

Musical elements and subject knowledge in primary school student teachers: lessons from a five-year longitudinal study

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The introduction of a National Curriculum to England and Wales in 1988 provided the first compulsory framework for music education. Writing in 1996, Mills suggested that in ten years time the impact of this change would result in primary school student teachers needing refreshment, and not development, of their musical knowledge. This five-year study examines primary school student teacher's knowledge of the musical elements as they entered the one year Post Graduate Certificate in Education (PGCE) course in one institution. The results suggest that some elements as defined by the relevant national curricula (duration, pace, pitch and silence) do indeed need only refreshment, but others (timbre, texture, dynamics, structure) need significant development in schools and in training courses.

Prior to the introduction of a National Curriculum to schools in English and Wales there was no legal compulsion to teach music in the primary school and no statutory subject content, despite the positive impact of non-statutory guidance provided by Her Majesty's Inspectorate (HMI) in *Music from 5 to 16 in 1985* (Rainbow & Cox, 2006). Although it may be argued that all schools did teach music, there can be little argument that the content of lessons varied from school to school, county to county and even country to country. As products of such a system, it was not surprising to find evidence of teachers lacking confidence in teaching the subject, both in the UK (Mills, 1989; Wragg *et al.*, 1989, 1992; Hennessy, 2000, Holden & Button, 2006; Seddon & Biasutti, 2008) and beyond (Fahnoe, 1987; Jeanneret, 1997) – although there is more recent evidence of teachers producing good quality lessons in primary school music (Estyn, 2003; Ofsted, 2009).

In this context, the introduction of a National Curriculum for schools in England and Wales in the 1988 Education Reform Act (ERA) should have provided a consistent and progressive music education for all children. It would be hoped that upon completion of this process of musical education, potential student teachers should have a thorough grasp of music as taught in the National Curriculum. Mills, writing in 1996, proposed that

in a decade or so, when the great majority of those entering teacher training will have followed the National Curriculum in music . . . we may be able to assume that trainees require only refreshment, and not development, of their musical knowledge. This is not the case at present. (1996, p. 126)

More than one decade on, this article provides an update on progress.

In the schools of England and Wales, although there are some differences in detail, three fundamental processes of composing, performing and appraising form the basis of requirements of music in the national curricula of each country. All of these processes, however, require a knowledge and application of the musical elements and associated vocabulary from the National Curriculum. Whilst this research was conducted, the National Curriculum in England required that pupils should be taught 'how the combined musical elements of pitch, duration, dynamics, tempo, timbre, texture and silence can be organised and used expressively within musical structures' (DfEE/QCA, 1999, p. 124). The equivalent curriculum in Wales at the time required that pupils be taught to 'listen attentively to their own and others' music in order to make distinctions within the musical elements' (ACCAC, 2000, p. 169), which are listed in the curriculum as pitch, duration, pace, timbre, texture, dynamics, structure and silence – all of which remain in the revised curriculum in Wales from 2008. While some may question if all of these are actually musical elements, as they are listed as such in the statutory requirements this paper will accept these definitions.

It could be argued, therefore, that for a national curriculum to be successful, and hence provide a basis for future teaching, all children leaving secondary education should have a requisite understanding of these musical elements and how to use them. Without an understanding of these terms, it is argued that any student teachers intending to teach in the primary school would have insufficient subject knowledge to implement the specific requirements of the National Curriculum. Whilst the use of these musical elements is an inherent part of successful music making, it is possible to use them intuitively without necessarily being able to articulate them. However, the need to appraise music as an integrated part of all music making ensures that the articulation process becomes a necessity. Consequently, as Swanwick (1996, p. 30) argues persuasively, 'appraisal affirms that there is such a thing as musical *knowledge*'.

It is not being argued here that this 'knowledge' is enough in itself for student teachers to teach music successfully, but it is contended that such knowledge is one of the vital foundations on which confidence and successful pedagogy can be built. Indeed, for Shulman's (1987) model of pedagogic content knowledge to be successful, teachers must possess sufficient understanding of the musical elements to be able to transform them into effective lessons. However, the epistemological model under discussion is not the restorationist 'curriculum of the dead' (Ball, 1995) inherent in much of the political debate when the National Curriculum was first introduced. The intention of the research which forms the basis of this paper was to ensure that Spruce's (2003) concerns, raised in response to Gammon (2003), about musical knowledge existing separately from musical experience did not materialise. As will be outlined further below, knowledge is only assessed with the intention of subsequent engagement with practical music making ensuring knowledge *about* music rather than knowledge *of* music (Swanwick, 1992). In this context, it is acknowledged that the ability to use the musical elements is at least as important as knowing what they are, but it is suggested that without the knowledge and understanding of each element it is harder to use them as part of a musical narrative or teach others to do the same.

