Question 2

With your reflective partner, please reflect on and discuss how your teaching and learning and assessment strategies will be inclusive and informed by and accommodate cultural diversity.

Final Blog

Question 1

Please share your story as an LSKM 221 student by comparing your knowledge, skills, experiences, abilities and attitude towards music education from the start of the semester to the end of the semester.

Final WhatsApp

Question 1

Give reasons for the outcomes of your story in question 1.

Final Blog

Question 2

What was your experience of the role of individual reflection as part of the teaching and learning process? Use the following prompts to reflect on your blogging experience and the role that individual reflection played (or not) in your teaching and learning experience this semester:
What did you learn from your individual reflections?
What did you find challenging?
Did you find the individual reflections meaningful?
Please motivate your answer.
What would you change if you had the opportunity in future?

Final WhatsApp

Question 2

In which way will you be motivated to use individual reflection as a teacher in future?

Final Blog

Question 3

Please share what you would change in the LSKM221 module if you had the opportunity.
The following prompts can guide your reflection:
What did you find interesting and meaningful?
What challenged you, and what do you still struggle to understand?
What didn't you find valuable for your future teaching practice?

Final WhatsApp

Question 3

Discuss your level of competence after completing LSKM221 to teach music in the FP classroom.

Final Blog

Question 4

In your groups, please discuss your experiences of the collaborative reflection process.
The following prompts can guide your reflection:

What did you learn from collaborative reflection?
What did you find challenging during the process?
Were your opinions challenged or changed?
What would you do differently or change in the future?

Final WhatsApp

Question 4

With your reflective partner, please discuss your experiences of the collaborative reflection process. The following prompts can guide your reflection:
What did you learn from collaborative reflection?
What did you find challenging during the process?
Were your opinions challenged or changed?
What would you do differently or change in the future?

Cycle 2 (C2)

Music module (2022)

Explaining terminologies for reflective tasks Assumption

When a person acknowledges or accepts something as the truth without having definite proof or without questioning whether own previous held beliefs are true for all contexts. Assumptions also speak to your opinion about certain things.

Discrepant event

It is an event that contradicts what one would normally expect e.g. something unusual, surprising, different or conflicting. For the purpose of LSKM 221, discrepant events include ideas or content that you engaged with that changed your opinion about music education in Foundation Phase. You will be required to think about these discrepant events and enter into discussions about the event in your groups. Reflecting on discrepant events may lead to a questioning of own previous assumptions.

Moral practice

Ethics determine *why* we make certain decisions in our classrooms to meet learner needs and to not cause harm. Based on ethical practice and through moral practice, teachers apply TL strategies (behaviour) to foster care and respect, to enable learners to become part of and contribute to their communities and to flourish.

Individual journals and collaborative tasks in the second cycle of DBR (2022) Individual reflective journal

Please give as much detail as possible when reflecting on the following statements:

1. **Identify one aspect** of study units 1 and 2 that you have completed thus far that was most significant to you (a discrepant event).
2. **Describe why** this aspect was significant to you.
3. **Explain how** this aspect could influence your future music education practice.
4. **Explain if and how** the knowledge you gained from study units 1 and 2 challenged your assumptions of music teaching practice
5. **Explain if and how** the study units supported you in developing a moral and ethical music education practice.

Collaborative reflective task

1. Share the most significant realisation (discrepant event) that you've had while studying units 1 and 2, with the group members.
2. Identify (a) general trait/s of the various discrepant events experienced by members of the group.
3. Based on the discrepant events of the group members, collaboratively formulate a shared vision for a transformed ethical and moral music education practice and motivate your vision.

APPENDIX B: INTERVIEW SCHEDULES (C1 & C2)

Interview schedule for semi-structured individual virtual interviews (C1)

1. What is your age?

2. Can you tell me a bit more about the reason why you are enrolled as a distance learning student?

Follow-up: Previous work experience? Other than teaching?

3. Is English your mother tongue?

If not, describe your experience using English for the reflective activities.

