

3. Case Studies

This chapter is divided into three case studies. These studies are presented in chronological order and took place during my teaching at Debenham High School. Pupils' names have been changed throughout each study.

For sake of clarity, the following text outlines the key stage information and how it relates to pupil ages and year group numbers:

Pupil Age	Year No.	Key Stage
5 – 7	1 – 2	1
8 – 10	3 – 6	2
11 – 14	7 – 9	3
14 – 16	10 – 11	4 (GCSE)
16 – 18	12 – 13	5 (AS/A2)

3a. Case Study 1: Years 10 & 7 Compositional Tasks

3a.1. Introduction

Changing technologies can change experiences which then expose new ways of thinking. We can, in fact, change minds by changing technologies. (Brown 1997, p.6)

In the second year of my research (1999) I conducted a number of small-scale, classroom-based projects with my Year 7 classes and Year 10 GCSE group. These projects explored the creative uses of sound processing technologies (see Fig. 5) in two composition tasks. My observations from these early projects formed the basis for planning more substantial curriculum initiatives over the next two years.

This chapter opens with a case study drawn from my reflections on these early curriculum initiatives. It is followed (3a.4.) by an analysis of the issues, focussing particularly on how they shaped the planning of my next major piece of classroom-based research – *Dunwich Revisited*.



Fig. 5: Basic sound processor setup

3a.2. Description - Year 10 GCSE: Sound Processing with Percussion Instruments

The task was to compose a short piece of music using a variety of percussion instruments (tuned and untuned), enhancing the sounds created by these instruments through the use of processing effects generated by a sound processor. Pupils were given approximately one hour, split over two lessons, to create a piece to play to the rest of the class.

My normal teaching practice in setting a composition task of this kind was to model a few basic ideas as part of my explanation. Given that pupils were going to be introduced to a new piece of technology, I gave a brief demonstration on a few percussion instruments working with a reverberation effect selected from the sound processor. Finally, before letting the pupils begin their experimentations, I asked them to think about three issues:

1. Choice of instruments to use with the sound processor;
2. Use of the sound processor - particularly how they felt it could be used to enhance the sound of the instruments and develop their compositional ideas in various ways;
3. Traditional elements of composition: a reminder that the ‘traditional’ elements of music may well still apply in compositional tasks with technology, but that some of them may be ‘redefined’ or ‘enhanced’ through the creative potential of a piece of technology.

The setting of key focus areas before the composition task was another common part of my teaching practice. I would make sure that in the early part of my discussions with groups of pupils that these would be highlighted and used as a way into what I hoped would be a more detailed discussion of the compositional choices that pupils were making. Inevitably

this strategy sometimes worked better or worse than I expected. But from my very beginning attempts to teach composition through the use of technology I was concerned that pupils should try and verbalise the creative process that was going on inside their head and comment on the outworking of this within the group dynamic.

On this occasion, as I circulated around the groups a number of things quickly became apparent. One group was struggling with an idea for their composition. The inherent freedom of the task that I had set was too daunting. They asked me to give them a theme or a starting point. Much of their experience of musical composition from Key Stage 3 had have been of a strongly thematic type. Projects they had completed in Year 9, for example, included an African music composition (working with ostinati and polyrhythms), producing a cover version (from a classic 1960s hit) and a raga composition. It perturbed me that they had problems creating a specific starting point for their work. Normally I would have addressed this point directly but in this instance I gave the group a little more time to think about the three areas that I had introduced and how they might respond to them.

In contrast, another group had quickly developed a programmatic piece on the idea of a storm and rain. Hannah produced sounds by using the on/off switch of the microphone and, later on, by tapping the microphone with her fingers. These techniques, combined with a long reverberation, created a sound similar to thunder. Anna generated 'rain' sounds with a cabassa. They seemed concerned to make their sounds 'realistic'. They asked me if I thought this was an important part of the compositional task. As before, I gave a non-committal response.

The group that seemed most dissatisfied was Daniel, Lauren, Jenna and Kelly. They used a short reverberation effect. Lauren tried hard to get the others involved more in the work; Kelly and Jenna were particularly quiet and did not come forward with many ideas. On more than one occasion Lauren commented that their chosen effect did not appear to be doing very much. But the group did not act on her frustrations and few changes were made to adapt the effect. They did complete their piece that, although pleasant enough, demonstrated little use or exploitation of the technology. It was well structured with effective rhythms on the tambour (Daniel) and metallophone (Lauren).

