

ANGLIA RUSKIN UNIVERSITY

A STUDY INTO THE TEACHING OF  
THE SCOTTISH SMALLPIPES ON  
THE INTERNET USING  
PODCASTING AS  
A DISTRIBUTION MEDIUM

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requirements of Anglia Ruskin University  
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# TABLE OF CONTENTS

<b>Acknowledgements</b>	<i>i</i>
<b>Table of Contents</b>	<i>ii</i>
<b>List of Figures</b>	<i>iii</i>
<b>List of Tables</b>	<i>iii</i>
<b>Chronology of Events</b>	<i>iv</i>
<b>Abstract</b>	<i>v</i>
<b>Chapter 1 - Introduction and Context</b>	1
Background	1
Distance Learning	1
Podcasting - A Future Technology	3
Teaching the Scottish Smallpipes	6
<b>Chapter 2 - Critical Review of Literature</b>	10
The Aural Music Tradition	10
Distance and Online Learning	15
RSS, Blogging and Podcasting	22
Summary of Critical Review of Literature	25
A Review of Tutor Books for the Scottish Smallpipes	26
Tutor Book Summary	30
<b>Chapter 3 - Research Methodology</b>	32
Action Research - A Methodology for Change	32
Review of Methodology Literature	33
Participants and Ethics	35
Phase One Participants	36
Phase Two Participants	36
<b>Chapter 4 - Data Collection</b>	38
Phase One - Creating the tutor materials	40
Phase Two - Creating the Podcasts	42
Podcasting - The Technological Process	44
Radio Britfolk and CD distribution	45
<b>Chapter 5 - Analysis</b>	47
The Action Research Spiral	47
Development of Suitable Materials	47
Phase One - The Tutor Book	52
Phase Two - The Podcasts	55
The Video Podcast Reflective Cycle	63
The Website Reflective Cycle	64
Control Group - Radio Britfolk & CD-ROM Students	66

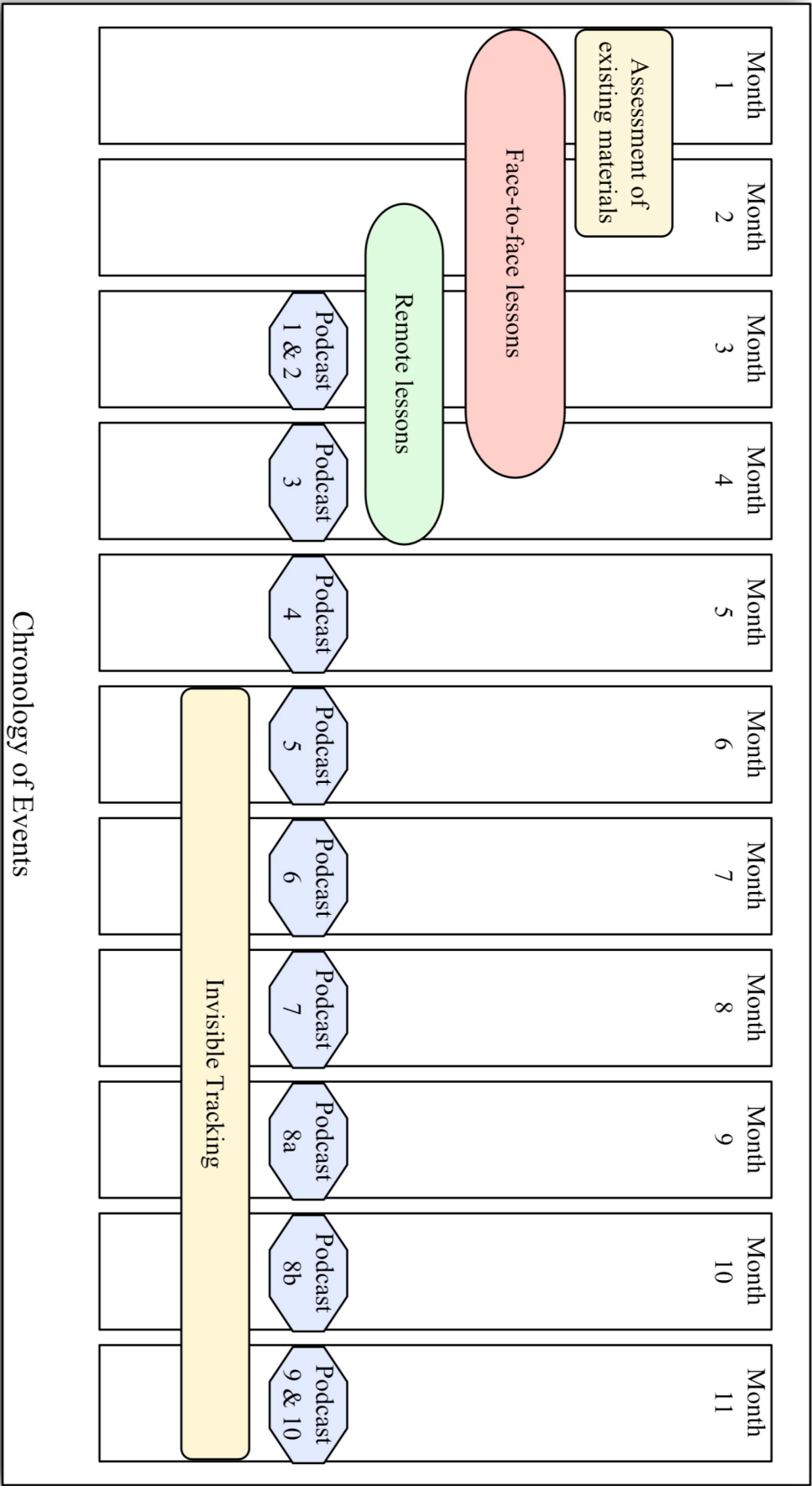
<b>Chapter 6 - Findings</b>	67
The Pedagogy	67
The Technological Findings	71
<b>Chapter 7 - Conclusion</b>	81
The Pedagogy	81
The Technology	83
Participation	83
Summary	84
Further Research	85
<b>References</b>	87
<b>Appendix I - The Questionnaire</b>	95
<b>Appendix II - Data</b>	105
<b>Appendix III - CD-ROM of Website, Podcasts and Tutor Book</b>	110

### List of Figures:

Figure 1: The podcasting process	5
Figure 2: The Scottish Smallpipes	6
Figure 3: Extract from Flowers of the Forest in its traditional 2/4 form	8
Figure 4: Extract from Flowers of the Forest in its 6/8 form	8
Figure 5: The Two Phase Action Research Spiral	39
Figure 6: Gibb's (1988) Reflective Cycle	47
Figure 7: All notes introduced as a chart	48
Figure 8: Time Value Chart	49
Figure 9: Location of the participants to the podcast site	62
Figure 10: Numbers of daily RSS hits recorded on Feedburner.com	72
Figure 11: Numbers of visits recorded to the podcast site	72
Figure 12: Percentages of the different nationalities that visited the site	75
Figure 13: Percentages of different browser languages	76
Figure 14: Feedburner statistics showing different RSS aggregators	78

### List of Tables:

Table 1: Diary of the initial development of the tutor book	41
Table 2: Analysis of data from six bagpipe tutor books	51
Table 3: Note naming conventions	69
Table 4: Percentage of referrers to the podcast site	71
Table 5: The number of downloads of each mp3 or pdf	78



ANGLIA RUSKIN UNIVERSITY  
ABSTRACT

SCHOOL OF EDUCATION

MASTER OF EDUCATION

A STUDY INTO THE TEACHING OF THE SCOTTISH SMALLPIPES  
USING PODCASTING ON THE INTERNET AS A DISTRIBUTION MEDIUM

By VICTORIA SWAN

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**Abstract**

This study is the result of an action research investigation into the distance teaching of the Scottish smallpipes using podcasting as a distribution medium. Podcasting is a new technology and very little research has been undertaken to examine its use in the distance learning of instrumental music tuition. Using a target audience of web-literate Scottish smallpipers from all over the world, a new tutor book was created and delivered by podcast. This gave access for pipers in remote areas to a learning experience that would not have previously been available. Utilising the self-reflective cycles within the action research methodology, changes were made to the pedagogy, format and technological designs of the lessons and podcasts.

The study investigated existing teaching pedagogies and resources for the Scottish smallpipes. Following from the assessment of this existing material, a new tutor book was created with a remote-learner centric design. This material was made available online alongside an audio podcast of the same content. After each podcast, feedback was requested and data analyzed. An invisible tracker was put in place to monitor activity on the website to assist in the evaluation of participants' use of the resources.

The results of the study suggested that podcasting could provide a valuable learning resource tool when used sympathetically. The results of the study also suggested that auto-didactic learners could be successful in learning an instrument in what, traditionally, has been very much the domain of the face-to-face teacher.

The impact on the student participants took the form of a learning experience that was not previously available. The impact on own practice resulted in the creation of a new tutor book for the Scottish smallpipes, audio resources for future teaching and a greater understanding of the pedagogy of online learning that has value to the wider music forum.