Follow up: If English is your mother tongue and reflections were thus done in your mother tongue – how do you think reflection in your second language would have affected the reflection process?

4. Describe your experience of music education when you were a learner in school?

5. Are you currently involved in any music activities in your spare time?

Explain.

6. What is your view on the role of a Foundation Phase teacher as generalist teacher who must teach all the subjects, including music?

7. Could you please share your thoughts on whether the LSKM211 module equipped you with pedagogical knowledge or not?

8. Share your potential to implement music activities such as singing, movement, the playing of percussion instruments, and body percussion in the Foundation Phase?

Transformative learning - Mezirow

9. How would you describe your own music teaching competence before you started with this module?

Follow-up: How would you describe your own music teaching competence after completing this module?

Follow-up: How would you evaluate the role of this module in developing your music teaching competence such as your knowledge and skills to teach music?

Follow-up: How confident would you say you are to teach music in the Foundation Phase? Can you expand more?

10. In which way did this module guide you to reflect critically?

Follow-up: Did the individual or collaborative reflection in any way lead to reflection on moral practice? Ethical practice? Socio-political issues in practice? Explicate

Follow-up: Did you at any stage become aware of your own possible unfounded assumptions (untruths) concerning the teaching and learning of music?

Features of teaching competence – Shulman & Shulman 2004

11. Describe your experience of individual and collaborative reflection in this music module?

Follow-up: How would you describe the role of these reflective activities in your own learning about music education?

Follow up: Do you, as a student, have suggestions to improve the reflective processes?

12. Explain your vision for meaningful music education in the classroom.

Follow-up: To what extent can individual reflective activities play a role in a teacher's vision for music teaching?

Follow-up: To what extent can collaborative reflection activities play a role in a teacher's vision for music teaching?

13. What is your view on the role of teacher motivation to teach music in the FP?

Follow-up: How would you describe your own motivation to teach music in the FP?

Follow-up: To what extent do you think can reflective activities play a role in teacher motivation to teach music? Explicate.

Follow-up: To what extent did motivation play a role in your attitude towards music education?

Self-directed learning – Knowles

14. Did the individual and collaborative reflection activities guide you to evaluate your own learning? Explicate

15. How would you evaluate your ability to identify your own professional learning needs considering music teaching competence?

Follow-up: How would you evaluate your ability to set goals to improve your music teaching competence?

16. What is your view on the role that reflective activities (individual and collaborative) can play to motivate teachers to gain knowledge and skills of music teaching?

Follow-up: Can you expand on actions you took to improve your knowledge and skills of music teaching? What motivated you to take these actions?

17. How would you describe the role of individual and collaborative reflection activities in identifying resources to meet your own learning needs? Explicate.

18. What is your view on the role collaborative critical reflection can play in self-directed learning to improve music teaching competence?

19. How did you experience the role of technology in the reflective activities? Elaborate.

Follow up: Which technological resource/s was / were the most effective for collaborative reflection?

What would be the reason for this?

Follow-up: Do you have any suggestions to improve the use of technology for collaborative learning in this module and/or research study?

Explain your answer.

20. Discuss any challenges experienced in the reflective activities. Do you have any suggestions to improve the collaborative reflective learning in this module?

Interview schedule for semi-structured individual virtual interviews (C2)

General

1. Did this module change your view of music education practice in the Foundation Phase? Explain your answer.

2. In which way did the content of this module prepare you for future music education practice? Give examples.

3. How did you experience the individual reflections? Elaborate on your answer.

Follow-up: Describe your view of the potential of individual reflections as a qualified teacher in future.

4. How did you experience the collaborative reflections? Elaborate on your answer.

Follow-up: What is your opinion of the potential of collaborative reflections as a qualified teacher in the future.

5. Discuss the level of participation of your collaborative group members throughout the semester.

Follow-up: Explain the hierarchy of the group and leadership.

6. Describe the nature of the relationships among the collaborative group members.

7. Elaborate on the quality of the group discussions.

8. Describe the opportunities and willingness of group members to share ideas and opinions.

Follow-up: Discuss the familiarity and excitement among the group members.

