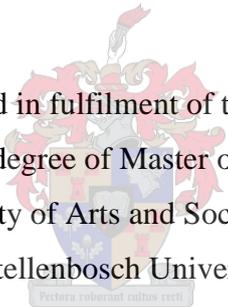


A framework for the development of a contemporary string teacher

Pieter-Adriaan Stofberg

Thesis presented in fulfilment of the requirements
for the degree of Master of Music
in the Faculty of Arts and Social Sciences
at Stellenbosch University

The crest of Stellenbosch University is centered behind the text. It features a shield with various symbols, topped with a crown and a banner. The Latin motto "Pectora cubant cultus recti" is inscribed on a scroll at the bottom of the crest.

SUPERVISOR

Dr Anzél Gerber

March 2017

DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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ABSTRACT

This research focused on the identification of weaknesses in the training of string teachers.

A desk study was conducted using the assessment syllabi for string teaching qualifications of the Associated Board of the Royal Schools of Music, the Trinity College of London and the Australian Music Examinations Board, in an attempt to identify potential shortcomings.

A literature study, identifying the knowledge and skills needed by general educators and the specialised skills and knowledge required by string teachers to be effective, served as a reference point for the comparison in the desk study.

With the knowledge gained from the literature review, recommendations were formulated regarding the optimisation of the training and assessment of string teachers, including a content adjustment to rectify shortcomings, and altering assessment to extended, structured teaching practice periods with the added support of qualified mentors.

OPSOMMING

Hierdie navorsing het gefokus op die identifisering van swakhede in die opleiding van strykeronderwysers.

'n Vergelykende studie was uitgevoer deur die gebruik van assessering sillabusse vir strykeronderwyer-kwalifikasies van die Associated Board of the Royal Schools of Music, die Trinity College of London en die Australian Music Examinations Board, in 'n poging om potensiele tekortkominge te identifiseer.

'n Literatuur studie wat die benodigde kennis en vaardighede van algemene opvoeders en die gespesialiseerde kennis en vaardighede van strykeronderwysers identifiseer, het gedien as verwysings raamwerk vir die vergelykende studie.

Deur die kennis wat opgedoen is in die literatuur studie, was dit moontlik om voorstelle te maak om die opleiding en assessering van strykeronderwysers te verbeter, naamlik: 'n inhoud-aanpassing om te tekortkominge aan te spreek, en die verandering van assessering om verlengde, gestruktureerde proeftydperke in te sluit met die ondersteuning van gekwalifiseerde mentors.

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CHAPTER 1: INTRODUCTION

1.1 AIM OF THE STUDY

Different music institutions follow self-designed syllabi, containing specially selected knowledge chosen to enhance and promote a high standard of teaching. Various factors defining the success of music institutions' graduates include, inter alia, the intensity of and emphasis on different skills-based and pedagogical knowledge as well as assessment methods. The responsibility of content selection and the assessment thereof is of utmost importance for producing competent teachers for the next generation of musicians. This study therefore focused on the evaluation of set curricula and assessment requirements to determine which skills and knowledge are deemed essential to achieving this objective.

Since tuition for music learners is mostly on a one-on-one basis, the individual talents of the learner and the teacher have a significant impact on the success of both parties involved in the teaching process. The basic skills regarded as essential for teaching effectively are mapped with skills regarded as essential for developing successful string teachers.

1.2 BACKGROUND TO THE STUDY

In an endeavour to equip teachers for the next generation with adequate skills that contribute to optimising the talent development of their learners, researchers continually investigate ways in which knowledge transfer, learning methods and practices can serve to enhance performance in various disciplines in the competitive global village.

According to recent research, music students specialising in performance often feel "... they have been thrust into the work (teaching) before they are adequately prepared" (Booth 2009:96). The curricula of teaching method courses for instrumentalists at tertiary institutes are often compiled by the instrumental lecturers themselves, working from their own personal knowledge and experience. A study by Allen (2011:118) suggests that American universities, colleges and conservatories are not offering enough resources within their degree programmes to help their music performance majors attain a career in music.

Music education students share a special type of experience that influences their opinions on teaching, namely that most of them have a background in music performance (Davis 2006:27). This would imply that as a member of a band, orchestra or choir, the target group

would have had some exposure to what they would identify as good teachers and poor teachers. Their experience would also influence their perception of the qualities, skills and behaviour traits a teacher possesses, and whether their teaching is skilled or poor (Teachout 1997, in Davis 2006:28).

Experience is the best teacher, but it is a sword that cuts both ways. The example set by teachers often impacts on the way in which their students teach. The experience, be it past or present, continuously creates a gap between the theory that is taught in lectures, and how the student uses this theory in practice. Ironically the information discussed in lectures is based on theories of teaching and learning (which is built on research, experimentation and observation), but is not always observable in the classroom (Meske 1985, in Davis 2006:28). This leads to a continuous “reinvention of the wheel”.

Grant and Drafall (1991:38–39, in Davis 2006:28) describe an effective teacher as an independent thinker and someone who is skilled in human relations, has a strong drive to accomplish tasks, has an innovative teaching style, is able to adapt and attend to individual needs, is thoroughly prepared for lessons and uses high-quality teaching materials.

Schmidt (1998 in Davis 2006:29) conducted a qualitative study investigating student teachers’ definitions of good music teaching. In concurrence with Meske (1985, in Davis 2006), Schmidt (1998, in Davis 2006) found that prior experiences directly influenced the students’ ideas about good teaching. “Though the students valued the information in their music education courses, each student seemed to perceive a different version of what was taught, due to their prior beliefs” (Davis 2006:29).

1.3 CURRENT STRING TEACHER TRAINING

The skills required by string teachers do not differ much from those required by general teachers, but one vital additional skill should be added, that is, the skill to teach their instrument. The content of the teaching qualifications offered by the Associated Board of the Royal Schools of Music (ABRSM), Trinity College of London and the Australian Music Examinations Board (AMEB) are reviewed in this study to determine the level of preparation their students receive for the teaching environment. Researchers such as Wiles (1999, in Gerber 2008:65) note that curriculum planners usually define curriculum according to the product or outcomes. “By identifying the outcomes in advance, curriculum planners could

work backwards to set the conditions necessary to achieve their goals” (Wiles 1999:4, in Gerber 2008: 66).

In their study, Mishra, Day, Littles and Vandewalker (2011:7) emphasise that introductory courses in music education should serve as an illuminating process to bridge the assumptions that preservice teachers have of the teaching profession and the realities of teaching. Each of the teaching programmes offered by ABRSM, Trinity College and AMEB offer an entry-level qualification that meets these needs.

Lesniak (2008:59) explored the attitudes towards string education among collegiate string faculty and noted a shortage of string teachers over the past two decades in America. According to Gillespie and Hamann (2002, in Lesniak 2008), “... studies suggest that music education students are not receiving adequate string technique/method classes in their undergraduate curriculum, and colleges are not producing enough future teachers proficient in string teaching”.

This study investigates what exactly is being taught in the three programmes offered by the selected institutions and whether their chosen content adequately prepares contemporary string teachers for their task.

1.4 THE RESEARCH PROBLEM AND OBJECTIVES OF THE STUDY

The research problem was to identify potential shortcomings in the teaching qualifications offered by ABRSM, Trinity College and AMEB. These shortcomings were based on a comparative research study on effective teaching in general and effective string teaching in particular.

The primary objective of the study was to compare the training of a string teacher to that of a general educator in order to identify potential voids or gaps that might exist in the programmes offered by ABRSM, Trinity College and AMEB.

The secondary objective was to make suggestions that would eliminate the potential shortcomings and lead to further research to improve the training of string teachers.

The objectives of the study were divided into the following five steps:

1. Gather information on the programmes offered by ABRSM, Trinity College and AMEB.
2. Investigate research on effective teaching in general.

3. Investigate research on effective string teaching in particular.
4. Compare 1, 2 and 3 above.
5. Make suggestions based on the comparisons.

1.5 RESEARCH QUESTIONS

The research involved conducting a desk study to investigate the factors contributing to effective training for contemporary string teachers. In order to research which dimensions are most critical, this study endeavoured to answer the following questions:

- What is the current content of the teaching programmes of ABRSM, Trinity College and AMEB?
- Which critical skills from the field of education are being taught to equip prospective music teachers with teaching skills?
- What additional skills are necessary to teach learners of string instruments effectively?
- Which factors contribute to teaching competently as a string teacher?
- How is a contemporary string teacher developed?
- How are string teachers assessed?

1.6 SCOPE OF THE STUDY

The desk study was limited to the three institutions that offer music teaching diploma courses, that is, ABRSM, Trinity College of London and AMEB. These institutions were chosen because of their international accreditation and the availability of their syllabi. According to their websites, ABRSM conducts assessment in 93 countries and Trinity College in 60 countries.

Although this research was conducted at Stellenbosch University in South Africa, the music teaching qualifications that were offered by the University of South Africa (Unisa) until 2012 could regrettably not be included. Owing to the fact that Unisa's music teaching qualifications were not accredited with the Department of Higher Education of South Africa, the courses had to be discontinued and are currently under review.

Two units of knowledge were selected from the syllabi in order to map out and compare the content and assessment methods used by the institutions. These units were educational knowledge for instrumental teaching and performance skills.

Educational knowledge comprises

- knowledge of styles and interpretation;
- professional values; and
- physiological and psychological knowledge.

Skills comprise

- technical proficiency and instrumental knowledge;
- aural development; and
- repertoire and demonstration.

1.7 THE RESEARCH DESIGN AND METHODOLOGY

A desk study provided information on the content prescribed for string teacher qualifications by the ABRSM, Trinity College and AMEB. The information was categorised and compared in order to identify the requirements that are present in some syllabi and absent in others.

This categorisation and comparison was done according to the following criteria:

- an overview of the qualifications available;
- the prerequisites for application;
- information deemed necessary to include in their examination syllabi;
- methods of assessment and the evaluation of candidates; and
- the promotion of continuous professional development.

The requirements for these string teacher qualifications were compared to the requirements for general school teacher qualifications as outlined in the literature study in chapter 2. General teaching skills, drawn from the field of education, were mapped with specific skills needed for string teachers.

1.8 SUMMARY

This chapter outlined the aim of and background to the study and current string teacher training. This was followed by a discussion of the research problem, the objectives and research questions, the scope of the study and the research design and methodology utilised.

CHAPTER 2: LITERATURE STUDY

2.1 INTRODUCTION

In an endeavour to equip the teachers of the next generation with adequate skills that could optimise the talent development of their learners, researchers continually investigate ways in which knowledge transfer, learning methods and practices can serve to enhance performance in various disciplines in today's competitive global village. In 2009, Oxford University Press published *The teaching artist's bible: Becoming a virtuoso educator* by Eric Booth. Booth (2009:3) defines a "teaching artist" as "an artist who chooses to include artfully educating others, beyond teaching the technique of the art form, as an active part of a career".

According to recent research, music students specialising in performance often feel "... they have been thrust into the work (teaching) before they are adequately prepared" (Booth 2009:96). The curriculum of teaching method courses for instrumentalists at tertiary institutes is often compiled by the instrumental lecturers themselves, working from their personal knowledge and experience. According to Allen (2011:118), American universities, colleges and conservatories are not offering enough resources in their degree programmes to help their music performance majors attain a career in music.

In order to produce an excellent player, a competent teacher must first be adequately trained. In this chapter, critical elements contributing to what is regarded as efficient teaching in general are investigated. General teaching skills, drawn from the field of education, are mapped with specific skills needed for string teachers. The content of the curricula to equip string teachers with the necessary skills is investigated. The need for this study was based on music students' need for a teaching method curriculum that prepares them to facilitate quality teaching and learning. This chapter identifies and investigates which components and sub-factors (see Spencer below) contribute to the effectiveness and quality of string teacher training. Because string training forms part of overall music training, it is viewed as part of a holistic music education process.

2.2 GENERAL EDUCATORS

Every subject requires specific, specialised teaching skills, but there are general guidelines that provide the foundations in most education qualifications that all teachers should adhere

to, regardless of the chosen subject. In 2014, the Sutton Trust Group reviewed over 200 research endeavours to answer the question, “What makes great teaching?” (Coe, Aloisi, Higgins & Elliot Major 2014b). They published a report, ranking the following six components which support great teaching:

1. deep subject knowledge;
2. the quality of instruction – effective questioning, use of assessment, scaffolding;
3. the classroom climate – constantly demanding but recognising a student’s self-worth and valuing resilience and effort rather than ability;
4. classroom management;
5. Teacher beliefs – theories of learning and models of the role of teaching; and
6. professional behaviours – good practice, professional development, supporting colleagues and liaising with parents.

Spencer (2016) investigated these components and consulted his colleagues to determine whether they concurred with the list. The opinions of his colleagues were diverse and insightful. However, he concluded that none of the components could stand alone. Depending on the teachers and their context, they might change the order of the components, but all of them are needed for great teaching. Stannard (2014) criticised the report and stated the following:

(The report) ... loses a lot in being boiled down. It deserves to be read and digested in detail and in the round. (...) The report confirms what teachers already instinctively know: that what makes for really effective teaching has already been put in place long before any particular lesson gets under way.

In further analysis, Stannard (2014) emphasises four “deeper dimensions” of teaching or dispositions, and believes that an effective teacher can be identified by the following:

- classroom management;
- the expectations of students;
- the relationship with students; and
- personal qualities, which include fairness and respect.

He builds his assumptions on the basis that these dispositions are not created anew at the start of each lesson, but are rather developed and built over time, as relationships of confidence and trust between teacher and learners. These dispositions are not linked to any specific type

of teaching strategy or learning activity because “... practices will (as they should) change, depending on who is being taught, what is being taught and when it is being taught” (Stannard 2014). For example, at the beginning of a new topic, the teacher takes the role of presenter or instructor. Over time, this role transforms to consultant or participant as confidence, mastery and learner-activated learning take over. Nearing the end of the process, revision and test preparations require a different teacher role. Stannard (2014) postulates the following:

Teacher practices and student activities vary, but the lessons of a teacher must exhibit his or her trademark qualities and dispositions when it comes to subject knowledge, classroom management, climate and relationships with pupils. (...) Thinking about teachers’ deeper qualities and dispositions helps us to re-focus on the longer run, and on the possibility that teaching is most effective when it is sustained.

It is important to acknowledge that the concept of “great” teaching is one that changes and evolves over time. According to Killen (2013), this evolution is clearly noticeable in major reviews such as those in Dunkin and Briddle (1974), Peterson (1979), Wittrock (1986), Dunkin (1987), Richardson-Koehler (1987), Good and Brophy (1991), Marzano (2003), Hattie (2009) (all in Killen 2013), and recently in Spencer (2016). This evolution has brought forth many suggestions about how teachers can help learners develop their knowledge or skills, but experts all agree that no single teaching strategy is effective all the time for all learners. They conclude that the main reason for the latter is that teaching and learning are extremely complex processes that are influenced by many different factors, of which only a few are under the teacher’s control, and none of which are fully understood (Killen 2013:1).

Research conducted in the past 30 years has changed and enhanced the way in which people learn. Fresh approaches to cognitive study and developmental psychology have found that learning is, in fact, a much more individualised process than was previously thought.

... most people learn best through personally meaningful experiences that enable them to connect new knowledge to what they already believe or understand. This constructivist view of learning has led to a redefinition of effective teaching. It is now more widely accepted that a teacher’s main role is to facilitate learning rather than simply telling them things that they are expected to memorise (Killen 2013:2).

2.2.1 Skills and personality traits of teachers

Authors have written extensively on noticeable personality traits and skills portrayed by high-calibre teachers. A recurring theme that stands out, is that of “mindfulness”. Kabat-Zinn (2003, in Starzec and Wisner 2016) defines mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experiences moment by moment”. Bishop (2004, in Starzec & Wisner 2016) identified two components of mindfulness: “(1) a self-regulatory component involving maintenance of attention on immediate experience in the present moment, and (2) maintenance of an orientation of curiosity, openness, and acceptance.” Starzec and Wisner (2016) argue as follows:

The potential results of mindfulness include qualities of patience, trust, wisdom, compassion, and the ability to resist reactions to thoughts and feelings. Mindfulness also provides an opportunity for exposure to, and subsequent tolerance of, challenging physical and emotional states.

It is the researcher’s opinion that mindfulness should be present in each of the skills and personality traits of teachers. Killen (2013:37–39) ascribes the following skills and personality traits to effective teachers: being knowledgeable; enthusiasm; confidence; effective communication; commitment; compassion; curiosity; patience and persistence; willingness to share and collaborate; resourcefulness and inventiveness; being well-organised; being ethical; and reflectiveness.

2.2.1.1 Being knowledgeable

Teachers should have an extensive knowledge of their subjects and not limit their own learning to that of the curriculum. They should seek out continuous professional development and strive to improve and enhance their knowledge and understanding of their subjects. They should keep abreast of the latest strategies and methods of teaching and learning (Killen 2013:37; Spencer 2016).

2.2.1.2 Enthusiasm

Several academics such as Borich (2002 in Killen 2013:37) and Spencer (2016) have written about the necessity for enthusiasm being present in the classroom. This is mainly dependent on the teacher and forms part of a wide range of behaviours teachers should exhibit. The term *teacher affect*, refers to these behaviours, which include the teacher’s attitudes, values and

emotions. Researchers have also found that teachers who are passionate about their subject and about teaching it, are more successful in engaging learners in learning. Learners are observant and can detect a teacher's level of enthusiasm. High degrees of teacher enthusiasm can motivate and inspire learners and their experience of a lesson (Coe et al. 2014; Spencer 2016). Enthusiasm is a crucial behavioural trait that has great research support as, noted in Killen (2013:37) by Rosenshine (1970), French-Lazovik (1974), Bettencourt, Gillet, Gall and Hull (1983), Patrick (2000) and Stronge (2002).

2.2.1.3 Confidence

The influence of a teacher's confidence on successful learning is made clear in Krug, Love, Mauzey and Dixon (2015) and Hedden (2015:33-41). When teachers display poor confidence in the classroom, it creates the impression among learners that they are not knowledgeable or unable to give them high-quality education, resulting in reduced motivation and ultimately poor achievement (Killen 2013:37).

2.2.1.4 Effective communication

It is paramount that teachers relate well to learners, explain clearly, make their expectations explicit and engage their learners (Coulson, 2006 in Killen 2013:35). Clear instruction influences not only successful outcomes, but also increases motivation and morale (Stannard 2014).

2.2.1.5 Commitment

Teachers should be devoted to teaching and to helping learners learn well. Killen (2013:38) lists the following characteristics of a committed teacher:

1. loyalty to the norms and standards of the profession;
2. support of learners beyond official expectations (perhaps through mentoring or coaching);
3. upholding the philosophy and values of the school;
4. remaining in the profession (even when it is demanding and stressful); and
5. continual development of subject knowledge and teaching expertise.

Strong links exist between teacher commitment, successful learning and a learner's attitude towards school (Firestone 1996, Graham 1996 and Louis 1998, in Killen 2013). Research conducted by Elliot and Crosswell (2002) revealed that committed teachers are more likely to be open to innovations and policy changes than uncommitted teachers.

2.2.1.6 Compassion

Compassion forms part of a teacher's values and includes respect for all learners, being concerned for their well-being, empathy and creating an environment in which learners feel accepted and valued (Spencer 2015:15). Compassion adds to the factors that help to build positive self-esteem in learners. "Effective teachers have friendly, mature relationships with their learners, and demonstrate caring, humour and commitment" (Ayers, Sawyer & Dinham 2004:146).

2.2.1.7 Curiosity

Teachers should possess an *intellectual curiosity* which entails continuously questioning, challenging and seeking out new approaches and information before drawing conclusions. Curiosity must be passed on to learners to cultivate their drive to keep asking "Why does this happen? Why does this work?" Failure to cultivate curiosity leads to a lack of ambition, resulting in both teachers and learners simply accepting a body of knowledge uncritically (Killen 2013:38). A useful resource to refer to is *Cultivating curious and creative minds: The role of teachers and teacher educators, Parts I & II: Teacher education yearbook XVIII* (Craig & Dererchin 2011).

2.2.1.8 Patience and persistence

The quality of *mindfulness* plays a vital role in the quality of a teacher's patience and persistence as found by Starzec and Wisner (2016:246). Teachers should display patience and perseverance in all situations and during times when their learners are not achieving the high standards that are expected (Killen 2013:38). It should also be noted that such virtues are not always displayed at home, and learners thus need a strong role model exhibiting such virtues in the classroom (Oolup, Brown, Nowicki & Aziz 2016:282).

2.2.1.9 Willingness to share and collaborate

A study by Moolenaar, Slegers and Daly (2012), which investigated teacher collaboration, revealed that when teachers work together, their learners have a higher success rate in examinations and overall achievement. In their empirical study, Chong and Kong (2012) emphasised the importance of professional development programmes and their impact on teacher efficiency and collaboration through networking.

2.2.1.10 Resourcefulness and inventiveness

Thomas and Thomas (2011:589) categorised resourcefulness as an attribute belonging to an "expert" teacher. Expert teachers continuously investigate alternative ways to approach

teaching challenges. The goal is to create the best possible, most fruitful conditions for learning, and continually trying to make learning as accessible as possible for learners. When challenges arise, resourceful teachers are persistent and make the most of the conditions and opportunities available to them (Ayers et al. 2004).

2.2.1.11 *Being well-organised*

Learners learn better in an environment structured by routine and order. It is the teacher's responsibility to implement systems and processes to support all aspects of their teaching (Killen, 2013:39).

2.2.1.12 *Being ethical*

Honesty and integrity are virtues that must be displayed to learners at all times. For the protection of teachers and their learners, it is essential that they are familiar with the applicable legislation. The rules, policies and guidelines should always be followed along with the highest possible standard of behaviour when interacting with learners, parents and colleagues (Killen 2013:38). Sensitive and private information must be treated with respect and confidence. When the teacher breaks the trust of learners, this undoubtedly has a negative impact on their relationship and influences progress (Gerber 2008:14).

2.2.1.13 *Reflectiveness*

Teachers must routinely think about what, how and why they are teaching and critically evaluate their own methods of teaching and their students' learning (Spencer 2016). Pavo and Rodrigo (2015) recommend that teachers keep a "teaching journal".

2.2.2 Factors which influence meaningful learning

Much has been written about the success factors impacting upon quality teaching and learning. The functioning of these two constructs is mutually dependent. It is imperative for teachers to realise that their teaching strategies should take a learner's readiness to learn into account. Knowledge of the following factors can assist teachers in adjusting their teaching to suit learners (Killen 2013:40):

- cognitive development;
- language and literacy development;
- emotional stability;
- self-efficacy and self-confidence;
- motivation;

- prior knowledge; and
- attitude towards school and learning.

2.2.2.1 Cognitive development

For the brain of a child to process new information, it must have the cognitive capacity to do so. This requires a child to think in various ways to understand the skill or concept that is being taught. The famous pedagogue, Piaget (1896–1980), described this ability as cognitive development in Killen (2013:40). In later studies, Biggs and Collis (1982) and McInerney and McInerney (2002) found that the cognitive function does not contribute to the development of clear cut steps or stages, as suggested by Piaget. Each child’s cognitive development progresses uniquely. Teachers should be mindful and avoid underestimating the abilities of individual learners.

Literature on early childhood education (Penn 2005; Kuhn & Pease 2006; Cameron & Moss 2011) shows that children younger than about eight years acquire knowledge in ways that are significantly different from the ways in which older children learn. Hence the approaches used for teaching these children should be different, for example, play-based learning (Duijkers & Van Oers 2013:511). This has paved the way for the concept of “developmentally appropriate” learning programmes and teaching practices. Teachers should keep children’s cognitive readiness for particular types of learning in mind (Killen 2013:41). The average music teacher often works with students of all ages. In a schooling context (primary or high school), some specialise or prefer to work with a specific age group, but a well-trained music teacher should be equipped to teach children of all ages, as well as adults.

The most meaningful learning for young children happens through direct sensory encounters with the world. General suggestions for teaching young children noted in Killen (2013:41) include the following:

1. active exploration of the environment which offers learners hands-on direct experiences and allows them to explore, reflect, interact and communicate with their peers and with adults;
2. incorporation of different teaching strategies to accommodate the various learning styles of learners;
3. combinations of teacher-directed and learner-directed activities; and
4. emphasising unifying concepts that link different subjects.

Learners should be offered appropriate problem solving and other learning activities that give them some independence and responsibility for their own learning (Lamb 2011:69). In a play-based curriculum study by Duijkers and Van Oers (2011:516), their evidence revealed that teaching in a play-based curriculum is not only possible but also useful for the realisation of positive outcomes (on vocabulary learning) compared to a strictly teacher-driven approach.

Cognitive development has an impact on the following elements that enable learners to be ready to learn, that is, language and literacy development, emotional stability, confidence, motivation and the ability to retain knowledge.

2.2.2.2 *Language and literacy development*

The topic of language and literacy proficiency has been widely researched and it has been confirmed that it serves as one of the main success factors in a child's schooling career. Literacy skills (listening, speaking, reading and writing) must be on a level that instructions can be followed. It has become evident that the most meaningful learning occurs when the learner receives instruction in his or her mother tongue. Studies conducted by Louwrens (2003), Probyn (2005) and Setati, Adler, Reed and Bapoo (2002) suggest that mother tongue tuition is the best medium for studying. Depending on the grade, a learner requires a certain level of language proficiency used to reason, solve problems and achieve general academic success. The latter is referred to by Cummins (in Killen 2013:41) as cognitive academic language proficiency (CALP). CALP requires learners to be equipped with an appropriate vocabulary, and have the ability to understand relevant concepts. They must also be able to process decontextualised academic language, all at a level appropriate for the new things they are trying to learn. This is a particular problem for learners who are attempting to learn through the medium of a second or third language.

2.2.2.3 *Emotional stability*

The ideal learning environment for each learner is different, but the presence of emotional stability is essential. A sense of belonging is essential to nurture and cultivate a learning environment. The feelings and emotions that accompany a learner into the classroom have a direct influence on development, participation and success.

Learners enter the classroom with feelings and emotions that result from how they see themselves and how they think others see them. These emotional factors play a big

part in determining which learners feel a sense of “belonging” in the learning environment, and which learners feel alienated (Killen 2013:42).

These feelings are influenced by a learner’s cultural background, circumstances at home or the way in which he/she has been treated previously by peers and/or teachers. Spencer (2016:14) advocates empathy as a key important contributing factor:

I don’t mean just empathy for a dyslexic pupil, or a pupil from a minority, or a pupil who finds it hard to speak up in class. I mean the sort of empathy that you learn from experience of what is going to go through a pupil’s mind. The most important part of a teacher’s day is stopping to listen to a student, or sending them a message they weren’t expecting to have, or congratulating them off guard in an informal moment.