## Chapter 1 - Introduction and Context

### Background

This study endeavoured to investigate the teaching of the Scottish smallpipes, an inherently face-to-face pastime, online using podcasting as its distribution medium. The relative rarity of Scottish smallpipe players has resulted in a lack of teachers and teaching resources. In turn, this dispersion and isolation of learners and teachers of this particular musical discipline has created a learning void for which traditional teaching resources were inadequate. This study hoped to explore and remedy this deficiency model by using the World Wide Web and the Internet to create and facilitate a global community of students that could learn remotely.

To successfully benefit the Scottish smallpipe learners it was not only necessary to investigate opportunities provided by new technologies but also to challenge the existing format and pedagogy of existing materials. In order to effectively undertake this pathway it was necessary to assess the pedagogy of teaching the Scottish smallpipes and associated materials and reflect on the improvement of own self practice using Gibb's (1988) self reflective cycle as an action research study. To this end, it was necessary to explore contemporaneous distance learning pedagogies, current technologies (especially podcasting) and the traditional model of Scottish smallpipe teaching.

### Distance Learning

From the inception of network and Internet tools, the backbone of peer-to-peer communication was the sending of text files. Even as far back as 1978...

*"...it became obvious that the ARPANET was becoming a human - communication medium with very important advantages over normal U.S. mail and over telephone calls". (Licklider 1978 cited in Bartle 2000)*

This development in communication, the linking of computers together using the Internet, facilitated enhanced learning techniques. Universities embraced this technical revolution developed in the 1970s by the US military and CERN and had networked their computers by the mid 1990s. At this time e-mail was the primary communication tool and although the facility was becoming more complex through the introduction of address book functions, attachment options and mail rules, it was

still only able to create simple text documents that could be sent to others with Internet access and similar technologies. The subsequent manifestation of the World Wide Web transformed the opportunities of peer-to-peer engagement from these simple text documents to much more complex media including instructional website pages.

The relatively recent emergence of these complex media technologies meant that much of the available literature on virtual learning and online communities still centre around the use of e-mail as the primary communication tool without truly investigating the more recent additions.

Most universities have had 'distance learning' components in their degree prospectus for a long time and embraced the Internet and the World Wide Web to extend these opportunities. This growth could be recognised by looking at the Open University (a university led entirely by distance) who stated in 2006 on their website that they had over 100,000 students using their online conferencing system.

While the universities perhaps led the effective use of communication technologies, the penetration of Internet facilities also grew significantly in both the commercial and domestic environments. The UK government called for 100% coverage of broadband by the end of 2005 (theregister.co.uk 2003) and nearly reached this target gaining 99.8% coverage (dti.gov.uk 2006). However the numbers of people actually accessing the Internet from home using broadband in the UK was only 40%. (National statistics online 2006) and the numbers with any access at home was 57%. Reasons cited for not having the Internet at home included lack of skills (24%) and too expensive (11%). There was understandably a marked difference of Internet access between generations with 83% of 16 - 24 year olds accessing the Internet compared to only 15% of the 65+ age group. These statistics suggested that any educational activity requiring the Internet could be seen as exclusive and favouring the young and more financially empowered. These younger 'digital natives' (Prensky 2001) had the further benefit by being immersed in computer technology through their formative years. The students that started their studies in the year 2006 would have never known education without computers and would as a consequence have had a significant advantage over their 'digital immigrant' teachers.



Much research has been undertaken in the area of online learning and recently into the role of the community of practice. Bradshaw *et al* (2005) discussed the difficulty of engaging online learners and the different ways through which interest could be maintained. Ham and Davey (2005) outlined the obstacles they encountered when having to deliver their own courses partly online. Ham and Davey referred to the difficulties that their students experienced with the perception that the teachers were non-communicative. The teachers in some cases found it hard to adapt their teaching styles to accommodate the online nature of the learning experience. Their conclusion stated that a sounder pedagogy of online teaching was required. The results from this and other research into the area of online learning showed that teachers and facilitators in many cases were trying to replicate face-to-face teaching. This replication of face-to-face materials supported Prensky's argument: the issue of the 'digital immigrant' teaching online courses to 'digital natives'. The 'digital native' has become used to synchronous chat tools, message boards and multimedia so a whole new pedagogy and design of materials has had to be implemented.

### **Podcasting - A Future Technology**

Podcasting is a generic term for a mechanism by which an audio file uploaded to a website can be downloaded by a subscriber to be listened to asynchronously on their local audio player. Emerging in 2003, the word podcasting took its name from a combination of Apple's iPod and the word broadcasting, it is not however a requirement to access this technology using an iPod. The process of downloading the audio file involves several technologies all linked together: RSS, blogging and aggregation.

RSS is short for Rich Site Summary or Real Simple Syndication, both terms have been used and there has been some confusion as to which came first. RSS was originally used by online diarists, known as bloggers (short for web log) so that any new entry made on a blog would be notified directly to a piece of software, called an aggregator. The benefit of this was that a reader could subscribe to any number of blogs and the aggregator would be able to check and fetch all the new entries without having to check through numerous different web pages. Podcasting was made possible by the development of RSS2, which enabled attachments to be added to a

blog entry. By using a modified aggregator it was then possible for the blog entry and ‘enclosure’ (or audio file) to be picked up and downloaded to the listeners computer. This show could then be listened to either on the computer itself or transferred to a personal mp3 player.

Dave Weiner, who developed the podcasting technology with Adam Curry described it in this way:

*“Think how a desktop aggregator works. You subscribe to a set of feeds, and then can easily view the new stuff from all of the feeds together, or each feed separately.*

*Podcasting works the same way, with one exception. Instead of reading the new content on a computer screen, you listen to the new content on an iPod or iPod-like device.*

*Think of your iPod as having a set of subscriptions that are checked regularly for updates. Today there are a limited number of programs available this way. The format used is RSS 2.0 with enclosures.” (Weiner 2004)*

Initially podcasting was developed as a way for bloggers to include audio files and was advertised subsequently as the ability for individuals to create and broadcast their own radio shows. (Map100.com 2006)

Podcasts are generally between 10 minutes and an hour in length, the average being about 20 minutes and are roughly 1 Megabyte in size per minute of audio.

Podcasting was still such a new technological medium at the start of this study that the processes required to create and broadcast podcasts were still fairly complicated as there were no integrated programs or services. The following sequence was the process used to create the podcasts for this study.

1. A weblog was created using the free blogging service blogger.com
2. A feedburner.com account was created to convert the RSS feed into RSS2
3. An audio file was recorded using the Apple Computer programmes GarageBand and Amadeus II.
4. The file was saved as a medium quality mp3.
5. The mp3 was uploaded into personal web space. (Making a note of its url)
6. A new entry was created in the blog with the start of the entry consisting of an html tag so that the RSS2 would function in podcast aggregators such as

iTunes, for example:

```
<a href="http://www.your_domain.com/podcast01.mp3">podcast</a>
```

7. The feed was converted using feedburner.com to create an RSS that was podcast enabled. (RSS2)
8. The RSS feed was advertised to find listeners.

Once a listener had discovered the RSS feed and had subscribed using their feed aggregator, any new podcast entries would be automatically downloaded and then played directly in the aggregator, in the computer's media player or downloaded into a personal mp3 player.

Figure 1 represents the process required to podcast an audio file including suggested applications (for the Apple Computer OSX system)