9. In which way will you describe the success of collaborative reflection in this module?

APPENDIX C: RECRUITMENT LETTER



APPENDIX D: CONSENT FORM



Private Bag X6001, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Web: http://www.nwu.ac.za

Faculty of Education

Research entity: Self-directed learning

Tel: 018 299 4656
Email: erna.greyling@nwu.ac.za

Date: 3 August 2021

PARTICIPANT INFORMATION AND CONSENT FORM

I hereby wish to request your consent to participate in this project with a focus on collaborative knowledge-building in the field of student-teachers' music teaching competence in the Foundation Phase. If you opt to participate, you will be one of twenty students who will be paired randomly as reflective partners during the teaching and learning of the Music module LSKM221. Before you give consent, please acquaint yourself with the information below. Please note that whether you choose to participate or not, it will not have any influence on your marks as the lecturer will not know who the participants are.

The details of the project are as follows:

TITLE OF THE PROJECT:
Individual and collaborative reflection in distance learning to foster Foundation Phase teachers' music teaching competence

ETHICS APPLICATION NUMBER:
NWU-01258-20-A2

PROJECT SUPERVISOR: **Dr CG Kruger**
ADDRESS: Building B11, Room G44, North-West University, Potchefstroom Campus, Potchefstroom
CONTACT NUMBER: Office: 018 299 2159 Cell phone: 084 679 4773

CO-SUPERVISOR: **Dr E Erasmus**
ADDRESS: Building C6, Room 242, North-West University, Potchefstroom Campus, PotchefstroomCONTACT NUMBER: Office: 018 299 4722 Cell phone: 083 604 8940

PhD student: Mrs B Nagel
ADDRESS: Old R Building (Education), Room 3004, University of Limpopo, Mankweng, Polokwane
CONTACT NUMBER: Office: 015 268 4816 Cell phone: 0832609581

FACULTY OF EDUCATION RESEARCH ETHICS COMMITTEE
Contact person: Ms Erna Greyling, E-mail: Erna.Greyling@nwu.ac.za, Tel. (018) 299 4656

This study has been approved by the Research Ethics Committee of the Faculty of Education of the North-West University and will be conducted according to the ethical guidelines of this committee. Permission was also granted by NWU's Research Data Gatekeeper Committee and Faculty of Education Dean.

What is this project about?

Main aim

This study explicitly sets out to determine the ways individual and collaborative critical reflection, incorporated in a DL Foundation Phase teacher education programme, can foster music teaching competence.

Global literature emphasises the valuable role of music in the holistic development of Foundation Phase learners and that teachers should capitalize from this benefit of music in education. Collaborative learning by student-teachers provides an opportunity for collaborative critical reflection to foster individual meaning making that could contribute to improved music teaching competence. The remoteness in distance learning education programmes hampers shared meaning making between the lecturer and the student-teachers and between student-teachers, and poses a threat to the acquisition of music teaching competence. Engagement in collaborative learning will empower the student-teacher to build knowledge and to enhance music teaching in the Foundation Phase.

Participants

Second-year students enrolled for the North-West University distance learning BEd Foundation Phase programme are invited to participate in the study.

What is expected of you as participant?

- Individual reflections form part of the compulsory student activities for the Music module LSKM221 in semester two of 2021. All students registered for this module have to provide evidence of individual reflection through blogging. Students will be encouraged to work collaboratively by engaging in forums as part of student tasks for LSKM221 which prompt collaborative reflection.
- Students who choose to participate in the project will be randomly paired as reflective partners for additional reflective activities.
- Reflective partners will share their views by using the WhatsApp application on the topics provided, which speak to the blogging content and activities, and will support each other in these reflections during the semester.
- The informal WhatsApp chats between two partners should reflect thoughts and feelings experienced during the teaching and learning of LSKM221.
- Participants' individual LSKM221 blogs will be used together with the collaborative reflections on WhatsApp as data for this study. The researcher will post question prompts on the Whatsapp groups for discussion throughout the semester.
- Individual reflective questions provided by the lecturer at the beginning of the semester will guide the LSKM221 blogs
- The researcher will have access to the blogs to collect data from the individual blog reflections and will be a silent member of the WhatsApp groups to collect data from the collaborative reflections.
- Participants will also be requested to share their experiences of the individual and collaborative reflective activities with the researcher during one semi-structured individual online interview lasting approximately 45 minutes, after the module has been completed.