The presence of depression and anxiety in society is undeniable, and even more so in the classroom. Merrell (2008) provides a practical guide for teachers: *Helping students overcome depression and anxiety*. He discusses several relevant topics such as diminished self-esteem; academic problems; poor social relationships; chronic mental health problems; substance abuse; and suicidal thoughts, attempts and completions. He also provides guidelines for assessment and intervention planning.

2.2.2.4 Self-efficacy and self-confidence

Learners must have self-confidence and believe that they can do whatever is required of them. Success in the past affirms this positive belief, resulting in more success and a positive self-image. A study done by Maclelland (2014), *How might teachers enable learner self-confidence? A review study*, provides valuable insight for teachers regarding their role in developing the confidence of their learners. Maclelland (2014:62) states that “self-confidence is a contextual concept that people develop on the basis of others’ opinions of them, due to a lack of objective self-judgement”. The study also indicates that the role of self-confidence in a person’s performance weighs heavily because it serves as the impression they have of themselves. This, in turn, influences their perception of their competence in a specific domain, context or situation.

Teachers who enable learners to make adaptive attributions for “success” and “failure” in learning, who include opportunity for the mastery of curriculum content, and who incorporate meaningful choice and involvement in learning activities are promoting positive self-beliefs (Maclelland 2014:63).

It is the responsibility of teachers to create an environment in which all learners can succeed and, in turn, develop their confidence.

2.2.2.5 Motivation

Learners' motivation is influenced by many different factors such as the difficulty level of the work; their interest in the topic; encouragement from teachers, peers and parents; and assessment methods (Lamb 2011:69). However, perhaps the most important is *achievement motivation* (Killen 2013:42). Learners with high motivation to succeed can be identified by their persistence and effort. A teacher's ability to inspire and encourage learners is a valuable skill, but for a learner to be successful, he or she must want to learn and be successful. Stimulating interest in a subject and encouraging curiosity about it contribute to the learner's motivation (Killen 2013:42).

2.2.2.6 Prior knowledge

Several academic articles have been written on the importance of prior knowledge in the learning process. Prior knowledge refers to the information and skills a learner has already acquired in the past, which he or she uses to make sense of new information (Gee 2012). When new information is presented in a context that is unfamiliar, learning is extremely challenging without the necessary background knowledge. There are two types of prior knowledge, namely declarative and procedural (Hailikari, Katajavuori & Lindblom-Ylänne 2008:1). Declarative knowledge refers to factual knowledge and information that a person knows, while procedural knowledge, is knowing how to perform certain activities (Hailikari et al. 2008:2).

Academic content is unlikely to be meaningful unless it is rooted in learning activities that are built on learners' prior learning (Killen 2013:42). Ambrose (2010 in Gee 2012) recommends the following three ways for teachers to determine their learners' prior knowledge:

- consulting colleagues who teach prerequisite courses or the preceding grade;
- the use of a low-stake assignment or quiz; and
- self-assessment of prior knowledge.

When teachers are confident that they know what their learners already know, they can identify and bridge the gaps in their knowledge.

2.2.3 Summary

One should bear in mind that not all of the elements that contribute to a learner's readiness to learn, as discussed above, are within the teacher's control. However, Killen (2013:43) reiterates that there are several things that teachers can do to encourage learners to be ready to learn, namely:

- ensuring that learning activities and outcomes are appropriate to the learners' level of academic and social development;
- explaining to learners exactly what they must learn and why this learning is important;
- relating learning to everyday life experiences;
- structuring learning so that learners can experience initial success and develop a positive attitude towards learning;
- deliberately trying to make learning interesting, enjoyable and challenging for learners;
- using learning activities that provoke curiosity so that learners are encouraged to ask "why", "how" and "what if?"; and
- taking into account the knowledge, skills and attitudes that learners bring with them to the classroom.

By taking these factors into account, a teacher can make it easier for learners to be engaged during lessons and to be involved in meaningful learning.

2.3 THE STRING TEACHER

In this study, the term "string teacher" refers to a teacher who teaches either violin, viola, cello and/or double bass. In this subsection, string teachers are discussed, their preparation is investigated and a detailed description provided of the specific skills and knowledge they require.

2.3.1 Curriculum used to prepare string teachers

An article by Mishra et al. (2011) entitled *A content analysis of introductory courses in music education at NSAM-accredited colleges*, the authors note that across the literature, two types of classes have received the most attention, namely music education method classes; and music courses designed for elementary education majors¹. Schmidt (1989, in Mishra et al. 2011) found that most method classes devoted at least some time to lesson planning, grading, music education philosophy, curriculum, child development, creative activities, classroom

¹ Students aspiring to work in a primary school setting.

management and professional organisations. Knowing this, one can argue that owing to introductory music courses, practical lecturers only need to focus on the teaching of their instrument. However, Schmidt concluded that there was an overall lack of agreement on priorities in undergraduate music education programmes.

Smith (1995, in Mishra 2011:9) investigated string method class content across institutions. Smith's empirical study consisted of 180 institutions and she investigated the content of all four string technique courses (violin, viola, cello and double bass) and found that the following topics were covered (Smith 1995:148):

1. correct playing posture;
2. correct instrument hold;
3. correct bow holds;
4. correct method of tone production;
5. basic bowing patterns and articulations;
6. fingering patterns in first position; and
7. correct tuning procedures.

She also found that these topics were covered in approximately 95 percent of the string techniques courses in the North Central and Southwestern Divisions of the United States, whereas only 80 percent the courses in the Eastern and Western Divisions dealt with all the material.

The instructional materials used in these courses consist primarily of the following string class method books (Smith 1995: 148):

- *All for strings* (Anderson & Frost, 1988) – 38 schools;
- *Applebaum string method* (Applebaum, 1972) – 34 schools;
- *Strictly strings* (Dillon, Kjelland, & O'Reilly, 1992) – 27 schools;
- *String builder* (Applebaum, 1960) – 26 schools;
- *String method* (Muller & Rusch, 1960) – 28 schools; and
- *A tune a day* (Herfurth, 1943) – 13 schools.

It was also found that some schools use more than one method book, and several teachers use material they have developed themselves. The findings for the string methods course content indicate that the following topics are usually covered (Smith 1995:148–149):

1. selection, care and maintenance of string instruments (included in 71% of the courses);
2. public school string class method books (included in 69% of the courses);
3. organising beginning, middle, and high school string programmes (included in 57% of the courses);
4. recruitment techniques (included in 54% of the courses);
5. selection of appropriate ensemble and supplemental materials (included in 54% of the courses);
6. the Suzuki method (included in 50% of the courses);
7. orchestral rehearsal techniques (included in 50% of the courses);
8. administrative factors (included in 39% of the courses); and
9. the Rolland method (included in 33% of the courses).

The findings also indicated that the following eight main textbooks are used in these courses: (Smith 1995:149, in Mishra 2011):

- *Guide to teaching Strings* (Lamb, 1981) – 53 schools;
- *How to design and teach a successful string and orchestral Program* (Fillon & Kriechbaum, 1978) – 33 schools;
- *String music in print* (Farish, 1973) – 10 schools;
- *Teaching stringed instruments in classes* (Green, 1966) – 30 schools;
- *Teaching strings* (Klotman, 1988) – 27 schools;
- *The Suzuki violinist* (Starr, 1986) – 22 schools;
- *The teaching of action in string playing* (Rolland & Mutschler, 1974) – 29 schools;
- and
- *The string instructional program in music education* (Wassell, 1964) – 6 schools.

Although Smith's findings can be regarded as outdated, one should note that the instrumental technique of the majority of great musicians has not changed much since that time. Methodologies and techniques have evolved and adjusted to suit modern audiences and music, yet the content described above is what contemporary teachers and universities build their knowledge on. Undoubtedly the statistics/numbers have changed, but the way musicians

play their instruments has not. The primary component that is missing in these courses is that the content does not mention the teaching environment. String teachers often have knowledge of their instruments, but lack the skills to communicate that knowledge. The way information is transferred and received changes constantly and that is what makes teaching a challenging field.

To support this statement, Lesniak (2008) refers to an older study by Gillespie and Hamann in 1998, which found that there was a lack of string teachers and that schools struggled to fill string positions. They predicted a shortage of 5 000 teachers for string and orchestra classes, while the demand is steadily increasing. According to Lesniak (2008:66), the reason for the decline in string teachers is a combination of factors:

1. inadequate training or preparation;
2. a lack of interest or motivation; and
3. music undergraduates being unaware of the demand.

Lesniak's (2008) research revealed that in general, both string faculty and students feel that music education programmes are ineffective in attracting string players to the field of teaching. To remedy this, music education programmes should actively recruit string players and offer various string-specific classes to music education undergraduates (Lesniak 2008:66).

A study conducted by Bergee, Coffman, Demorest, Humphreys and Thornton (2001, in Lesniak 2008:60) suggests that few students receive encouragement from a music teacher to go into music education, and two-thirds of students report receiving negative feedback on teaching. Bergee et al. (2001) suggest that school music teacher organisations such as the Music Educators National Association (MENC) should have discussions about and involve private teacher organisations such as the Music Teachers' National Association (MTNA) in the recruitment process since "many private teachers are unaware of the enormous influence they have over students' career choice" (Bergee et al. 2001, in Lesniak 2008:61).

Lesniak's (2008) results suggest that string faculty are not in agreement about the weight distribution between performance and academia in music education. Slightly less than 50 percent of respondents indicated that music education programmes are too academic. In total, 56 percent of the respondents indicated that they do feel that performance faculty do not

participate in enough professional activities to enhance their teaching skills (Lesniak 2008:67).

Over one-third of respondents indicated that they feel performance faculty view themselves more as performers than teachers (Lesniak 2008:66). A study by Froelich and L'Roy (1985) and Wolfgang (1990, in Davis 2006:30) showed that this attitude is also projected on to undergraduate music education majors and, in turn, weakens their identity with the role of a teacher. One item with a majority of negative responses enquired about performance departments' reactions to the string teacher shortage: a total of 73 percent of respondents stated that they are not convinced that performance faculties are doing enough to address the string teacher shortage (Lesniak 2008:66). The question could be raised whether this could perhaps be due to outdated teaching methods.

2.3.2 Possible alteration in approaches to teaching

According to Nygaard, Hojlt and Hermansen (2008:33), the primary task of a higher education institution is to prepare students to manage flexible jobs in changing environments. The traditional approach to instrumental teaching (Baker 2006, Jørgensen 2000 and Schmidt 1998, in López-Íñiguez, Pozo & De Dios 2014) identified that the foundation is built on the teacher's activity through a model that transmits and preserves knowledge. The teacher's role in this process is to develop a learner's talents and the technical-expressive capabilities required to master the prescribed syllabus. López-Íñiguez et al. (2014), however, argue that this is an outdated approach and that the current curriculum demands a new educational view for teaching an instrument. They suggest that the method has moved from being "teacher-directed" to "learner centred", building on the learner's interests, motivation and ability to construct knowledge. "The teacher guides this process, which is the true driver of learning" (López-Íñiguez et al. 2014:158).

This new curricular orientation is in line with the contributions of the new science of learning, which, in contrast to traditional or "instructionist" educational approaches (Swayer, 2006; Bransford, Brown, & Cocking, 2000), emphasises that teaching should be orientated to promote a deep understanding based on the integration of students' prior knowledge and curricular outcomes, as well as helping students to take metacognitive control of their own learning (López-Íñiguez et al. 2014:158).

Keeping this in mind, it can be argued that in instrumental teaching it would be more suitable to adopt a learner-centred approach instead of an outcome-centred approach, as found in general education in South Africa. Hence from the viewpoint of the learning sciences, when it comes to musical instrument teaching, it would be advisable to follow a learner-centred approach instead of an outcome-centred approach. This recommendation is also largely supported in recent research by Bautista, Pérez Echeverría and Pozo (2011), Burwell (2005), Hallam (1995), Hallam, Cross and Thaut (2009), Hultberg (2002) and Viladot, Gómez and Malagarriga (2010).

Learning and content selection must be designed according to an “integrating conception of means and ends” (Bautista & Pérez Echeverría, 2008, p. 30), where the means is the mastery of the musical instrument, the end is communication and transmission of feelings and emotions, and the main aim is to help the student develop learning strategies that will enable his/her self-regulation and autonomy (López-Íñiguez et al. 2014:158).

In order to understand what is taught, what is learnt and how both the processes and the product of playing an instrument are evaluated, the ideas teachers have of teaching and learning a musical instrument should be investigated. Studies show that the factors that influence a teacher’s classroom practices are based on the conceptions they have about teaching. These conceptions have a direct impact on the organisation and increasing complexity of teaching practices (Olafson & Schraw 2006 and Trumbull, Scarano & Bonney 2006, in López-Íñiguez et al. 2014:158).

Ironically, these strong beliefs and resistance to change are so internalised and entrenched that they do not aid the learner (Atkinson & Claxton 2000, Pozo et al. 2006, and Strauss & Shilony 1994, in López-Íñiguez et al. 2014:158). Batista confirmed that musical excellence is exclusively conceived in terms of technical proficiency, and the educational strategies used are based on the encouragement of learners’ repetition, imitation and copying of esteemed interpreters (Batista 2010: 86).

It is known that the conceptions held at conservatories and in other educational settings are oriented towards promoting consistency and facilitating different inherent theories on teaching and learning in different domains of knowledge (Scheuer, De la Cruz, Pozo & Huarte 2009, Scheuer, De la Cruz, Pozo, Huarte & Sola 2006 and Strauss & Shilony 1994, in

López-Íñiguez et al. 2014:158), but more specifically in the field of musical knowledge (Bautista et al. 2010, Bautista, Pérez Echeverría, Pozo & Brizuela 2012 and Marín, Pérez Echeverría & Hallam 2012, in López-Íñiguez et al. 2014:158). These theories seem to be constructed on epistemological assumptions (the relationship between the subject and the object of knowledge and the nature of knowledge), ontological assumptions (the kind of entity learning is, and whether learning is understood as a process, a result or a condition), and conceptual assumptions (how the components of the theories are related). Those studies have identified three implicit theories – direct, interpretative, and constructive – which differ in the above-mentioned assumptions (see table 2.1).

Table 2.1: The assumptions of the different theories about learning and instruction

	Direct theory	Interpretative theory	Constructive theory
Epistemological	<i>Ingenuous realism</i> Knowledge reflects reality in an evident and objective way.	<i>Interpretative realism</i> Knowledge reflects reality in an evident and objective way. However, the subject has an important and active role in the knowing process.	<i>Constructivism</i> Knowledge is a construction elaborated by the subject, who builds own and personal models to interpret the reality (which can be more or less appropriate).
Ontological	<i>States-products</i> Learning is conceived in terms of states or static products (e.g., academic content).	<i>Actions and processes</i> Learning is conceived in terms of actions and processes (e.g., cognitive, motivational, etc.), which are externally managed.	<i>Complex systems</i> Learning is conceived in terms of complex systems (e.g., self-regulation processes) internally managed by the learner in order to build and develop abilities or strategies.
Conceptual	<i>Simple causality</i> A direct and lineal relation is established between learning conditions and learning outcomes.	<i>Lineal multiple causality</i> A direct and lineal relation is established between learning conditions, learning processes, and learning outcomes.	<i>Interactive causality</i> A complex and interactive relation is established between learning conditions, learning processes, and learning outcomes.

Source: Batista et al. (2011:88)

Both the direct and interpretative theories share a built-in epistemological realist character which is constructed around knowledge as a copy of the reality perceived or received. The direct theory follows the belief that the learner has a passive, reproductive role in his or her learning. The interpretative theory suggests that cognitive participation is required from the learner (attention, motivation, management of cognitive resources, etc.), but still as a subordinate, as in the direct theory. The goal is to reach the “outcomes or products which are the most faithful reflection possible of the musical knowledge received, whether through

sheet music or the teacher's or another model's musical production" (López-Íñiguez et al. 2014:160).

Referring to both the direct and interpretative theories as "traditional", simply implies that they are outdated. A conceptual change, moving away from those conceptions of teaching and learning, is required for the constructive theory to be implemented (Chi 2008, Pozo et al. 2006 and Vosniadou, Vamvakoussi & Skopeletti 2009, in López-Íñiguez et al. 2014:160).

The learner's learning processes must be the primary focus of teaching. Within the constructivist theory of teaching, it would be regarded as "an intricate system of interactions between musical content, instrument, teacher and student". The objective of the latter system is to train a learner's mental abilities, to enable him or her to manage his or her own mental activity in order to produce the sound appropriate to his or her communicative goals (Bautista et al. 2011; Casas & Pozo 2008; Torrado & Pozo 2008).

The constructivist approach to teaching suggests that teachers should use more artistic and epistemic methods to promote holistic musical learning to develop the learner, not only as a performer but as a musician. To accomplish this, alternative instructional strategies designed to improve the learner's independence, autonomy and self-regulatory processes should be implemented. Along with this, teachers should approach evaluation situations as another learning context and not merely as examinations for giving marks to learners. The goal is to produce well-rounded musicians and to educate strategic learners and thinkers who approach their daily learning activities in the same way as expert performers (Bautista et al. 2009:86).

2.3.3 Skills of the string teacher

To become a qualified string teacher, a certain level of practical playing competence must be established. At the standard tertiary music institutions, BMus, certificate students and students specialising in general music education, undergo practical examinations. The level of difficulty and minimum standard varies from one specialisation field to the next (e.g. performance, education, composition, orchestra studies and chamber music), but all students are required to pass practical examinations.

The content of the curriculum needs to be carefully considered, especially in the light of the fact that there is a limited time during the course of an undergraduate programme. Investigating three of the world's most prestigious music examination bodies that offer teaching qualifications, namely ABRSM, Trinity College and (AMEB) it becomes evident

that there are many similarities in what is considered “important” when preparing or evaluating an instrumental teacher.

Since the teaching qualifications offered by these institutions are available to any instrumental student, including vocalists, it could be argued that they are not “string-specific”. The two specific factors that are, however, the common denominators are that instrumental teachers mostly teach individual lessons (one-on-one), with the exception of beginner group classes, and that the examiners are highly qualified and experienced teachers themselves and are also experts in the specific instrument being examined. The names of the examiners and their achievements are also available on the websites of each institution or are provided upon request.

The similarities in curriculum content found in ABRSM, Trinity College and AMEB are a clear indication of what is deemed important, although there are differences in emphasis and assessment. All of the teaching qualifications offered by the three institutions require practical demonstrations of various aspects of teaching along with a written submission or written examination on similar topics. Taking the collective topics, requirements, prerequisites and assessments into account, it is possible to deduce and specify the skills and knowledge needed by string teachers. These skills and knowledge are as follows:

- technical knowledge of the instrument;
- knowledge of styles and interpretation;
- knowledge and understanding of the teaching and learning process;
- knowledge of repertoire choice;
- aural development;
- professional values and practice;
- knowledge of physiological and psychological impact upon learning processes and performance of learners; and
- parental involvement and learner expectation.

2.3.3.1 *Technical knowledge of the instrument*

It is imperative that a string teacher possesses a wide variety of skills and abilities to be an effective educator and facilitator of instrumental and musical development. Extremely important general skills are instrumental technical knowledge, understanding and proficiency, being able to demonstrate difficult passages to learners and setting a certain standard of playing by performing themselves (ABRSM Syllabus 2014:7 & 12; AMEB 2016:2). The

assessment of a candidate's technical skills includes the teaching of correct posture, intonation, scales and exercises, tone production, articulation and phrasing (ABRSM Syllabus 2014:13). The string teacher must also know how to communicate these technical concepts at each level, from beginner to the most advanced levels. This ability enables string teachers to prevent technical gaps and shortcomings in their musical careers. It is clear in the assessment criteria of the qualifications that candidates must not only be able to play the music they are teaching, but be open to new interpretations and be able to help the learner achieve the musical ideas with technical support and knowledge (Trinity College Syllabus 2016:16 & 84).

In an article relating to violin instruction, Johansson (2015) states that in an institutional context, the primary focus is on teaching students how to master the instrument that “generally promotes a separation between technique and style” (Johansson 2015:128). Hence in terms of progression, the mastering of a specific style of music is a secondary goal. Consequently, technique is often deemed to refer to the motor skills required to handle the instrument correctly, which would extend, inter alia, to posture, fingering, bow hold and refined coordination skills, including tone production, string crossings, legato/staccato bowing and fast finger movements (Johansson 2015:128).

However, there are many aspects of string instrument technique and the art of communicating. This knowledge starts with the prospective teachers' own experiences of their teachers. The role change from student to teacher is introduced through string methodology courses at tertiary institutions. Various pedagogical writings are prescribed and examined in detail. *The art of playing the violin* by Carl Flesch (2000, first published in 1924) is popular among many violin lecturers because Flesch provides in-depth information on the basic technical framework that many violinists still use today.

Ivan Galamian's (1962) work, *Principles of violin playing and teaching*, is mainly used for its information on the left and right hands. His chapter on left hand includes discussions on the following: posture; holding the instrument; left arm; wrist; hand; fingers and thumb. Movements of the left hand cover the following: focusing on the vertical movement of the fingers; the horizontal movement of the fingers; the crossing of strings; the sliding motion of fingers and hand; and vibrato movements. Intonation, timing and special technical problems such as shifting, double stops, trills, left hand pizzicato, harmonics and chromatic glissando

are also discussed. Fingering principles and vibrato with a subsection on the types of vibrato, study of the vibrato and special problems in the vibrato are also covered.

The chapter on right hand fundamentals, discusses the system of springs², holding the bow, the physical motions and drawing the straight bow stroke. He investigates the three main factors influencing tone production, that is, speed, pressure, sounding point; the slightly slanted stroke; character and colour of the tone and various styles of tone production; and faulty tone production. Bowing patterns including legato; detache; fouette or whipped; martelé; colic; spiccato; sautillé; staccato; flying staccato and flying spiccato; and ricochet, are all covered. Special bowing problems, namely bow attack, bow changes, alternating fast and slow bows, harmonics and chords are also discussed. More prescribed readings are listed in the appendix.

James Froseth and Phyllis Weikart's (1981) work, *Movement of music in confined spaces*, discusses the following: coordinated hand/arm or foot/leg movements; alternated movements; coordinated double movement patterns; alternated double movement patterns; combined coordinated arm and leg movement patterns; combined alternated arm and leg movement patterns; hand-finger patterns; coordinated divided beat patterns; opposing motion: divided beat patterns (duple); and unusual metre patterns.

Many sources used in lectures were written long ago, which allows for class debate, as some methods contradict one another and have changed over the years. However, basic skills and concepts have not changed and these older sources are therefore often used. What these older sources often lack, however, is the method of conveying their content. "Students are often taught what to teach but not always how to teach" (Gerber 2008:161–162).

Although technical development to the highest possible level is a prerequisite for performance at a high level, it should always serve to enhance the musical idea or message that is conveyed. As mentioned earlier, technique, however, is often thought to be an independent aspect of instrumental training. Everyday practice of string teachers, widely accepted pedagogical literature and the use of various exercises aimed at developing basic instrumental skills, support the idea of deconstructed technique within particular pieces of music and developing this technique in "musical isolation" (Johansson 2015:129). Exercises using melodies and rhythmic patterns to develop tone production often do not belong to any

² Galamian uses an analogy of a mechanical spring to explain right arm technique (1962:44).

particular style of music, and thus increase the distance from the musical performance. These “stylistically neutral” exercises are used to provide string students with a set of skills, which are intended to be applied in a variety of their musical pieces and in different stylistic contexts, without the necessary sensitivity to the fact that their application should be adapted.

String teachers would argue that good technique liberates the skilled player from distractions such as coordinating bowing, fingering and upcoming difficult passages. Instead by allowing them to focus on the musical expression, unlimited by technical insecurities, the musical interpretive skill of performing various styles then becomes easier and more natural to the player. Technique should not be viewed as an end in itself, but should instead be put to the service of musical interpretation and creativity (Allen 2007, and Spruce 2003, in Johansson 2015).

In her article, Johanna Roos (2001) advocates correct posture as one of the most important technical aspects that a beginner can be taught. Her violin teacher, Natalia Boyarskaya, believed that “there are no rules when it comes to violin technique, only one principle: to accomplish freedom of movement.” The quest for good posture should begin immediately and be continuously pursued to make movement free. The forming of good or bad habits, concerning body usages, can become fixed at an early stage and be extremely challenging to change over time (Talkbot 1997:982, in Roos 2001:45). In her article, Roos (2001:46) investigates the best standing and sitting postures according to experts such as Masin and Kelemen (1982:29), McGovern (1999:724) and Medoff (1999:214). According to Roos (2001:46), the following should be considered to achieve a good posture during performance:

1. The feet are placed firmly on the ground.
2. The weight should be distributed evenly on both pelvic bones.
3. The lumbar curve assumes a forward curve.
4. The rib cage hangs down towards the pelvis.
5. The thoracic curve is long and supple, not stiffened.
6. The shoulder girdle rests on top of the rib cage and the shoulders are relaxed.
7. The chest floats up and the upper body widens.
8. To position the head, the spinal column lengthens upwards through the centre of the neck, as the head floats up to balance on top of it.

Roos (2001:46) discusses some of the advantages of proper posture. Having an upright position improves breathing because the diaphragm can function properly. Enhanced

endurance and energy when playing are increased because of a feeling of comfort. There is a sense of presence which is essential on and off the stage. Proper balance and alignment ensure that movement is uninhibited. The teacher's goal should be to develop a natural, balanced playing posture for the student. Both the teacher and student should realise that it can be a long process, requiring "careful observation from the teacher, but, most importantly, self-observation and self-awareness and experimentation from the student" (Roos 2001:46). In section 2.3.3.7.1 on page 52, posture will be discussed in the context of injury prevention.

Teachers often divide their technical focus between the right and left hands. This division is discussed below.

2.3.3.1.1 The right hand

Suslova and Boyarskaya (1991:223–224 in Gerber 2008:19) describe the technical facets to be worked on for the right hand, these being bowing technique: cantilena; tonal colours/dynamics; various types of bowing and articulation and phrasing; and string crossing.

The term "cantilena" refers to a smooth flowing melodic line. With the development of the modern bow, string players have the ability to produce a singing tone quality comparable to the human voice. Melodic lines and long phrase structures require the string player to master a sound originating from a seemingly unending bow. "Smooth bow changes are paramount to create a continuous line" (Gerber 2008:20).

Gerber (2008:21) describes tonal colours³ as the "ingredients" of sound. This includes the speed of the bow, weight, the placement of the bow between the fingerboard and the bridge and the angle of the hair to the string. Providing students with the ability to produce a variety of tonal colours is vital for their artistic development and expressive capabilities.