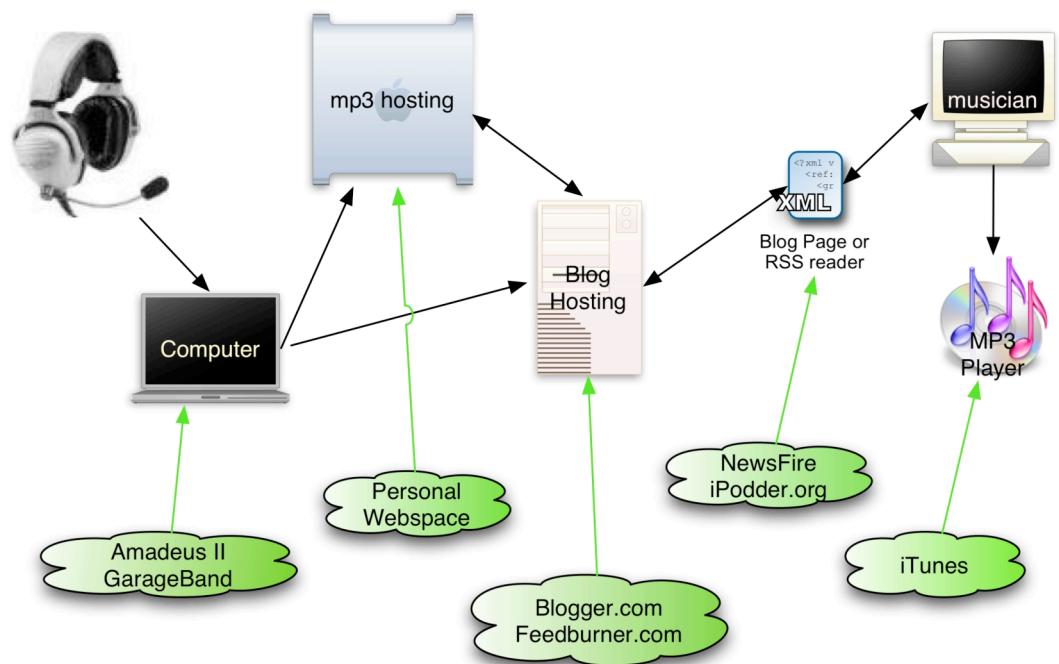


Figure 1: The podcasting process

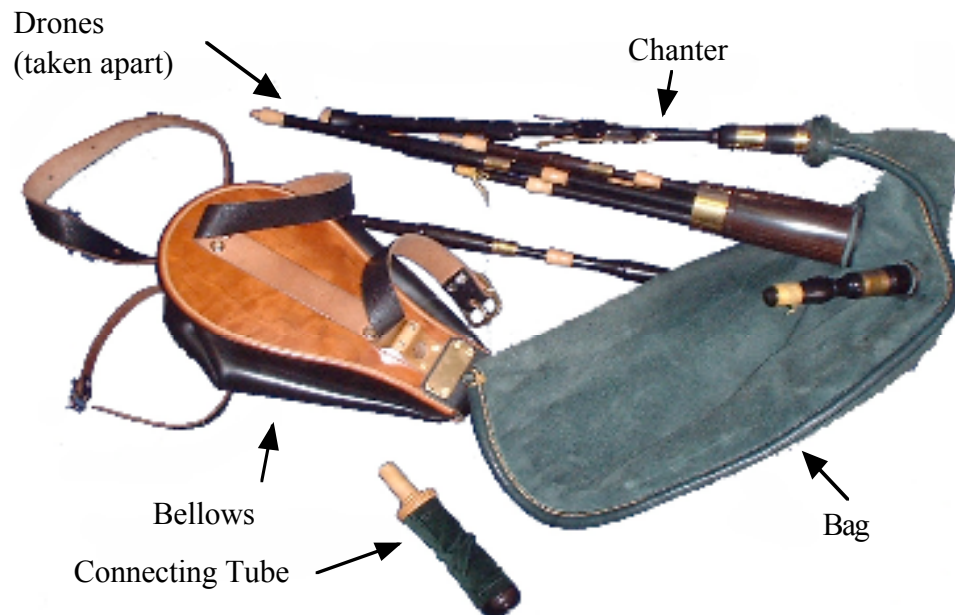
During the period of this study technologies for podcasting have improved and become streamlined. As typified by The Apple Corporation who have simplified the process by integrating its .mac (Apple Computers own web hosting and e-mail service) account with GarageBand (software used to record an audio file for a podcast) and iWeb (software used to create a websites and blogs with the capability to power podcasting) to enable a more simplified podcast publishing process.

Although the development of these programmes has rendered the podcasting process more accessible, it still requires a certain level of general web literacy on the part of the podcaster to make sure that all the different parts of the podcast process function properly.

It must be recognised of course that a podcast requires the creation of original audio resources in mp3 format. This paper does not investigate the skills or tools required to generate these resources however it is worth noting that this is a further complexity in the process of podcasting. As with the podcasting system, recording has become easier during the period of this study.

### Teaching the Scottish Smallpipes

The Scottish smallpipes came into existence in their current form (see *Figure 2*) in 1983 when the pipe maker Colin Ross designed an open ended cylindrical bore chanter to be played with the Highland Pipe fingering system and with a Northumbrian Pipe reed. (Moore 2003).



*Figure 2: The Scottish smallpipes*

Although there are some people capable of teaching Highland fingered bagpipes in Scotland there are very few players anywhere else around the world. Because of this it can be hard to find a teacher without travelling great distances for a lesson or set of

workshops. In workshops that have been led around the country at folk music festivals participants have shown a willing enthusiasm for learning the Scottish smallpipes, but due to a general lack of existing teaching infrastructure they have felt it not possible to start learning. The teaching materials that exist and that are used by teachers of the Scottish smallpipes are the Highland Pipe tutor books, which tended to rely heavily on face-to-face teaching with little or no progression built into the written lessons.

In order to undertake Scottish smallpipe teaching using podcasting it was necessary to create a set of lessons that were suitable for its audience; remote distance learners unable to find a face-to-face teacher. The current method of Bagpipe teaching, especially the Great Highland Bagpipe (of which the Scottish smallpipes is a derivative) is to outline the nine different notes, the different rhythms, how they are notated and finally to list the different articulation methods followed by tune learning. This teaching pedagogy relied heavily on tutor intervention interpreting the resources and marrying up the journey with the learner's needs. In order to benefit the dispersed and isolated nature of the online audience the podcast lessons had to be extremely carefully thought out and graded.

It was necessary to reassess the Great Highland Bagpipe teaching method and to create a lesson plan that was thorough and incremental to counter the lack of immediate response that a face-to-face tutor would be able to provide. The resulting lesson plans were grouped into chapters and made into pdf format for download alongside the audio podcast files. Extensive literature searches found practically no sources for bagpipe pedagogy except for the notes and introductions found in Highland Pipe tutor books. Bagpipes have been traditionally taught in an aural style with very little or no written notation. A culture of not relying on written notation to learn music has developed and as a result of this there can be found many rhythmic mistakes in music written for the bagpipes. For example the well-known tune 'Flowers of the Forest' traditionally was written out in the time signature of 2/4 (see *Figure 3*).

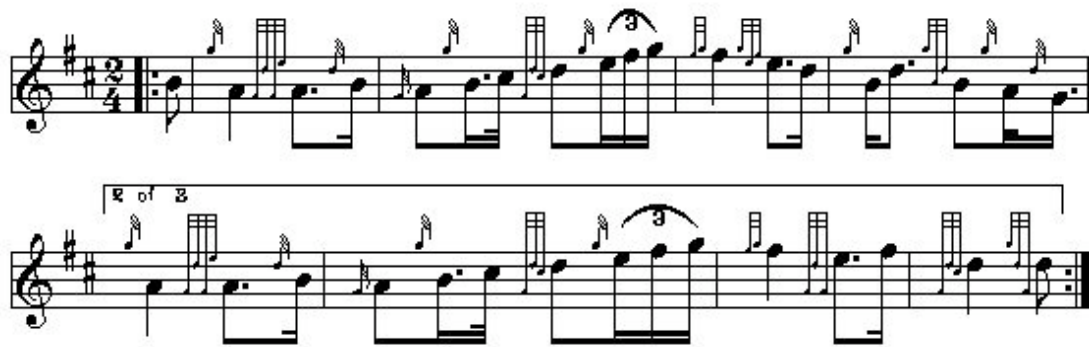


Figure 3: Extract from *Flowers of the Forest* in its traditional 2/4 form

However, the written version of this tune is not the same as the conventionally learnt version. What is apparent is that the written notation of the tune is incomplete and that further interpretation from the teacher is required to generate the correct performance of the tune by the learner. It must be noted that this is not a short coming in written notation *per se* but an example of bad scoring of the tune.

Figure 4 has been scored correctly as a result of listening<sup>1</sup> to and aurally transcribing the tune. If a player were to play this version of the tune in accordance with classical music protocols, it would sound exactly the same as the traditional version without the need for intervention by the teacher who was modifying the version in Figure 3.



Figure 4: Extract from *Flowers of the Forest* in its 6/8 form

Although the changes made were only slight, a subdivision of the beats into three instead of the traditional two, it was then possible to give the tune to a player that had not previously heard it and for them to perform it correctly. The tutor book that was created for this study attempted to bridge the gap between learning from written notation and the aural tradition so that a learner would acquire the skill to be able read music. This skill would then be transferable after the course of lessons and

<sup>1</sup> From the playing of Pipe Major Roddy Swan

learners would then be able to learn music from written notation and increase their repertoire.

The small number of Scottish smallpipe players that existed proved to be a double edged sword in the study. It meant that although there were participants around the world lacking in teachers that were eager to learn from this distance method, it also meant that there were fewer players to start with. This resulted in a smaller audience to attract participants from.

The purpose of this study was to demonstrate the use of action research methodology to investigate the possibilities of using podcasting as a medium for teaching the Scottish smallpipes online and to discover if it could be used to reach more learners. By using action research methodology in the context of education the research focused on the self-reflective enquiry based on Gibb's (1988) reflective cycle to address the issue of self-improvement of practice. (Carr and Kemmis 1986:162) Podcasting is such a new medium that there is little current research in the area. This study attempted to gain an insight into the learning of the Scottish smallpipes at a distance and to ascertain whether podcasting was a viable technology to pursue, or merely a "fad". (Mincey 2006)

## Chapter 2 - Critical Review of Literature

In order to undertake a critical review of literature it was necessary to look at the principal theories and concepts of its main constituent parts: instrumental teaching and online distance learning. It was necessary to cover both areas independently as there was a lack of literature in the collective field of teaching instrumental music online.