Benefits to you as participant

- **A monthly data bundle of 200MB will be provided to you for the duration of your participation to enable you to reflect collaboratively using WhatsApp.**

- **Create a community of participants who can share information on music.**
- **Contribute on more effective teaching and learning practices in FP music education.**

Willing participants will be paired to encourage and support one another as reflective partners while engaging in music teaching and learning experiences during LSKM221. Participation is expected to contribute to student-teachers' music teaching competence and their self-directed learning skills. Participation will also prepare prospective teachers as life-long learners and for active participation as part of a community of professional teachers.
By participating you will also contribute to the knowledge in the field of collaborative reflective learning that will be applied to improve future teacher education programmes.

Risks involved for participants

There are no potential risks involved in this project as participation will be anonymous and will not influence your LSKM221 marks. The purpose of this project is not to test student-teachers' competence or knowledge and skills of music education, but to explore how individual and collaborative reflection could be included in a BEd DL programme offered by Higher Education Institutions (HEIs) to support Foundation Phase student-teachers' music teaching competence. Participation in this study is voluntary and any participant may withdraw from the study at any time and may ask that his/her data no longer be used in the study, without stating reasons and without fear of any form of prejudice.

Confidentiality and protection of identity

The researcher undertakes to handle all information shared by the participants as confidential and to manage personal information in a professional way to protect the participants' identities at all times. Data will be collected digitally from the individual LSKM 221 blogs, the collaborative reflections on WhatsApp, as well as from one online interview. Confidentiality will be upheld throughout the study and participant identification will be removed from all data as soon as the data is collected from the participants. All participants will be assigned pseudonyms to guarantee anonymity for data analysis. All data in the form of individual and collaborative reflections as well as through individual interviews, will be captured by the researcher and will be known to the researcher only, while the supervisors of the study will only have access to this data after identifying information has been removed. The identity of participants will not be revealed in discussions, reports and journal articles on the project. All digital data saved on an external hard drive will be password protected on completion of the project, data will be stored in a safe by the researcher for a period of five years after which it will be destroyed.

Dissemination of findings

The findings will be disseminated to each of the participants after the completion of the study via a hyper link to the project report in Google Drive. If you have any further questions or enquiries regarding your participation in this project, please contact the researcher for more information.

DECLARATION BY PARTICIPANT:

By writing my name and surname below, I _____ agree to take part in a project entitled:

Individual and collaborative reflection in distance learning to foster Foundation Phase teachers' music teaching competence

I declare that:

- I have read this information and consent form and understand what is expected of me in the project.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the project before it has finished, if the researcher feels it is in my best interests, or if I do not follow the project procedures, as agreed to.
- I agree ☐ / do not agree ☐ that an individual interview conducted with me may be recorded for later anonymised transcription.

Agreed to at (place) _____on (date) _____/_____/20____

_____ 

Name and surname of participant **Researcher (0832609581)**

Participant cell phone number

_____

Cell phone provider network

This completed and signed declaration must be emailed to the researcher at:
barbara.nagel@ul.ac.za

Private Bag X6001,
Potchefstroom South
Africa 2520

Tel: 018 299-1111/2222

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Faculty of Education

Research entity: Self-directed learning

Tel: 018 299 4656

Email: erna.greyling@nwu.ac.za

Date: 3 August 2022

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Agreed to at (place) _____on (date) 11/05/2022



_____

Name and surname of participant

Researcher

(0832609581)

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Dissemination of findings

The findings will be disseminated to each of the participants after the completion of the study via a hyper link to the project report in Google Drive. If you have any further questions or enquiries regarding your participation in this project, please contact the researcher for more information.