From the outset, one group (Naomi, Sarah, Kate and Alex) had worked well. They had chosen some percussion instruments with distinctive sounds and were using a delay effect. The sounds Naomi produced on the recorder (not strictly a percussion instrument but I let that one go) were particularly effective. This group discussed the need, or lack of a need, for a clear, predefined structure for the piece. Quite naturally, and without any comment from me, they discussed the merits or otherwise of leaving the structural decisions relating to the performance relatively unfixed, relying on an intuitive, improvisational approach to sound and structure. I found this very encouraging and quite surprising given my struggles with the previous group that found defining a starting point very difficult. Here was a group that had developed a sophisticated and reflective approach to compositional structure based on an improvisatory dimension of their performance practice. Their composition, *Rainforest*, is included on the accompanying CD.

During the class' evaluation of this piece, the choice of instruments and the improvisational nature of the piece were discussed by other pupils. I transcribed the final part of the class' discussion:

Me: So, which compositions were particularly effective and why?

Patrick: I liked Nim's (Naomi's) composition.

Me: What was it that was particularly effective about her group's composition?

Hannah: 'Cos it was like animal noises, like jungle.

Greer: It wasn't like a regular pattern, it was a non-regular pattern.

Patrick: It wasn't a regular mood either.

Hannah: I thought it was brilliant.

Me: Would you say that these comments represented your intentions in your piece?

Naomi: It wasn't supposed to have a kind of time signature, it was just supposed to be kind of...?

Me: So were all the other compositions more regular then?

Anna: I think they were all a bit irregular actually, which I thought sounded good.

Me: And would you say that normally when you were composing you think in terms of regular things?

Naomi: Everyone always thinks that you have to do it with a time signature, or a pattern or tune of something.

Anna: And a lot of twentieth century stuff doesn't have that kind of regularity.

Naomi: I think it works well, in some ways.

Me: So was it easier to compose in a kind of more irregular way?

Anna: Yeah, you could do what you wanted.

Judi: It was difficult to find where to start though.

Me: Starting points?

Judi: Yeah, and finishing points.

Me: Did you find the technology helped in developing ideas? (Plenty of nods and affirming comments at this point)

Naomi: Because when you're just using normal instruments you don't really see it as moving on to anything else. (Hannah: You feel restricted) Yes, you feel restricted. You don't have to be but you always feel that you have to do it in a certain way. But when you're using the technology you feel freer. You feel like you can be freer.

This was my first attempt at transcribing and analysing a group discussion. The pupils were aware of my interests in the area of new technologies but not that it was for a formal piece of research. They also knew that the discussion was being recorded but this did not seem to deter them from expressing their viewpoints or stifle the discussion in any way. Group discussions have always been an integral part of my teaching practice and, as such, I felt happy in facilitating an exchange of views without deliberately attempting to control the issues raised. In this instance I was particularly concerned not to hint at what I considered might be interpreted as 'right' or 'wrong' responses to the compositional process. An example of this would be the handling of what pupils called 'irregular' or 'regular' metrical patterns in their music. This will be discussed further below.

As I have mentioned previously, these pupils had had little formal exposure, in the classroom at any rate, to music technologies. However, their ability to reflect on the work they had done was impressive and a key feature of the previous Head of Music's teaching practice. Their written and verbal evaluations of composition work were of a consistently high standard. The discussion raised a number of important issues. It surprised me how many pupils affirmed the points others made. There were plenty of nods and encouraging gestures as pupils expressed their views. This was particularly the case towards the end of the discussion.

Greer brought up an interesting point relating to how she thought Naomi's group piece sounded irregular. This was a factual statement about the rhythmical structure of the piece rather than a veiled or negative criticism of their work. The piece did sound different from at least two of the other pieces, which both were fixed within standard rhythmic meters. The irregular meter, structure and melody of the piece were its strength. Several pupils expressed this point. Many had not thought about composing pieces in this way, and the majority expressed the view that the task of composing could become 'easier' if this route was followed. The pupils also thought that the technology had a crucial role in allowing this 'irregularity' to develop. It became a creative stimulus for them. Naomi commented, "When you're using the technology you feel freer; you feel like you can be freer".