The perceived importance of subject knowledge for intending teachers in certain areas of the curriculum was acknowledged by the introduction of Circulars 4/98 in England, and 13/98 in Wales, in 1998 – together with their subsequent revisions. Such legislation

made Qualified Teacher Status (QTS) dependent on a successful test of subject knowledge in selected areas of the curriculum, in addition to existing requirements in classroom practice. The circulars, however, fell short of requiring detailed subject knowledge in all areas of the curriculum and music did not form part of this requirement in England and Wales.

Given this background, it would still theoretically be possible (although hopefully unlikely) for primary school student teachers to complete a training course, and begin teaching, without having their subject knowledge of music tested. Even though all current intending primary teachers would have covered the subject in their initial teacher education and training (ITET), the limited time given to such provision – particularly in the one year Post Graduate Certificate in Education (PGCE) course – makes it difficult to address widely varied levels of subject knowledge in music, and indeed other foundation subjects.

The study below outlines the results of a five-year longitudinal study of primary school student teachers' subject knowledge of the musical elements at the commencement of a PGCE course. As this should be a common feature of student teachers attending any institution, it is hoped to begin the process of assessing the impact of the National Curriculum in music to date in developing understanding of the musical elements. In undertaking this exercise, it is also possible to identify specific musical elements which may need to be addressed further in schools (particularly in primary schools) and to identify common misconceptions in student understanding which can be used to inform teaching within ITT. It should be noted that the intention of the survey is not to assess the impact of initial teacher education, but rather to assess the raw materials with which they work and hence help to inform teaching and learning in music components within the training period.

The educational context

It is inevitable that the musical background of the student teachers in the study would be varied as in the UK (and elsewhere) there are many options open to children to develop musical skills, knowledge and understanding both within and outside of school. Since 1988 the ERA Act music has been a compulsory part of education for all children throughout the primary school (age 4–11) and then into secondary school until the end of Key Stage 3 (KS3) at age 14. The option to drop music at this stage has the potential to limit the impact of a National Curriculum and allows many prospective primary teachers to begin their initial teacher education and training with a musical education only four years in advance of that which they are required to teach – assuming that they themselves reached the required level (4–5) for the end of that key stage. Evidence from Bray (2000, p. 88) and Lamont and Maton (2008) suggest that numbers of pupils taking GCSE music is around 7–9%. Hence it is likely that only a minority of primary teachers have gone beyond the four year barrier outlined above, whilst a significant majority will potentially have little musical experience, and much less official validation in the form of qualifications, in advance of the pupils they are to teach.

For those student teachers who choose to continue studying music after the age of 14 there remains a variety of options. Some may study music for the General Certificate of Secondary Education (GCSE) for two further years, and/or Advanced (AS or A) level for up to

Table 1 *Sample groups*

	Frequency
Cohort 1	89
Cohort 2	96
Cohort 3	100
Cohort 4	99
Cohort 5	99
Total	483

Table 2 *Ages of sample*

	Frequency	Per cent
20–25	362	74.9
26–30	61	12.6
31–35	28	5.8
36+	32	6.6
Total	483	100.0

two more years, and then potentially three further years as a first degree at undergraduate level. Outside of the classroom, some children may choose to undertake instrumental lessons – with a strong possibility that they will undertake music theory examinations – but this represents a different curriculum, and different priorities, from the National Curriculum in music for schools.

The study

As part of an initial assessment undertaken prior to any input as part of the music pedagogy component within the PGCE course, five successive cohorts of student teachers on a primary (3–11 years) course undertook two short written tests to assess their knowledge of the musical elements outlined above. Each cohort was naturally subdivided into those students preparing to teach early years (P1) classes aged 3–7 years and upper primary (P2) classes aged 7–11 years, although all were preparing to be primary school teachers capable of teaching all ages. Each cohort completed the tests anonymously, on an individual basis, in the presence of a supervising lecturer which resulted in a total sample size of 483 student teachers – see Table 1 – split almost exactly equally between P1 and P2 groups in each year group.