The combination of phrasing and articulation is crucial in defining a style or period and the right hand plays the dominant role in this process⁴. Teachers should be able to demonstrate and teach all the different bowing techniques required for the student to produce the desired articulation. Gerber (2008:22) mentions techniques such as legato, détaché, martelé, sautillé, ricochet, louré/portato and staccato. Modern compositions often incorporate special effects

³ Tonal colours or colouring in sound are also influenced by the left hand, that is, vibrato. When authors refer to "colour" in sound, the combination of vibrato and bowing is often implied (Gerber 2008:21).

⁴ Knowledge of and the ability to produce proper phrasing and articulation involves both the right and left hands, although the right hand is more influential in this regard.

such as tremolo, sul ponticello, sul tasto and col legno. There are several etudes and studies composed to develop these technical skills.

One of the most basic aspects of bow control is the ability to cross between strings. Awareness of the different angles between strings enables players to navigate with ease and adjust their bow to best suit the string. Additionally, this awareness plays a key role in creating tonal colour (Gerber 2008:23).

2.3.3.1.2 *The left hand*

The effectiveness of the left hand is dependent on various contributing factors, but specifically strength, flexibility and agility. Gerber (2008:24) considers pure intonation and an appropriate vibrato to be the most important functions of the left hand.

2.3.3.1.2.1 Intonation

The quest for “pure” intonation has been investigated for many years by several authors, teachers and performers, resulting in various methods and exercises being developed, building on each other and independently. Gerber (2008:24) defines intonation as the “quality of a performer’s tuning. This is a subjective measure: what is expressive inflection to one listener may be poor intonation for another”. One should bear in mind that string instruments are not tuned in equal temperament as the piano, and the idea of “pure intonation” therefore becomes a subjective experience.

It is the responsibility of the teacher to make the student aware that what is deemed “correct intonation” changes constantly for a string player. According to Hersch (2002, in Gerber 2008:25), “performers of non-fixed-pitch instruments employ intonation, which is based on the harmonic, melodic and instrumental context of the music being performed”. In other words, string players play in a harmonic and melodic context and are required to adjust their intonation to suit this context. Gerber quotes the cellist Paul Tortelier as follows: “An ear that has been assisted by the knowledge of harmony will be better equipped to distinguish between an A as a leading note to B-flat and an A mediant of F minor” (Tortelier 1975:56, in Gerber 2008:25).

2.3.3.1.2.2 Vibrato

“Vibrato can be regarded as the most essential tool in the string performer’s technique when expression is concerned” (Gerber 2008:29). She (2008) states that factors influencing vibrato such as the speed, width and directional intent of the vibrato have been increasingly

researched since the 1930s. Several studies have been conducted on how vibrato influences the listener's perception of pitch (Geringer, MacLeod & Ellis 2014:19–30; Pope 2012:51–65; Geringer, MacLeod & Allen 2010:351), the initial movement of the hand and the sustainability thereof (Geringer, Allen & MacLeod 2005:260), the relationship between vibrato, pitch and dynamic level (MacLeod 2010:75–85) and various methods of improving it (Thomsen 2012:27–28).

Tone colour changes continuously within a piece and demonstrates the musician's technical and musical ability. Vibrato greatly contributes to the emotional expression experienced through the variety of tone colours audible in a performance. Hence a player's ability to control the speed, width and directional intent of vibrato is crucial. The following was stated in Tim Janof's (2004) interview with cellist Gary Hoffman:

You need to be able to stop and start vibrato at will and be able to alter its speed, width and angle, depending on what colour you are looking for on a particular note. Ultimately one should be able to do whatever the musical demands, and not be forced to do something else because of technical limitations.

Data collected by MacLeod (2010:75-85) showed that both dynamic level and pitch register influence the width of vibrato, whereas vibrato rate is influenced by dynamic level but not pitch register. Using professional violinists as subjects, MacLeod (2010) found that the vibrato used by violinists is wider in the upper register than in the lower register. Gerber (2008:29) found that for cellists, the opposite is true: "In upper registers, a narrower vibrato should be used to ensure that pitch fluctuation is not excessive, whereas in the lower registers, a wider amplitude may be more appropriate."

2.3.3.2 *Styles and interpretations*

A string teacher should be knowledgeable about the different styles and interpretations of notation in order to teach learners to play with stylistic awareness (AMEB 2016:10). This facet of string training would include, inter alia, elements such as period-specific ornamentation, period or historical knowledge, knowledge about the musical instruments used at the time and their characteristics, knowledge of the composer, stylistic phrasing, the role of dynamics, and compositional techniques (ABRSM 2016:8) This ensures a stylistically informed performance.

In his article, Johansson (2015) examines the relationship between instrumental technique and musical style by analysing different approaches to the violin. He states that “technique is constitutive of style and that musical concepts are intimately related to the accumulated experience of sensations associated with handling the instrument in a particular way.” Taking this into account it is clear that technique should always be practised with a musical goal in mind.

Johansson (2015:130) discusses the pedagogical views of violinist Mark O’Connor on instrumental teaching. O’Connor supports the idea that learning how to handle a musical instrument is separate from learning a particular style of playing. Johansson (2015), however, argues that this would mean that the techniques taught while learning a string instrument would be universal and thus be applicable to any musical style. The universalisation of technique and viewing it as separate to style is problematic in itself. The possibility of learning “pure technique” within a vacuum is questionable, as the aim of technique is to reveal the stylistically coded musical content. One could thus argue that it is “... very difficult to distinguish the universal elements of technique from the stylistically specific, and that technique and style are inextricably interconnected” (Johansson 2015:130).

It is necessary to touch on the overlap in terminology among musicians and critics concerning technique and style. It should be stated that “... a certain style of playing (example: The shuffle bowing style in bluegrass) is equally often referred to as a technique (shuffle bowing) without necessarily creating any confusion as to what is being referenced to as technique” (Johansson 2015: 130). Consequently, the technique does not only belong to the style, but is the style.

When learning to play a string instrument, the teacher and learner can choose to seek aid from external syllabi compiled by institutions such as ABRSM and Trinity College. The content of these syllabi are structured in such a way that the technical challenges specific to the instrument are presented in pieces, progressively becoming more advanced. These syllabi are arranged into grades, ranging from one through eight and are extended with diplomas, licentiates and fellowship qualifications. To pass a grade, learners are required to perform a number of pieces, technical exercises, scales and arpeggios, which are provided and organised according to increasing difficulty. However, Alcaraz-Iborra and Mateos-Moreno (2013:321) posit that “questions of style in required repertoire are pushed into the

background and left to the discretion of teachers, with no course book for practising such as in the case of technical exercises”.

These institutions present the selection of pieces within three style specific categories, namely Baroque or Classical, Romantic and Modern. Since one piece is to be chosen from each style, it is safe to say that each piece that is to be learnt has a specific style, thus requiring both special knowledge and technique to perform adequately. Alcaraz-Iborra and Mateos-Moreno (2013:321) argue that simply choosing a piece of music from a specific era does not automatically justify the current didactic shortcomings regarding teaching and learning of style. Alcaroz-Ibarra and Mateos-Moreno (2013:321) recommend a series of properly planned stylistic goals to be instated, serving as a starting point from which instrumental technique may be developed.

In an interview with violin pedagogue, Andrej Bielow, Harding (2014:79) enquired about the teaching of interpretation. Bielow stated that interpretation can, in fact, be taught systematically and that teachers can convey ideas by means of demonstration or verbally.

If a student is creative, I will only demonstrate for a specific purpose – I would rather open their minds so that they can choose which direction to take by themselves. I ask students what they associate with a piece. What they know about its background, whether they have listened to recordings and found out about its tradition – how it can be played now, how it was played by violinists 60 or 70 years ago – and how they wish to make it their own (Bielow in Harding 2014:79).

Bielow does not believe there is a special recipe for a successful interpretation, but an inspiring, creative performance requires a foundation of stylistic knowledge and purpose.

2.3.3.3 *Knowledge and understanding of the teaching and learning process*

The knowledge string teachers require is not limited to their instrumental field or musical interpretation, but also includes an understanding of the teaching and learning process (ABRSM Syllabus 2014:8; AMEB 2016:3 & 9). All three of the institutions require teachers to teach with awareness and to incorporate this knowledge into their teaching strategies. Being knowledgeable and aware of the learning process, influences a teacher’s behaviour in several ways and includes the mapping of expectations, appropriate pacing of content and structuring of information, discussing assessment methods and criteria with learners, self-

reflection and different teaching strategies for teaching musicianship, instrumental/performance skills and different practice methods (ABRSM 2014:8).

The teaching skills of Dorothy DeLay are discussed in an article by Koornhof (2001). He found a combination of three elements that contributed to her success, namely her beliefs, strategy and communication skills. DeLay's knowledge and beliefs surrounding learning have made her one of the most successful violin teachers of her time. Her teaching strategies were built on her beliefs about learning and thus influence her teaching directly. Koornhof (2001:78) lists some of these beliefs in his article and illuminates her thinking behind her teaching strategies. Some of the listed quotations include the following:

People can learn almost anything. You can teach anything if you can figure out how people learn it. Teaching is helping people learn. Learning is becoming more aware. People learn best when they feel successful at it. People learn best when they are having fun. Children become what you tell them they are. The ear develops in leaps ahead of technique. Given enough time and ways of measurement people can learn to do anything (DeLay in Koornhof 2001:79–80).

DeLay structured the learning process of her students step by step with the goal of proving to them that they are able to accomplish their goals. This approach requires teachers to adapt their teaching strategy and patterns of communication to suit each individual student, engaging them with acute awareness and a constructive attitude. Compliments, however small, and positive reinforcement have a direct influence on the student's state of mind and ability to learn. Confidence and pleasure are both the result and the generator of successful learning. By breaking the process down into small steps, suitable to each student, she provides them with a way of measuring their progress, giving them the confidence needed for growth and to feel pleasure about the results (Koornhof 2001:79–80).

Intonation, sound production and phrasing are the three main elements DeLay evaluates to determine the specific steps to be taken. Firstly, the weakest of the three elements in the student's playing is identified with the goal of dissecting it into its most basic "building blocks". After discussing these basic components with the student, she makes them aware of smaller details, gradually working in deeper detail, slowly fix them⁵. This process should be

⁵ She would, for example, focus the student's attention on what can be heard at the beginning of a bow stroke, at the middle, and at the end of it, while experimenting with bow speed, sound point, weight and the amount of hair in contact with the string.

accompanied by a combination of encouragement, playfulness, humour and absolute optimism. The teacher must set up the learning environment in a way that makes it impossible for students to fail (Koornhof 2001:79–80).

If there is no development, the teacher must figure out what in the student's thinking process is the obstacle, and manoeuvre around it. The teacher must know that "what happens in the mind, precedes the functioning of the body" (Koornhof 2001:81).

Another vital element that contributes to DeLay's teaching skills is her ability to communicate in ways that constantly motivate growth and development in her students. This linguistic approach is referred to as "neuro-linguistic programming" (NLP) (Koornhof 2001:82). Her communication focuses on outcomes, rather than problems; the use of presuppositions; skilful and creative use of metaphors, analogies, anecdotes and quotes; and reframing of meaning.

By having an outcomes-based focus, she draws the attention of the student to what is wanted, rather than on what should be avoided. If students do not have goals and the means to accomplish them, they will not practise well. Incorporating a plan with clearly defined steps helps the student remain focused and motivated.

She suggested talking with students about the observable, measurable mechanics of violin playing, like bow speed, weight, sounding point and the amount of hair that makes contact with the string, or the speed of shifting or width or speed of vibrato. When discussing such topics, she uses specific language (words) that they can translate into sensory experience. "The use of specific words linked to observable, measurable phenomena and experiences, are needed to help the human nervous system move towards the realisation of outcomes" (Koornhof 2001:82).

In her article, Koornhof (2001:82) consults Hall and Bodenhamer (2000) on the linguistic meaning of presuppositions: "silent assumptions and paradigms that lurk within and behind words and statements". DeLay uses this linguistic feature to turn a student's limiting beliefs into empowering ones, allowing assumptions about his or her capabilities to become a reality. She would, for example, make matter-of-fact statements like "when you bring the last movement of the concerto memorised next week, we can spend some time looking at the structure", presupposing, that the student is capable of learning and memorising it in a short time.

The problem is that so many teachers are not careful about the language that they use. I really believe children become what you tell them they are. If you tell them they are bone-heads, they will become bone-heads (DeLay in Koornhof 2001:83).

DeLay reports often using a story as a “back door” for knowledge. Reinforcing a point with the use of anecdotes, quotes, metaphors and analogies helps the student internalise and remember the message. Her anecdotes often feature some of her best students (Itzhak Perlman, Gill Shaham, Cho-Liang Lin, Shlomo Mintz and Sarah Chang), employing them as “examples both of what to emulate and what to avoid, portraying them as ordinary people whose achievements are the results of the very same human capacity to learn that we all possess” (Koornhof 2001:83).

The skill of *reframing* is extremely useful to a string teacher. This entails changing the student’s frame of reference in order to give a negative experience a new, positive meaning. For example: “After having just played to DeLay, a student looks worried about his performance. DeLay immediately notices, and says ‘you know, the better you get, the more dissatisfied you are, because you can hear more’” (Koornhof 2001:84). In this example, the student’s dissatisfaction with playing badly is *reframed* into giving it positive meaning of being a sign of improvement. Consequently, in future when the student is dissatisfied with his or her playing, he or she will associate it with improved listening and will be able to fix his or her mistakes. It is essential for the teacher to look for whatever is positive in a situation and use that element to reframe the negative experience into a positive one (Koornhof 2001:85).

The use of language patterns to establish a sense of comfort, ease and confidence, greatly aid the learning environment. DeLay starts her comments or statements when speaking to students about their playing with a first person plural “we” or singular “I”, and later when the student has a sense of belonging, uses the second person singular “you”: for example, “we have two things to remember for next time ...”, “we’re going to practise your bow grip a lot” and “I don’t think we’ve got the right fingerings. Let’s fix it” (Koornhof 2001:85).

Another useful language tip DeLay offers is to avoid commands and advice starting with “you must” or “you should”. Rather start with “you want to” or “can you. Examples would include the following: “you wanna play with a faster bow there”; “you wanna build more energy”; “you wanna keep the bow straight”; and “okay, now, can you get more weight on the bow on these chords?” She softens resistance with words like “could”, “might”, “maybe”

and “perhaps”: for example: “You might want to consider ...”; “Maybe you could think about ...”; and “It’s perhaps more in keeping with the character of the music to do this ...” (Koornhof 2001:85).

From Koornhof’s article (2001:78–86) one can deduce the following: the teacher’s beliefs and approaches to the learning process should be optimistic with an element of fun and humour; students should be treated with respect and care; lessons should be set up so that students cannot fail; and teachers should use language with care and consideration.

2.3.3.4 Repertoire

Familiarity with the repertoire prescribed by the specific institution (as each has their own list of prescribed works for each level) is necessary in order to build up a “library” of these prescribed works, technical studies, technical exercises and more. An awareness of the demands of the works can also enable teachers to compile and compose their own exercises to aid a learner’s path to technical proficiency (ABRSM 2014:8 & 9; AMEB 2016:4). McAllister (2010:17) notes that “... the most successful way to increase students' enjoyment of music lessons is to choose high-quality repertoire that they want to play”.

In her article, Apfelstadt (2000) emphasises the importance of choosing appropriate repertoire and the process of its selection. Although she is a choir expert, her philosophies still apply to string teachers. Teachers’ choice of repertoire reflects their philosophy in terms of what they deem necessary for a student to develop as a musician. Although institutions provide prescribed lists of pieces, it is still the teacher’s responsibility to decide which pieces would best aid students to develop their musical and technical skills (Apfelstadt 2000:19). She describes the following three main criteria for choosing repertoire: the music selected must be of good quality; it must be teachable; and it must be appropriate to the context.

“*Music of high quality*”, as defined by Charles Leonhard and Robert House (1972 in Apfelstadt 2000), possesses craftsmanship and expressivity. High-quality music reflects the “balance of tension and release, structural symmetry and asymmetry, and anticipation and surprise” that contributes to the pleasurable experience of performing it.

“*Music that is teachable*” and of high quality contains the content and expressive qualities required to provide a foundation to work from. Adequate musical content is required for a student to learn musical elements of pitch, dynamics, form, texture and duration. The pieces must also promote the student’s ability to experiment with the shaping or phrasing of music

in performances. The main question that must be asked is whether a piece contributes to students' instrumental proficiency and whether it makes them better musicians for having learnt it (Apfelstadt 2000:20). Teachable elements extend to the repertoire's function of accommodating a student's technical readiness, maturity and expressive capabilities (Apfelstadt 2000:19).

The two aforementioned principles can be present in music, but it is imperative to also select "*music that is appropriate to the context*". If a syllabus such as that of ABRSM or Trinity College is followed, it is important to abide by their rules and selections of repertoire (their repertoire lists are available on their websites online). The repertoire list automatically places a piece in one of three categories, distinguishable through different styles (Baroque or Classical, Romantic and Modern). If such a syllabus is not followed, the difficulty level and diversity of the chosen repertoire must be taken into account.

Above all, the teacher should be committed to teaching the repertoire well, believe that the student can learn the piece, given time and effort and be convinced that it is contributing to the student's development (Apfelstadt 2000:19). In an interview with Pauline Harding (2013:89), violin and viola pedagogue Michael Klotz makes a significant comment that one of his most frequent problems in lessons with more advanced students is their lack of knowledge concerning the work they are playing. Students are often unaware of the orchestra's role and how their part fits into the music. Knowledge about composers, their significant works and dates of compositions help the student place the work in its context and contribute to interpretation and style awareness (Harding 2013:89).

In his article, Van der Watt (2001) describes the factors he considers essential in choosing repertoire for the beginner violin student. Assuming that it is the beginner student's first encounter with formal music training, the impression that the chosen repertoire makes can have a lasting influence on his or her musical mindset. Taking this assumption as reality, Van der Watt places the influencing factors into two categories, namely musical and meta-musical considerations (Van der Watt 2001:23).

The first and most important musical consideration is titled *idiomatiese skryfstyl (idiomatic composition style)* – in other words, compositions that demonstrate the exclusive features or characteristics of the violin. Van der Watt names the following four elements: (1) certain types of figurations (fast string crossings or arpeggiando passages); (2) certain types of

technical effects (tremolo, saltato, ricochet, pizzicato, double stops, sul ponticello and col legno); (3) certain sonorities which are possible thanks to the open strings of the violin (the harmonic tones of each string or the resonances originating from other open strings vibrating along with the played note); and (4) certain key signatures (specifically key signatures with sharps) (Van der Watt 2001:23). By choosing a composition with these idiomatic elements, the characteristics of the violin can be introduced to the beginner student and inspire and strengthen the relationship between the student and the instrument.

The second important musical consideration mentioned by Van der Watt (2001:32) is titled *technical factors*, which recommends that the choice of repertoire should fall within the technical capabilities of a beginner. Van der Watt investigates what this would entail for the beginner's left hand, and finds that the most basic finger position, namely creating a whole tone and halftone formation (first and second finger apart and second and third close), is best suited for a beginner. Concerning the right hand, the bow should remain on the string, avoiding, for example, spiccato. Hence the technical challenges should be simple enough for the beginner to be able to play the piece flawlessly. According to Van der Watt (2001:36), the positive experience of playing a piece flawlessly results in a feeling of accomplishment and satisfaction. It also inspires an ethos that a piece can be played perfectly, that the goal should be to play a piece perfectly and that it is possible to achieve this goal.

The third musical consideration discussed by Van der Watt is how the general musical insights of the beginner can be expanded. *Music theory factors* include the combination of melody, harmonic progressions and movement, voice leading, contrapuntal techniques and aspects of compositional form. The piano accompaniment should harmonise well with the violin melody line and include various chords and progressions. The presence of different time and key signatures marking different sections within a piece contribute to the beginner's insight of musical form (Van der Watt 2001:24).

Van der Watt also investigated the meta-musical considerations that overlap with the physical aspects of playing and the presence of concepts influencing the thought process and creative development of a student. This would include programmatic elements, psychological elements and life philosophy elements (Van der Watt 2001:24).

The programmatic elements refer to the descriptive and storytelling aspects of a piece that affords students the opportunity to use their imagination (Van der Watt 2001:25). The

imagination process can be put into action through the descriptive elements of a piece. Van der Watt breaks these elements down into the *visual*, *aural* and *sensory* aspects of a programme (Van der Watt 2001:25). The *visual aspects* refer to what children “see” in their imagination when playing a piece with the emphasis on the colours present in a scene. The *aural aspects* would refer to what might be heard if the child was placed in this scene (waves breaking, canon fire, birds singing, a lion roaring or whatever might be present in the piece’s context). The *sensory aspects* include the sensation of smell or taste (sea salt, smoke, fresh air, flowers, etc.). Making students aware of these factors contributes to their experience of the music and the way they express their ideas about it.

The storytelling elements discussed by Van der Watt focus on the form of a piece (ABCA for example). The A section might be the introduction of a positive scene or activity; B being in a minor key implying some sort of antagonist action; C being light-hearted, hinting at something positive; and arriving back in the A section indicating that everything is alright again. The goal is to make a student aware that musical form is simply a way of structuring the unfolding of a story or idea.

The closely related *psychological elements* and *life philosophy elements* touch on the student’s ability to associate real-life experiences with musical ones. By continuously associating happy memories or thoughts with musical pieces, practising music becomes a joyful and enriching experience for the beginner. In the ABCA form example above, the student experiences and expresses the joyful A section, but also reflects the sadness expressed in the B section, which is in the minor key. The return of the happy A section, however, affirms an optimistic attitude.

2.3.3.5 Aural development

In an interview conducted by Cynthia Darling (2014:51–53) with Laurie Scott, an associate professor at the Butler School of Music, one of the principal aspects of learning a string instrument is discussed, namely aural development. In the interview, Scott describes how she develops the aural skills of beginner string players and emphasises that teachers are fully responsible for guiding students during the beginning years. She states that students do not form bad habits if the teacher does not allow them to. Aural skills and intonation should be taught to be flawless from the outset. Teachers often fail to set an appropriate pace for beginners and think that intonation will improve later. Scott states that “we need to make

intonation as important to students as it is to us,” and that it is a common misconception to assume that a four-year-old cannot play in tune.

In another article by Darling (2012:52) she consulted the cellist, Matthew Rotjan, on methods to improve intonation. Rotjan concurs with Scott in saying that it is the teacher’s responsibility to train students to recognise out-of-tune playing. He goes on to say that if students are not aware that they are playing out of tune, they will not be able to fix it. Teachers should thus develop their aural awareness and tonal sensitivity. Rotjan recommends recording students and then analysing their playing with them, to identify and reflect on their mistakes and promote their listening skills. Rotjan remarks that the aural development for bass players is essential because the whole orchestra tunes to the bass section. Since the space between the finger positions of bass instruments is wider, there is more room for error, and this therefore requires special attention (Darling 2012:52).

Rotjan also uses the concept of “ringing tones” to help students understand the concept of intonation. He explains to his students that when they play a fingered D and it is well in tune, the open D will ring along with it. This “ringing tones” method is exclusive to string instruments and especially useful in teaching because it serves as a visual indicator to the student. “Having something concrete to focus on helps students grasp a concept that would otherwise be hard to pinpoint” (Darling 2012:52).

Scott notes a significant relationship between intonation and tone, which can only come to realisation through developed aural skills. “Good intonation cannot become a honed performance skill until a student has achieved a consistent and characteristic tone quality on his or her instrument” (Jagow 2012:35). Improving intonation results in better tone, and vice versa (Darling 2014:51–53). Rotjan also advocates this principle (Darling 2012:52):

Tone is very closely related to pitch. If we produce a poor quality of sound, then we can't produce a good pitch because it's also related to resonance. If we play with a scratchy sound, for example, then we can't hear the pitch accurately, (...) because it's also related to resonance.

Scott adds that an imperative skill that goes hand in hand with aural skills, namely that of kinaesthetic memory, refers to finger placement and pitch. The overall shape of the left hand and position of the arm should be enforced, demonstrated and explained extensively. Students should know how their first finger fits on the finger board and how the arm approaches the

neck, otherwise they will have to rediscover the correct position every time (Darling 2014:51–53). The action⁶ of the hand coming to the instrument should be the same each time.

In Harding's (2013:89) interview with Klotz, he mentions that when encountering intonation problems or rhythmical challenges, he makes his student sing the interval or speak in the rhythm. He believes this helps students to internalise it and then they can transfer it into their playing. Other methods of improving intonation recommended by Klotz are to isolate and break difficult passages apart and to analyse them from a theoretical point of view. Thinking about music harmonically, listening and relating the non-chordal notes to the chordal notes, talking about the intervals and adding double-stops, helps the student to hear the intervals in context. He helps his students identify the modulations in a piece and then they play the scales of the applicable keys. To further enhance intonation, he discusses with his students how tight they want the intervals to be, by taking into consideration that in certain keys they might want the leading note to be a little higher in order to colour the sound. Klotz mentions how essential it is for students to have a firm grounding in music theory and that he can hear a difference between students who do and do not (Darling 2013:89).

The scale system by Carl Flesch (1929) is recommended to students who struggle with intonation. Klotz emphasises the three-octave scales and arpeggios as listening exercises and encourages his students to occasionally experiment with the pitch (to play a C sharp a little out of tune, for instance, and listen to what happens). Klotz also recommends Sevcik op. 8 exercises for shifting, planning movements and anticipating intervals internally (Darling 2013:89).

Much debate exists about the use of tape on the fingerboard to help with intonation problems. Scott believes that tape can help to form the basis of the physical position, but would only recommend this in large group contexts. She cautions, however, that the ears must remain the dominant tool to find the pitch (Darling 2014:53).

2.3.3.6 Professional values and practice

Professional values and practice form part of each teaching syllabus and are not only applicable to general educators working with large groups. Since instrumental teachers are primarily working on a one-on-one level with individuals, the classroom setting is more

⁶ Rather than seeing finger placement as a static placement, Scott sees it as an action. "It's the motion of the fingers on the fingerboard in the beginning, and the fact that you are moving and adjusting your finger on the instrument." This is what helps students develop this sense of proper finger placement and therefore pitch.

personal and intimate (Notfall 2012:17). Many string teachers argue that physical interaction between the teacher and student is required to effectively explain and feel a physical action such as bow movement, hold, relaxed hands, correct posture and more, and to prevent injury. Hence teachers' awareness of the correct ethical and legal framework when it comes to teaching is crucial. Child protection, maintaining a safe learning environment, the physical well-being of learners and equal opportunities for all learners are topics that are covered in the professional values and practice modules (AMEB 2016:7).