### The Aural Music Tradition

This study focused on musical instrument teaching online. Searches for literature in this area revealed few materials. Indeed, although an online search, using the search engine Google, for “online music lessons” generated nearly 53 million entries; of which a majority of the sampled links were teaching sites; showing that online teaching was prevalent, it was very hard to find any academic discussion or assessment. Further searches of “instrumental lessons” ie face-to-face tuition, did not generate a significantly greater quantity of literature. This suggested that the lack of “online music lessons” literature was a symptom of a wider issue regarding music teaching. Sancar (1999), Rauscher (1998), Wilson (1989) and other researchers at the University of Munster (1998) undertook scientific research into young children and the beneficial affect that learning music had upon the development of their brains. Bearing in mind the positive outcomes of Sancar *et al*’s research, it was all the more surprising that more research had not been undertaken regarding the ‘playing of musical instruments’, which were considered to be the building blocks of music.

As long ago as 1992 Tait (1992) indicated the need for more investigation to be undertaken in the area of instrumental tuition. A decade ago Persson (1996) also stated that little research had been undertaken. Rostvall and West (2003) referred to instrumental teaching as being a ‘black box’ that we have little knowledge about and much more recently, Triantafyllaki (2005) highlighted the continuing hole in knowledge concerning instrumental teaching and emphasised the need to rectify this deficit.



The conventional method of teaching a musical instrument traditionally centred around a one-to-one, face-to-face voluntary exchange between student and teacher. Jørgensen (2000) likened this relationship to a master-apprentice approach. Persson (2000) added that instrumental teaching was based around common sense and intuition. The common sense and intuitive nature of this teaching method probably rendered it exempt from the usual discussions, rules, analysis and judgement that classroom teaching had constantly been subjected to. It is common for peripatetic instrument teachers to have no formal teaching qualifications and such teaching knowledge is not seen as necessary; as supported by Swanwick;

*“On the surface, and compared with general music teaching, instrumental instruction appears to be relatively uncomplicated by consideration of knowledge and value.” (Swanwick, K. 1996:233)*

Swanwick went on to describe that instrumental instruction was a more complicated process than his initial image would suggest. He did not however go on to explain the components of this complexity, nor did he explore the technical and dextrous difficulties that a learner has to negotiate before they can begin to exercise musicality in performance. In contrast, Swanwick alluded to the complexity of the learners' experience and the multifaceted processes that they experience during their learning journey:

*“We are strongly motivated by observing others and strive to emulate our peers, often with more direct effect than being instructed by those persons designated as ‘teachers’.” (Swanwick, K. 1996:233)*

There were small incidences of isolated research such as Triantafyllaki (2005) who suggested that this ‘experience’ based method of teaching should be supplemented by more studies taking into account the cultural and institutional influence on instrumental teaching. Hultberg (2005) undertook a study into practitioner and researcher co-operation towards the development and improvement of conditions for learning. Hultberg's research suggested that the action research performed was as mutually beneficial for the learner as it was the practitioner. Bernard (2004) explored the differences between the perceptions of the music teacher and the musician-who-teaches. Bernard compared the attitudes of each and explored their differing relationships with ‘performance’ and ‘teaching’ as two distinct paradigms within the sphere of ‘instrumental music’. Bernard's distinction between the two

types of teacher raised the implication that there is a tension between formal patterns of teaching and personal achievement as a musician.

Mills and Smith (2003) investigated instrumental tuition provided by the music services of over 130 different Local Education Authorities. Because they primarily selected Local Authority music services their obvious extensive geographical spread of participants was juxtaposed by their parochial focus upon classical music and classical music teaching. Furthermore, by excluding the more traditional style of aural learning, their research was biased towards the more literate young people and those generally in the higher social classes. Notably even though Mills and Smith focused upon what was perhaps the most structured form of instrumental teaching, they recognised that teachers' methods were greatly influenced by their own personal learning experience over and above the pedagogies that they had learnt as qualified teachers.

Many traditional musicians, by contrast, took their learning from informal music sessions, usually taking place in public houses. MacKinnon (1993) wrote about the music session:

*“A session is a gathering of musicians who meet informally to play tunes. A singing session or sing around is a similar gathering of singers, though if instrumental and vocal music occur together it is normally referred to as a session” (MacKinnon 1993: 99)*

Fairbairn (1994) described the “traditional music session” and how, in the 1930s, the Irish immigrants that came to London could no longer play music in their homes and turned to public houses as a venue:

*“Since the 1930s instrumental music has become increasingly disassociated from its primary function - to accompany dancing.... The traditional setting for the music is the country house dance, remembered vividly by today's oldest generation of musicians” (Fairbairn 1994: 572)*

The traditional music session was a sociable event where tunes were swapped and learnt as opposed to taught in a formal sense. Fairbairn (1994) reflected on session culture:

*“Sessions dissolve boundaries bringing together large numbers of musicians, with or without previous experience of one another's playing, and*

*representing diverse musical backgrounds, styles and experience.”*  
*(Fairbairn 1994: 583)*

It was apparent that much learning took place in these sessions and yet they have largely been ignored by academia. There has been little written on the pedagogy of these learning processes in traditional music and as such this is an area that needs further study. Keegan-Phipps (2004) investigated the pub session in Durham and concluded that although learning did take place within the session, a lot of learning also took place privately by listening to CD recordings and from the written notation.

Cope (2002) explored the learning of tunes in the traditional session and concluded that participants of a traditional session regarded the learning within the session to be as valid as the classical mode of learning. Cope commented on the weakness of Local Authorities to offer only the more classical style of teaching instrumental music. Cope discussed the fact that classical music learning was very often de-contextualised and very few learners continued to play into adulthood. It was found that musicians learning in the context of a music session were far more likely to continue playing for longer than for learners in the more classical forum. Cope's conclusion that the social construct offered by playing folk music together in a pub session was more conducive to continuation of playing compared to the de-contextualised learning of an instrument in the classical forum.

Perhaps the most pertinent research conducted appeared to be Young *et al* (2003) where different teaching styles of instrumental music teachers were investigated. Here, learner experiences were categorised and it was discovered that more autonomous instrument learners were significantly more successful than the other categories. A further aspect of the same study engaged the learner as teacher where students were encouraged to teach each other. It was suggested that the peer-to-peer support given by the participants to each other, helped to make them more autonomous and ultimately more successful. It could be construed that the factors that made them more successful were not ultimately the learner support, but the social construct of working together as a team. This notion of success through peer support and the 'community of practice' was consistent with the research of Cope as shown above.

Looking more generally at the collective discipline of instrumental teaching there were found to be two distinct approaches to the communication of musical language. The more formal discipline of music learning, including classical and liturgical training used written notation as their principal vehicle of communicating and sharing music. The alternative approach, as represented by world, traditional and popular music cultures, was to learn and play everything aurally with no written notational aids. Although some of the newer disciplines, for example jazz, tapped into both approaches, individuals through their teaching methods, were often restricted to one learning mechanism or the other dependent upon their musical background. Kodaly (1996) stated that learning through the aural discipline excluded the learner from the benefits of the other:

*“Millions are condemned to musical illiteracy, falling prey to the poorest of music” (Kodaly 1974:119 cited in Swanwick 1996)*

Kodaly himself came from a background of Hungarian folk music with aural learning and used this as his initial vehicle for teaching children, so it was unexpected when he stated that;

*“ ... all by the year 2000 should be able to read music” (cited in Swanwick, K. 1996:244)*

It would have been expected that Kodaly would have appreciated the benefits of the traditional aural tradition alongside the more literate classical one. Traditionally there was a disparity between the written word and aural medium in many other disciplines. Most academic text favoured the written discipline because it came from the same cultural paradigm of the written word, but Swanwick (1996) recognised the value of the aural tradition when he stated that:

*“Without aural performance traditions, most expressive and structural shaping is missing.” (Swanwick, K. 1996:244)*

This polemic between playing by ear and playing using written notation could be traced back to the cultural divide of folk music and classical music. Aside from obvious class distinctions between classical and non-classical traditions, the classical musicians assumed that their higher literacy skill in the ability to read music made their style of music better, whereas the aural tradition of folk music seemed somehow to show illiteracy. (Faigin 2003; Encyclopædia Britannica 2006)

Swanwick (1979) tried to show music teachers that they needed to alter their perceptions of *cultural* music;

*“It may be that teachers ought not to categorise the cultural background of pupils as in some way inferior, or in deficit, but merely as different.”*  
(Swanwick, K. 1979:104)

Today’s most successful music industry is “pop music” and this too, coming from the aural tradition, has been frowned upon by classical musicians and music teachers in the past. With the introduction of a Masters degree program at the National Centre for Popular Music alongside the BMus in Folk and Traditional Music at Newcastle University the aural traditional modes of learning music are shown to have become more acceptable. Research conducted on the program at the National Centre for Popular Music implied success, but findings suggested that some of the old prejudices have lingered;

*“...one found himself saying that he thought that the scheme would be better if higher musical expectations were introduced at the beginning.... too biased towards those who were starting out, those who had just picked up a guitar.”*  
(Allsup. R.E. 2003:25)

What is apparent from these sources of research is that the two distinct traditions of music learning and sharing, i.e. written notation versus aural memory, are separated not by a hierarchy of pedagogical effectiveness but by cultural differences at the root of the musical genres they represent. It would be interesting in a separate study to investigate the freedoms and constraints of the two teaching pedagogies with an impartial study that transcends the genre of biases that are apparent here. Returning to this particular area of study it is important to see both pedagogies as potential resources, to ignore their separateness and to explore the potential synthesis of them into one teaching structure. Such an agenda is supported by the research of Cope (2002) and Keegan-Phipps (2004) as discussed earlier.