Within all cohorts the age profile was very similar and may be regarded as typical for such a course in the England and Wales (Table 2).

The groups may be considered representative of ITT courses, but the small number of male student teachers within the total sample (14.1%), and the dominance of younger students, means it is difficult to identify significant differences between the sexes and age

groups and no attempt is made to do so below. As the outcomes were intended to provide generic, rather than individual, information, students were only identity-coded to allow matching of tests to cohorts.

As it would not be appropriate at the start of a teaching education and training programme to assess students' ability to use the elements in teaching, the first test (henceforth test 1) was open-ended and required student teachers to define each musical element used in the National Curriculum in their own words. It should be noted that the specific intention of the tests was to identify knowledge of the elements at the start of the PGCE programme, so that addressing any particular areas of weakness could be incorporated into subsequent teaching of pedagogy and practical music sessions. It is argued that, although all of these terms may not be in daily use in the classroom, students preparing to be teachers need to understand all terms used in the National Curriculum.

Due to the relatively large number of student teachers involved, and the practical constraints imposed by timetabled teaching sessions which would impact on subject knowledge, it was not possible to undertake individual interviews with all students to allow them to demonstrate their understanding of the musical elements verbally or practically, or to triangulate findings with any rigour. Whilst it is accepted that a written summary may not reveal the full level of understanding, or pedagogic ability, teachers do need to be able to explain the elements simply and succinctly when planning lessons and teaching children in the primary school. In reality, many students commented in the follow-up discussion in teaching groups that having to distil their thinking in such a way helped them to clarify not only their own thinking, but how they might explain things to the children in the future.

In order to validate findings, students were then offered the opportunity to match the terms used with definitions (henceforth test 2), largely taken from notes in the music section of the National Curriculum documents. This exercise was undertaken directly after the initial open-ended test and students were not permitted to revisit the previous section of the test. It was anticipated that this process would show a higher level of positive responses, but that if any elements still had low levels of understanding this indicated they may be areas for development in subsequent work, in schools and in university. While it is accepted that some answers in test 2 may have been arrived at by a process of elimination, the main intention was to identify those elements that, even with correct definitions provided, still proved difficult for students. By repeating the survey with successive cohorts, it was possible to increase the validity of findings. All tests were followed by both discussion and practical sessions exploring the musical elements and addressing any issue raised in the process.

It should be noted that a music specialism was not available as an option for students on this course. Although some students had studied music to a high level, their relatively small number may be considered as more representative of the primary teaching profession as a whole than if a large number of specialists had been recruited.

Musical experience

In order to assess the musical background of student teachers, both in compulsory education and outside, they were asked to answer the questions listed in Fig. 1.

Musical experience (a) required only one response and was intended to assess a measure of commitment to, and interest in, music outside of school hours. Whilst perhaps

<p>Musical experience (a)</p> <p><i>Please tick one option</i></p> <p><input type="checkbox"/> Do not play instrument/s</p> <p><input type="checkbox"/> Play instruments/s – no grades</p> <p><input type="checkbox"/> Instrumental/vocal grades 1–5</p> <p><input type="checkbox"/> Instrumental/vocal grades 6–8</p>
<p>Musical experience (b)</p> <p><i>Please tick all relevant qualifications</i></p> <p><input type="checkbox"/> Grade 5 Theory or above</p> <p><input type="checkbox"/> O Level/GCSE (or equivalent)</p> <p><input type="checkbox"/> A level music (or equivalent)</p> <p><input type="checkbox"/> Music diploma</p> <p><input type="checkbox"/> Music degree</p>

Fig. 1 Musical knowledge

lacking in objectivity it does provide a relative measure to complement other information, especially for those who gave up music at age 14 in school but wished to continue their musical education in some way. Indeed, comments such as ‘only the recorder’ in the ‘do not play instruments’ option say much about the perception of music in some of the respondents.

Musical experience (b) provided more subjective information on the likely level of subject knowledge and length of education in music. The graded theory and music diploma options were included for those students who may not have studied music as a school option, but nonetheless continued studies in their own time. The remainder would normally all be gained as part of a school or university education.