DECLARATION BY PARTICIPANT:

By writing my name and surname below, I __ agree to take part in a project entitled:

Individual and collaborative reflection in distance learning to foster Foundation Phase teachers' music teaching competence

I declare that:

- I have read this information and consent form and understand what is expected of me in the project.
- I have had a chance to ask questions to the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the project before it has finished, if the researcher feels it is in my best interests, or if I do not follow the project procedures, as agreed to.
- I agree ☐ / do not agree ☐ that an individual interview conducted with me may be recorded for later anonymised transcription.

Agreed to at (place) _____ on (date) 11/05/2022



_____

Name and surname of participant **Researcher (0832609581)**

_____

Participant cell phone number

_____

Cell phone provider network

This completed and signed declaration must be emailed to the researcher at:
barbara.nagel@ul.ac.za

APPENDIX E: ETHICAL APPROVAL



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: http://www.nwu.ac.za

Senate Committee for Research Ethics
Tel: 018 299-4849
Email: nkosinathi.machine@nwu.ac.za

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the **Faculty of Education Research Ethics Committee (EduREC)** on 19/07/2020, this committee hereby **approves** your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-SCRE) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Individual and collaborative reflection in distance learning to foster Foundation Phase teachers' music teaching competence

Study Leader/Supervisor (Principal Investigator)/Researcher: Dr CG Kruger

Student / Team: B Nagel (PhD student – 11029978); Dr E Erasmus

Ethics number:

N	W	U	-	0	1	2	5	8	-	2	0	-	A	2
Institution				Study Number						Year			Status	

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type: Project

Commencement date: 26 November 2020 **Risk:** Low

Expiry date: 26 November 2021

Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.

Special in process conditions of the research for approval (if applicable):

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- *The study leader/supervisor/principal investigator/researcher must report in the prescribed format to the EduREC:*
  - *annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and*
  - *without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.*
- *The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EduREC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.*
- *Annually a number of studies may be randomly selected for an external audit.*
- *The date of approval indicates the first date that the study may be started.*
- *In the interest of ethical responsibility, the NWU-SCRC and EduREC reserves the right to:*
  - *request access to any information or data at any time during the course or after completion of the study;*

Faculty of Education

MINUTES

Meeting: Research Ethics Committee of the Faculty of Education

Date of meeting: 30 June 2022

Time of meeting: 9:00

Meeting room: Via Google meet

1 Changes to already approved applications

1.1 Project head	Dr CG Kruger
Student/Team	B Nagel (PhD student – 11029978); Dr E Erasmus
Ethics number	NWU-01258-20-A2
Title	Individual and collaborative reflection in distance learning to foster Foundation Phase teachers' music teaching competence
Time frame	26 November 2020 – 26 November 2021
Decision	**Application is approved at the meeting of 26 November 2020.** **The focus of the study changed due to the COVID-9 pandemic. The changes to the research proposal were approved by the Scientific Committee.** **Extension of research period is requested as well.** **The critical readers are satisfied with the changed made to the application and recommend that the application be approved.** **Approved.** **Extension is granted from 30 June 2022 to 30 June 2023.** **If the permission of any kind of gatekeeper is obtained, please send the permission you receive to Ms Erna Greyling for record-keeping.**

2 Next meeting: 28 July 2022 (the agenda closes on 18 July 2022)

Minute keeper: Ms E Greyling

Original details: (10000518) C:\Users\10000518\NWUNextcloud\SNTO(X)\Faculty of Education\Minutes\2020\EduREC\2020-02-27\2020-02-27 Minutes Research Ethics Committee of the Faculty of Education.docm
26 February 2020

File reference: 7.4

APPENDIX F: DATA GATEKEEPER PERMISSION

Data Gatekeeper permission (2021 & 2022)

NORTH-WEST UNIVERSITY
NOORDWES-UNIVERSITEIT
YUNIBESITI YA BOKONE-BOPHIRIMA

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: +2718 299-1111/2222
Web: http://www.nwu.ac.za

Research Data Gatekeeper Committee

NWU RDGC PERMISSION GRANTED / DENIED LETTER

Based on the documentation provided by the researcher specified below, on 22/02/2021 the NWU Research Data Gatekeeper Committee (NWU-RDGC) hereby grants permission for the specific project (as indicated below) to be conducted at the North-West University (NWU):

Project title: Individual and collaborative reflection in distance learning to foster Foundation Phase teachers' music teaching competence.