In some countries and schools, physical interaction is under dispute, and some prohibit touch completely while others encourage it. In the ethical conduct codes and handbooks of the United Kingdom, for example, attention is drawn to this, specifically for music teachers. It is stated that the teacher must "be aware of the potential dangers of being alone with a learner (in particular under the age of 18 years of age) in a private or isolated situation" (General Teaching Council for Scotland 2012:7). Contradictory to this warning, the National Union for Teachers (NUT) (2013-4), whose authority applies to teachers in Wales and England, published guidelines for teachers and their rights, including a section on physical interaction:

The advice which applies to academies, free schools, independent schools and all types of maintained schools states: "It is not illegal to touch a pupil. There are occasions when physical contact, other than reasonable force, with a pupil is proper and necessary" (NUT Notes 2013-4:6-7).

The NUT then continues to give examples of where touching a learner might be proper or necessary. One of these examples would be "To demonstrate how to use a musical instrument".

Despite this statement, several institutions employing music teachers, and many music teachers themselves, have expressed their fear of legal action from parents when students misinterpret their teacher's physical interaction as inappropriate. Even though it might be false or a simple misunderstanding, child molestation and abuse charges can ruin an institution's credibility and an individual teacher's career. In an attempt to protect teachers, the General Teaching Council for Scotland, warns teachers to be wary of these misinterpretations and the paranoia of parents.

For music teachers teaching privately,

... particularly in the residential setting, relationships tend to be less formal and the environment is very different from that in an educational establishment. You should not allow yourself to overstep the professional boundaries and remember the professional standard of behaviour expected of you ... (General Teaching Council for Scotland 2012:7).

An outcry in social media concerning physical touch in schools has raged on in newspapers and online news for years. An article appeared in *The Telegraph* (Harrison 2008) urging music teachers not to touch their students to avoid allegations of abuse. The article reports on a cello teacher being told by a school's child protection officer to stop touching learners when showing them how to hold the bow.

The guidelines from the Musicians' Union have prompted an angry response from teachers who claim that some contact is essential, when showing a child how to hold an instrument. A spokeswoman from the Musicians' Union stated the following:

A cello teacher should have a cello to show a pupil what to do. There should be no need to touch. Any physical contact with pupils can be potentially subject to misinterpretation or even malicious allegations. The best advice for instrumental teachers is to avoid physical contact with their pupils altogether (Harrison 2008).

In response to this statement, Diana Lyness, the head-teacher at Kew College Prep School in southwest London and a Royal College of Music graduate, stated that prohibiting all physical contact with students would hinder the musician's ability to teach effectively. Lyness commented as follows: "It's bad for the child and bad for the teacher. Children need to have their fingers placed on a keyboard or a guitar to show them how to play" (Harrison 2008).

Neil Watson, former double bass player with the Royal Philharmonic Orchestra had the following to say in this regard: "I cannot imagine teaching music without touching the child's hand. I have to touch children to put their hand in the right position for playing the instrument. The stupidity of it is that you could spend a whole lesson telling children what to do with their hands but if you take hold of them you can show them in two seconds" (Harrison 2008).

In an article posted in The Atlantic, Lahey (2015) makes the following observation:

Society's well-intentioned attempts to shelter children from the possibility of inappropriate touching have deprived teachers of an important teaching tool and children of an essential sensory, educational, and developmental experience.

The National Association for the Education of Young Children, labelled the "no-touch policy" as a "misguided" and "destructive" movement that fails to recognise the importance of touch to children's healthy development. The organisation stated that schools and other institutes "should not institute no-touch policies to reduce the risk of abuse" (Lahey 2015).

An article on FOX News online reported on a recent case in the United States involving a music teacher abusing his piano students, which has drawn fresh attention to the discourse (Waltz 2015). With the rise in online lessons, the necessity of physical touch has come into question. *Performativity, materiality and time: Tacit dimensions of pedagogy*, edited by Anja Kraus, Mie Buhl and Gerd-Bodo von Carlsburg (2014), contains a compilation of essays discussing the virtual teaching environment. *Teaching performance in performing arts: Video conferencing at the highest level of music education* by Mie Buhl, Rikke Ørngreen and Karin Levinsen (2014) is one such essay providing information based on empirical research.

Buhl et al. (2014) found various challenges in virtual teaching, but came to the conclusion that it is possible and a viable, successful medium to teach over distance. Amongst the challenges discussed, they mention the material challenges, referring to the physical interaction between teachers and students, such as physically adjusting the student's posture when singing, adjusting the student's fingering or tuning a string on the student's instrument (Buhl et al. 2014:34).

They report that the teachers involved in the research expressed different views on the possibilities of teaching their instrument virtually. String teachers seemed to be the most adaptable to the medium. "We found that it seems to be advantageous if the teacher and the student see each other from the front due to the close proximity of the string instrument to the body, as then the hand of the other moving on the string is visible for them" (Buhl et al. 2014:34).

The importance of eye contact is supported by a cello teacher who participated in the study, but reported that there were "forms of activity in the tactic dramaturgy of conventional music teaching, which cannot be used". The cello teacher experienced this as a loss, as she "could

not point, write or demonstrate physically what was to be done while the student was playing, the student had to examine the score and independently propose suggestions verbally and through the instrument". The cello teacher also mentioned that there are "a large number of actions and corrections regarding the student's physical technique that are impossible to do at distance". The challenge is that corrections have to take place verbally, thus requiring the teacher to translate knowledge, which is normally communicated physically, into speech (Buhl et al. 2014:34).

Another study investigating online teaching by Brändström, Wiklund and Lundström (2012) found that the general feedback from contributing teachers and students was positive. Informants experienced the distance-learning situation as a "fruitful complement to face-to-face teaching". According to Brändström et al. (2012), the most challenging facet for teachers involved in the study was playing together with the student or marking the rhythm, due to the time delay. "The results suggested that video-conference teaching is more intensive than face-to-face teaching and requires both thorough planning and readiness to improvise during the lesson" (Brändström et al. 2012). Other sources affirming online teaching include Britt (2015), Kentnor (2015), McLain (2014), Ojo (2012) and Roux (2015).

2.3.3.7 Knowledge of physiological and psychological impact upon learning processes and performance of learners

Making music is an extremely demanding activity, requiring an intricate balance of mental, expressive and physical well-being. This is especially true for professional musicians, who practise for hours every day, expecting a high level of performance from their minds, hearts and bodies (Nolet 2013:435). The effects of this stress are, inter alia, in the form of injuries, pain and anxiety.

In *The musician's body and mind: A maintenance manual for peak performance*, Jaume Rosset i Llobet and George Odam (2007) discuss the physiological and psychological effects musicians encounter as a result of to industry-related injury and illness. Topics include ergonomics, risk factors, posture, breathing, matters of diet and accommodation of professional needs in daily life.

Performance-related injuries are often linked to the impression that "if you are having trouble, you are probably not good enough, so you'd better keep silent about it" (Rosset & Odam 2007:viii), and have caused tremendous damage and cut careers short.

There is an unspoken misperception that it is necessary to suffer for the cause of art, to believe in no pain, no gain, and also that it is unprofessional not to work to the limits of endurance (Brisbane 2006 in Rosset & Odam 2007:viii).

In a recent study, Chong (2015) noted that “84 percent of professional symphony musicians experienced an injury that affected their ability to perform during their lifetime” and that 50 percent percent hurt while playing at any given time”. Although clinics do exist catering specifically for music-related medical problems, many young musicians, their teachers and institutions do not consider the physical or psychological aspects as serious matters.

Rosset and Odam (2007) and Chong (2015) believe that this unawareness and/or attitude is possibly present due to a lack of both knowledge and reflection, accompanied by the misperception that physical discomfort is linked to inability and musical incompetence. In combination with these shortcomings, music teachers often lack the training and knowledge to address specific physical problems, instead giving their students general comments concerning their injuries. Rosset and Odam (2007) advocate that all musicians should cultivate an awareness of their mental and physical well-being in order to perform optimally.

2.3.3.7.1 Physiological aspects

“It is known that if damage is done, it is most likely to happen during extended periods of practise” (Rosset & Odam 2007:vii). Musicians spend hours in practice rooms preparing for performances⁷, often unaware of the necessity for physiological preparation. Similar to athletes, musicians’ bodies should be trained to handle the demands of playing, and they should continuously strive to improve their performing ability and quality through effective physical preparation (Rosset & Odam 2007:1). They (2007) advocate the importance and awareness of physiological and psychological well-being, and urge all musicians to educate themselves on these matters. This education should start with teachers who cultivate an awareness of physical and psychological well-being in order to optimise their students’ performance.

2.3.3.7.1.1 Muscle fatigue

Fatigue functions as a defensive mechanism that attempts to inhibit the potential injury of excessive activity. The cause of muscle injury is often overuse and misuse, and/or failure to stretch and warm up correctly before playing (Guptill & Zaza 2010; Nolet 2013:436 & 437;

⁷ “By the time they turn 21, top violinists will have engaged in at least 10 000 hours of formal training on the violin, in addition to their normal schooling” (Nolet 2013:435).

Leijnse 2015:109). It “... must be interpreted as the inability of your muscles to maintain the same intensity of effort.” According to Rosset and Odam (2007:3), the following three factors influence the level of effort:

- the intensity of the performance;
- the speed of the movement; and
- the length of the performance.

Hence if players perform with great intensity and speed, they should do so for a shorter period of time in order to compensate for muscular fatigue and also take regular breaks. Owing to the high injury statistics noted by Chong (2015:25), orchestral players in particular should heed these factors, as they often lack control of rehearsal schedules and are required to play for long periods of time. Nolet (2013:437) states that orchestral playing “is the physical and mental equivalent of a professional sport”. Rosset and Odam (2007:3) recommend that players should keep this in mind during their own practice sessions and adapt their warm-up routines to suit the intensity of the rehearsal or performance – hence the importance of stretching, relaxing and breathing exercises during small breaks.

The muscles and movements employed by instrumental musicians are smaller than the ones used for sport, resulting in delayed detection of pain and discomfort (Rosset & Odam 2007:3). For example, for the left hand of a string player

... the pressure that a string player exerts on a string is extremely important, and it should be noted that the subtleness with which the string is released is perhaps more critical than the actual pressure on the string. Excessive finger pressure is one of the most common technical errors (...), and one that can give rise to considerable injury (Nolet 2013:436).

Other factors influencing fatigue are not always muscle related. These factors include insufficient sleep, the lack of a balanced diet, an inactive lifestyle and the existence of concurrent diseases (Guptill & Zaza 2010).

The player should have a constant awareness of his or her body by concentrating on muscle sensations that might portray tension, stiffness, reduced performance and a feeling of tiredness during or after playing (Rosset & Odam 2007:3). These sensations can intensify hours after playing or even the next day, resulting in a misguided diagnosis that is unrelated to instrumental practice. In response to these sensations, musicians must change their

working pace, intensity and duration to compensate for muscle loads, through specific exercise, and reassess the physical and psychological conditions in which they are working (Rosset & Odam 2007:3).

2.3.3.7.1.2 *Practising mindfulness in situations of physiological risk*

a) Taking care of the body

Most professional musicians recognise that they face large workloads and that repetition is a huge part of the learning process and practising. It is therefore essential to encourage students to take care of their bodies and respect their limits. With the drive most music students possess, this process can quickly become more demanding than expected and discreetly exceed the coping limits and tolerance of the body (Rosset & Odam 2007:24).

Musicians should use common sense when it comes to their health. They should not practise or perform with an injury, or when they are over-tired, ill, sleepy and lack fluids, among other things. Discomfort and pain are the body's way of communicating to the musician that there is something wrong that needs his or her attention, and that he or she should stop the action that is causing it (playing). Hence if musicians take painkillers to eliminate these warning signs (pain and discomfort) to keep playing, they actually worsen the problem area (Rosset & Odam 2007:27).

b) Asymmetric compensation

Bodily imbalances⁸ when playing can adversely affect the muscles, tendons, joints and spinal column, resulting in reduced efficiency leading to aches, pains and muscle fatigue. The recommended solution is to exercise the inactive body parts, and to ensure that posture or ways of holding the instrument are not adding to the imbalances (Rosset & Odam 2007:25).

c) Flawed technique

Owing to the enormous variety of anatomies, there is no single technique that suits every musician. However, one of the most general faults noted by Rosset and Odam (2007:25) is poor control of tension and effort. Nolet (2013:435) noted that 40 percent of musicians suffer as a result of a compromised technique. The author also notes the importance of choosing the appropriate repertoire, stating that some compositions are physically more challenging and might not suit the musician's body shape and characteristics. This is not to say that these compositions are to be avoided, but rather that they require specialised preparation, such as

⁸ Unbalanced weight.

specific stretching, regular breaks and spending more time on warming up and cooling down (Rosset & Odam 2007:26).

The student and teacher should analyse the natural advantages and limitations of the student in order to make informed decisions about appropriate technique and repertoire, best suited to the student's technical, physical and psychological abilities. "Use your energy to play with and not fight against your instrument. Work on your relaxation so as to achieve the very best economy of effort and movement" (Rosset & Odam 2007:26).

d) Suitable instrument fit

Musicians are often forced to adjust their bodies to fit the instrument, for example, playing on viola that is too large, a violin student with a long neck not compensating with a chin rest or a cello endpin that is too short (Rosset & Odam 2007:26).

Unfortunately, the majority of musicians unintentionally adopt unhealthy postures, and the instrument can act as a mask, making a poor posture appear more aesthetically pleasing (Rosset & Odam 2007:26).

It is possible for an instrument maker to make modifications to the instrument in question. There are also a wide variety of accessories available to assist players with their posture, sound production and overall fit (Rosset & Odam 2007:27).

e) Poor environmental conditions

Environmental circumstances, such as temperature, humidity or acoustics, play a significant role in a performance and a musician's health, especially over an extended period of time. For example, excessive cold makes subtle movements of the fingers difficult and noisy venues or venues with poor acoustics make it difficult for a musician to hear their sound correctly, causing them to play louder in order to compensate (Rosset & Odam 2007:28).

f) Carrying and holding an instrument

When transporting an instrument, regardless its weight, size or shape, musicians should take precautions to prevent physical strain and injury. For example, carrying a cello for "half an hour by gripping the case handle with your hand, can involve an increased load on the forearm muscles that is greater than several hours of instrument practice" (Rosset & Odam 2007:28). Instead, the instrument should be carried on the stronger back muscles (not shoulders) where the weight can be more evenly distributed by using wide straps to avoid

burdening the delicate muscles of the hands. If this would not be possible, the hand carrying the instrument should be switched regularly.

g) Other daily activities

All the activities performed in daily life have an influence on the player's performance and must be taken into account. The way a child is picked up or held, the position of a computer and the height of the chair, the amount of time spent writing or holding a phone, cleaning or the type of pillow one uses can all influence the physical condition of the musician. Musicians carrying out these tasks with bodily awareness will be better equipped to adjust their actions to avoid risk or injury (Rosset & Odam 2007:29).

h) Psychological aspects that influence the physical

Musicians' ability to perform and handle workloads is influenced by their mental state, anxiety levels, and personal, family or work-related problems. The influence of psychological factors on a musician's physical actions can lead to injury (Rosset & Odam 2007:29). Perfectionism, determination, sensitivity and introspection are valuable characteristics for a musician, but these attributes may become dangerous when obsessiveness takes over. Expecting improvement by obsessively repeating something with the same method, not only leads to physical injury, but also to mental exhaustion and low self-esteem. Recommendations include changing the approach and finding new or alternative methods, practising in smaller sections and being creative (Rosset & Odam 2007:30).

2.3.3.7.1.3 Posture

In-depth knowledge of proper posture is imperative for teachers as they have the responsibility to correct and encourage continuous awareness thereof in their students. The most effective posture is specific to each individual and can be achieved by balancing the weight of the body to distribute muscle support and avoid unnecessary overloads. "Whatever life requires you to do, you need to learn to avoid subjecting your body to undue effort and stress, risking injury that could threaten your continuing ability to perform" (Rosset & Odam 2007:33). The three basic principles of posture, according to Rosset and Odam (2007:34) are verticality, stability and muscle/joint balance.

a) Verticality

To understand this principle, the musician should imagine a vertical line passing through the centre of the body, starting from the nose, moving through the chin, sternum, navel and pubis and between the knees and ankles. An additional two lines should be kept in mind, moving

down from the ears, through the shoulders and hips, and if in a standing position, this line should be continued down to the ankles (Rosset & Odam 2007:34).

Viewed from the front, the spine is in a straight line, while from the side it should follow its natural curves. Exaggerating these curves causes unnecessary pain and tension. Encouraging a good symmetrical, vertical balance improves a student's energy and feeling of coordination (Rosset & Odam 2007:34).

b) Stability

According to Rosset and Odam (2007:34), “a weight-bearing [*sic*] joint is only mechanically balanced if the weight passes exactly through its load axis”. The authors maintain that the position of the feet is important to ground the body: The feet should be slightly apart and face forward or slightly outward, distributing the weight evenly throughout the soles of the feet, and the knees should not be locked while standing and playing. Another vital mechanism is the pelvic bone. For example, when it is “rolled” forward or backward, its position influences how the spine curves and it changes the compression in the spine (Rosset & Odam 2007:35).

c) Muscle and joint balance

With age, the abdominal muscles weaken and the muscles at the back of the thigh⁹ become shorter and carry more tension. This weakening and increase in tension could have a negative impact on posture. The importance of counteracting this process through appropriate exercise and stretching that target these areas is reiterated by many authors in the fields of sports, medicine and occupational health.

Research conducted on joint pain by Silvestri and Ferrero (2012:89–92) found that joint pain can occur when the body part is in an unnatural position. The authors recommend that the finger joints should be slightly bent, forming arches between them, with the wrist at an intermediate¹⁰, relaxed position. Rosset and Odam (2007:36) caution that “when the joints are forced into extreme positions, tension is placed on the ligaments and this increases the rubbing of tendons passing through the area”. They (2007:37) recommend the following for good posture for *standing* (adjusted for violinists and violists:

- Think of the imaginary vertical line passing through the ear, shoulder, hip and ankle.

⁹ Named “hamstrings”.

¹⁰ A position between pronation and supination.

- Because the head is proportionately the heaviest area of the body, a proper vertical position is vital. The axis of the head must be vertical. The head must not be pushed forward or twisted, as this creates tension and disequilibrium in the muscles and compresses the spinal structures.
- The shoulder should not be pushed forward, closing the chest. Instead, separate the shoulders from the ears and slide the shoulder blades back. Keep them in a symmetrical relation, avoiding tension or raising, even when holding the violin or viola. Tensing the shoulders is a common way to indicate alertness through the body, thus a player must learn to be in this state but with maximum shoulder relaxation.
- The hands and fingers, thumb included, must be curved as though a tennis ball is being held in the palm.
- Lifting the ribs allows for more efficient breathing and discourages hunching¹¹.
- Good position of the pelvis and legs reduces strain on the spine and muscle overload caused by over-accentuating the natural lumbar curve.
- The knees should be slightly bent without tensing the legs.
- The feet should be slightly apart and although a separation of less than 45 degrees is acceptable, it is preferable for them to be parallel. Position the feet firmly on the floor, with an even distribution of the body weight: half on each leg and equal distribution between the ball and heel of each foot.

Rosset and Odam (2007:38) recommend the following for good posture when *sitting* (adjusted for cellists):

- In sitting, imagine a vertical line passing through the ear, shoulders and hip.
- Although a slight inclination is acceptable (10 degrees), avoid looking at the floor since this is a sign that the chin is being tipped downwards. Instead, the eyes must be fixed forward and kept on a chosen spot.
- Maintain natural curves without exaggerating them all.
- Notice the presence of strong facial expression to indicate alertness and aim for the most relaxed state that allows a feeling of comfort. Clenched jaws and grinding teeth are signs of tension that can become habitual and often go unnoticed. They add considerably to the overall tension in the head, neck and shoulders.

¹¹ A forward and downward bend of the shoulders.

- The chest/torso must remain vertical, and avoid twisting and bending either forwards or backwards.
- Keep the chest “out of the stomach”¹² and maintain the natural lumbar curve. This assists breathing and avoids tension.
- The muscles of the forearm must be relaxed, especially during quick, difficult passages.
- The elbows should only be slightly in front of the body.
- The body weight should rest only on the ischium¹³ and not on the sacrum¹⁴. This allows better control of the position of the back and more freedom of movement, since the player can shift his or her weight from one ischium to the other.
- Avoid excessive compression of the diaphragm and abdominal muscles.
- Ideally, the knees should be at an angle of 90 to 120 degrees, with the hip positioned slightly above the knee. An appropriate chair is thus essential. It may be helpful if the seat of the chair slopes forward by 15 to 20 degrees.

d) The chair of a cellist

All string players make use of chairs, but the cellist, not having the option to stand while performing, has to have considerable knowledge about sitting posture and the ability to apply it. The spinal column is subject to greater loads of weight when sitting for extended periods of time, which could result in back pain. It is recommended that cellists should refrain from collapsing their back into the chair during breaks, and should instead stand up or walk around (Rosset & Odam 2007:39).

The chair itself must be long and wide enough to fully support the thighs and hips, with the knees resting at an angle greater than 90 degrees. Hence the height of the chair seat should be two to five cm higher in relation to the knee (Rosset & Odam 2007:39). Good posture while sitting requires the lumbar curve to stay in position with the help of the back muscles. Because the spine is connected to the pelvis, if the pelvis is not balanced¹⁵, the curves of the spine become unnatural, causing the body weight to move behind the point of support on a chair. A chair that has a slightly inclined base helps to keep the spine in position. A slope of

¹² Bending or slouching the upper body forward, allowing the ribcage to lower into the abdominal area.

¹³ The ischium forms the lower and back part of the hip bone (os coxae). Situated below the ilium and behind the pubis, it is one of the three bones that forms part of the hip. The superior portion of this bone forms approximately one third of the acetabulum (Singh 2015).

¹⁴ A large, triangular bone at the base of the spine, that forms by the fusing of sacral vertebrae (Ullrich 2016).

¹⁵ Rocking backwards.

approximately 15 to 20 degrees towards the front of the chair aids the player and prevents compression of the abdomen. If a sloped chair is unavailable, it is recommended that the player should sit at the front of the chair (Rosset & Odam 2007:39–40).

2.3.3.7.1.4 *Instrumental adjustments for string instruments*

Musicians are often hesitant to make changes to their instruments and some purist teachers prohibit any modern aids. Others have the misconception that ergonomic¹⁶ aids are exclusively for beginners, musicians with disabilities or that it is a sign of poor technique. Ironically these accessories have been designed to improve skills and prevent injuries (Rosset & Odam 2007:45). Removable parts for instruments, as mapped out by Rosset and Odam (2007), and shown in table 2.2, help to fit the instrument to the musician. The authors have identified solutions and the potential problems of using these aids (Rosset & Odam 2007:46).

Table 2.2: Problems and solutions when using aids.

Violin and viola		
Problem	Solution	Possible drawbacks
	Chin and shoulder rest	
Neck bent and rotated to the left. Left shoulder raised and held forward. Tension in the shoulder muscles with a reduction in left-hand dexterity. Pressure on the jaw and problems with mouth articulation. Reduced freedom of movement in the left hand, especially in high positions.	Amongst other things, different thickness of wood, plastic, foam and inflatable pillows can be placed between the violin/viola and the shoulder or chin to make it easier to hold the instrument without lowering or twisting the head.	Inhibits interpretation and expression as the musician's body is in a fixed position. Interferes with the connection between the musician and instrument. Affects the tonal timbre. Damages the instrument.
	Chin-rest cushion	
Poor fit between the area around the chest rest and the jaw. Pain in the jaw or on jaw articulation.	It is possible to buy a contoured gel pad that attaches via peel-and-stick adhesive to the chin rest.	Jaw pain may be the result of poor posture or tension, which the cushion camouflages but not solve.

¹⁶ “The applied science of equipment design intended to maximise productivity by reducing operator fatigue and discomfort. (Manchester 2006:157).

Cello		
Problem	Solution	Possible drawbacks
Chest rest		
The cello's neck is too far back.	This attaches to the cello's purfling ¹⁷ corner by means of a "bracket" similar to that of a chin rest. The device extends from the back of the instrument and rests against the player's chest, holding the cello away from the body.	Makes the instrument unstable.
The left elbow is too bent.		The right hand is further from the body making the right shoulder work harder.
Removable peg		
The cello's tuning pegs interfere with the correct position and mobility of the head.	Removable tuning key for the G and C strings is available that allows one to tune the cello and then remove the bulky part of the peg that protrudes from the peg box.	Fear of losing the tuning peg.
To avoid this, the bow has to be held at an excessive distance.		

Rosset & Odam 2007:46

2.3.3.7.2 *Psychological aspects*

Many studies have been conducted to determine the psychological factors that influence the quality of a musical performance. A teacher's ability to interpret a student's state of mind is essential to facilitate effective learning (Killen 2013). In this subsection, literature discussing factors such as anxiety, relaxation and visualisation are investigated to determine the extent to which a string teacher can prepare students for solo, chamber or orchestral performances.

Performing from memory is a requirement for soloists. The challenge of performing extensive programmes from memory can be a daunting task that could contribute to anxiety. Memorisation is a crucial skill that needs to be mastered, and merits discussion in the section below. The teacher plays a vital role in guiding a student to become a full-rounded, confident performing artist. This role is multifaceted. McDuffy (1997 in Koornhof 2001:78) refers to DeLay as a "full service teacher" who played "many roles, from teacher and coach, to psychologist and career manager ...".

2.3.3.7.2.1 *Memorisation*

Performing solo repertoire from memory is expected from violin, cello and piano players in particular (Mishra 2016:15). Mishra (2016:14) investigated musical memorisation from a historical point of view. Originally performers playing from memory were viewed as arrogant and pretentious, but over time it became the fashion and is standard practice today (Mishra

¹⁷ A narrow decorative edge inlaid into the top plate and often the back plate.

2016:12). Over time, the discourse concerning the enhancement of memory, shifted away from critics and towards the pedagogues. They concurred that children can and should learn to play from memory. One of Liszt's students, Theodor Leschetizky (1830–1915), developed a memorisation method containing teachings that are still in use today. Leschetizky's method involves a slow, concentrated mental memorisation process, by mastering one bar or phrase at a time before adding another (Mishra 2016:14).

According to Rosset and Odam (2007:8), the memorisation process can be divided into the following three stages: acquisition, storage and recovery, and use of musical material. Each of these stages is critical to cultivate the ability to recall information successfully.

Acquisition involves the use of the player's senses to learn new information where sheet music (sight), listening to recordings (aural abilities) and muscle movement training (kinaesthetic abilities), inter alia, are incorporated (Rosset & Odam 2007:9).