Findings

What was immediately apparent from all of the sample groups is the large number of students who played musical instruments at some level. Overall, those playing instruments or singing represent 53.8% of the sample group (Table 3). Although many had not

Table 3 *Music A*

	KS1	KS2	Per cent
Do not play instruments	23.6	22.6	46.2
Play instrument/s – no grade	9.7	8.7	18.4
Instrumental/vocal grades 1–5	12.6	13.5	26.1
Instrumental/vocal grades 6–8 or above	3.5	5.8	9.3
Total	49.4	50.6	100.0

Table 4 *Music B*

	P1	P2	Per cent
No qualifications	38.9	38.3	77.2
Grade 5 theory or above	2.5	3.1	5.6
O level/GCSE music or equivalent	5.8	6.0	11.8
A level or equivalent	1.3	0.8	2.1
Music diploma	0.2	0.2	0.4
Music degree	0.8	2.1	2.9
Total			100.0

progressed through the instrumental or vocal examination system, the majority of all groups had some degree of instrumental or vocal background. While this should not necessarily be taken as a measure of musicality, if nothing else it reflects a positive attitude towards music.

Somewhat contrary to this, and perhaps an indictment of the current examination system, were the results from musical knowledge (b) in Table 4. It would appear that, although the majority of students demonstrate some commitment to music above, there appears to be little transference of this interest in practical music into participation in the examination system with 22.8% of the total sample taking this route. The options offered in this section represent a developmental continuum reflecting progress in music both within and outside of the school classroom. By examining the highest level achieved by students (Table 4), it is apparent that only 16.8% undertook a school or university-based examination, a further 6% undertook theory or diploma examinations (likely to be outside of the school setting), whilst the remaining 77.2%, although perhaps maintaining an interest in music outside of school with instrumental lessons, chose to drop music as an option within the school curriculum at the end of Key Stage 3.

The tests

Having established the background of the sample group it is possible to look at their knowledge of the musical elements and if necessary relate to their musical background. In designing the test, all the musical elements were listed from National Curriculum

Table 5 Response summary. The responses fall into three main categories

Significant majority correct without prompting with definition (<74%)	Duration, Pace (tempo), Silence
Majority correct (<60%) when prompted by definition	Pitch
Significant majority incorrect in both definitions (> 30%)	Timbre, texture, dynamics, structure

documents in England and Wales at the time of the first test, but they are also generic musical terms which transcend national boundaries. Each test contained written instructions, and made it clear that what was being assessed was how each word was used in a *musical* context. Students were also encouraged to write as succinctly as possible so as to avoid overcomplicating answers and contradicting a correct answer.

The marking of the first part of the test, as in any open-ended examination, contained an element of subjectivity. For each musical element, definitions given in the National Curriculum documents were used as a basis for a correct response. In general terms, if students demonstrated appropriate understanding of the concept they were credited with a correct answer. In instances where the meaning was not clear, a professional judgement was made on the evidence available. In common with many examinations a correct answer qualified with an incorrect answer was not credited. In addition, students repeating words from the stem of the question as part of the answer were not given credit unless the response was qualified in some way.

The musical elements

In outlining the results in Table 5, the results shown are for the combined sample group as statistical analysis showed no significant difference between them. What is significant is that the students studying to become Key Stage 2 (KS2) teachers (7–11 years) outperformed those preparing to teach the younger 3–7 age range (Early Years and Key Stage 1 [KS1]) in all components of the test, despite no significant difference in this musical experience or qualifications.

Each element will be examined in detail below, including examples of answers given, before returning to examine overall findings and their consequences.

Pace

Most students were able to provide a musical explanation of pace as a musical element (Table 6), although this actually dropped with the matching test (perhaps because of the process of elimination discussed above). There was some confusion when students tried to explain pace in terms of time signatures (e.g. S. 11 '3/4 etc.' and S.64 'The time the signature of piece of music is to be played at 4/4, four crotchets in a bar') which was not allowed as this would not dictate the tempo of a piece.

Table 6 *Pace*

		Per cent		Matched per cent
Correct definition	KS1:43.7%	90.1	KS1: 41.6%	84.5
	KS2:46.4%		KS2: 42.9%	
Incorrect or not attempted		9.9		15.5

Table 7 *Duration*

		Per cent		Matched per cent
Correct definition	KS1: 40.8%	87.6	KS1: 7.9%	20.1
	KS2: 46.8%		KS2: 12.2%	
Incorrect or not attempted		12.4		79.9

Duration

Typical definitions provided by students included the very common use of length of piece as a whole, but less common for notes:

S127 'the time taken for the piece to be played'.

S128 'length of note'.

S130 'length of a piece of music, length of a note'.

This element, however, provided a large anomaly between test 1 and test 2, as shown in Table 7.