Project leader: Dr C.G. Kruger
Researcher/Project Team: B Nagel

Ethics reference no: NWU-01258-20-A2
NWU RDGC reference no: NWU-GK-21-008

Specific Conditions:

- Due the COVID-19 pandemics the Committee would like to advice the researcher to practice the necessary caution and adhere to the National Covid-19 Guidelines when conducting research with participants.

Approval date: 22/02/2021 **Expiry date: 21/02/2022**

General Conditions of Approval:

- The NWU-RDGC will not take the responsibility to recruit research participants or to gather data on behalf of the researcher. This committee can therefore not guarantee the participation of our relevant stakeholders.
- Any changes to the research protocol within the permission period (for a maximum of 1 year) must be communicated to the NWU-RDGC. Failure to do so will lead to withdrawal of the permission.
- The NWU-RDGC should be provided with a report or document in which the results of said project are disseminated.

Please note that under no circumstances will any personal information of possible research subjects be provided to the researcher by the NWU RDGC. The NWU complies with the Promotion of Access to Information Act 2 of 2000 (PAIA) as well as the Protection of Personal Information Act 4 of 2013 (POPI). For an application to access such information please contact Ms Annamarie De Kock (018 285 2771) for the relevant enquiry form or more information on how the NWU complies with PAIA and POPI.

The NWU RDGC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the NWU RDGC for any further enquiries or requests for assistance

Yours sincerely

Prof Marlene Verhoef
Chairperson NWU Research Data Gatekeeper Committee

Original details: (22351930) C:\Users\22351930\Desktop\test 2.docm
13 November 2018

Current details: (22351930) M:\DSS1\8533\Monitoring and Reporting Cluster\Ethics\Applications RDGC\Updated RDGC Permission Letter.docm
15 November 2018

1

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YUNIBESITI YA BOKONE-BOPHIRIMA

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: +2718 299-1111/2222
Web: http://www.nwu.ac.za

Research Data Gatekeeper Committee

NWU RDGC PERMISSION GRANTED / DENIED LETTER

Based on the documentation provided by the researcher specified below, on 12/09/2022 the North-West University (NWU) Research Data Gatekeeper Committee (NWU-RDGC) hereby **grants permission** for the specific project (as indicated below) to be conducted at the NWU:

Project title: Individual and collaborative reflection in distance learning to foster Foundation Phase teachers' music teaching competence.

Project leader: Dr CG Kruger
Researcher/Project Team: B. Nagel

Ethics reference no: NWU-01258-20-A2
NWU RDGC reference no: NWU-GK-22-053

Specific Conditions:

Approval date: 12/09/2022 **Expiry date: 12/09/2023**

General Conditions of Approval:

- The NWU-RDGC will not take the responsibility to recruit research participants or to gather data on behalf of the researcher. This committee can therefore not guarantee the participation of our relevant stakeholders.
- Any changes to the research protocol within the permission period (for a maximum of 1 year) must be communicated to the NWU-RDGC. Failure to do so will lead to withdrawal of the permission.
- The NWU-RDGC should be provided with a report or document in which the results of said project are disseminated.
- Due to the COVID-19 pandemics the Committee would like to advice the researcher to practice the necessary caution and adhere to the National Covid-19 Guidelines when conducting research with participants.

Please note that under no circumstances will any personal information of possible research subjects be provided to the researcher by the NWU RDGC. The NWU complies with the Promotion of Access to Information Act 2 of 2000 (PAIA) as well as the Protection of Personal Information Act 4 of 2013 (POPI). For an application to access such information please contact Ms Annamarie De Kock (018 285 2771) for the relevant enquiry form or more information on how the NWU complies with PAIA and POPI.