Storage happens when the musician concentrates on the information and makes an effort to understand and internalise it. The quality of storage increases through repetition over extended periods of time, thus maintaining the neurological connections. These connections can exist at many levels, including a visual recollection of the score, aural memory, structural/analytical elements and physically on the instrument. If new information is added before establishing these connections, the chances of successful storage are slim (Rosset & Odam 2007:9).

If the storage process is conducted correctly, the information should form part of long-term memory. However, internalised information is not always immediately accessible and should thus be recovered through a recent memory. *Recovering and using the stored material* are achievable through building alternative cues to trigger information that was internalised in the past. These cues can be constructed by constantly humming the piece while away from the instrument (aurally); playing without the instrument/sound only focusing on the movement (kinaesthetically); by writing down key points in the score (analytically); or drawing a picture or diagram of the piece (visually) (Rosset & Odam 2007:10).

2.3.3.7.2.2 *Performance anxiety*

The effects of performance anxiety, its causes and coping mechanisms have been researched extensively by several authors. For most musicians, some degree of nervous tension is necessary and contributes positively to their performance: It enhances "... their level of

motivation, sensitivity and imagination” (Rosset & Odam 2007:79). However, when the degree of anxiety becomes too high, the body can become overwhelmed with negative symptoms. Both amateur and professional musicians may battle with stage fright.

a) Stage fright: an explanation

Performance anxiety can be defined as “an exaggerated fear, often incapacitating, of playing in public caused by the activation of an emergency response. It is a set of reactions occurring involuntarily as a preparatory mechanism for dangerous situations where your body must ‘fight or flee’” (Rosset & Odam 2007:80). The symptoms of performance anxiety can manifest themselves within minutes, hours or days before a performance in the form of worry, insomnia, irritability, digestive problems, or a lack of vitality or emotional instability.

b) Causes

The physical response is linked to primal instincts involving “fight or flight” situations, such as when facing a hungry lion (in prehistoric times). The heart contracts with increased force in order for the blood to reach the muscles faster. The respiratory system opens up to maximise oxygen in the blood. As the blood moves to the muscles, the digestive system is left with less blood. Fluids are redirected to the heart to compensate for the demand for blood. The result of this process is uncomfortable palpitations in the chest, a sensation of breathlessness, “butterflies” in the stomach and a dry mouth. The excess activity causes the body to heat up, which may result in excessive perspiration. This process allows the body to act quickly in dangerous situations but can be crippling in a musical performance (Rosset & Odam 2007:81).

From a psychological point of view, anxiety can be caused by rational concerns or by cues that are triggered unconsciously¹⁸ (Kenny 2005). This leads to a self-evaluative attention state in which the performer is overwhelmed with feelings of inadequacy and exaggerated fear or worry of making mistakes. The quality of judgement is also affected, distorting the player’s perceived reality (Rosset & Odam 2007:81; Kenny 2005:184). Some personal traits increase the effects of performance anxiety, for example, perfectionism, self-control and upbringing.

When perfectionism is motivated by external (environmental)¹⁹ factors, the players’ expectations about themselves and others tend to rise. The finest detail of every mistake is analysed, paying little attention to success, resulting in over-critical thinking and low self-

¹⁸ Earlier anxiety producing experiences or physical sensations.

¹⁹ The teacher, competitive peers/siblings, parents, among others.

esteem. Players with an excessive need for self-control find it challenging to succeed and feel comfortable in situations where the outcomes are unknown or out of their control. The impact of parental behaviour such as instilling a fear of failure or embarrassment in their child also contributes to the psychological disposition (Rosset & Odam 2007:81).

Another significant factor contributing to performance anxiety is the musician's readiness to perform. Musicians are often encouraged to take examinations or to perform in public before they are adequately prepared, which leads to unnecessary tension and anxiety. The examination or performance then becomes an event that causes anxiety instead of an enjoyable experience. The anxiety is intensified by unrealistic expectations or idealistic perceptions of perfection which make failure unacceptable, often instilled by the teacher and/or parents.

One bad experience of performing leads to another; the experience becomes internalised through a process of conditioning and so the fear is reproduced in later situations. Anxiety becomes a response to something that might happen and not a response to something that does happen. A vicious circle is created whereby the way mistakes are perceived leads to an increase in anxiety and this anxiety makes it much more likely that mistakes will be made (Rosset & Odam 2007:82).

c) Remedies

In a study conducted by Kenny (2005:1) entitled *A systematic review of treatments for music performance anxiety*, she stated the following: "The field is in urgent need of larger scale, methodologically rigorous studies to assist the large minority of musicians who suffer from performance impairing music performance anxiety."

Teachers should promote and encourage their students to follow a *healthy lifestyle*. Regular physical exercise and an appropriate diet are essential. The effects of stage fright can be reduced by eating easily digestible meals with complex carbohydrates²⁰ and avoiding large amounts of caffeine and spicy food (Rosset & Odam 2007:83).

Some musicians advocate the use of *medication* such as beta-blockers²¹ to reduce anxiety. Although beta-blockers are more suitable than alcohol, cannabis or other hard-core drugs, they cannot be considered an ideal group of medicines as they may cause side-effects such as,

²⁰ Rice, bread or pasta, fruit and vegetables.

²¹ Propanolol (Inderal and Sumial)

inter alia, impotency, diarrhoea, insomnia and rashes. Beta-blockers may not be chemically addictive, but they may serve as a psychological crutch which can quickly lead to psychological addiction. Some musicians become so dependent on medication such as beta-blockers that they do not believe they can perform without them (Kageyama 2009).

Teachers play a major role in shaping psychological responses in their students. In an online guide to anxiety, Smith, Segal and Segal (2016) state that patients who suffer from situational anxiety can be treated with the help of “exposure therapy” – “repeated exposure to situations causing anxiety resolves the fear over time”. In the musical world, this should not be done unregulated, but rather through *progressive exposure*. The musician should be placed in situations where the anxiety increases gradually in order to adapt to the conditions (Rosset & Odam 2007:84) – for example, gradually enlarging the audience and increasing the performance pressure: playing to parents, friends, another teacher, peers, a small group, larger groups and judges, among others.

The player should train his or her body to respond differently to stress through regular practice of *relaxation exercises*, such as progressive muscle relaxation, mental suggestions and imagery to produce a relaxed state, meditation, breathing awareness, yoga, Tai Chi and stretching. This inhibits the snowballing effects of anxiety, enhances concentration, memory recall and performance, and decreases muscular tension (Rosset & Odam 2007:84).

Mental rehearsal and imagery is not only used in musical performance but also in the field of sports. Mental preparation through clearly imagining the actions and outcomes of an event could assist in preparing the body to perform automatically in the desired way (Rosset & Odam 2007:87).

2.3.3.8 Parental involvement and learner expectation

Interaction with parents is essential for learner development and for a teacher to gain insight into a learner’s background and frame of reference.

2.3.3.8.1 Defining the good parent

In an article, Pillet-Shore (2015:374) states that a “good parent” can be identified as a caretaker “who creates a cultural milieu at home, that reinforces the teacher’s classroom efforts”.²² An example of good parenting would be a parent who monitors the child’s practising in a way that enables the child to develop his or her self-discipline and sense of

²² She builds this definition on the works of Crozier (1998), Lareau (1989) and Robinson and Harris (2014).

responsibility. Further reading on this topic includes, *Helping parents practice* by Sprunger (2005). Another characteristic of “good parents” is that they have the ability to display prior knowledge of student trouble and offer their attempts to remedy the problem, thereby presenting themselves “as competent, involved caregivers who are credible perceivers, and fair appraisers, of their own children” (Pillet-Shore 2015:375).

The involvement of parents who pose an informed, positive and nurturing mind-set contribute greatly to a child’s musical development, regardless of the parent’s musical expertise (Thompson 2016:27). Reflecting on his own experience as a young teacher, Thompson (2016:26) reveals that he felt insecure when parents wanted to attend a child’s lesson, and therefore did not allow it. Soon after he had contact with Suzuki teachers, and realised that including the parents in the learning process would be beneficial to all parties involved. It would also be beneficial for him as a teacher to share ideas on the student’s learning with one another. Thompson (2016:26) concludes that “... listening to parents express their concerns, hopes and dreams, limitations, conflicts and successes provides an ongoing influence on my understanding of the parent’s perspective”.

Thompson also encourages teachers to introduce the parents of their students to each other. His reasoning behind this is that parents need peers who share and understand the difficulties and rewards of music study. The author notes that situations such as conflicts and tension at home caused by a lack of student motivation, or having to force a child to practise, can be hard work for a parent (Thompson 2016:26). Referring to the parent-peers, Thompson (2016:27) concludes the following:

It is important to reinforce the resource they are for each other, emphasising how one parent’s insight has meaning for another and how parent-peer conversations will twist and turn through matters important to them that I cannot foresee.

2.3.3.8.2 Expectations: Teacher, learner, parent

The first impression a teacher makes on parents and prospective students is crucial. Crappell and Thompson (2013) recommend that teachers compile teaching portfolios that outline objectives, samples of semester or annual plans and samples of lesson plans. The value of teachers’ abilities is emphasised if they are able to highlight their adjustability by customising their plans to suit the individual student’s needs (Crappell & Thompson 2013:12).

Cangro (2014) provides teachers with strategies to easily compile progress reports to parents and help students understand what is expected of them. He makes the observation that in today's fast-paced modern society, there is not always time for lengthy explanations over the phone or in between lessons, to answer a parent's questions about their child's progress.

Furthermore, students often arrive in their practice room unsure of the steps they must follow to improve, remaining confused until their next lesson. Cangro's (2014:17–18) solution is to provide a “tangible, practical course of action through objective assessment experiences during a lesson (...) to enable students to begin to self-diagnose and correct.” The use of these assessments to determine a student's performance can serve as a tool that addresses both the parent and the student's needs. It can serve as a progress report for a parent and practice guidelines for students.

There are many types of assessment, each with its own *pro et contra* aspects. For example, a “yes or no checklist” indicates whether something is present or not, thus offering no middle ground. This type of checklist can function as an indication of preparedness and a quick “did you get it” kind of check-up. Cangro's (2014:19) checklists are shown below.

Table 2.3: Preparedness checklist

Criterion	<i>Yes</i>	<i>No</i>
Has music book		
Has assignment book		
Has practice chart		
Has homework book		

Table 2.4: Performance checklist

Criterion	<i>Yes</i>	<i>No</i>
Performs with good posture		
Performs correct tempo		
Performs with consistent beat		
Performs with correct fingering		
Performs with correct bowing		
Performs with curved fingers		

Rubrics containing more specific information compensate for the shortcomings of a “yes or no checklist”. For example, to assess scale performance or tone quality, more diagnostic, prescriptive and descriptive information will be required. With the number of variables contributing to tone quality, for example, teachers should either isolate specific targets or use a rubric that is more flexible. There are two types of rubrics: quantitative (numerical data) and qualitative (language to describe).

Quantitative rubrics use numerical data in describing a performance. These are often used in festivals and auditions. Qualitative rubrics use language to describe a performance and can provide more description and detail of specific markers or indicators. Cangro (2014:19) provides the teacher with the guidelines as set out below. According to this author, good quality rubrics help

- help students understand what a quality performance or product looks/sounds like;
- help students understand what the teacher expects;
- help students understand what they did well and what needs to be improved;
- enable students to self-assess;
- help teachers plan instruction;
- help teachers grade consistently; and
- help teachers have sound justifications for grades.

The following steps should be considered when a rubric is created:

1. Determine the concept or skill to be assessed;
2. Isolate three to five elements in the skill or concept;
3. Design a scoring grid with graduated levels of proficiency; and
4. Share the rubric with students and parents.

By supplying and explaining these assessment types to parents in advance, they know how to support their child when practising. Some parents are more involved than others and find this kind of information beneficial as it can easily be interpreted and they can follow their child’s progress with more understanding. Cangro (2014:19) cautions teachers that using rubrics to assess quantity over quality can be misleading. “Counting notes or using percentages to measure note accuracy is less precise than assessing consistency or quality.” An example of a quantitative performance rubric is shown below.

Table 2.5: Quantitative performance rubric

Student performs with:	4 – Consistently	3 – Mostly	2 – Sometimes	1 – Rarely
Accurate pitches				
Accurate rhythm				
Accurate tempo				
Expressive dynamics				
Teacher comments				

Source: Cangro (2014:20)

In contrast to the above, a qualitative performance rubric is shown below.

Table 2.6: Qualitative performance rubric

	5	4	3	2	1
Rhythmic accuracy	Beat was consistent and the rhythms were accurate and reflected the style of the music.	Beat was mostly consistent, rhythms accurate but did not reflect the style of the music.	Beat and rhythms were somewhat consistent.	Student attempted to play the rhythms accurately but the beat was inconsistent.	Student played with inaccurate rhythms and inconsistent beat.
Pitch	Pitches were consistently accurate with good intonation.	Pitches were mostly accurate with few errors and good intonation.	Pitches were somewhat accurate with sections demonstrating good intonation.	Many pitches were inaccurate with sections demonstrating good intonation.	Many inaccurate pitches with difficulty maintaining good intonation.
Dynamics	Performs with accurate and expressive dynamic contrast.	Performs with accurate dynamics.	Performs with mostly accurate dynamics	Performs with some dynamic contrast.	Performs with little dynamic contrast.
Teacher comments					

Source: Cangro (2014:20)

2.3.3.8.3 Conflict

Parents can easily take offence when their children are criticised by others. In an attempt to minimise facing threats and maximise the likelihood of a positive relationship, Pillet-Shore (2015: 375) refers to studies that confirm a structured communicative sequence. This entails that if possible, criticism should be articulated by the parent, not the teacher (Pillet-Shore 2016:34). During a meeting, parents display their competence by addressing a student problem or concern before the teacher does. This indicates that the parents are present and

aware of the problem and instead of the teacher explicitly criticising the student, they can agree with and build upon what the parent has already said (Pillet-Shore 2016:34–35).

Another form of conflict may occur when attitudes differ. McAllister (2010) poses the question of whether music lessons should be fun. Some parents enrol their child for music lessons with the main focus of it being *fun* and *enjoyable*, and that it is not so important for their child to play everything perfectly. She argues that parents want their child to enjoy school as well, but “they almost never go to the math teacher at school and say that math lessons should be fun”. The author argues that the teacher should make it clear that music is a serious business and also articulate what is expected of the learner.

It is of course possible for teachers to build their teaching philosophy around fun, as many do, but discipline and hard work should be present. The problem with basing music instruction around fun alone, is that when the music becomes more challenging and the learner is required to practise more, the fun can quickly dissipate (McAllister 2010:20). For example, when a learner asks, “Can I play it just for fun?”, teachers often translate this question as “Can I just play through this without actually practising it or learning all the notes?”, which could be problematic (McAllister 2010:16).

In her article, *When parents attack* (2010), Nelson discusses the “difficult” parent. The following three “types” of parents fall into this category: “pushy”, aggressive and uninformed. The “*pushy*” parent will often expect teachers to go out of their way to make a compromise to accommodate a child. Nelson (2010:39) cites the example of a parent coming to an orchestra rehearsal and saying the following: “Katie was upset last week because you told her she wasn’t playing in time. Would it be possible just to listen to what she’s playing and take the rhythm from her?”

The *aggressive parent* would not hesitate to blame or threaten the teacher. Many experiences ending in verbal abuse or even assault on a teacher circulate the news and academic articles. An article entitled *Teachers experience a growing number of angry, abusive parents*, Hendricks (2013) mentions a 2011 online survey, which found that “four out of five teachers reported at least one incidence of ‘victimisation’”. The American Psychological Association reported in 2013 that 80 percent of teachers had been victims of threats or physical violence (Espelage et al. 2013:58). Other articles affirming these findings include those of Maclelland (2016), Shammass (2016), and Simon (2016).

The *uninformed parent* can do damage to instruments, and inhibit practice routines. Nelson (2013), for example, reports of a child using soap instead of rosin on his bow because of parental ignorance (2013:41), or a father gluing a bridge back into place after it had fallen over (2013:39). Nelson (2013:41) mentions Tamás Ittzés, president of Esta Hungary:

... when the child finally started to practise scales at home, his furious grandmother came to see the teacher before the next lesson, saying that she sent her dear grandson to the music school for him to learn music and not these awful exercises. She added that if the teacher wanted to teach him in the future, he should not give the child any such scales to practise, as if he did she would immediately take him out of the music school.

Many other such stories appear in the article, all told by professional teachers, including Christina Bellu, Oliver Steiner and Christian Vachon. Nelson (2013:42) recommends the following guidelines when dealing with difficult parents:

- Communication is crucial to developing a good working relationship with parents — let them know exactly what is expected from their child, and from them too.
- Use a practice diary that the learner can take home and refer to — it is also an important tool for communication between the teacher and the parent. The teacher should chart learners' progress in the lesson and set them tasks, so that it is clear what they need to practise, and also encourage parents to use these tasks to comment on their children's practice.
- Encourage parental involvement as much as possible — ensure that parents understand that their support is vital to their children's achievements, particularly in the early years.
- Always show the child and parents respect.
- Always have the child's best interests in mind when talking to parents, and make them understand that you care about their child.
- Make your boundaries clear — let them know the best way of contacting you, but make sure they understand that you cannot spend hours each week discussing a child's progress. Email can be an invaluable tool, as parents are more likely to pinpoint exactly what they need to know, and you can answer their queries quickly and concisely.

2.4 SUMMARY

This chapter reviewed research on two main topics, namely the knowledge, skills and personality traits required for general educators; and the special skills and knowledge required for string teachers to be effective educators. A broad spectrum of resources was consulted to identify and discuss the various elements that contribute to meaningful learning. General educators and string teachers share several skills and personality traits, and both parties should be knowledgeable about the learning process, various teaching philosophies and approaches, and different factors influencing a learner's chance for meaningful learning.

In chapter 3 the focus shifts to the methodology for presenting the desk study. Attention is given to the formulation of the research questions, the collection of information and specific differences between the curricula of the chosen examination bodies. The discussion of the methodology is followed by the desk study.

CHAPTER 3: METHODOLOGY AND DESK STUDY

3.1 INTRODUCTION

One of the professional traits of effective teachers is to continuously pursue ways to improve their teaching skills and broaden their knowledge and understanding of their field. A possible solution to this problem could be to enrol with an accredited external institution to enhance and develop teaching skills and gain insight into the teaching environment. Several institutions offer teaching qualifications that are accessible on a national and international scale. To cater for both these levels, two international qualifications and one national qualification were investigated.

The selected two institutions operating at an international level included the Associated Board of the Royal Schools of Music (ABRSM) and the Trinity College of Music, with enrolments of students across the globe, and the Australian Music Examinations Board (AMEB), operating at a national level, as their syllabi are more in tune with what a specific group of string teachers requires.

Part of the research problem is to identify, analyse and compare the prerequisites, content and assessment methods of teaching qualifications compiled by ABRSM, Trinity College and AMEB.

With the content mapped out, it was possible to compare the training of a string teacher to that of a general educator. The goal was to identify potential voids or gaps that might exist in the syllabi and lead to further research to improve the training of string teachers. A desk study was conducted to compare and provide an overview of the available content of selected established institutes and courses.

3.2 METHODOLOGY

3.2.1 Research questions

The research was based on a desk study investigating the factors contributing to the training of a contemporary string teacher. In order to identify which dimensions are deemed essential to include in a course, this study endeavoured to answer the following questions:

- What teaching qualifications are offered by ABRSM, Trinity College and AMEB?

- Are there prerequisites for enrolling for a course, and if so, what are the substitutions for the prerequisites?
- What is the content of each syllabus and how does it compare to other courses considered to be equal?
- How are candidates assessed and evaluated?
- Is continuous professional development promoted by the institutions, and if so, in what way?
- Which critical skills from the field of education are being taught to equip prospective music teachers with teaching skills?
- What additional skills are necessary to teach learners to play string instruments effectively?

3.2.2 Overview of desk study

The desk study was structured in six sections, as elucidated below.

1. Overview of qualifications available

This section provides a brief background on the Royal Schools of Music, the Trinity College of London and the Australian Music Examinations Board, their mission statements and the courses they offer.

2. Prerequisites for application

In this section, the importance of prerequisites is discussed with an attached appendix, which lists each course's prerequisites, along with accepted substitution qualifications.

3. Information deemed necessary to include in their syllabi

In this section, the content of each course is divided into two subsections with the following headings:

Educational knowledge for instrumental teaching:

- knowledge of styles and interpretation;
- professional values; and
- physical and psychological knowledge.

Performance skills:

- technical proficiency and instrumental knowledge;

- aural development; and
- repertoire and demonstration.

This section is accompanied by a set of appendices to clearly map out the content and allow for comparisons.

4. Methods of assessment and evaluation of candidates

In this section, the assessment methods of each qualification are discussed and divided into four sections, also accompanied by an appendix to map out the details and presence of each method in the different courses. These methods include the following:

- viva voce;
- written examinations;
- evidence of teaching practice; and
- written assignments and dissertations.

5. Promotion of continuous professional development

This section discusses why continuous professional development is important, and which of the institutions promotes this in their teaching syllabi. Recommended courses are also discussed.

6. General education training and the six elements of successful teaching

This sections discusses the six elements of successful teaching as proposed by the Sutton Trust Group (2014), and their presence or absence, identified in the selected syllabi, is investigated in the desk study.

3.2.3 Information collection and analytical procedure

The syllabi of ABRSM and Trinity College are freely available on their websites. To acquire the AMEB manual of syllabuses, an electronic copy can be acquired on its website for \$24.95. The analytical procedure is aided by a matrix mapping out the comparable content of each course. The institutions with their courses are mapped in columns according to the level of each qualification, as set out in appendix C.

The training of general educators does not focus on a particular programme, but refers instead to the research conducted on teacher training. The Sutton Trust group released a report in 2014 entitled “What makes great teaching?” In this document, Coe et al. (2014a; 2014b)

analyse over 200 academic pieces of research in order to answer this question. Through their findings, the researcher was able to determine whether a string teacher's training might lack any of the skills and knowledge that could be found in the training of a general educator.

3.3 DESK STUDY

3.3.1 Overview of qualifications available

As stated previously, the three institutions chosen for this study were ABRSM, Trinity College and AMEB. Each of these offers three official teaching diplomas, along with professional development programmes. One should note that AMEB does not offer a Fellowship qualification for teaching, but a Certificate, Associate and a Licentiate. AMEB Fellowship status is reserved for the Performance qualification. For this desk study only the official diplomas were investigated.

3.3.1.1 *Associated Board of the Royal Schools of Music*

The Associated Board of the Royal Schools of Music (ABRSM) was established in 1889 after Sir Alexander MacKenzie, head of the Royal Academy of Music, and Sir George Grove, head of the Royal College of Music, united their two distinguished musical training institutions. Today ABRSM is the United Kingdom's largest education body and music publisher and offers assessments to many candidates in 93 countries every year (ABSRM 2016).

ABRSM offers the following three teaching qualifications:

- Diploma of the Associated Board of the Royal Schools of Music (DipABRSM);
- Licentiate of the Royal Schools of Music (LRSM); and
- Fellowship of the Royal Schools of Music (FRSM).

ABRSM: 2014 (Online)

3.3.1.2 *Trinity College of London*

The Trinity College of London (TCL) was founded in 1877 and funded by the Duke of Kent. In 2005, the college merged the music and dance faculties to form the Trinity Laban Conservatoire of Music and Dance, with a division offering accredited music examinations and qualifications (Trinity College 2016).

Trinity College offers the following three music teacher qualifications, which are available online (Trinity College 2016):

- Associate of Trinity College London (ATCL);
- Licentiate of Trinity College London (LTCL); and
- Fellow of Trinity College London (FTCL).

3.3.1.3 Australian Music Examinations Board

In 1887 the Universities of Adelaide and Melbourne launched a music examination programme which led to the establishment of the Australian Music Examinations Board in 1918, serving as a national body. The AEMB's syllabi are reviewed and designed by leading teachers and performers familiar with the different environments and cultures, who are committed to enhancing community life (AMEB 2016).

AMEB offers the following three qualifications for teachers:

- Certificate Teacher of Music Australia;
- Associate Teacher of Music, Australia (ATMusA); and
- Licentiate Teacher of Music, Australia (LTMusA).²³

3.3.2 Prerequisites and substitutes for available qualifications

The function of prerequisites is to prevent knowledge gaps to ensure that the student has the necessary experience and skills prior to enrolment, to create a learning environment in which each student can achieve success and to uphold academic and practical performance standards (Shaffer et al. 2016:2).

In a course description, Wallin (2015) warns his students about the importance of prerequisites. He enforces his warning with a study he conducted in 2012 (Wallin 2015) showing the final grades of students who had met the prerequisites for his course, compared to those who had failed to do so. The results revealed that the mean score of the students who lacked the prerequisites, was 69.1 percent, while the mean of those who had completed the prerequisites was 90.6 percent (Wallin 2015). He states that there were exceptions to the findings, but that the course would have been of more value to those who had complied with the prerequisites.

²³ AMEB does not offer a Fellowship qualification for teaching. Its Fellowship status is reserved for the Performance qualification.

Each of the courses that this study investigated has certain prerequisites that must be adhered to. One course offered by AMEB, Certificate Teacher of Music Australia, does not have prerequisite requirements, but rather offers a “recommended pre-entry level” (AMEB Syllabus 2016:xviii). The prerequisites of each course can be viewed in appendix A.

ABRSM, Trinity and AMEB all offer three teaching qualifications that build on each other. Accordingly, each syllabus provides prerequisites that must be completed prior to enrolment for a course. The standard of each course increases in difficulty, with ABRSM and Trinity sharing some similarities.

The first qualification of all the selected institutions serves as an introductory course to teaching, setting the standard and guiding the student to claim the role of a teacher. The first qualification does not require much, if indeed, any prior teaching experience. AMEB is the only institution supplying a recommended pre-entry level in its syllabus.

A noteworthy requirement for candidates of AMEB’s LTMusA qualification, is that between five and ten copies of examination reports must be submitted indicating at least a “B” grading for learners they have prepared and entered for AMEB practical examinations in the previous five years. At least three reports from Level 2 examinations are to be included and should come from a range of grades.

3.3.3 Examination requirements for assessment

One should note that these qualifications are not curriculum based, but assessment based. The syllabi do not offer exclusive handbooks to candidates, only stating what is to be assessed. For this study, the content of each qualification was divided into two main categories, namely *Educational Knowledge*²⁴ and *Performance Skills*²⁵, which are summarised in appendices B and C, in order to provide an overview. The section labelled as educational knowledge for instrumental teaching includes topics relating to styles and interpretations, the professional values of a teacher and knowledge of the physiological and psychological impact on the learning processes and performance of learners. The performance skills category is focused on the string teacher, but does not exclude other instrumental teachers. This category includes technical proficiency and instrumental knowledge, aural development, repertoire choice and the ability to demonstrate. Appendices B and C, are divided into three columns stating the

²⁴ Appendix B

²⁵ Appendix C

three institutions, ranking their qualifications in seniority and lining up the correlating content.