I found Naomi's comment fascinating and considered it at length in my analysis of the lesson. My journal entry commented:

Naomi's comments at the end of the discussion gave me considerable encouragement. Like Judi, Naomi is an able pupil, good at drama and music, showing an ability to reflect well on what she does. Her comments showed her contrasting her experiences of composing in traditional mediums with her recent experiences of music technologies. She characterises the change as one of liberation, one of feeling freer to express ideas. I felt that this was demonstrated in her groups' conscious decision to adopt an improvisational approach whilst performing the piece. During their performance the group were focused, displaying considerable engagement with the task; e.g. Alex was concentrating hard on his role of gradually changing the mix of the effected and uneffected sound by using the wet/dry fader. Naomi's comments expressed the view that when composing 'normally' (i.e. within conventional keys, metres, forms, etc) she felt the need for conformity. When using the technology, this need was taken away. She felt a release from these strictures and spontaneity in the expressing of sound for dramatic and expressive effect.

It is important to note that up until this point in these pupils' musical education, they had received what one might call a 'traditional' induction into musical composition. Their experience was entirely within the tonal medium, often consisting of melodic composition work, harmonic structures (cadences and 12 bar blues) and standard rhythmic patterns. Many of them had an avid interest in popular musical styles outside the classroom and wrote songs for performance in bands and home studio settings. But these also exhibited traditional features of tonal stability and formal structure.

But none of this should be read as a criticism of such a view of music education. In fact it could be surmised that the strength of their work with these new technologies was facilitated and enhanced by their considerable background in these traditional mediums. My only point here is that Naomi felt liberated through her work with this new technology from conformity to predetermined styles and working processes.

Judi was in the group that found it difficult to get on with the exercise. She was the pupil who brought up the issue of starting points. Judi is a creative girl, a high flyer and an able songwriter and a keen violinist. Yet it seemed for her, and probably a number of others, that the way in which I constructed the compositional task played a significant role in determining whether or not she could see herself as being able to succeed in it. For example, this composition task contrasted greatly with the task from the following session. In that task, pupils were asked to take a single word, a single effect, and produce a short piece using the processing technology. I had given the groups a number of ideas of things they might try (e.g. breaking up the word into syllabic sounds, exploring vocal effects, etc);

in presenting and explaining the task I saw myself as framing it specifically. Judi's composition was very successful, taking a number of the elements that I had suggested, extending and developing them with a considerably creative flair. Her group's piece, *Beast*, can be heard on the accompanying CD. The percussion composition was much more open-ended and for her, on that particular occasion, did not give her the inspiration she needed to produce what she considered a good piece of work.

As the class was leaving the room for lunch, a number of pupils were putting their things away in their bags. I got chatting to one of the girls, Hannah, about the lesson. She commented on how useful the short discussion had been at the end. I thanked her for her observations. "It's like research, isn't it?" she said. "It's nice to have a teacher who cares about what we do".

3a.3. Description - Year 7: Sound Processing Work

This second part of the Early Experiments case study is taken from my work with Year 7 classes. It is different from the above case study of an individual Year 10 GCSE lesson in that it is based on observation and reflection of a seven week scheme of work that I devised to introduce pupils to sound processing technology very early in their formal high school music education. Rather than commenting on individual pupils' responses to this scheme of work, I will be presenting some of my own observations, drawn from my research journal, and commenting on the effectiveness of such an approach at this point in a pupils' music education.

I have included the whole of my written scheme of work in Appendix S. This gives detailed comments on what I perceived to be the aims of such an approach to composition teaching and a description of the accompanying lesson content. The following account will discuss important issues and concerns that I noted during my teaching of it to three Year 7 classes during the second year of my research.

Firstly, for the majority of pupils the voice seems as natural a starting point as one can get when working with these technologies. The pupils responded well to the challenge of using their voices in new ways. This seemed to be because the use of a microphone, sound processor and speaker encouraged pupils to improvise vocally with a degree of freedom and less embarrassment than without. The pupils' reactions to the sound of their voices whilst using the effects processor were always particularly interesting. Initially, there was plenty of laughter and some embarrassment, the odd pupil initially opting out of the activity and having to be encouraged to participate. Additionally, some pupils were quick to voice their concerns about hearing the sound of their voice through an amplification system, whether it was effected or not by the processor. The majority of pupils seemed to move through this stage fairly quickly and see the effects processor as some sort of 'cover' for their initial inhibitions.