What is immediately apparent from these figures (after checking of the coding to see if there were any errors) is the significant reversal of successful definitions. Either large numbers of students had forgotten their original definitions or they confused the given definition with another or the matching definition provided was not adequate. As there was no significant correlation between errors in this answer or any other element the most likely explanation is the definition provided. In this case it had been taken from the Welsh National Curriculum document used by the students at the time: 'pulse, metre, rhythm'. It may be conjectured that this lacked sufficient focus on the key feature of this element used in the English document of the time: '*longer/shorter, steady beat, beat, rhythm*'?

Silence

As perhaps might be expected given its everyday use in language, the majority of students were able to explain what silence was in a musical context, particularly in the matching test (Table 8).

The clearer definitions noted the deliberate use of silence as a compositional technique, such as 'no intentional musical sounds' (S.171) and 'every piece of music has silence – which is just as important as the sounds' (S. 159).

Table 8 *Silence*

		Per cent		Matched per cent
Correct definition	KS1: 35.0%	74.1	KS1: 45.1%	90.3
	KS2: 39.1%		KS2: 45.2%	
Incorrect or not attempted		25.9		9.7

Table 9 *Pitch*

		Per cent		Matched per cent
Correct definition	KS1: 30.5%	64.2	KS1: 35.8%	75.4
	KS2: 33.7%		KS2: 39.6%	
Incorrect or not attempted		35.8		24.6

When considering incorrect responses there were several common misconceptions, or poorly expressed definitions. The first was the use of the term 'pause' [S4, S. 77, S. 49] which was not accepted as this could apply to a held sound. In addition, a few explanations such as 'where the music stops' [S. 94] were not accepted as they did not demonstrate an understanding that silence can be an integral part of music, rather than the end of piece. Perhaps the most common misconception was the relationship between the nature of silence and the lack of an audible beat/pulse in a piece of music. For instance, S. 96's definition that 'no notes/chords being played at all – no beat/rhythm' was not allowed as it took no account of the possibility that a silence could be 'when no beat/tune is audible' (S.98). Perhaps the most interesting definition was that silence was the 'absence of music in a piece'!

Pitch

Although a quarter of the students were not able to identify pitch, even with definitions, there was a general understanding of the nature of pitch (Table 9).

The most common definitions involved the use of high and low sounds. A few students mentioned the absolute nature of pitch and some accurately used a scientific definition such as S.208 and S.210 'frequency of note' or S.260 'how high or low a note or sound sounds – depends on the frequency of the sound wave'.

In the incorrect definitions there were a few students who used the word 'level', such as 'level of sound' (S. 9 and S. 11). As this could also apply to volume such definitions were not accepted unless qualified, for example S. 41 'level of sound i.e. high/low'. There were some interesting interpretations such as 'the height of a note' (S. 96) and some reflecting some musical experience, such as S. 132: 'the note at the beginning of a piece for all other instrument or voices to tune to'. As might be expected some definitions were more imaginative than others, such as 'the height of the note, not its loudness but its height' (S.229) and more intriguingly, 'the level or height the music has been performed at' (S. 63).

Table 10 *Timbre*

		Per cent		Matched per cent
Correct definition	KS1: 3.7% KS2: 5.4%	9.1	KS1: 11.2% KS2: 14.1%	25.3
Incorrect or not attempted		90.9		74.7

Table 11 *Texture*

		Per cent		Matched per cent
Correct definition	KS1: 6.0% KS2: 7.7%	13.7	KS1: 5.4% KS2: 8.1%	13.5
Incorrect or not attempted		86.3		86.5

Timbre

Some definitions were hard to mark, such as ‘wobbliness of sound’ [S. 134] but generally Table 10 shows that both in both defining and matching, this was the first musical element where a significant majority of students were unable to explain the concept of timbre in a musical context.

Those who were able to answer used a variety of explanations: ‘the particular sound of a note’ (S.17), ‘the softness or hardness of a note’ (S. 32) and ‘the quality of the notes – are they tinny or woody sounds’ (S. 42).

It would seem apparent that timbre is an area which needs considerable attention during school music and ITT and, as will be seen below, this needs to be considered alongside texture.

Texture

Texture was the lowest scoring musical element in both open and matching definitions (Table 11). There was also significant confusion in delineating texture and timbre. Any answer which implied that texture could be caused by timbre, or signified a variety of sound sources, was allowed but a very significant majority of students were unable to define or match a definition for texture in a musical context.