### **Distance and Online Learning**

The potential to teach music on the Internet only became possible when the introduction of broadband made the Internet faster and more versatile. The evolution of computer-based technology has been very swift and is still developing. This speed of development is none more apparent than when looking at literature where an issue of importance in one moment appears to become a thing of the past in the

next. Mason (1994) talked about audio graphic systems that had great value but that their requirement for two phone lines rendered their use unrealistic. Brooks (1997) talked of problems with too much web traffic slowing down the Internet and of potential storage devices that could hold more than a CD-ROM (ie DVDs). Within 9 years of Brooks, broadband was available to nearly 99.8% of the UK population (dti.gov.uk 2006) and DVDs were a standard storage media. Such advancement is indicative of the myriad changes that are occurring across the spectrum of “The Internet”. The speed of these changes often renders research, relevant at the time, out of date very quickly.

With faster Internet, greater storage capacity and new technological revolutions came more diverse opportunities for all walks of technological life including teaching and learning. As computers became powerful enough to employ multimedia, opportunities for video, audio and community tools exploded. These developments opened the door for all sorts of disciplines to embrace technology that had not seen the relevance before. Williams stated that:

*“...multimedia technologies may just prove to have significant and permanent educational value” (Williams 1998:159)*

As with many new technological developments the facility preceded the optimum function. The harnessing of the multimedia possibilities came with the understanding of its place in peoples’ lives. Heppell (1994) understood the value of multimedia as a way of enabling learning in online environments and discussed the fact that just as real life learning uses a plethora of audio and visual stimuli so should multimedia on a computer.

*“Logically it would be more sensible to assume that, as is the case in our everyday lives, all these elements would always be present. We might then ask in what circumstances might it be appropriate to leave something out (when should we exclude text, or when might video be abandoned for example), to good effect. If life is generally a multimedia experience, our normal computer based, learning environment should be too.” (Heppell 1994:153)*

It should be noted that the development in technology alone does not solve or overcome learning barriers. Warren (1997) developed an online learning environment that provided the breadth of tools to make a successful community with

very limited bandwidth and technology. He created a community for a developing world market with much inferior tools and noted that:

*“...all software on the market was designed for use in the western world, where computers were common and problems such as unreliable ISPs and slow phone lines are (almost) a thing of the past. So we decided to write our own, a piece of software, that required no downloads, worked in a web browser, allowed five kids to use one computer simultaneously, used very little bandwidth, was safe for the kids to use and was educationally sound. It was a very tall order, but we did it.” (Warren, H. 1997)*

Multimedia and computer based technology is constantly opening doors of opportunity across a myriad of learning and teaching disciplines. However, as Warren (1997) and Heppell (1994) both alluded to, these new facilities are nothing unless there is an understanding of their application. Wellman & Hampton (1999) discussed the benefits and constraints of living in an increasingly online networked world. They suggested that the Internet has allowed people to exponentially expand their community and personal audience. They can be not only members of a local and real community but also be part of many distinct virtual communities. It was suggested that the Internet and e-mail could be used as a one-to-one or one-to-many broadcast medium. What they did not indicate was whether or not this is a good or bad thing for society.

Stager (2005) determined that most contemporaneous attempts at online learning did not holistically embrace the potential for multimedia and pedagogical change. In fact much of the learning consisted of the:

*“ ... delivering of repurposed content to students via the internet” (Stager 2005)*

Stager moved away from teaching face-to-face content via the Internet and developed a series of lessons that used online tools and online community. Although not all the students responded to all the “adventures”, all the students came away with an understanding of constructionism and enhanced computer literacy skills. Johnson & Dyer (2005) also discovered that most web based educational content focused upon the delivery of information, relying on the learner to digest vast banks of text with very little flexibility in constructivist learning styles. In contrast, they determined that the most successful learners went through a process of online involvement and membership. Such community provided the individuals with an

empowered sense of belonging that allowed them to successfully use the content. What was apparent from this was that the effective use of multimedia and its community context was imperative to the success of the learning programme.

In pre-multimedia environments, the resources available to content creators were limited and as a result it was both hard to create content that was engaging and hard to develop resources that were interactive. This could be seen in one of the Open University's course books on the subject of using the computer as a tutor:

*"...95% of commercially available computer software in reading and language is of the sort where the student is drilled, taught or managed by the computer" (Anderson 1990:40)*

These limited resources were often ineffectual because they were unable to facilitate different learning styles and the individual needs of the learner. The facilities of these courses were limited by their technology and their resultant inflexibility meant that some users found value whereas others didn't:

*"Those who subscribe to these systems will benefit, while those who somehow miss out will be even more isolated" (Bainbridge et al 1988:33)*

Garrison, Anderson & Archer (2000) developed a theoretical model that viewed learning in an effective online community as containing three critical components: cognitive presence, social presence, and teaching presence. Combining these three with the benefits of the Internet; vast storage space, multimedia capacity and the ability to time shift content (Anderson 2004), allowed for a communication rich learning environment to be created. This hypermedia rich environment could be used by learners to take control of their learning experience and learn at a pace and sequence of their choosing (Laurillard 1993).

Through the emergence of environments rich in multimedia, music tuition has been able to flourish. The Santa Barbara Music Academy has undertaken research into performing music remotely but synchronously online; putting on a concert where two musicians performed a duet from different locations across the Internet.

*"The virtual duet performance marks a first in the history of music and technology, allowing the musicians to perform in real time." (Kuehn 2003)*



Ruippo (2003) looked at synchronous communication, phone / video conferencing. His work focused on technological resources replicating the real teaching scenario by trying to mirror the face-to-face experience. Video conferencing was explored and developed as the preferred model of distance learning.

*“These examples demonstrate that Videoconferences seem to suit many kinds of music material.” (Donner 2003)*

The use of video conferencing may well have synthesised the appearance of a face-to-face event but it did not allow for asynchronous learning and autodidactic behavioural patterns. In other words it was teacher based and didn't cater for the learners who wanted to be far more self-motivated and take more control over how they learnt.

Bandopadhyay ran a research project in India to investigate online music education. There was far more emphasis on asynchronous content and he recognised that there was a greater diversity of resources required to fulfil the needs of disparate learners:

*“With faculty guidance, the learner must increasingly become self directed, acquiring knowledge and skills through interactive technology-based instruction, videotaped courses, CD ROMs, self-paced learning modules and interactive education.” (Bandopadhyay 2000)*

Bandopadhyay recognised the shift from teacher led education to learner led education through technology:

*“The shift in educational paradigm will focus on the learning process and the learner, rather than the traditional teacher-centred course.” (Bandopadhyay 2000)*

Bandopadhyay demonstrated the effective change in learning focused processes, but did not look in-depth at the impact that such changes had upon the teacher and their need to understand how to engage the enthusiasm, motivation and momentum of the 'self directed' learner.

Wenger (1998) claimed that learning was fundamentally social and that effective learning depended upon interaction between teachers/tutors and peers. Wenger refers to this interrelationship as a 'community of practice' recognising that the communications and interactions between diverse and distinct participants centre around the common interest that is the learning community. Rovai (2002) qualified

the importance of Wenger's 'community of practice' by noting that the sense of community for an individual helped them to navigate a course and be successful:

*"Research provides evidence that strong feelings of community may not only increase persistence in courses, but may also increase the flow of information among all learners" (Rovai 2002)*

Perhaps it is this sense of community and belonging that is the lynch pin of the facility that provides the enthusiasm, motivation and momentum of the self-directed learner. There has been much research into the role of dialogue and community in distance courses. It was discovered that the online communities are suited to generating ideas and exploration, but not so good at coming to conclusions. It was easy for participants to withdraw from conversations and activities as discussed by Gorsky & Caspi (2005), Ramondt & Chapman (2004) and Bradshaw *et al* (2004).

Wenger's 'community of practice' recognised the positive role that technology provided for the learning participants however the blurred edges of professional learning and community have been seen as overlapping for some time. In the early 1960s Ashton-Warner (1963) complained of being professionally alone and isolated but by keeping a published diary in a magazine column, she managed to create a forum for enough professional support to alleviate her remoteness. Ashton-Warner had a simple and pre-technological 'community of practice'.