3.3.3.1 Educational knowledge for instrumental teaching

The term “educational knowledge” has the potential to be vague, especially when referring to instrumental teachers, and is thus defined in the following terms: The knowledge that instrumental teachers need to have, portray and deliver to their learners in order to be a successful teachers and produce successful musicians. The following is classified under this section:

- knowledge of styles and interpretation;
- professional values; and
- knowledge of physiological and psychological impact on learning processes and performance of learners.

3.3.3.1.1 Knowledge of styles and interpretation

As noted in chapter 2, the teaching of technique and style cannot be separated, and this is also noticeable in the way content is distributed in the qualifications. The first level of the qualifications, the Diploma of ABRSM, Associateship of Trinity College and the Teaching Certificate of AMEB, devotes attention to knowledge of styles and interpretation. AMEB is the most specific regarding what is expected, and demands a detailed discussion of each piece listed in its syllabi. The Certificate qualifies its candidates to teach the first two grades of its syllabi. DipABRSM (ABRSM) requires candidates to consult the rest of the syllabus (Pre-Grade 1 to 6) in order to familiarise themselves with what is expected from learners, and through that knowledge prepare themselves to teach up to and including ABRSM Grade 6 level. The ATCL offered by Trinity College does not state a required grade, but rather that ATCL is equal to the completion of a first-year undergraduate music course.

The second level of the courses, LRSM (ABRSM), LTCL (Trinity College) and ATMusA diploma (AMEB), is more advanced and demands more from the candidate. LRSM (ABRSM) requires its candidates to display the knowledge and understanding of musical styles required to teach a learner playing ABRSM Grade 8 level examination (ABRSM Syllabus 2014:13). A teacher with an LRSM is thus qualified to teach up to Grade 8. The LTCL (Trinity College) has a sharp learning curve, as it is compared to that of the completion of an undergraduate music degree (Trinity College Syllabus 2016:102). “The LTCL candidate is required to teach and illustrate music drawn from a wide variety of styles and

must demonstrate a high level of creativity in developing and presenting stylistic knowledge to their students” (Trinity College Syllabus 2016:102). The advance from Associate of Licentiate is rather extensive in this respect. In comparison to LTCL (Trinity), the ATMusA Diploma (AMEB) is less descriptive with regard to style and interpretation skills. It is stated that a broad general musical knowledge is required and that candidates must be able to demonstrate their teaching and performing skill with confidence.

The third and highest available teaching qualifications demands postgraduate standard knowledge from all the institutions. The FRSM (ABRSM Syllabus 2016:17) requires its candidates to demonstrate the knowledge of styles and interpretation that would enable them to teach beginner learners up to and including DipABRSM performance level. By contrast, the FTCL (Trinity College Syllabus 2016:110) is a dissertation-based qualification, not requiring candidates to demonstrate their stylistic and interpretative knowledge. The LTMusA (AMEB) candidates are required to have a wide knowledge of musical styles and interpretations, including Australian music and the music of female composers. The examination also takes the musical knowledge of the students of the candidate into account, to determine the candidate’s effectiveness in teaching different styles and interpretations (AMEB Syllabus 2016:13).

The above-mentioned content would not be of any value if the teacher did not know how to act in the teaching environment. At some point in teachers’ careers, in some cases often, they are confronted with ethical dilemmas. Whether it be an over- or under-involved parent, a learner not practising or a passive aggressive colleague, teachers need to be equipped to handle conflict, know their rights and be prepared to defend their actions from a lawful, ethical stand point. Hence ABRSM, Trinity College and AMEB all include a “professional values” section in their syllabi.

3.3.3.1.2 Professional values

The importance of professional conduct and being knowledgeable about relevant legislation has become a pressing matter in recent years, as stated in chapter 2. Each of the qualifications on each level devotes time to inform and familiarise their candidates with ethical and philosophical issues in education. DipABRSM (ABRSM) introduces the legal framework covering child protection, the maintenance of a safe learning environment, the physical well-being of learners and equal opportunities for learners. ATCL (Trinity College) also investigates the legal framework, but includes information on the music teacher’s role in a

broader musical context. ATCL also challenges candidates to reflect critically on their own practice and that of others. The Teaching Certificate (AMEB) adds a third dimension to its “professional values” section by investigating four philosophical questions involving “why”, “whom”, “what” and “how” candidates want to teach.

The second level of qualifications, namely the Licentiates, offers a more in depth investigation of professional values. Building on the DipABRSM, the LRSM (ABRSM) draws attention to the legal framework relating to teaching²⁶ and knowledge of relevant support organisations. The LTCL (Trinity College), like the LRSM (ABRSM), also builds on its previous qualification and emphasises career development opportunities, such as the “SoundEd” programme, which includes, inter alia, interactive e-learning and integrated workshop sessions, a wide range of musical resources, forums and articles (Trinity College 2012). Similar to the LRSM (ABRSM), the ATMusA diploma (AMEB) also places a high priority on the teacher/learner relationship, emphasising self-reflection and the development of a personal teaching philosophy.

The third level of all the qualifications differs in the “professional values” sections. The FRSM (ABRSM) simply emphasises what is already stated in its previous qualifications, but still deems professional values to be important. As stated earlier, the FTCL (Trinity College) is a dissertation-based diploma which exempts it from this section. However, the dissertation must adhere to the relevant ethical clearances. The LTMusA (AMEB) approaches its “professional values” section in the form of an essay. One of three topics, namely contemporary professional issues, leadership in professional interaction or professional ethics must be chosen.

3.3.3.1.3 Knowledge of the physiological and psychological impact upon learning processes and the performance of learners

The physiological and psychological aspects of teaching a musical instrument encompass a broad range of topics with many facets, such as injury prevention, knowledge of proper posture, memorisation techniques and anxiety control, as discussed in chapter 2. Each qualification has special sections investigating some of these elements, but to varying degrees. The DipABRSM (ABRSM) covers this section in broad terms, introducing some of the mentioned concepts, focusing on topics such as the teaching and learning process, lesson

²⁶ Including child protection, maintaining a safe learning environment, the physical well-being of learners, and equal opportunities for all learners.

planning, assessment, different learning styles and the teaching of musicianship. ATCL (Trinity) places the emphasis on teaching strategies and the relationship between teacher and learner. The syllabus also mentions the “teaching transaction”, which is not defined in the document. Johnson (2015) links the “teaching transaction” to the constructivist teaching approach²⁷. The Teaching Certificate (AMEB) highlights the importance of memorisation of repertoire and requires the candidate to discuss effective memorisation strategies.

The qualifications vary at the second level. LRSM (ABRSM) does not add new perspectives in this section, but builds on the previous qualification, adding depth to the content. LTCL (Trinity College) moves away from the “teaching transaction” concept and refocuses attention on teachers’ abilities to reflect and adjust their practice. ATMusA (AMEB) requires its candidates to have a basic understanding of child development and the learning process. Candidates are also encouraged to reflect on their own values, explore different teaching philosophies and to enhance their understanding of music and music education.

The third level of the qualifications emphasises different aspects of physical and psychological knowledge. FRSM (ABRSM) continues to build on and enrich the content of the previous two qualifications. As stated earlier the FTCL (Trinity College) is a dissertation-based diploma, and is thus exempt from this section. The LMusA (AMEB) draws the candidate’s attention to contemporary ideas and theories relating to the physical and psychological aspects of music education and performance.

3.3.3.2 Performance skills

The ability to successfully transmit refined performance skills is often the defining characteristic of a skilled string teacher. The quality of the following facets (all present in the syllabi) directly influences the quality of a learner’s performance skills and defines the calibre of the teacher:

- technical proficiency and instrumental knowledge;
- aural development; and
- choice of repertoire and quality of demonstration.

To ensure top quality teaching, these three facets comprise large sections of the examination candidates undergo (ABRSM 2014, Trinity College 2016, AMEB 2016).

²⁷ See page 23 in chapter 2.

3.3.3.2.1 *Technical proficiency and instrumental knowledge*

DipABRSM candidates must be able to prepare a learner up to and including ABRSM Grade 6 level. Candidates are expected to demonstrate their approaches to teaching and performing at this level, including posture, intonation, scales and exercises, tone production, articulation and phrasing. As stated earlier, technique cannot and should not be viewed as separate from style. ATCL (Trinity College) candidates must have a knowledge and understanding of the instrumental techniques to teach beginner (Grades 1–3) and intermediate (4–5) level²⁸ learners. The Teaching Certificate (AMEB) offers the most detailed description of what is expected, including the pedagogical and demonstration requirements. The certificate qualifies candidates to teach the first two available grades of their instrument, that is, Pre-Grade 1 and Grade 1.

The second level of the qualifications is equal to an undergraduate music degree, thus implying a much higher standard of technical proficiency. The content description of the LRSM (ABRSM) is similar to the previous qualification, but the candidate should now be able to prepare learners up to and including Grade 8 ABRSM level. LTCL (Trinity College) candidates are required to have the ability to prepare their learners from beginner to advanced level (Grade 8). Once again the AMEB offers the most detail in its syllabus for the ATMusA diploma, focusing on all aspects of technical and artistic growth and candidates must have extensive knowledge pertaining to level 1 learners²⁹. The diploma places the emphasis on the beginner learner and acknowledges that future progress is greatly influenced by foundation level technique. The introduction of the techniques must be done in a coherent manner.

The third level of ABRSM and AMEB requires the highest level of technical proficiency, knowledge and understanding from their candidates. The FTCL (Trinity College) is dissertation based and the content and research are thus applicable to the topic chosen. FRSM (ABRSM) requires its candidates to teach up to and including DipABRSM performance, demonstrating their approaches to teaching and performing at this level. LTMusA (AMEB) diploma candidates must be able to teach up to and including level 2 repertoire³⁰. This is lower than what is expected from ABRSM, which includes all the examinations from beginner to the first performance diploma. There is no mention of who would be qualified to

²⁸ Trinity College online: <http://www.trinitycollege.com/site/?id=198>

²⁹ Level 1 for AMEB includes Preliminary to Grade 4.

³⁰ Level 2 AMEB includes Grade 5 to Grade 8.

teach level 3 of AMEB, and one can thus assume that this would be left to university level lectures.

3.3.3.2.2. *Aural development*

One of the principal facets of string playing is the development of aural skills. However, string teachers and string learners frequently separate aural training from the instrumental lesson. Aural training becomes an obligation, which a string teacher is often not equipped to teach, considering that aural skills are examined on the piano and not on a string instrument during a graded examination. String learners are often unaware of the connection between aural training and their instruments and struggle to link the two.

In comparison to AMEB, both ABRSM and Trinity College do not provide detailed descriptions of what is expected from an aural perspective. This is perhaps due to some teachers considering that aural skills should be taught by the music theory teacher, usually other than the strings teacher. DipABRSM expects its candidates to discuss methods of improving aural ability and perception in the examination, but offers little guidance in the DipABRSM syllabus. In the graded syllabus (Grades 1–8 ABRSM), however, it supplies information on what is required for assessments in each grade, as well as a publication with sample exercises. ATCL (Trinity College) makes no explicit mention of aural skills or the fact that candidates are required to discuss or demonstrate any such skills. Using a search engine, the researcher ascertained that the word “aural” was only mentioned twice in the entire Trinity College teaching diploma syllabus. Candidates of the Teaching Certificate (AMEB) are required to design different activities³¹ to enhance their learners’ aural abilities. Strong emphasis is placed on aural skills, and a wide range of detailed requirements is listed.

The second level of the qualifications all place different degrees of emphasis on aural skills. LRSM (ABRSM) approaches aural skills in a holistic manner, looking at the development of these skills and sight-reading, and how they contribute to a well-rounded musician. LTCL (Trinity College) does not place much emphasis on aural development in its syllabus, simply stating that “attention should be shown to aural skills in lessons” (Trinity Syllabus 2016:104), with little further explanation. ATMusA (AMEB) places emphasis on activities that enable learners to perform music at very early stages. Again strong emphasis is placed on the importance of aural skills, highlighting intricate details that link to sound comprehension.

³¹ Activities such as clapping and other physical activities to develop aural awareness, movement to music, playing percussion instruments, using simple conducting patterns and singing (AMEB 2016:3).

Methods of developing the ability to connect ear, eye and hand when performing from sight, memory, by ear or improvising also form part of the activities.

The third level of the qualifications does not mention aural competency in much detail. Since these qualifications are on the highest level, and the graduates of these diplomas work with advanced learners, it can be assumed that the learner should have a firm aural foundation. FRSM (ABRSM) makes no explicit references to aural training or requirements, but mentions that they can be one of the topics for a written assignment regarding the contribution to a balanced musician. FTCL (Trinity College) candidates can use aspects of aural training as a topic for their dissertations. LTMusA (AMEB) expects detailed planning from the candidate that promotes further aural development for learners of practical level 2 (Grade 8).

3.3.3.2.3 Choice of repertoire and quality of demonstration

A teacher's ability to choose the appropriate repertoire for his or her learners is essential. Each institution has its own prescribed list for each grade. Candidates of the DipABRSM (ABRSM) must be familiar with the repertoire prescribed up to and including Grade 6 ABRSM. They must also have a knowledge and understanding of tutor books, exercises and other teaching resources that would aid the learner to acquire the necessary skills to perform the required repertoire successfully. ATCL (Trinity College) requires candidates to demonstrate knowledge of the material they are working with, and to clearly link this knowledge to graded music examinations. The Teaching Certificate (AMEB) candidates should present and discuss any of the prescribed works listed in the specified grades lists, including technical work and exercises for the first two grades: Preliminary and Grade 1. They are to identify potential musical and technical challenges and discuss different methods of overcoming them. In addition, they must discuss the following: activities and issues associated with the progress of the first lessons; and personal views on educational pedagogy, repertoire and philosophy.

The second level of the qualifications builds on what was assessed in the previous qualification. LSRM (ABRSM) follows the same principle as ARSM, but now extends this to Grade 8 practical level, including "tutor books, exercises and other teaching resources". Candidates are also required to bring their chosen resources to the viva voce and discuss them with the examiners. However, the syllabus does not offer a prescribed list of additional "tutor books, exercises and other resources". Hence it is the responsibility of candidates to find their

own additional resources. A possible point of departure is to visit the ABRSM website and see what is prescribed there. A list of publications by ABRSM includes, inter alia, the “More Time Pieces” series and “Specimen Sight-reading” tests. Ultimately, it would seem that candidates have to find their own compilation of teaching resources, as the listed publications on the ABRSM website are all examination related and thus cannot be labelled as “additional”. LTCL (Trinity College) states the same requirements, also applying to the relevant graded examinations. ATMusA (AMEB) requires its candidates to have expert knowledge of the objective of the relevant repertoire for level 1 (Grades 1–4).

The demands of the third level of the qualifications vary in weight. FRSM (ABRSM) candidates must have a knowledge and understanding of the repertoire used for up to and including DipABRSM practical level. Candidates must prepare three pieces from the DipABRSM performance syllabus, one in completion, usually performed at the start of the examination, and extracts chosen by the examiners, from the two other contrasting pieces. Owing to the fact that the FTCL (Trinity College) is dissertation based, no demonstration is required. LTMusA (AMEB) offers the most detailed explanation of requirements. The following is examined: the candidates’ ability to perform sensitively and competently works from level 2 (Grades 5–8); and their ability to plan a developmental programme for teaching practice. The candidate must choose 24 pieces and present them in the examination. He or she must be able to perform and discuss them, using as references various texts and articles, lecture notes and master classes.

3.3.4 Methods of assessment and evaluation of candidates

The terms “assessment” and “evaluation” are often confused, leading to misinterpretation and/or inaccurate data capturing. Cangro (2014: 18) defines assessment and evaluation as follows:

Assessment results often appear as data, such as scores on a test or scorer ratings on a festival sheet. Evaluation is the interpretation of the assessment data, often times in the form of a grade or a placement. Assessment is often equated and confused with evaluation. Assessment is an objective measure of what a student knows or can do, while evaluation is a subjective value or worth of a student’s performance. Assessment is note taking on what is observed, while evaluation is the interpretation of those notes.

Various methods are used to evaluate the quality of string teacher candidates, one being by means of “viva voce”³² which consists of a presentation, demonstration and discussion of subject matter and materials, as a quick study.

3.3.4.1 Viva voce

Each of the institutions makes use of a viva voce section in its examinations. In this section, various aspects of the candidate’s knowledge are assessed by a panel of qualified examiners who are experienced in teaching the applicable instrument. Although emphasis of knowledge varies for each qualification, they all share the same traits. The viva voce includes the presentation of teaching materials, a demonstration involving a lesson and/or the performance of repertoire and/or a quick study, a discussion focusing on various teaching strategies and situations, and a series of teaching-related questions, assessing the content noted in section 3.3. For the viva voce examination, all of the institutions make use of the structuring as set out below. All these facets are present in ABRSM’s examinations, with Trinity College and AMEB sharing similarities.

3.3.4.1.1 Presentation

The presentation involves different aspects for each institution. ABRSM requires a sample of the teaching materials the candidate uses in normal lessons. Trinity College gives the candidate a choice between the following three topics to be discussed in this section of the examination:

- teaching a particular technique (e.g. vibrato, spiccato, harmonics, legato);
- teaching music musically (e.g. using singing, using movement, improvising, creative work, ensemble opportunities, integrating musical and technical activities); and
- establishing a successful teaching/learning environment (e.g. the teaching/learning relationship, motivating students, encouraging practice, keeping learners safe, using assessment constructively).

3.3.4.1.2 Demonstration

A teaching demonstration is the most revealing form of assessment because it affords the examiners an opportunity to observe the candidate in a teaching situation. Each institution approaches this section differently with regard to what is to be assessed. ABRSM requires its candidates to choose one piece from each list (A, B and C). Extracts chosen by the examiners must then be performed, followed by a discussion of the teaching and learning issues as they

³² Viva voce is a form of assessment through oral examination.

arise. Trinity College chooses the piece for the candidates in the examination, giving them a moment to examine the piece before they are required to discuss how they would teach it, the challenges it poses and how they would address them. ABRSM also requires a live teaching demonstration, but also accepts a video lesson, followed by a discussion.

3.3.4.1.3 Discussion

In the discussion section of the examination, each institution focuses on a different topic, but the emphasis still falls on instrumental teaching. The goal of the discussion is to determine the candidate's knowledge and understanding of musical concepts and instrumental techniques suitable for the level (e.g. Grades 1–5) the qualification requires. Candidates must also demonstrate their ability to communicate and present ideas clearly, adapting materials and methods of learning. The discussion also investigates the candidate's musical outlook, knowledge of instrumental technique, pedagogical knowledge, repertoire selection and methods of teaching style and interpretation. Their knowledge of the history and background of the instrument, accompaniment of pieces, and their professional values and practice are also evaluated. The discussion is often built upon the live or video-recorded teaching demonstration, and the written assignments submitted at an earlier stage.

3.3.4.1.4 Quick study

The aim of the quick study is to assess the candidate's ability to sight-read and identify challenging sections of a piece. The difficulty of the piece is similar to the standard they are required to teach (e.g. ARSM Grade 6) and must be performed after five minutes of preparation.

3.3.4.2 Written examinations

AMEB is the only institution that incorporates written examinations. Its syllabus provides the focus of each question and the prescribed books that candidates can use as references. Questions encountered in the various examinations include topics such as child development, pedagogy, repertoire choice, application of values, instrument-specific knowledge, developmental programmes, the nature of music and complementary studies. All these topics are listed and explained in detail in the syllabus and are accompanied by prescribed books. The length of the written examinations varies from two to three hours.

3.3.4.3 Evidence of teaching practice

All the institutions require their candidates to provide evidence that they have been gaining practical experience in teaching practice. This evidence is claimed in the form of a portfolio,

containing details of videos of teaching practice, and case studies to be discussed in the viva voce examination. ABRSM's LRSM, Trinity College's ATCL and LTCL, and ABRSM's ATMusA and LTMusA make use of the portfolio as an assessment tool.

3.3.4.3.1 Case studies

Candidates must select a number of their own learners and track their lessons and progress over a certain period of time. These reports must serve as a record of individuals' level, their attributes, problems and a teaching plan.

3.3.4.3.2 Videos of teaching practice

The goal of a video lesson is to observe the candidates in their natural teaching environment where they feel most comfortable and to give the examiners an idea of what a normal lesson is like. Depending on the institution, certain tasks must be conducted during these recorded lessons for assessment.

3.3.4.3.3 Folio

In a folio used by AMEB's ATMusA, candidates must explore the teaching philosophies of recognised music pedagogues and compile a detailed statement of their own teaching philosophy. They must also outline ways in which their philosophies will be implemented in their teaching with special reference to Level 1 learners.

AMEB's LTMusA requires a folio containing a teaching-orientated analysis of 24 pieces (Grades 5–8) chosen by the candidate. The origin of the piece, applicable teaching strategies, purpose, and technical and musical challenges must be addressed in the folio.

3.3.4.4 Written assignments and dissertations

The topics range from 500 word essays to 12 000 word dissertations. Relevant essay topics can be found in the syllabi, along with recommended dissertation topics. All of the qualifications require some form of written assignments but only ABRSM and Trinity require a dissertation.

3.3.5 Promotion of continuous professional development

The syllabus of AMEB places the emphasis on ongoing professional development and encourages teachers to join the Australian State Music Teachers' Association. The association provides studio music teachers with support and career enrichment. They specialise in the following:

- professional standards in private studio instruction;
- accreditation and recognition of music teaching qualifications;
- ongoing professional development;
- advertising and referral services;
- journals and newsletters;
- performance opportunities and masterclasses/workshops for students; and
- scholarships and awards for students.

ABRSM has a section in its FRSM viva voce where the examiners enquire about the candidate's professional values and practice (ABRSM Syllabus 2016:57). The question posed to the candidate is: "In what ways do you envisage developing your own professional expertise over the coming years?" In the syllabus examples, appropriate responses are supplied and give readers a clear idea of what is expected. Continuous professional development for music teachers can be in many forms (ABRSM Syllabus 2016:7), as indicated below.

- taking lessons on an ongoing basis, and attending various summer courses;
- a subscription to numerous specialist periodicals;
- keeping up to date with the development of new repertoire;
- being a member of a string organisation;
- regular attendance of concerts, especially those given by international orchestras/soloists, and speaking to as many of the players as possible;
- a large and growing CD collection that is occasionally used for teaching purposes; and
- enrolment in the CT ABRSM Plus course.

The CT ABRSM Plus course combines its Certificate of Teaching and the Principles of Teaching diploma (DipABRSM level). The course is designed to develop teachers' teaching skills and help them to find the right approach for themselves and their learners. Applicants should have a minimum of one-year's teaching experience, be over the age of 21, and be teaching a minimum of five learners on a regular basis (CT ABRSM 2010).

Benefits include, inter alia, a refreshed approach to teaching, insights from a subject specific mentor, learning new skills, developing new ways to help learners improve and building a network with like-minded teachers. Two sections specifically for string teachers have been developed, as set out below.

3.3.5.1 *Instrumental basics*

- knowledge of basic muscle use and control;
- formation and control of the bow hold;
- formation and control of the instrument hold; and
- common faults and their correction.

3.3.5.2 *Studies and bowing techniques*

- different repertoires for teaching specific technique;
- appropriate stages for teaching different bowing techniques;
- slurred and legato bowing;
- string crossing and legato bowing;
- string crossing and double stops; and
- détaché, portato, spiccato, martelé, sautillé bowings.

ABRSM further advocates books for teachers to aid their professional development: *The music teacher's companion* by Harris and Crozier (2000), *All together* (2000) and *Music in words*, by Herbert (2012). Several books and articles have been written to promote professional development for music teachers, examples of which can be viewed in the bibliography of this dissertation. Other examples can also be viewed in the syllabi of ABRSM, Trinity College and AMEB. Prescribed videos are also listed in the AMEB syllabus.

3.4 GENERAL EDUCATOR PREPARATION COMPARED TO THAT OF A STRING TEACHER

Working from the document presented by the Sutton Trust Group in 2014, which reviewed over 200 pieces of research relating to the factors contributing to “great teaching”, this desk study mapped out and compared these factors to what is being taught in the string teaching qualifications under review³³. Whether it is a string teacher, who works on a one-on-one basis, or a language teacher, who interacts with a class of 30 learners, the quality of training and preparation for teaching is of vital importance. The aim of this desk study was to determine how the six factors, as described by Coe et al. (2014a; 2014b) are taught and assessed for general educators and string teachers, and whether all of these factors are present in the programmes offered by ABRSM, Trinity College and AMEB. The six factors that

³³ Appendix D

contribute to “great teaching”, as found by the Sutton Trust Group (2014), include the following:

1. deep subject knowledge;
2. quality of instruction – effective questioning, use of assessment, scaffolding;
3. classroom climate – constantly demanding more but recognising a learner’s self-worth; and valuing resilience and effort rather than ability;
4. classroom management;
5. teacher beliefs – theories of learning and models of the role of teaching; and
6. professional behaviours – good practice, professional development, supporting colleagues and liaising with parents.

3.4.1 Deep subject knowledge

Education qualifications require graduates to be extremely knowledgeable about their field and the content of the curriculum. Deep subject knowledge includes the following three subsections (Harte & Reitano 2015:226):

- subject matter content knowledge – knowledge and understanding of the key concepts and skills of the discipline;
- pedagogical content knowledge – strategies of communicating content knowledge in a way that makes it accessible to learners; and
- curricular knowledge – knowledge of the curriculum and teaching resources.

General educators enrol for the subjects they aim to teach, or if they already have a degree in the subject, they enrol for the applicable teaching method courses.

The instrumental performance teaching qualifications all include content pertaining to these subsections. *Subject matter content knowledge* refers, inter alia, to stylistic and interpretative knowledge, different instrumental techniques, the history of the instrument and its repertoire. *Pedagogical content knowledge* ties in with how the teacher communicates this knowledge to the learner. This skill is assessed during the *viva voce* or *video recording* of teaching practice. The *curricular knowledge* of string teachers refers to their knowledge of the material available, including technique books, the repertoire currently listed in the syllabus and what is expected from a learner during assessment.

3.4.2 Quality of instruction

According to the Sutton Trust Report (Coe et al. 2014b:2), quality instruction is characterised by effective questioning and use of assessment by teachers. Other elements of quality instruction include the regular reviewing of work, providing example responses for learners, allowing for enough time to practise and internalise skills, and progressively introducing new learning at an appropriate pace (Coe et al. 2014b:3).