Those students who were able to explain did give detailed explanation such as ‘different sounds that musical instruments make e.g. block, dull sound/tambourine, light, clinky sound. Can knit different textures together which can form a musical texture’ (S.240). Other accepted definitions included ‘layers of sound’, ‘different levels/types of sound in one piece’ (S. 22), and ‘the richness of the music – how does it develop a different sounds entering/exiting’ (S. 42).

However, as previously stated that was some confusion with timbre, such as defining texture as ‘quality of sounds’ (S.171), ‘different quality of sounds’ (S.194) and ‘the quality of the sounds being played’ (S.234 – itself open to different interpretations). There were

Table 12 *Dynamics*

		Per cent		Matched per cent
Correct definition	KS1: 7.0%	17.6	KS1: 11.4%	27.1
	KS2: 10.6%		KS2: 15.7%	
Incorrect or not attempted		82.4		72.9

Table 13 *Structure*

		Per cent		Matched per cent
Correct definition	KS1: 19.7%	43.9	KS1: 10.6%	23.0
	KS2: 24.2%		KS2: 12.4%	
Incorrect or not attempted		56.1		77.0

also attempts to interpret the word in literal sense, such as ‘how the music feels’ (S.172), ‘the feel of the music’ (S.202) or ‘how gritty the music is’ (S.255).

Dynamics

In test 1 there were very few successful definitions, although this did improve significantly in the matching test 2 (Table 12).

Perhaps more than any other element dynamics suffered from a literal interpretation of the word. The few students who successfully, although not completely, defined dynamics included:

- ‘the volume instructions on a piece of music’ (S.176)
- ‘the different levels of music i.e. loud/soft’ (S288)
- ‘loud or quiet’ (S.416).

There was also some confusion with articulation, such as ‘emphasis on note’ (S11), and with ‘expression with which a piece of music is played’ (S.99) – which could include dynamics but was not considered accurate enough in itself. Another rather literal interpretation focused on ‘group dynamics’ (S.249) in terms of interpersonal relationships.

Structure

As with dynamics, in test 1 there were very few successful definitions, although again this did improve significantly in the matching test 2 (Table 13).

Correct definitions included:

- ‘the order of music, beginning, middle, end’ (S. 218)
- ‘the way the piece is constructed including introduction & ending etc’ (S. 286)
- ‘how the piece is set out e.g. are some parts repeated’ (S. 402).

In many incorrect definitions the most common confusion was with layout, for example S. 271: 'the layout of the notes within a piece', although there was no clear pattern in incorrect responses.

Conclusions

The limitations of this study in terms of assessing student teacher's knowledge and understanding have been acknowledged above but the evidence of this five-year study would suggest that, despite Mills' optimism described above, we *cannot* 'assume that trainees require only refreshment, and not development, of their musical knowledge' (Mills, 1996, p. 126). In the light of current student concern that the amount of training they have received in relation to teaching music is inadequate in an overloaded curriculum for initial teacher training courses (Hallam *et al.*, 2009), this study will raise awareness of the need to *develop* student teachers' knowledge of timbre, texture, dynamics and structure before, and during, musical activity in their education and training. In addition, this study suggests that this need is greatest in students who are preparing to teach Early Years and KS1 (3–7 years). This situation could be alleviated, however, if these findings were also noted by schools at all key stages.

This study has identified particular musical elements which need development. It is acknowledged that the students may have had an understanding of musical language, gained through their own musical experience, which they were unable to articulate within the context of the two tests – although reassuringly many *could* do this. To help teachers and teacher educators move beyond knowing there is a problem to effectively addressing it, a future qualitative study (using in-depth interviews) would be helpful in identifying the *nature* of misunderstandings of musical elements. Such an approach would also help to probe the tacit understanding of music which was not possible within the constraints of this initial study.

While revisions to the National Curriculum in England have yet to be completed, the importance of the musical elements in the recently revised Welsh National Curriculum is reinforced by the need for pupils to 'perform, compose and appraise music focusing their listening (in all musical activities) on the musical elements' (DCELLS, 2008, p. 12). It is acknowledged that the ability to define these elements is only one aspect of the skills a teacher needs for teaching music in the primary classroom. It is suggested, however, that a sound knowledge and understanding of the musical elements in national curricula are important in developing teaching in student teachers. Indeed, while knowledge does not guarantee effective teaching, lack of knowledge surely will.

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