So far the literature in this critical review suggested that the technology was available to facilitate learning across the board but there still appeared to be a resistance in the music environment:

*"Whilst the students maintained that music technology could help them with listening, composing and performing, and with music history, they believed that activities such as choir practice and instrumental learning require teachers." Ho (2004)*

Ho's research looked at an audience of people who had access to both real and virtual resources: Her use of "students" tells us that she did not take into account those people who have no access to a teacher, or learning in a 'community of practice'.

Ruippo from the Sibelius Academy in Finland researched the possibilities of distance learning in great depth. A significant problem that was encountered was the attitude of current instrumental teachers;

*“..there is quite natural reluctance to change one’s established teaching habits and to be willing to spend extra time within a busy schedule, to do so.” (Ruippo 2002)*

It is worth noting that although Ruippo suggested that the resistance to change on behalf of the teachers was centred around their teaching pedagogy, it was quite likely that they were at a technological disadvantage and therefore creating materials not only involved time generating resources but also time learning the associated technologies.

A study of instrumental music teaching in Australia found that it was necessary to:

*“Keep technology simple, where ever possible, and avoid the problems caused by students upgrading software and handling different media files.” (Bond 2002:27)*

Bond’s research did not specifically argue against the use of technology but raised the important caveat that the use of technologies in their infancy inevitably caused difficulties for the users.

Murphy (2005) studied the issues of ‘broadband enabled learning’ by bringing together six music teachers from all over Canada. This study was designed to share knowledge and best practice in music. To facilitate this study the schools involved were equipped with the 100 Megabyte broadband Internet access. The students accessed music tuition from teachers that were geographically remote and were able to participate in lessons and concerts synchronously. The study highlighted the inherent difficulty of providing synchronous lessons between individuals existent in different time zones (up to three hours apart). Apparently the perceived value of the learning opportunities with teachers who would otherwise be completely inaccessible outweighed these temporal obstacles. Issues regarding the differing backgrounds of the participants were also highlighted with the learning styles of the different cultures sometimes appearing to be non-compatible. Murphy’s research supported the concept of successful Internet-based instrumental teaching. Furthermore, Murphy’s conclusions raised issues that needed to be navigated in this study: principally the

requirement for dependable and fast Internet access and a flexibility in the lesson system that allows for variation in the needs of the learners. Murphy's research questioned the effectiveness of required synchronicity within the lessons. Swan (2004) supported this argument for asynchronous learning with research into live webcasting. With an intended audience in Europe, North America and Australia, a mutually beneficial time slot for the live webcast was determined to be impractical.

In 2002 Miller performed a study giving access to learners of jazz music to an online community. Musicians, for a fee, could log into an online community and either play jazz in small groups of six or have a synchronous master session with a professional:

*"[There was an] Internet based e-learning environment for building ensemble playing proficiency for musicians." (Miller 2002)*

Miller's study combined 'distance learning' with a 'community of practice' to create an environment for the learning of jazz music. Miller recognised that the technology was in its infancy but was able to champion the environment as a viable teaching medium.

Miller and Murphy both recognised the requirement for dependable and fast broadband to assist the success of online learning. As discussed earlier (*cf* page 2), the digital divide apparent in the UK and all countries necessarily excluded a significant population from the opportunities of online learning.

### **RSS, Blogging and Podcasting**

At the start of the study podcasting was a new technology and as such the contemporaneous literature was sparse though rapidly emerging. The majority of Internet references for podcasting and blogging consisted of 'how to' guides and not academic research. The prevalence of help-guides was a necessary reaction to the first iteration of the podcasting mechanism that was a confusing compilation of disparate software programmes and incompatible hardware. As such, the podcasting phenomenon existed solely in the domain of technology expert until Apple Computers took the holistic podcast process and created integrated programmes to make podcasting simple and easy for anyone with broadband and an Apple computer.

Podcasting emerged from blogging (*cf* page 8) with the appearance of the underlying technology; RSS (and RSS2 specifically for the addition of enclosures to create podcasts). This new technology allowed a person to subscribe to a blog or podcast and have any new items or news downloaded straight into a RSS feed aggregator. Richardson's (2005) research suggested that a useful application of the technology was to collect student work through RSS and to use it to scan and sift the posts. Richardson stated that the benefit of the automatic notification was the saving of time in the marking of students work. Merholz also referred to the speed by which blogs could assimilate information for the reader:

*"The power of Weblogs is their ability to immediately put form to thought. I can get an idea in my head--however [half] baked it might be--and, in seconds, share it with the world. Immediately, I get feedback, refinement, stories, and so forth spurred by my little idea. Never before was this possible." (Merholz 2002)*

The focus of Merholz's research was the way in which blogs could be used as a discussion forum, but unlike most message boards and newsgroups he found them to be far less restrained in their topic of discussion and for those discussions to take more interesting directions.

This study utilised the podcasting as the distribution mechanism for the learning resources presented within a blog environment that provided the forum for discussion, comments and feedback. This method of data gathering was supported by Johnson's (2005) research.

Johnson suggested that blogging had become popular with academics as a research tool. Johnson's research showed that blogs were able to fulfil the dual purpose of research journal and discussion forum. Blogs were able to reach a global audience (consistent with Merholz above) and once participants had subscribed to the blog they were able to be kept informed of new journal entries and give feedback. This was consistent with Suzuki (2004) who noted that the combination of the diary like properties of blogs with the feedback mechanism made for a very effective research diary tool. This system of 'participants subscribing and leaving feedback' was supported by Wenger's (1998) 'community of practice' research (*cf* page 19). Suzuki,

however, also argued against the blog as an effective research tool as he found that they had a propensity to become unwieldy and too time consuming for effective analysis.

Meng (2005) recognised that a major benefit of podcasting in the education forum related to temporal flexibility.

*“The ability to time-shift content versus traditional broadcast distribution models expands student teaching and learning opportunities significantly” (Meng 2005:11)*

Time-shift content is not a new concept; indeed books have been the mainstay of learning for a long time, but in the same way that the Internet has enhanced Ashton-Warner’s inclusive diary into Wenger’s ‘community of practice’ so podcasting has transformed the opportunities for asynchronous learning.

The salient benefit inherent in podcasting appeared to be its ability to combine the asynchronous time-shift advantages discussed by Meng with the technological ability to manage the user’s reception of the content via RSS and to transfer it to non-personal computer technologies such as mp3 players.

Without the effective involvement of RSS and alternative media players, podcasting in its simplest form is simply an on demand radio programme;

*“But for “downloading a podcast” read taping off the radio. Back in the last century I used to use an old reel-to-reel tape recorder to record programmes to listen to later.” (Guerrin 2006:30)*

However it was essentially the use of RSS and the ability to move the downloaded resources to other media players that transformed “taping off the radio” to a useful education tool that empowered the learner to glean their learning content as, when and how they wished.

Still in its relative infancy, podcasting has had a sceptical reception (Meng 2005). Since then, major radio stations such as Virgin Radio (2005) and the BBC (2006) have begun to provide podcasts and their emergent successes have challenged such scepticism. In 2004 the Reich Lectures were podcast by the BBC and topped more than 100,000 hits. As Meng in the Missouri White paper suggested:

*“Podcasting and VODcasting, and their pending derivatives, are not fads. They are very real and practical distribution technologies” (Meng 2005:11)*

Such successes do not determine a ubiquitous presence for podcasting; indeed, a study in 2006 concluded that less than 1% of American households listened to podcasts (Forrester 2006). However as the American online population at the time of the study was approximately 70 million and the study used a population sample of 5000 the figure of 1% could be argued as inaccurate. A sample of at least 27,000 would be required to give an accurate statistical reading. (Krejcie & Morgan 1970 cited in Cohen & Manion 2001).

This discrepancy in population sample was supported by a blog entry at Geek News Central (Digg.com 2006) who stated that according to the statistics that had been tracked on their site, the numbers of unique listeners of podcasts as quoted by Forrester should be increased by about 10 times.

Such discrepancies in the understanding of the success of podcasting are rooted in the technological processes involved. It is very difficult to track podcast downloads with download information. Numbers of downloads can be tracked, but this gives no information as to the demographics of the audience or even if the audience is listening to the downloaded files. (BBC 2006).

### **Summary of Critical Review of Literature**

The study of literature pertaining to online learning suggested that the new and emerging technologies could support mechanisms for the facilitation of instrumental learning. The research, however, is also clear that it is less effective when applied to existing pedagogies for learning. Successful research models have shown that the effective use of Internet technologies provided opportunities for learning and teaching systems that sat outside the traditional paradigms.

The study of literature also suggested that podcasting could be an appropriate medium for the dissemination of teaching and learning materials if used effectively in tandem with beneficial learning pedagogies.

The key concepts drawn from the review of literature that needed to be addressed in the primary research of this paper were:

1. That the pedagogy of the learning must be changed to support the learners in the different (online) environment. The principal changes must recognise the needs of the learner and facilitate their access to the resources that they require.
2. That a musical instrument can be learnt through either the aural or written traditions, but a synthesis of the two would almost certainly be more successful allowing for the learner to prescribe their own pathway.
3. That the technological advancements are probably capable of supporting online instrumental teaching but over use or over complication of these technologies, their application and their presentation may disengage the participants.
4. That technology can only support successful learning opportunities if it is well managed. With a disparate population of learners, inconsistencies of platform, access and bandwidth could upset effective learning. With a community of learners who may be spatially displaced to such an extent that time zones separate their opportunities for engagement, it is essential that the focus of the materials and their delivery are asynchronous.