Students studying education are required to go on *teaching practice*³⁴, which plays a key role in their training as “it grants student teachers practical experience in the teaching and learning environment” (Kiggundu & Nayimuli 2009:346). Depending on the qualification, the duration and number of opportunities to go on teaching practice may differ. During this teaching practice period, an experienced teacher (sometimes more than one) serves as a mentor to the student, helping and guiding the student through example and observation (Kiggundu & Nayimuli 2009:355). Examiners from the institution also visit the school several times³⁵ to critique and evaluate the students on all their teaching skills displayed during lessons (Kiggundu & Nayimuli 2009:348).

As for string teachers, the example set by their own teachers will largely impact on this aspect of their teaching skills. Meske (1985:66, in Davis 2006) explains this process, and cautions that it could be a “vicious circle”:

We are victims of our own learning, for we tend to teach, not as we were taught to teach, but as we were taught. And thus the gap between what we know—theories of teaching and learning which have resulted from research, experimentation, and observation—and what we do—the teaching behaviours readily observable in the classroom—continues to widen.

Here lies a clear difference between the training of general educators and that of string teachers. General educators usually have several experienced teachers, mentors and lecturers whose main objective is to teach them how to (and what to) teach, accompanied by constant feedback, evaluation and guidance. String teachers are mainly dependent on one or two mentors, namely their practical lecturer and/or teaching methodology instructor (sometimes

³⁴ “Teaching practice is a form of work-integrated learning that is described as a period of time when students are working in the relevant industry to receive specific in-service training in order to apply theory in practice” (Kiggundu & Nayimuli 2009:347).

³⁵ A minimum of two times (Kiggundu & Nayimuli 2009:348)

the same person). The implication of this limited focused teaching instruction is that it becomes the student string teachers' responsibility to be extremely observant and aware of their own teachers and peers, and gain the maximum insight from master classes and seek other meaningful learning experiences.

The instrumental teaching qualification bodies recommend that their candidates call upon the assistance of an experienced teacher, although this is not a requirement. Instead, videos of teaching practice, viva voce examinations, assignments and written examinations require candidates to conduct research.

3.4.3 Classroom climate

The climate of a classroom is dependent on several factors³⁶, but can be defined by the interactions between teachers and learners, and teacher expectations (Coe et al. 2014b:3). The teacher must encourage a climate that always strives towards excellence and inspires a culture/attitude of persistence. Excellence, as defined by Coe et al. (2014b:3), should be dependent on student effort rather than ability.

This principle might be efficient in larger classrooms when working with several learners, but for a string teacher or any one-on-one instrumental teaching, a balanced combination of effort and ability is vital for progress. Again the examples set by the lecturers have a strong influence on the teaching method adopted by the prospective string teacher (Meske 1985:66, in David 2006).

The topic of a classroom climate is not explicitly addressed in any of the instrumental teaching qualifications. They do, however, prescribe that candidates create a positive learning environment (AMEB 2016:3), and that it should be a safe space for learners to explore and develop their musical ideas (ABRSM 2014:8). Trinity College (2016:90) states that candidates should be sensitive to the learning environment and be able to accommodate the needs of individual learners.

3.4.4 Classroom management

Poole and Evertson (2013, in Akin, Yildirim & Goodwin 2016:772) describe classrooms as “complex social and cultural settings with multiple events occurring simultaneously”. Hence positive classroom management and climate-building strategies are key components in

³⁶ Involvement, affiliation, friction, satisfaction, self-disclosure, task orientation, order and equity (Choi et al. 2014:349).

developing and maintaining an effective learning environment (Skiba, Ormiston, Martinez & Cummings 2016:120). Researchers have found that in general, these strategies tend to avoid reactive and punitive approaches, favouring instructional and preventive approaches. “It must be emphasised that effective classroom management is far more than simply controlling learner behaviour” (Skiba et al. 2016:125). Effective strategies include the following (Skiba et al. 2016:122–123):

- setting clear expectations;
- optimal physical arrangement of the classroom;³⁷
- quality instruction;
- maximising learner engagement through appropriate curriculum;
- positive acknowledgement;
- building relationships between learners and teachers; and
- mentoring relationships.³⁸

Student teachers’ classroom management skills are assessed during their teaching practice. There are various self-assessment tools available online for teachers to evaluate their skills in classroom management. A case in point is a programme compiled by Washburn (2012) at the Centre on Education and Lifelong Learning. The document is freely available online to help teachers assess and improve their classroom management.

For string teachers mainly working with individuals, classroom management is not as much a pressing challenge as for teachers working with larger groups. One-on-one lessons offer individual attention and learners can thus be engaged with their work without distraction and the teacher can implement the highest quality of the above-mentioned preventive strategies. Because most of the qualifications under investigation focus on individual instruction, the topic of classroom management is not clearly emphasised but rather implied. Trinity College’s LTCL offers a “Music Teaching” qualification, for example, which is similar to the LCTL “Instrumental Teaching” qualification, but with small adjustments catering to candidates who aim to work with groups of 15+ learners at a time. The syllabus emphasises

³⁷ As each classroom is unique, there is no one physical arrangement that works for every setting. However, the goal must always be to organise the physical environment to minimise distraction and crowding.

³⁸ *Check & Connect*, for example, is a programme that pairs up adult mentors with at-risk or disengaged learners to monitor their progress in school and connect with them through consistent, high expectations and positive support (Skiba et al. 2016:123).

that teachers must take “full responsibility for the learning environment” (Trinity 2014:106), not going into much detail about classroom management.

3.4.5 Teacher beliefs

The Sutton Trust group lists the following four philosophical factors that form the beliefs of a teacher (Coe et al. 2014b:3):

- why teachers adopt particular practices;
- the purposes they aim to achieve;
- their theories about what learning is and how it happens; and
- their conceptual models of the nature and role of teaching in the learning process.

The theories, values and beliefs of teachers strongly influence their approach to teaching. Studies show that the “pedagogical purposes behind particular classroom practices are as important as the practices themselves in determining effectiveness” (Coe et al. 2014b:19). Since a teachers’ beliefs change over time, this aspect of their training is also assessed in the course of the qualification.

The beliefs of string teachers regarding the above are largely based on their own experiences as students and/or performers (Baker 2006 & Gorbatova 2006, in Gerber 2008:9). For example, they might teach a particular technique in the same way in which they were taught by their teacher (Meske 1985, in Davis 2006:28), and/or they would take their own performance or teaching experiences into account while teaching a specific or similar passage of a piece.

Candidates of the instrumental teaching qualifications are required to hand in written assignments, which give examiners insight into their beliefs and teaching philosophy. The content of the assignments is then discussed in the viva voce examination.

3.4.6 Professional behaviours

On the basis of the Sutton Trust, Coe et al (2014b:3) list the following four behaviours that teachers should adopt:

- reflecting on and developing professional practice;
- participating in professional development;
- supporting colleagues; and
- liaising and communicating with parents.

During the teaching practice period, student teachers are required to keep a daily teaching journal which offers reflective opportunities. The goal is to form a habit of being reflective in order to improve teaching strategies and learn from mistakes.

Many schools offer workshops to their teachers to improve their skills and inform them of new developments in the fields of medicine, technology, child psychology and policy changes. An example would be a child psychologist coming to a school to speak about attention deficit hyperactivity disorder and how to accommodate children suffering from it, to equip teachers with skills to deal with students more effectively, which could promote improved learning.

Team work and communicating with colleagues are essential. In general, teaching staff usually have a meeting before school starts, to discuss day-to-day events and long-term goals, affording anyone an opportunity to raise or address topics. Departmental meetings are also often held to discuss various topics such as budget, curriculum and assessment. For instance, a music department might discuss music events happening at the school, music awards, summer school music programmes and suchlike.

Parent evenings are also held regularly to inform parents of their children's progress, discipline or learning problems. Keeping communication channels open is imperative for it reinforces support from a learner's home. An example of the latter would be parents ensuring that the child's homework is done or a regular practice routine is maintained.

The instrumental teaching qualifications do not explicitly emphasise the professional behaviours of teachers, but rather focus on professional values which link up with ethical and legal knowledge. However, reflective skills are required to complete the written assignments and professional development opportunities are addressed in the viva voce examination. Team work among colleagues and communication with parents are not addressed in the syllabi. AMEB (2016:3) mentions that music teachers should be aware of the role of parents, but does not emphasise communication.

3.5 SUMMARY

In this chapter, light was shed on the three institutions and the manner in which they operate and the requirements for their teaching qualifications. An endeavour was made to identify competitive advantages and shortcomings reflected in their programmes. In chapter 4, conclusive findings are discussed and recommendations formulated.

CHAPTER 4: FINDINGS AND RECOMMENDATIONS

4.1 INTRODUCTION

The objective of chapter 3 was to present and map out the available teaching qualifications applicable to string teaching candidates and to determine whether there are gaps in the knowledge presented to them and required during assessment, with reference to general teacher education. Conclusions from this desk study are discussed below.

4.2 FINDINGS

Although AMEB's syllabus is far more detailed than those of ABRSM and Trinity, the required level appears to be lower with regard to prerequisites. AMEB's first teaching qualification, Certificate Teacher of Music Australia, only recommends a Grade 6 practical level, while ABRSM and Trinity require a Grade 8 minimum practical level. While ABRSM and Trinity consider their practical standards to be the same as AMEB, AMEB disagrees and states that Grade 6 AMEB is equal to Grade 8 ABRSM and Trinity.

After an in-depth analysis of the syllabi, it became clear that AMEB is the most detailed of the three with regard to content and assessment details. The knowledge required by string teachers as discussed in chapter 2 were mostly present, but at varying depths.

The candidates only have a choice of the repertoire presented in the relevant syllabi. A limited list of options, chosen by the institutions, limits the holistic development of both teachers and learners. Only Trinity is open to suggestions about repertoire, but provides little guidance on the identification of appropriate repertoire of a high quality, as discussed in chapter 2. AMEB's nationalistic impulse to include Australian compositions into its syllabi is commendable, but potentially also limiting with regard to musical development. Furthermore, teachers are required to teach only three pieces and a few scales to a learner for an examination, as prescribed in the syllabus. The result of this requirement is that a poor teacher, teaches only those three pieces and scales. This could result in a teacher capable of only teaching a limited number of pieces, and a learner not developing as a holistic musician. These malnourished instrumental learners then struggle to fill in the gaps in their training and music education. The teacher, who is not prepared or unable to teach these facets and is often unaware of these shortcomings, annually renews this process by entering the learner for the

next grade. This limiting choice of repertoire also impairs technical development which, in turn, deters stylistic fluency and interpretation skills.

In order to provide a more comprehensive evaluation of a candidate, applicants are required to submit written assignments, video recordings of their teaching practice, observation notes and accounts of their teaching done by experienced teachers, before they are granted access to the examination. Contradictory to the, “observation notes and accounts done by an experienced teacher”, it is not compulsory for candidates to have a mentor. This “gift” of independence can easily put the applicant’s learning at risk because skills of how to teach are largely developed in collaboration or under supervision of a mentor.

As for professional and ethical values, ABRSM and Trinity are internationally acclaimed examination boards, and are thus required to have an acute awareness that the laws and ethical climate of each country are different with regard to professional practice. This awareness is not clearly stipulated in their syllabi. In England, the touching of learners is strongly discouraged by Music Teachers’ Associations, while in South Africa, for example, it is not a problem to touch a child’s hand to adjust it when he or she is holding the bow. Of course there are many values that are universal such as safety in the classroom, fairness, teacher-learner confidence and mutual respect. The ethical climates of countries differ, depending on many different factors such as environmental and situational considerations. Teachers are confronted daily with ethical dilemmas, and often ill-equipped to handle them. Interaction with parents and the skill to deal with potential parental problems are essential for all teachers. Whether the syllabi truly provide graduates with the skills to deal with ethical dilemmas would be an interesting topic for possible future studies.

The question of aural development seems to be mostly unanswered. For a string player, it is imperative to have aural sensitivity and the teacher should develop this ability from the outset. The description of aural development in the ABRSM syllabus does not appropriately prepare string teachers for their classrooms and is only mentioned twice in the entire Trinity syllabus. AMEB is the only institution that places an appropriate emphasis on aural training and the teacher’s ability and awareness thereof during lessons.

Regarding the assessment methods that are used, the authority to certify that a candidate is qualified to teach, after 30 to 40 minutes of observed teaching, a few assignments and a viva voce, can be considered risky. In the opinion of the researcher, the methods of assessment

used by the institutions would be more accurate if assessment could be done over a longer period of time with more intense observations and regular continuous assessment and evaluation by various examiners and expert teachers.

Of the six elements that make great teaching, according to the Sutton Trust (2014b), only the following two are explicitly and fully addressed by the instrumental qualifications, namely *deep subject knowledge* and *quality of instruction*. As for *classroom climate*, *classroom management*, *teacher beliefs* and *professional behaviours*, the qualifications are vague and/or lacking in emphasis, guidance and assessment.

It could be argued that classroom climate and management are not as important for an instrumental teacher who primarily works on a one-on-one basis. It is possible that most instrumental teachers strive to create a classroom climate that pursues excellence and manages their classroom accordingly. However, each teacher's understanding of excellence and his or her means of achieving excellence may differ.

The institutions cover *classroom climate and management* in broad strokes, not providing high quality examples or methods. *Beliefs of a teacher* is addressed by AMEB through its philosophy section, but is not clearly set out in ABRSM or Trinity syllabi. It can be argued that it is too subjective to compile a list of beliefs teachers should have, but in the opinion of the researcher that is exactly what is needed. General educators have several mentors, required readings and lectures to attend, which all contribute to their beliefs about teaching and the learning process. Several pedagogues and experts contribute to the training of a general educator in comparison to a string teacher. String teachers often depend on their lecturers' input to indirectly develop their beliefs and teaching philosophies.

Professional behaviours are investigated to a degree, emphasising reflective practice and teacher-learner relationship, but are missing one vital element – parental knowledge. Communicating with parents and knowing how to deal with conflict are essential skills that are not mentioned in any of the syllabi investigated. Instead, legal matters are emphasised to protect teachers and learners from one another.

4.3 RECOMMENDATIONS

This desk study identified areas that are lacking in the training offered to string teachers by ABRSM, Trinity College and AMEB. The objective of this section is to propose possible recommendations for the following problems with current string teacher training:

- limited choice of repertoire;
- requirements for graded examination that have the potential to enable learners and teachers to do the minimum required work;
- little help/guidance from syllabi regarding mentors for candidates;
- aural training specifications;
- general education gaps: classroom climate and management, teacher beliefs and professional behaviours; and
- assessment of string teachers.

The repertoire lists supplied by the institutions are convenient for string teachers new to the field, but they also run the risk of limiting their choices. By providing teachers with the means to identify high- quality repertoire, they would be able to choose appropriate repertoire themselves. Often teachers teach the same three pieces every year, because they consider those piece to be of the highest available quality.

Regulations that limit the number of times a teacher can use a specific piece for examinations, would encourage teachers to find new repertoire and develop their teaching skills. Teachers are often pressured by their school or a learner's parents to enter a learner for a graded examination, leaving them with little time to explore other pieces and add additional technical exercises apart from the prescribed pieces and scale requirements. Often in a classroom, learners might ask whether a specific task contributes to their final mark – if it does not, they do not feel compelled to put much effort into it or complete it at all. This attitude is dangerous in music. Using the same logic, if the C major scale were never to appear in the syllabi, some teachers might omit it in their teaching, resulting in an ill-equipped learner. It is thus imperative to nurture a continuous craving to learn more, regardless of assessment and the required material to be included.

One of the reasons why novice string teachers are fearful of their new profession is because they feel unprepared and unsupported. With the presence of a mentor to call upon in moments of doubt, to ask for advice or give feedback on their teaching, new string teachers would experience less anxiety and more excitement and confidence to teach. String teacher associations play a vital role in offering guidance of mentors to their novice members. The American String Teaching Association launched such a mentor programme in 2016. Mentors offer assistance on the following (ASTA 2016):

- classroom management and pacing;

- efficient tuning procedures;
- repertoire selection/score study;
- specific string technique instruction;
- administration-paperwork/time management;
- lesson planning;
- field trips/travel;
- program advocacy;
- building relationships with other teachers; and
- any other concerns as they arise.

Izadinia (2016:387) found that a positive relationship between a mentor and candidate is imperative, as it significantly influences candidates' perception of themselves as teachers and the learning environment. The study concluded that a successful mentoring programme includes encouragement and support, an open line of communication and feedback (Izadinia 2016:390).

String teaching associations provide many services and opportunities to their members. Workshops, summer courses, online courses and conferences bring teachers together to hone their skills, participate in discussions and interact with other teachers (American String Association 2016). String teaching associations fulfil an important role in upholding and improving the quality of string teaching.

As mentioned in chapter 3, string teachers and their learners often separate aural training from the instrumental lesson. Hence string learners often struggle to find the connection between aural training and their instrumental performance. Some string teachers do not take responsibility for the aural training of their learners, as they believe that it should be taught by the music theory teacher. String teachers need to be made aware of the key role they play in linking aural training to the instrument. It could be argued that aural skills are exclusively tested with a piano and not with a string instrument, and that it is therefore unnecessary to involve string instruments. However, a string learner not having piano lessons possesses a different sound framework. When string players are asked to identify an interval, for instance, they do not refer to the keys of a piano, but think of their hand position on the finger board. The ability to pitch accurately and to develop specific aural skills relating to texture and colour in sound, is the responsibility of the string teacher. Hence string teachers should take

responsibility and strengthen their learners' understanding and knowledge, and develop their aural skills equally to the individual's practical performance level.

It would appear that there is no single source of knowledge and that contemporary string teachers are largely responsible for developing their own skills. This could be compared to walking through a supermarket and picking out ingredients for a cake, not always knowing if the milk might be off or whether everyone likes chocolate icing. Using this analogy, sources might be old or outdated, and there is no one single method that works for every individual learner –hence the importance of continuous professional development. Consequently, the efficiency and accessibility of string teaching associations and similar organisations are important in order to meet this need.

It is clear that steps should be taken to bridge the gap between general education and string teaching. Dealing with injuries, acquiring knowledge of child psychology and the learning process, honing classroom management skills, creating the ideal teaching climate, professional behaviour and teaching philosophies, are all topics that can form part of an association's organised events calendar. By engaging various speakers who are all experts in their fields, string teachers may bridge gaps and acquire critical skills that are obtained as part of the curriculum during training of a general educator.

Assessment of the teaching diplomas of ABRSM, Trinity College and AMEB, show that they are all similar in the sense that evidence of the candidate's teaching must be presented in the form of written assignments, video recordings and so forth. However, it is the researcher's opinion that the timeline of the assessments is compressed to the extent that many aspects of a candidate's teaching skills and knowledge cannot be fully evaluated.

The first level of qualifications is said to be equal to that of a first-year undergraduate degree, the second level equal to a full undergraduate degree and the third level equal to a postgraduate degree. All three levels of the qualifications can be completed in three consecutive years, for example, ATCL, LTCL and FTCL. Compared to a BMus of three or four years, a BMus Honours degree of one year and a MMus of one or two years, the progression of the syllabi under investigation is fairly rapid.

Figure 4.1 depicts the learning curve of the different levels of the qualifications compared to those of a university degree. Level 1 is equal to the completion of the first year of an undergraduate degree (BMus) (A), while level 2 is equal to a BMus, which is generally three

to four years of study (B). Level 3 is equal to a postgraduate degree, which is generally two years of study.

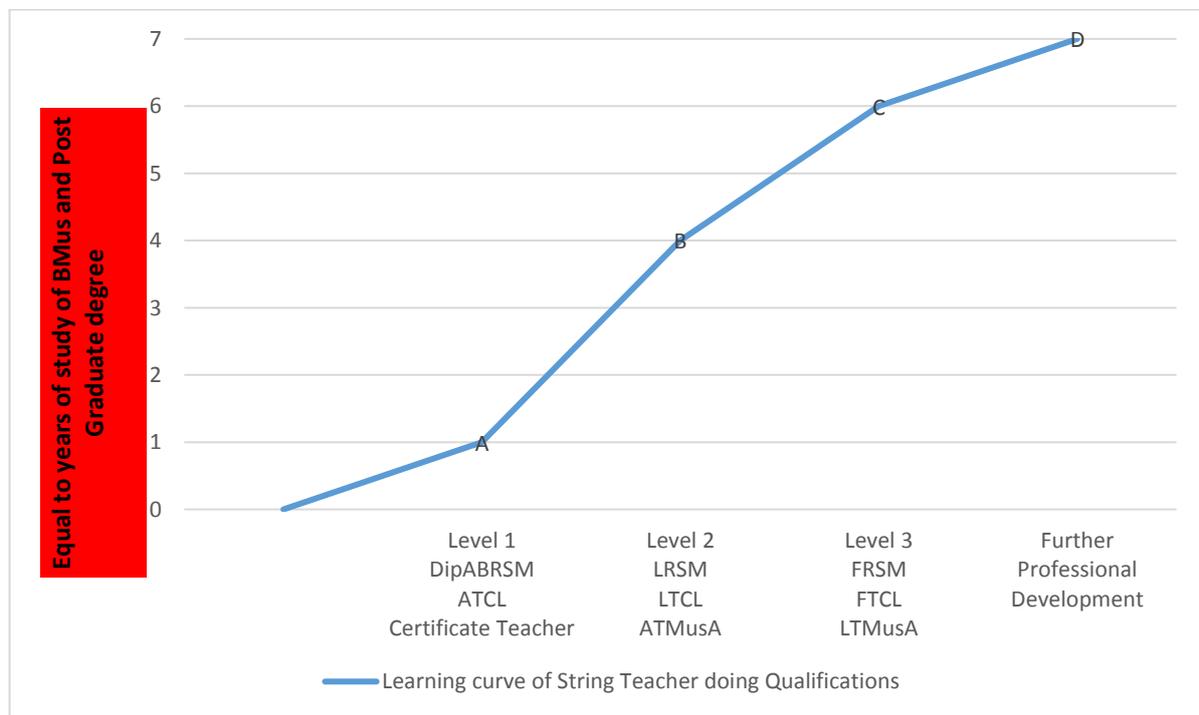


Figure 4.1: Graphic representation of recommended string teacher preparation

As mentioned previously, additional training is needed to equip string teachers with skills to teach successfully. These skills may be developed to a higher level through periods of ‘teaching practice’. Taking the assessment methods of most Postgraduate Diplomas of Education into account, the institutions currently offering PGCE, employ a teaching practice period, but do not specify the presence of a mentor. The researcher recommends that candidates should take part in two separate teaching practice periods, with the guidance of a qualified mentor (who teaches the candidate’s instrument) and other instrumental teachers (not necessarily strings). During this period (4–6 weeks as prescribed by PGCE qualifications), the candidate should observe the mentor’s teaching and that of other teachers. The candidate should have the opportunity to teach and work with learners of various age groups and ability levels. A teaching practice journal should be kept for assessment and reflection, and the mentor should conduct continuous assessment of the candidate’s lessons. Between the two teaching practices, candidates should attend lectures focusing on the six elements of successful teaching, as presented by the Sutton Trust (Coe et al. 2014b). They should also connect with other candidates to reflect on their experiences and prepare for the next teaching practice, which would be with a different mentor. It is essential for candidates to be exposed to several expert teachers and different learning environments to broaden their

understanding. Thus when a candidate enters for assessment the following steps will be followed:

- Before any lectures or formal classes commence, candidates will spend two weeks in an educational environment observing a teacher of their instrument. This will give them the chance to see a professional at work and to see what teaching is like in practice.
- After this period the candidates must attend several workshops and theoretical lectures. Time must be spent conversing and debating with other candidates and lectures to determine best practice methods and principles by revering back to past experiences and new research. Weekly assignments and research projects focusing on the content prescribed by ABRSM, Trinity and AMEB must be included. Knowledge transfer of technical skills and musical understanding should be harnessed by various lecturers. In addition to the mentioned content, lectures must investigate the six elements of successful teaching as described by the Sutton Trust. Experts must be called upon to lecture on these topics. Weekly group sessions will be held to prepare candidates for the upcoming teaching practise period with the guidance of an experienced mentor. These sessions will entail topics such as ethical behaviour, discipline, classroom atmosphere, parental knowledge, and any other concerns of the candidate.
- At the start of the first official teaching practise period, lasting four weeks, candidates are to be assigned a qualified mentor. A teaching practise journal is to be kept that will be used to describe experiences and reflect on the teaching of others and their own. Candidates will get the opportunity to teach under the supervision and guidance of their mentor for several hours a day, along with observation of their mentor's own teaching. The candidate will teach learners of all ages and be required to teach in front of an assessment board. At the end of teaching practise the journal is to be handed in for assessment.
- A second set of lectures and reflective workshops will commence investigating several topics including different teaching philosophies, ethical dilemmas with learners, parents and colleagues, legal legislation. The incorporation of aural training in the classroom will also feature in the set of lectures and workshops.
- The second teaching practise will last four to six weeks. Candidates will be assigned a different mentor and their own student to teach. At the end of the six weeks the

candidate’s student will play an assessment and the candidate will be asked to teach in front of an assessment board.

- Continues professional development workshops will be made available to the candidate in future.

The following framework summarises the content adjustment, support, and assessment required to enhance the training of string teachers as discussed in the section above.