These trends were something that I had observed in similar work done with primary school pupils. One teacher I observed commented:

It has been noticeable that kids who are normally quite reticent have been more forthcoming because the sound is perceived as being outside them and therefore not so threatening. It divorces sound from its source which has the effect of causing more focus being applied to the sound rather than what created it; great for appraisal. Again, it is down to the measure of control that it affords the child; they

can do what they want and are not so hampered by lack of expertise, which they experience when playing in more traditional ways.¹

Year 7 pupils made similar observations in different ways. Talking to them after two sessions of using the sound processor, they commented on a number of things:

1. Their ability to produce good, atmospheric sounds;
2. The facilitating nature of the sound processor to experiment and improvise;
3. The 'wider view' that it gave their compositional ideas.

A male pupil from the group commented on how the sound processor gave him confidence to try things out with his voice. He saw the process by which it 'captured' the sound of his voice and then changed it (to a greater or lesser extent) as ameliorating his initial embarrassment of others listening to him sing or vocally extemporise in other ways.

My Year 7 pupils were familiar with using their voices together as a class in a range of singing activities. But in my deliberate choice to make these Year 7 pupils use their voices as the source for compositional material, often individually or in small groups, they were not able to rely upon previous approaches to vocal performance or composition. They were forced into what they saw initially as a rather insecure and exposed environment. But the technology provided them with a mask behind which they could hide their concerns about hearing their own voice in public. It was the cover they needed to put together vocal sounds creatively and perform confidently within a public setting. In this sense, the use of this technology was intrinsic to the success of the scheme of work.

Secondly, simple group games drawn from a range of other sources encouraged a natural and intuitive approach to the production, combination and evaluation of vocal sounds with these technologies. Many of these games are designed to develop a wider understanding and appreciation of how the voice can be used creatively. As I have mentioned above, pupils were familiar and happy with idea of singing together. These games employed a range of other vocal production techniques as well as body sounds. Many of these techniques have been used in contemporary classical music and other world music traditions. Pupils listened to works by Sheila Chandra, Luciano Berio and Trevor Wishart at various points throughout the scheme of work. For many pupils these sounds seemed very strange and, initially, incomprehensible. However, through the adoption of simple vocal improvisation games drawn from some community music workshops that I had observed, and the use of certain exercises from John Stevens' book *Search and Reflect* (Stevens 1985), these perceptions were challenged. In conjunction with the sound processing technologies, these games provided a way into the world of twentieth-century compositional techniques and materials. Pupils were able to experience what a powerful and flexible resource their voice could be through imaginative vocal games with the whole class or in smaller groupings.

Thirdly, pupils were encouraged to record their compositions as often as possible. On many occasions in my teaching prior to this scheme of work, pupils had been working in groups, often improvising and experimenting, and found it difficult to remember what they had done at any one particular moment in a given piece. A portable mini-disc recorder was made available for them during each lesson in order to assist their opportunity to evaluate their group performances effectively. Pupils recorded their compositions as 'works-in-

¹ Comment in an email (5/6/99) from Liz Marshall (Key Stage 1 Special Educational Needs Co-ordinator), Almondbury Church of England Infant and Nursery School. (Used with permission).

progress' and then listened to them, analysing and evaluating their work constructively as part of a compositional process. They were then able to improve their work as they saw fit. It was vital to place the ownership of this procedure into the hands of the pupils. I wanted to move pupils away from an initial reliance on my authority or viewpoint about their work towards a dependence on group discussion as a way of improving their composition. Obviously I had my own views about their work and these would be shared regularly with individuals and groups of pupils. However, whilst I, as their class teacher, might record their work for assessment purposes or posterity, in this scenario pupils' recording and evaluating an incomplete composition became an integrated part of their working practice and a key facet in them taking ownership of formative, developmental assessment within the group context.

One electroacoustic composer I spoke to during the early part of this research discussed a systematic cycle of selecting and editing musical materials. He talked about how he would record himself improvising with his sound sources. He could then listen back to his 'free-flowing' ideas and pick out best ones for subsequent use. Incorporating the recording of pupils' improvising as part of compositional practice has proved most useful. Pupils are easily able to select and refine their ideas within this process. The pressure to 'remember' what they played is mitigated and they have the opportunity for spontaneous and creative play. This became a very important part of pupils' work in later projects with computers. It is a point that I will refer back to later in this chapter.