### **A Review of Tutor Books for the Scottish Smallpipes**

In order to improve my own practice and investigate teaching remote students using podcasting it was first necessary to devise a tutor book that was suitable for the target audience and was capable of being presented online in accordance with the findings from the critical literature review. The following section looks at tutor books currently available as a point of reference for format and content.

The six major teaching texts were examined for the purpose of this study:

How To Play the Highland Bagpipe (Robertson 1946)

Logan's Complete Tutor for the Highland Bagpipe (MacLelland 1963)

The College of Piping Tutor Book (1950)



A Tutor for the Cauld Wind Pipes (Mooney 1993)  
The Highland Bagpipe Tutor Book (MacLeod 2001)  
More Power to your Elbow (Agnew 2003)

Most Highland Fingered tutor books appeared to use a teaching method whereby: all the fingerings of the notes were listed, followed by a brief description of the different rhythms and grace notes and then finally a number tunes provided.

The tutor book “How to Play the Highland Bagpipe” revised and published in 1946 took four pages to explain how written music works, one page for a fingering chart, eight pages for grace notes and one page on how to inflate the bagpipes and how to tune them. There followed 91 tunes in no particular order of ease of playing.

The Logan Tutor Book published in 1963 took four A5 pages to introduce the basics of written notation, two pages to introduce all nine notes and a further eight pages to introduce the grace notes. After this there were 66 tunes with no regard to difficulty or progression.

Both these tutors expected the learner to be able to understand written musical notation and be able to synthesise this into knowledge to be able to play the tunes that were subsequently presented. There were no graded exercises to gradually introduce the student to different rhythms or notes. These tutors, considered major learning materials of their time, could not have been intended for use without a face-to-face teacher.

The College of Piping published a tutor book in the 1950s. Again the same teaching sequence was used. The written notes and fingerings were explained: the rhythms were explained and finally: the grace notes were explained. A little longer was taken over the exposition of the information and some easier tunes were used for practise, but again it was expected that the learner would be able to understand the information and be able to use this to play the tunes provided. The College of Piping did supplement the tutor book with worksheets available for purchase from their website. This implied that there was a recognised failing in the materials provided and that teachers have struggled and required supplements to the learning materials.

These additional materials embellished the existent content and sequence, but did not deviate from the original design.

The most recent addition to the Highland Piping tutor book library was the Highland Bagpipe Tutor Book published by the National Piping Centre in 2001. This tutor was laid out in a far more appealing manner, three pages were dedicated to playing the Highland Pipe scale upwards, followed by one page instructing the learner how to read music and then three pages of playing the Highland Pipe scale downwards. All the notes were of the same length until the usual one page of explanation into note lengths.

A beginner highland bagpipe student (although an experienced music teacher graduate) stated in an interview that there were not enough exercises at each stage to enable a smooth progression forwards. The student felt that although the book contained large and glossy pictures; these pictures would appeal to a younger audience but had little educational value. The content of the lessons were considered to be too challenging and adult in nature for the younger child. The tutor also contained a CD-ROM that contained audio files of all the exercises. The software allowed the material to be played at a tempo selected by the learner, but did not present any extra material to aid the learner who required more help. Unfortunately the CD-ROM was not compatible with all platforms thus highlighting the issue of accessibility when using technology to present teaching material.

These four tutor books were all written for the Scottish Great Highland Bagpipe; a close relative of the Scottish smallpipes sharing all parts of the musical discipline. Only two tutor books existed that were specifically aimed at the Scottish smallpipes: 'A tutor book for the cauld wind pipes', that is for Scottish smallpipe and other Bellows Blown Instruments, published by the Lowland and Borders Pipers Society (now out of print) and its successor; More Power to Your Elbow published in 2003.

These two tutors followed the same pedagogical pattern as the Highland Pipe tutor books, the notes, rhythms and grace notes were all demonstrated and then utilised in tunes. The older tutor comprised of pages of text until page 11 which contained a fingering chart followed by another 11 pages of text explaining how written notation

functioned. The rest of the tutor was made up of tunes with no progression from easy to difficult or any teaching or helpful text. The similarity between the teaching formats of the highland pipe tutors and the Scottish smallpipe tutors could be predicted from their similarity in design but equally, as supported by Mills and Smith (*cf* page 18), the recent emergence of the Scottish smallpipes meant that most players came from the highland pipe tradition and, as a consequence, were passing on the same teaching rhetoric.

The later tutor 'More Power to your Elbow' was created by the Lowland and Border Pipers Society to replace the older tutor and also included a tutorial CD-ROM. Unlike previously discussed tutor books, the first 11 pages of the book were focussed upon the general maintenance of the generic bellows blown bagpipe. Once past this introduction however, the book very much conformed to the same sequence of: fingering chart on page 12, grace notes on page 15 and so on. Although there were examples including different rhythms, the written rhythmic notation was not explained until page 38 and then only using the Note Value Chart (see *figure 7 on page 48*). The CD-ROM included with the tutor book made it easier to see the learning pathway intended by the book's authors. As with the CD-ROM for the Highland Bagpipe Tutor Book, the designers had not investigated the diversity of platforms that the user could have and the data was not accessible to all users. The CD-ROM contained movies that went through assembling the pipes step by step, holding a steady note and tuning. The movies having introduced the pipes did not explain the written notation and rhythm, but relied on the text for explanation.

This last tutor was more of a manual and contained pages of fettling, maintenance information and 15 pages of tunes, but again only limited pages dedicated to the teaching of how to play the instrument and its written notation. It was not the intention<sup>2</sup> at the time to create a tutor book for the teaching of the reading of music but to create a manual for the Scottish smallpipes and although some limited teaching resources were to be provided this was of secondary importance after maintenance and set-up. It was possible that the tutor, created for this action research study, was being anticipated and the society did not wish to overlap the

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<sup>2</sup> Information obtained from an interview with the books editor (Agnew 2003).

content. Although there had been discussion about creating a tutor this had not been confirmed at the time and so should be discounted.

To look more generically at the design of folk music tutor books, a review of non-Scottish bagpipes was carried out. Mad for Trad (madfortrad.com 2006) who did not have a tutor for any bagpipe, were leaders in the UK field for other instruments including flute (folk six-hole flute) and Fiddle (folk violin). The flute tutor was designed to be viewed using a web browser (which reduced the risk of non-compatibility and appeared to be fully functional on all tested platforms). As with all the tutors previously reviewed, although the movie files and audio files were very informative, succinct and well thought out, there was no explanation of the rudiments of music. The tutor presented all the notes, technique and then proceeded to teach tunes. This browser based style of tutor allowed for more multimedia than a purely paper based tutor but; as with the Bagpipe tutor books, the pedagogy of teaching music theory was insufficient.

### **Tutor Book Summary**

The three major observations from the review of the tutor books were:

1. They all followed a similarly incomplete linear format.
2. They appeared to have been written as supporting resources for a face-to-face teacher.
3. Where CD-ROMs were supplied,
  - i) they only repeated the written material and did not augment the learning pathway.
  - ii) they were not adequately designed to support the learners on a plethora of different technological platforms.

Synthesising these observations with the outcomes from the critical literature review generated the following points that would determine the success of the tutor book written for this study.

- Unlike the construct of the existing tutors, the new tutor needed to recognise and embrace all stages of a novice's journey of learning the Scottish smallpipes. The content needed to be complete and sequential as there was no teacher to interpret or explain any content. The tutor book also needed to

assume that the learner had no prior knowledge of the instrument or of reading music.

- The audio and visual formats needed to both replicate and compliment one another to give the autodidactic learner the greatest opportunity to prescribe their most appropriate journey.
- The technologies involved for the media needed to be accessible to as diverse an audience as possible. Care needed to have been taken to ensure that the format of all files were cross platform so that the learners could access them with the simplest and smallest number of stages possible.
- That the media chosen needed to be based upon asynchronous delivery rather than synchronous to minimise temporal issues between the teacher and the learners. This final point supported the decision to use podcasting as the distribution medium.

### Chapter 3 - Research Methodology

#### Action Research - A Methodology for Change

The purpose of this study was the self-improvement of practice in teaching the Scottish smallpipes. To this end, the following question was developed for the area of investigation:

*“How can I improve my practice to reach and teach students not able to access tuition and improve the quality of their learning using the Internet and podcasting?”*

Broken into two parts, the initial phase focused upon the effective development of a tutor book and the latter phase explored the potential for using podcasting as a distribution mechanism for the tutor.