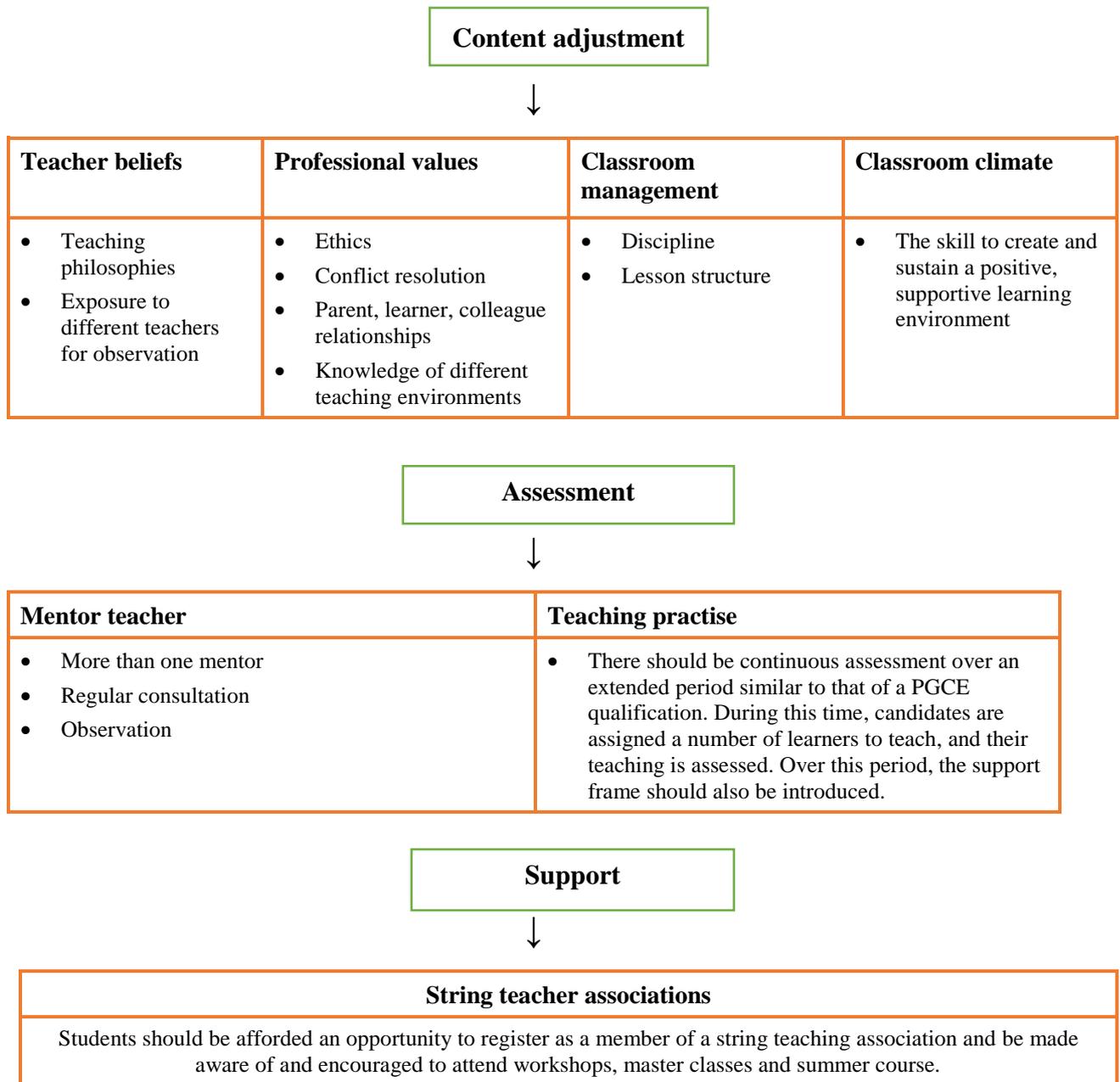


Figure 4.2: A framework for the development of a string teacher

4.4 FINAL COMMENTS

This dissertation endeavoured to identify and pose possible solutions to the weaknesses in the current training and assessment of string teachers. Through a literature study, the skills, knowledge requirements and personality traits of general educators were identified and discussed in an attempt to draw comparisons to that of the skills and knowledge assessed in the string teaching qualifications offered by ABRSM, Trinity College and AMEB. A literature review was used to identify the weaknesses in the current training of string teachers and discuss the special skills and knowledge required by contemporary string teachers to produce well-rounded musicians.

Recommendations based on the findings of this dissertation suggested content adjustments, the implementation of support systems for string teachers and alteration of assessment methods. Further research would be required to test these recommendations in practice.

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APPENDICES

Appendix A : Prerequisites and substitutions (3.3.2)

The Associate Board of the Royal Schools of Music

Qualification	Prerequisites	Substitutions
DipABRSM	<p>ABRSM Grade 8 Practical in the instrument taught</p> <p><i>and</i> ABRSM Grade 6 Theory</p>	<ul style="list-style-type: none"> • Appropriate professional experience (specifications in syllabus 2016: 24 & 64). • Grade 8 Practical from Guildhall School of Music & Drama, London College of Music & Media, Dublin Institute of Technology, Australian Music Examinations Board or University of South Africa; Grade 9 Certificate from Royal Conservatory of Music, Toronto • Grade 8 Practical from Trinity College London or Royal Irish • Academy of Music (with ABRSM Grade 5 Theory or equivalent from any of the boards listed in this table) • ATCL Performing/Recital or Performer's Certificate from Trinity College London or ALCM Performer's Certificate from London College of Music & Media (with ABRSM Grade 5 Theory or equivalent from any of the boards listed in this table) • CPD Training Strategy, Module 1, from Royal Air Force Music Services • TEQA 1 from Royal Military School of Music, Kneller Hall • M2 from Royal Marines School of Music • BMus (Hons) from Royal Academy of Music or Royal College of Music (successful completion of all course units for the first year) • BMus (Hons) or BA (Music) from Royal Northern College of Music (successful completion of all course units for the first year) • BEd (Music), BA (Musical Studies) or BMus (Performance) from Royal Conservatoire of Scotland (successful completion of the first year) <ul style="list-style-type: none"> • Appropriate professional experience (see p. 24) • Grade 6 Practical Musicianship from ABRSM • Grade 8 Theory from London College of Music & Media or Trinity College London • Grade 6 Musicianship from Dublin Institute of Technology

		<ul style="list-style-type: none"> • Grade 8 Theory & Harmony from Royal Irish Academy of Music • Grade 7 Theory or Musicianship from Australian Music Examinations Board • Grade 7 Theory from University of South Africa • Grade 4 Harmony <i>and</i> Counterpoint from Royal Conservatory of Music, Toronto • A Level Music (grade A) • Courses A241, A214 or A224 from Open University • Higher Level Music International Baccalaureate (Grade 7)
LRSM	DipABRSM <i>and</i> ABRSM Grade 8 Theory	<ul style="list-style-type: none"> • Appropriate professional experience (see p. 24) • Advanced Certificate from ABRSM • LGSMD (Teaching) from Guildhall School of Music & Drama • LLCM (Teaching) from London College of Music & Media • LTCL (Teaching) from Trinity College London <ul style="list-style-type: none"> • Appropriate professional experience (see p. 24) • A university music degree with verified theoretical modules (required: copy of degree certificate, breakdown of results, and reference from course tutor affiliated with university) • Grade 8 Practical Musicianship from ABRSM • LRSM (1992) Part 1 from ABRSM • AMusTCL from Trinity College London • AMusLCM from London College of Music & Media • Associate Theory or Musicianship from Australian Music Examinations Board • Teachers' Licentiate in Theory of Music from University of South Africa • Grade 5 Harmony, Counterpoint <i>and</i> Analysis from Royal Conservatory of Music, Toronto • Band Sergeant Course (with AMusTCL completed) from Royal Military School of Music, Kneller Hall
FRSM	LRSM	<ul style="list-style-type: none"> • Appropriate professional experience (specifications in syllabus 2016: 24 & 64). • LRAM (Teaching) from Royal Academy of Music • ARCM (Teaching) or DipRCM (Teaching) from Royal College of Music • FGSM (Teaching) from Guildhall School of Music & Drama • FTCL (Teaching) from Trinity College London

(Appendix A continued)

Australian Music Examinations Board: Recommended pre-entry standard

Qualification	Recommended pre-entry standard	Equivalent
Certificate Teacher of Music Australia	<ul style="list-style-type: none"> Instrumentalists have reached the age of 18 years A pass in Grade 6 Practical in the instrument offered for examination A pass in Grade 4 Theory, Musicianship or Music Craft. 	
ATMusA	<ul style="list-style-type: none"> Instrumentalists have reached the age of 19 years A pass in Grade 8 Practical in the instrument offered for examination A pass in Grade 6 Theory, Musicianship or Music Craft. Candidates are familiar with a recognised developmental music education programme, such as Dalcroze, Kodály or Orffschulwerk. It is recommended that candidates attend a short course, offered by the relevant associations, in one or more of these programmes 	<ul style="list-style-type: none"> AMusA Practical is equal to: Grade 7 ABRSM or Trinity (AMEB 2016: xviii)
LTMusA	<p>Prerequisites</p> <ul style="list-style-type: none"> A candidate must have successfully completed ATMusA (or equivalent) A candidate must submit copies of between five and ten examination reports indicating at least a “B” grading for students they have prepared and entered for AMEB practical examinations within the previous five years before enrolment for the LTMusA. At least three reports from Level 2 examinations are to be included and should come from a range of grades. <p>Recommendations</p> <ul style="list-style-type: none"> A candidate should be at least 21 years of age. A candidate should have achieved at least a credit in Grade 6 Theory, Music Craft or Musicianship (or equivalent). 	<ul style="list-style-type: none"> AMusA Practical is equal to: Grade 7 ABRSM or Trinity (AMEB 2016: xviii) Grade 6 Theory, Music Craft or Musicianship is equal to: Pass, G8 ABRSM or Trinity Theory (AMEB 2016: xviii)

(Appendix A continued)

Trinity College of London

Qualification	Prerequisites (Trinity online 2016:94)	Substitutions (Trinity online 2016: 94)
ATCL	<ul style="list-style-type: none"> The minimum age for entry to ATCL Principles of Instrumental Teaching is 18. Trinity Grade 8 or above in the instrument or voice being taught (for Principles of Instrumental Teaching). 	Trinity Grade 8 is equal to: <ul style="list-style-type: none"> Grade 8 Music Performance from any other Ofqual³⁹-accredited board (ABRSM, LCM, Rockscool, or from UNISA, AMEB)
LTCL	<ul style="list-style-type: none"> The minimum age for entry to LTCL Instrumental Teaching and Music Teaching is 21. Trinity Grade 8 or above in the instrument or voice being taught (for Instrumental Teaching) Trinity Grade 6 or above (for Music Teaching) 	Trinity Grade 6 is equal to: <ul style="list-style-type: none"> Grade 6 Music Performance from any other accredited board (ABRSM, LCM, Rockscool or from UNISA, AMEB)
FTCL	<ul style="list-style-type: none"> The minimum age for entry to FTCL Music Education is 21. LTCL in Instrumental Teaching or Music Teaching or suitable equivalent. Evidence of employment as a teacher for at least two years full time or four years part time Prior approval in writing from the Music Team at Trinity's central office of the programme, dissertation or body of work to be presented. 	Licentiate of Trinity College London (LTCL) is equal to: <ul style="list-style-type: none"> any Licentiate Teaching diploma from any other Ofqual-accredited board (eg ABRSM, LCM) Post Graduate Certificate in Education (PGCE) in music

³⁹ The Office of Qualifications and Examinations Regulation (Ofqual) is a non-ministerial government department that regulates qualifications, examinations and tests in England and vocational qualifications in Northern Ireland.

Appendix B: Educational Knowledge (3.3.3.1)

Qualification level	ABRSM	Trinity College	AMEB
First level	DipABRSM	ATCL	Teaching Certificate
3.3.3.1 (a) Knowledge of styles and interpretation	Knowledge and understanding of musical styles and the interpretation of notation in order to produce stylistically aware performances, as well as demonstrate how these can be taught to pupils up to and including ABRSM Grade 6 level.	Develop knowledge of music drawn from a wide variety of styles and the ability to teach and illustrate said styles.	<ul style="list-style-type: none"> • Perform competently any of the pieces from their prepared examination programmes as required by the examiner. • Discuss the general knowledge of each piece as required by the syllabus for each grade. • Describe the main teaching points of each piece. • Identify potential difficulties in the chosen pieces. • Give clear explanation as to how they would assist a student in overcoming such difficulties.
3.3.3.1 (b) Professional values	Understanding of the legal framework relating to teaching, including child protection, maintaining a safe learning environment, the physical well-being of pupils, and equal opportunities for all learners.	<p>Knowledge and awareness concerning ethical conduct – health and safety in the classroom and child protection.</p> <p>The awareness of the significance of their role as a music teacher in the broader musical context.</p> <p>Ability to reflect critically on their own practice and that of others.</p> <p>Demonstrate awareness of relevant professional protocol and legislation.</p>	<p>Candidates will explore the process of creating a positive learning environment along with the advantages thereof.</p> <p>Four philosophical questions are explored:</p> <ul style="list-style-type: none"> • Why do I want to teach? • Whom do I want to teach? • What do I want to teach? • How do I want to teach?

3.3.3.1 (c) Knowledge of physiological and psychological impact on learning processes and performance of learners	Knowledge and understanding of the teaching and learning process, including: appropriate strategies for teaching individuals and groups, and awareness of different learning styles; lesson planning, content and structure; assessment issues and reflective practice; teaching musicianship and instrumental/performance skills; practice; motivation.	Knowledge and understanding of various teaching strategies for working with individuals and small groups, including an awareness of the teacher/pupil relationship. Awareness of the teaching transaction, including understanding of relevant legislation and professional values.	The candidate's recognition of the importance of playing from memory will be demonstrated by the articulation of effective strategies for developing memory skills and monitoring students' progress.
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(Appendix B continued)

Qualification level	ABRSM	Trinity College	AMEB
Second level	LRSM	LTCL	ATMusA Diploma
3.3.3.1 (a) Knowledge of styles and interpretation	Knowledge and understanding of musical styles and the interpretation of notation in order to produce stylistically aware performances, as well as demonstrations of how these can be taught to pupils up to and including ABRSM Grade 8 level.	Teach and illustrate music drawn from a wide variety of styles. Demonstrate a high level of creativity and originality in developing and presenting musical materials and concepts, including developing students' own creativity.	A broad general musical background An ability to demonstrate and teach with confidence the skills and understanding required for competent and expressive performance in their chosen field.
3.3.3.1 (b) Professional values	Understanding of the legal framework relating to teaching, including child protection, maintaining a safe learning environment, the physical well-being of pupils, and equal opportunities for all learners; knowledge of relevant support organisations and own professional opportunities, including continuing professional development. Awareness of the teacher/pupil relationship.	A thorough understanding of relevant legislation, professional values and own career development opportunities.	Awareness of the teacher/pupil relationship, drawing on a high level of judgement in critical situations. The ability to reflect on their own philosophy of music education. A philosophy component is included in the syllabus in order to encourage candidates to identify and question their values, to explore important ideas presented by others and to deepen their understanding of music and music education.

<p>3.3.3.1 (c) Knowledge of physiological and psychological impact on learning processes and performance of learners</p>	<p>Knowledge and understanding of the teaching and learning process, including appropriate strategies for teaching individuals and (where appropriate) groups, and understanding of different learning styles; lesson planning, content and structure; assessment issues and reflective practice; teaching musicianship and instrumental/performance skills; practice; motivation.</p>	<p>Reflect critically upon their own practice and that of others, adjusting their practice based on self-evaluation or feedback.</p>	<p>A basic understanding of child development and the learning process.</p> <p>A philosophy component is included in the syllabus in order to encourage candidates to identify and question their values, to explore important ideas presented by others, and to deepen their understanding of music and music education.</p>
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(Appendix B continued)

Qualification level	ABRSM	Trinity College	AMEB
Third level	FRSM	FTCL	LTMusA
3.3.3.1 (a) Knowledge of styles and interpretation	Knowledge and understanding of musical styles and the interpretation of notation in order to produce stylistically aware performances, as well as demonstrations of how these can be taught to pupils up to and including DipABRSM level.	Dissertation-based diploma. Engage in a complex field of activity where they require substantial depth of understanding and abilities, involving planning, analysis, action and evaluation, including self-evaluation. Conduct research into their own musical practice and produce systematic and creative approaches based on its results.	A knowledge of a wide range of music, including Australian music and music of female composers. The student of the candidate must display musical understanding in terms of aspects such as aural awareness, rhythmic flow, shaping of phrases, realisation of climaxes, interpretation of markings such as fermatas, accents, dynamics and the realisation of form.
3.3.3.1 (b) Professional values	Understanding of the legal framework relating to teaching, including child protection, maintaining a safe learning environment, the physical well-being of pupils, and equal opportunities for all learners; knowledge of relevant support organisations and own professional opportunities, including continuing professional development and the wider employment context.	Demonstrate the ability to frame problems effectively and design appropriate responses. Demonstrate a profound level of creativity, originality, personal commitment and individual responsibility in all	Essay discussing one of three topics: <ul style="list-style-type: none"> • Contemporary issues in the profession as may appear in current journals or professional association discussions. • Leadership in professional interaction – a discussion of the role a teacher might have in working with colleagues in the further development of the profession. • Professional ethics – the importance of promoting a high ethical standard in developing the perception of the profession by the community and teaching colleagues.

<p>3.3.3.1 (c) Knowledge of physiological and psychological impact on learning processes and performance of learners</p>	<p>Knowledge and understanding of the teaching and learning process, including appropriate strategies for teaching individuals and (where appropriate) groups, and understanding of different learning styles; lesson planning, content and structure; assessment issues and reflective practice; teaching musicianship and instrumental/performance skills; practice; motivation.</p> <p>Ability to make critical evaluations both of sources and of pedagogical approaches and to make personal insights into music education.</p>	<p>work.</p> <p>Operate effectively in musically critical situations where success depends upon appropriate responses based on a high level of skill, judgement and insight.</p>	<p>An understanding of recent and current ideas and theories relating to the following areas of music: (a) Music as knowledge (b) Music psychology: personality; cognition and perception; musical aptitude and ability; giftedness and talent (c) Musical performance (d) Assessment and evaluation in music.</p> <p>Musical performance: the nature of musical performance and psychology relating to performers.</p>
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Appendix C: Performance skills (3.3.3.2)

Qualification level	ABRSM	Trinity College	AMEB
First level	DipABRSM	ATCL	Teaching Certificate
3.3.3.2 (a) Technical proficiency and instrumental knowledge	Knowledge and understanding of the techniques required to perform repertoire up to and including ABRSM Grade 6, and demonstration of approaches to teaching and performing them at this level, including posture, intonation, scales and exercises, tone production, articulation and phrasing.	<p>Knowledge and understanding of musical concepts and instrumental techniques, suitable repertoire and activities for beginner and intermediate learners.</p> <p>Ability to communicate and present ideas clearly, adapting materials and modes of delivery to suit individual learning needs.</p>	<p><i>Pedagogy content covers the following in detail:</i> Aural training (pitch, rhythm and harmony); tone, touch and technique, posture and hand position; note-reading in the early stages; sight-reading; memorisation; technical work, including exercises and scales; phrasing and articulation; expression and mood; creativity and imagination; general knowledge – the notes, rests, signs, titles of pieces; the keys or tonalities in which pieces are written; practice methods.</p> <p><i>The candidate must also:</i> Demonstrate competently the technical work and exercises prescribed for the designated grades⁴⁰ (Syllabus 2016: 4), through performance, explanation of purpose, indication of appropriate teaching strategies and suggestion of ways for diagnosing, preventing and/or overcoming difficulties.</p>

⁴⁰ Designated grade: beginning lessons through the lowest two AMEB grades of candidate's chosen instrument (AMEB Syllabus 2016: 2), thus Preliminary and Grade 1.

3.3.3.2 (b) Aural development	Methods of improving aural ability and perception. Designing and using aural games in lessons.	No mention of aural skill requirements	The ability to design a range of activities to give pupils the opportunity to discover the importance of listening, inner hearing and a basic sense of pulse. Activities include clapping and other physical activities to develop aural awareness, movement to music, playing percussion instruments, using simple conducting patterns, and singing.
3.3.3.2 (c) Repertoire and demonstration	Knowledge of repertoire for students up to and including ABRSM Grade 6, including tutor books, exercises and other teaching resources.	Demonstrate sophisticated awareness of the material they are working with, including its relationship to graded music examinations	<ul style="list-style-type: none"> •Present and discuss any of the works in their two examination programmes, as well as the technical work and exercises prescribed for the chosen levels. •Identify, discuss and suggest methods to overcome the musical and technical challenges which may occur in the chosen pieces and technical work. •Discuss the various activities and issues associated with the progress from the first lessons, including the first two grades, both instrument specific and general musical development. •Present personal views on education, pedagogy, repertoire and philosophy, in discussion with the examiner.

(Appendix C continued)

Qualification level	ABRSM	Trinity College	AMEB
Second level	LRSM	LTCL	ATMusA Diploma
3.3.3.2 (a) Technical proficiency and instrumental knowledge	Knowledge and understanding of the techniques required to perform repertoire up to and including ABRSM Grade 8, and demonstration of approaches to teaching and performing them at this level, including posture, intonation, scales and exercises, tone production, articulation and phrasing.	Ability to promote musical and technical development for beginners to advanced level. Knowledge and understanding of effective teaching techniques, repertoire and activities applicable to a wide range of contexts.	Introducing all aspects of technical and artistic growth in a sequenced, balanced and orderly manner. Specific emphasis is placed on a secure foundation for a beginner student, as it influences future progress. <ul style="list-style-type: none"> • posture and balance • tension and release from tension (physical) • tone and articulation • intonation • bowing/strokes • phrase shaping • considerations of style • breathing • caring for the instrument • vibrato • fingering
3.3.3.2 (b) Aural development	The candidate must discuss his or her approach to the development of a pupil's sight-reading and aural abilities, and state why these skills are to the benefit of the complete musician.	Prescribes that attention should be focused on aural skills in lessons (Trinity College Syllabus: 104).	The ability to involve students in different activities to develop essential skills required to perform music at very early stages. Emphasis is placed on aural training in order to improve pupils' capacity to comprehend sound, and of refining their ability to link ear, eye and hand when performing by sight, from memory, by ear or by improvising.
3.3.3.2 (c) Repertoire and demonstration	Knowledge of repertoire for students up to and including ABRSM Grade 8 level, including tutor books, exercises and	Demonstrate sophisticated awareness of the material they are working with, including its relationship to graded music	The teaching skill and repertoire required of ATMusA candidates includes a beginner's first lesson through to an intermediate standard. Expert knowledge of the purposes and the

	other teaching resources.	examinations.	repertoire of level 1 of their instrument (Preliminary and Grades 1 to Grade 4)
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Appendix C continued

Qualification level	ABRSM	Trinity College	AMEB
Third level	FRSM	FTCL	LTMusA
3.3.3.2 (a) Technical proficiency and instrumental knowledge	Knowledge and understanding of the techniques required to perform repertoire up to and including DipABRSM, and demonstration of approaches to teaching and performing them at this level, including physiological and psychological aspects, intonation, scales and exercises, tone production, articulation and phrasing.	Dissertation-based diploma. Engage in a complex field of activity where they require substantial depth of understanding and abilities, involving planning, analysis, action and evaluation, including self-evaluation.	The ability to provide guidance relating to students' practice techniques demonstrate an ability to diagnose and offer solutions to problems in instrumental or vocal performance. The ability to perform sensitively and competently works from the Level 2 repertoire (Grade 5 to Grade 8)
3.3.3.2 (b) Aural development	Ability to communicate the aural concept of the ideal sound for the instrument. Aural training as topic for written assignment.	Conduct research into their own musical practice and produce systematic and creative approaches based on its results. Demonstrate the ability to frame problems effectively and design appropriate responses.	Further development and planning for aural awareness in combination with sight-reading for pupils of a practical Level 2 (AMEB Syllabus 2016: 4).
3.3.3.2 (c) Repertoire and demonstration	Knowledge of repertoire for students up to and including DipABRSM level, including studies and other teaching resources. Three pieces from the DipABRSM (Music Performance) syllabus repertoire list must be performed, one in completion and selected extracts from the other two.	Demonstrate a profound level of creativity, originality, personal commitment and individual responsibility in all work. Operate effectively in musically critical situations where success depends upon appropriate responses based on a high level of skill, judgement and insight.	The ability to perform sensitively and competently works from the Level 2 repertoire. An ability to plan a programme of development for individual students in a teaching practice. The presentation, analysis and ability to perform 24 pieces selected by the candidate, drawing on a range of texts and articles, and where appropriate, on lecture notes and master classes.

Appendix D: Great teaching

Great teaching (Coe et al. 2014)	General educator		Music educator/string teacher	
	How it is taught	How it is assessed	How it is taught	How it is assessed
Deep subject knowledge	Expert knowledge and understanding of the curriculum gained at the university and in practice; and continuous self-study and interest in new development in the field/subject.	During teaching practice, the content of the lesson and the insight of the student teacher's answers to pupil questions and class discussions will be evaluated by an examiner.	Knowledge of what is to be assessed must be acquired through self-study and observation.	Knowledge displayed in written examinations; viva voce's discussion and demonstration of skill during lesson; and video of teaching practice.
Quality of instruction	Various examples and studies of quality instruction are discussed in lectures and insight and experience is gained during teaching practice.	It is assessed on the basis of how well pupils respond and interpret the student teacher's instructions during their observation lesson.	Self-study, own experience of their teachers, orchestra rehearsals, etc.	Written assignments, written examination, viva voce demonstration of teaching and discussion of pedagogy.
Classroom climate	The ideal classroom climate is discussed in lectures and the methods of creating it. Different philosophies and pedagogical research are discussed.	This knowledge is assessed through assignments, written examinations and observations during teaching practice.	Self-study, own experience of their teachers, orchestra rehearsals, etc.	Viva voce: demonstration of teaching.
Classroom management	The importance of being organised and having structure in teaching is emphasised through a teacher's training and their career.	During the teaching practice period, mentor teachers set an example and write reports on the student's work ethic.	No explicit instruction or guidance in the syllabuses, but can be learnt and observed from other experienced teachers.	It is unlikely that a pupil will act out during the viva voce examination, but if this topic should arise, it will be addressed in the discussion after the lesson.

Teacher beliefs	Pedagogical philosophies are introduced at university level, but the beliefs of a teacher are built up over years of teaching and influenced by their experiences.	During teaching practice, a journal is to be written in daily which should reflect their beliefs and personal teaching philosophies as they develop over the course of the teaching practice. This journal is handed in at the end of teaching practice for assessment.	Personal experience gained from teaching, learning from their own teachers and performing. AMEB includes a philosophy component in their syllabus that address the beliefs and teaching philosophies of music teachers.	These views are assessed in the written assignments and how these reflect in the teaching demonstration and discussion during the viva voce.
Professional behaviours	During teaching practice: <i>Reflection</i> through the teaching journal. <i>Professional development</i> programmes are sometimes offered by the school or by self-study and workshops. By observing teachers in their working environment, students will get into the routine of <i>communicating with other teachers</i> and form part of the supportive teaching community. <i>Parental communication</i> knowledge is acquired through observation of mentors.	The experiences are reported in the teaching practice journal, which is handed in for assessment.	Observation of their own teachers and teachers of others. Their own teaching experience. Reflection will be developed through written assignments.	Written assignments and viva voce.

Appendix E: Certificate of Technical Formatting



To whom it may concern

This letter serves as confirmation that I, Lize Vorster, performed the technical formatting of Pieter-Adriaan Stofberg's thesis entitled:

A framework for the development of a contemporary string teacher

Technical formatting entails complying with the Stellenbosch University's technical requirements for theses and dissertations, as presented in the Calendar Part 1 – General or where relevant, the requirements of the department and standardising all elements in the text.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Lize Vorster', is written over a simple line drawing of a pen nib.

Lize Vorster
Language Practitioner