The NWU RDGC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the NWU RDGC for any further enquiries or requests for assistance.

Yours sincerely



Prof Jeffrey Mphahlele
Chairperson NWU Research Data Gatekeeper Committee

Original details: (22351930) C:\Users\22351930\Desktop\test 2.docm
13 November 2018

Current details: (22351930) M:\DSS1\8533\Monitoring and Reporting Cluster\Ethics\Applications RDGC\Updated RDGC Permission Letter.docm
15 November 2018

File reference: 1.1.4.3

APPENDIX G: TITLE REGISTRATION

Title registration

NWU®
NORTH-WEST UNIVERSITY
NOORDWES-UNIVERSITEIT
YUNIBESITI YA BOKONE-BOPHIRIMA

Private Bag X6001, Potchefstroom
South Africa, 2520

Tel: (018) 299-1111/2222
Web: http://www.nwu.ac.za

Higher Degree Administration

Tel: 0182992294
Email: 31990002@nwu.ac.za
Enquiries: MR L RAPHESO

5 October 2022

Dear MRS NAGEL
University number: 11029978

REGISTRATION OF TITLE

At the recent meeting of a relevant committee meeting of the NWU Faculty of Education your title was approved as follows:

Fostering critical reflective learning to equip Foundation Phase student-teachers to transform music education practice

The above-mentioned title may under **no circumstances** be changed without consulting your supervisor and obtaining the approval from the relevant committee in the mentioned faculty, in regard of which this office must be furnished with the latest approved title.

In the instance that you wish to submit for examination, please inform your supervisor/promoter accordingly. *Also ensure absolute adherence to the prescripts of A Rule 4.10 for the submission of a Master's study and of A Rule 5.10 for the sumbission of Doctoral thesis.*

Upon approval of your supervisor/promoter, please ensure that the Notice of Submission form is submitted THREE months in advance to this office.

Note that the Notice of Submission form is available on the NWU DIY portal.

For ease of reference, use the following resources:

- General Academic Rules (A-reëls):
- Manual for Higher Degree Studies:
- Policy on academic integrity:
- Forms that support the study guidance process:

We wish you a pleasant and successful period of study.

Kind regards

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YUNIBESITI YA BOKONE-BOPHIRIMA
2022/10/05

Registrar

Reference number: 7.1.11.1.2

APPENDIX H: TURNITIN REPORT

11783672:B_Nagel_Phd_thesis_-_turnitin_report.docx

ORIGINALITY REPORT

6%	5%	2%	1%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	efundi.nwu.ac.za Internet Source	1%
2	33496293.blogspot.com Internet Source	1%
3	repository.nwu.ac.za Internet Source	<1%
4	books.aosis.co.za Internet Source	<1%
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7	hdl.handle.net Internet Source	<1%
8	researchspace.ukzn.ac.za Internet Source	<1%
9	Submitted to North West University Student Paper	<1%

APPENDIX I: CERTIFICATE OF PROOFREADING

RMC LANGUAGE PRACTITIONER
117 OOSTVALLEI VILLAGE
657 COLEY STREET
GARSFONTEIN
PRETORIA 0081

TO WHOM IT MAY CONCERN

This is to certify that I have proofread and edited the PhD thesis entitled *Fostering critical reflective learning to equip Foundation Phase student-teachers to transform music education practice* by Barbara Nagel

I applied Microsoft Office Word track changes to the document and have suggested certain changes and corrections to language usage, syntax, and general style which I trust will be effected to make it adhere to the editorial principles required for examination.

Signed:



Date: 16 November 2023

Dr RV McCabe
MA in Applied Linguistics (NWU)
MPPS - Masters in Public Policy Studies (UP)
PhD in English Language Studies (NWU)

- **CELLPHONE: 0827730282**
- **EMAIL: rvmccabe@oostvallei.co.za**