Finally, a structured approach to evaluation was a key ingredient of this scheme of work. Pupils were required to keep a diary of their thoughts, ideas and views about the activities in each lesson. Pupils were given a number of questions designed to assist them with this task. This practice reflected closely the concerns of my own research methodology. I was consciously trying to develop a critical and cyclical process of analysis and reflection within my teaching at this time. I was experimenting with a range of approaches drawn from the methodologies of action research and case study. As such, I was also keen to encourage pupils to adopt aspects of these methodologies as a tool to analyse their own learning experiences. I felt strongly at the time, and do so now, that within the music curriculum there is an exciting opportunity for our pupils to develop research and evaluation techniques and skills. Thinking of ways to encourage pupils to evaluate, and make revisions on, their work and give an account of it to others (verbally or in writing) became a vital part of their compositional processes in future projects.

3a.4. Analysis

The uses of technology in music education affected these Year 7 and Year 10 pupils' views of musical composition and performance at a fundamental level. Through my analysis of their work and evaluations I began to feel that the pupils' view on what composition is and how one ought to engage with it were being challenged. There seemed to be a number of important areas of concern for the pupils.

3a.4.1. Regularity and Irregularity

The Year 10 pupils quickly identified one group's composition as being particularly effective. Greer identified a reason for this, "It wasn't like a regular pattern, it was a non-regular pattern". But interestingly, Patrick applied the same kind of analysis to the mood of the music. When discussing this, the pupils quickly picked up on the idea that music need not be composed within a set, metrical framework. For some this was the first time they had

experimented with sound in this way. Anna commented, “I think they were all a bit irregular actually, which I thought sounded good”.

3a.4.2. Starting Points

Pupils often seem happier when they are given a clear idea or concept onto which their composition is to be based. *Beast*, the vocal composition piece composed later in the year, was clearly structured. The piece clearly demonstrates the girls playing with the technology, using it to dramatic effect.

The overall effect of the piece was enhanced by the delay, but we used it to show the different images of the beasts. (Loren, Year 10)

I personally liked it. It was fun to produce and we achieved what we set out to do as a group. The effect and the feel of the piece described and fitted well into the theme of the word ‘Beast’. (Judi, Year 10)

Personally, I have two favourite moments in the piece: a wonderful moment of transformation towards the beginning of the piece; and a visual image of the girls listening intently to the sound of their final scream as it gradually faded away and began to feedback with the amplification system.

Unlike her work within the percussion composition, Judi’s comment shows that she was satisfied that her group had performed their composition as they had planned, bringing it to a sense of completion.

3a.4.3. Liberating Effects

Some pupils certainly felt a sense of freedom in being able to improvise and compose with sounds in a different way. Naomi and Hannah both expressed the feeling of being confined or limited within the sound world of traditional instruments. The use of the technology was the means by which a path towards a freer, more spontaneous and expressive use of sound was begun.

3a.5. Implications for Future Work

The implications of these early experiments were important for me as I planned future case studies. My inclusion of some new technologies within my teaching presented me with the opportunity to radically change my teaching of composition. Such changes are never easy, but as I considered these early experiments and my findings I began to realise the impact that these technologies would have on my own concepts and ideas about music education. For example:

- Assessment procedures may not be appropriate in the light of the use of new technologies in the classroom;
- A redefinition of what is meant by a 'creative idea', and a 'compositional skill' is required;
- The incorporation of computer technology in our classrooms will have implications for the traditionally strong group-work orientated approach to composition in Key Stages 3 & 4.

The very nature of education and learning is called into question when we adopt new technologies in the classroom. It quickly became apparent to me that things would not be able to stay the same. As Professor Stephen Heppell (ATL 1999b, p.22) commented:

It would be a travesty and a betrayal of our role if we attempted to harness these new creative tools to deliver the tick-box homogeneity of the old teaching machine.

What I explored in these early experiments was an example of an alternative approach to the use of technology in music education that, whilst drawing on the strengths of traditional classroom practice in English classrooms, remains faithful to what I believed to be the intrinsic benefits of the technologies involved.

Shortly after I had finished these early experiments, OfSTED published materials that I found particularly encouraging. In their report to music teachers they suggested that our classroom practice ought to:

- Create a sense of purpose when exploring music;
 - Ensure that pupils reflect on and evaluate their performances and compositions;
 - Encourage pupils to use their musical imagination;
 - Teach music within a practical musical context, helping pupils to develop and apply their musical knowledge when performing and composing.
- (OfSTED 1999)

I took this to be valuable advice and a justification of some of this early work. The teaching of musical composition should be purposeful and imaginative, allowing pupils opportunities to apply their musical knowledge and give them space for reflection and evaluation. In a similar way, purposefulness, imagination, reflection and evaluation should be the hallmarks of my approach to the development of new uses of technologies in educational practice.