The anti-positivist, naturalistic and qualitative nature of this enquiry lent itself to the action research methodology. Cohen and Manion (2000) stated that:

*“...the social world can only be understood from the standpoint of the individuals who are part of the ongoing action being investigated: and that their model of a person is an autonomous one, not the plastic version favoured by positivist researchers.” (Cohen and Manion 2000:19)*

The key concepts of action research are most commonly

- i. the ‘self reflective spiral’ (Kemmis and McTaggart, 1992:22 cited in Cohen *et al* 2001:229), i.e. planning, acting, reflecting and
- ii. collaboration.

In both research phases data was gathered from participants by requesting feedback. During the first phase the feedback was given in face-to-face lessons and acted upon by the redrafting of the tutor book. During the second phase a weblog was used and feedback left either as comments or e-mailed privately. The data was then reflected and acted upon; informing both the current and successive lessons. This was compliant with the action research self-reflective spiral as suggested by Kemmis and McTaggart (1992 cited in Cohen *et al* 2001:229). The data was categorised and analysed according to Gibb’s (1988) reflective spiral.

The participants were gathered from the global online community. Beginner musicians were encouraged to learn both the instrument and the rudiments of music. Musicians that could already play the Scottish smallpipes were targeted to gain an insight into tune learning without the complication of learning to play the instrument itself. Musicians who could play other instruments were targeted to assess the instrument teaching part of the tutor as separate from the rudimentary music section.

### **Review of Methodology Literature**

‘Action research’ was attributed to Kurt Lewin in the 1940s. The phrase was used to describe research that did not separate the act of research from the action required to problem solve (McFarland & Stansell 1993:14). Corey used this method stating that the consequences of investigating own practice were far more effective than reading other peoples research. (Corey 1953). In contrast, during the 1950s, this method of research was attacked as being unscientific and the work of amateurs. (McFarland & Stansell, 1993:15). In the 1970s action research came back into favour as educationalists began to reject the relevance and applicability of scientific research designs. Action research is now recognised as a valid tool for professional development and has become a commonly used method of investigating and applying educational change.

In education, Watts (1985:118) summarised action research as teachers working collaboratively to address identified problems in order to become more effective teachers. Action research is not research trying to find information or problem solving but rather the pursuit of improving teaching practice to impact on students. (Ferrance 2000)

Action research was developed as a methodology to enable self-reflective enquiry that would result in improvement and justification of own practice (Carr and Kemmis 1986:162). Action research should be open-ended and should not start from a hypothesis but from an idea developed and studied by the participant. (McNiff 2002).

The chosen method of focusing upon the participants and the teacher was supported by Cohen and Manion (2001):

*“...the social world can only be understood from the standpoint of the individuals who are part of the ongoing action being investigated: and that their model of a person is an autonomous one, not the plastic version favoured by positivist researchers.” (Cohen and Manion 2001:19)*

This approach became extremely popular for;

*“...those working in professional areas such as education... It is well suited to the needs of people conducting research in their workplaces, and who have a focus on improving aspects of their own and their colleagues’ practices.” (Baxter et al 1996:67)*

This action research model has a complexity capable of challenging all aspects of the research within this study. For example Kemmis and McTaggart stated that:

*“Action research is a form of collaborative self-reflective inquiry undertaken by participants in a social situations in order to improve the rationality and justice of their own social or educational practices..... The approach is only action research when it is collaborative” (Kemmis and McTaggart, 1988:5)*

Whilst Hopkins suggested that:

*“the combination of action and research renders that action a form of disciplined inquiry, in which a personal attempt is made to understand, improve and reform practice.” (Hopkins 1985:32)*

and Cohen and Manion discussed that:

*“a small-scale intervention in the functioning of the real world and a close examination of the effects of such an intervention.” (Cohen and Manion 1994:186)*

A common use for action research in education was for practicing classroom teachers. The spiral of planning, acting, reflecting, planning etc. was ideal for improving personal practice. It was not only the classroom teacher that benefited from this methodology; Bell (1987) stated that this could be applied to a wider audience:

*“The essentially practical, problem-solving nature of action research makes this approach attractive to practitioner-researchers who have identified a problem during the course of their work and see the merit of investigating it and if possible improving practice.” (Bell, 1987:9)*

Music research, to date, had taken a far more quantitative direction as distinct from many of the education methodologies. Swanwick (2001) summarised:



*"the methodologies range from naturalistic observations to experiment. Research foci include the nature and development of musical understanding (cognition), response to music, music aesthetics, curriculum evaluation..." (Swanwick 2001:6)*

*"Lewin is credited with coining the term 'action research' to describe work that did not separate the investigation from the action needed to solve the problem" (McFarland & Stansell, 1993, p. 14)*

In contrast to the benefits discussed above, many criticisms have been made of action research including:

*"The threefold typification of action research is untenable: it assumes that rational consensus is achievable, that rational debate will empower all participants..." (Cohen and Manion 2000:233)*

The collaboration aspect is questioned:

*"Kemmis and McTaggart (1992:152 pose the question 'why must action research consist of a group process?' ... it is too controlling and prescriptive" (cited in Cohen and Manion 2000:233)*

In the attempt to improve personal practice or solve problems many new and unexpected issues could arise. These could lead to changes in direction and too many new problems to comfortably address within the bounds of study

Despite all these weaknesses and criticisms action research was considered the most appropriate methodology, as it not only sought to improve personal educational practice but also to create new knowledge. This study intended to challenge the current pedagogy of teaching the Scottish smallpipes and to investigate a new distribution medium that enabled remote musicians to gain a musical education that would otherwise not have been available.

### **Participants and Ethics**

All dialogue with participants stated that feedback was for a Masters dissertation and that all replies would be totally anonymous. All names were subsequently removed from any data to ensure anonymity. The participants for the two phases of the research were approached and engaged differently depending upon the requirements of the research phase.

### **Phase One Participants**

Phase one concerned the development of a paper based tutor book for teaching a beginner of the Scottish smallpipes. There were two participants:

One participant was a complete beginner with no prior musical knowledge or skills. Such a participant was chosen to support the tutor book's agenda to provide a holistic learning experience. This phase was conducted face-to-face with the participant feeding back synchronously during the lessons.

The second participant was a professional musician who was used to benchmark the development of the tutor book as a remote learner. This learner fed back asynchronously.

### **Phase Two Participants**

Phase two concerned the translation of the paper-based tutor into a web ready document and a podcast. These participants had an entirely virtual relationship with the research project. As such, these online participants were subject to no geographical limitation. Indeed, it was hoped that a diverse group would be reached.

The online participants were gathered during the duration of the study. In order to reach a range of individuals, different online music groups were targeted:

<http://groups.yahoo.com/group/bellowspipes>

<http://www.mudcat.org>

<http://www.thesession.org>

<http://rmartin.proboards23.com>

<http://www.smallpiper.co.uk>

Adverts were placed on these message boards and newsgroups advertising the Scottish smallpipe podcast, inviting them to use the materials and to give feedback. It was hoped that a mixture of musicians would respond, giving a range of experiences to the study. It was also hoped that experienced pipers would be involved not as learners but as teachers who would use the resources for their own lessons.

The online participants volunteered to join the research study in three ways.

- 1 By surfing the web for such resources and coming to the research site.
- 2 By finding and responding to the adverts placed on news groups as discussed above.
- 3 Some participants who had taken part in previous research studies were approached directly. These individuals were chosen to help maintain a balance of beginner/experienced and musical/non-musical participants.

## Chapter 4 - Data Collection

The tutor book, written as a synthesis of the analysis of existing tutor books and my previous classical training, was presented to the phase one face-to-face student during a period of 14 weeks and to the remote student over 9 weeks. During this time, the face-to-face student fed back aurally focussing upon her experience and discussing previous experience of the tutor book and its delivery. To this end the student informed the writing of the next lesson, negotiated the present delivery and also the re-writing of the previous lesson. The student's feedback was recorded as tutor book annotation and minutes from each face-to-face lesson. The remote student fed back using e-mail regarding content, sequence and level of difficulty. To this end, this student also informed the writing of the next lesson and the re-writing of the previous lesson.

The second phase, delivering the tutor book through the podcast medium, was presented to the global virtual audience over a period of 10 months with a podcast being broadcast every month. During this time the participants fed back using blog based comments and e-mail focussing upon their experience and discussing previous experience of the podcast and its delivery. To this end, the participants informed the recording of the next podcast through their responses to the previous podcast. The participants' feedback was also used as a loop to inform the re-writing of the tutor book.

Although, for convenience, distinction was continually made between the two phases, they actually occurred during the same time period. To this end, the feedback from both phases was available for the mutual development of one another. *Figure 5* shows the process of the two phases and the interaction of the self-reflective cycles. Phase one; lesson one had its own reflective cycle that improved not only itself but also informed phase two; podcast one. Phase two: podcast one had its own reflective cycle that not only improved itself, but also informed the development of phase one; lesson two *and* informed the re-writing of phase one; lesson one. This repeating model could be seen through all ten lessons and podcasts.

Through this collective reflection and information gathering sequence, three significant areas of change were apparent. The first aspect was alteration to the actual teaching material, the second aspect was alteration in the recorded lesson and the third aspect was altering any technical processes of the podcast.

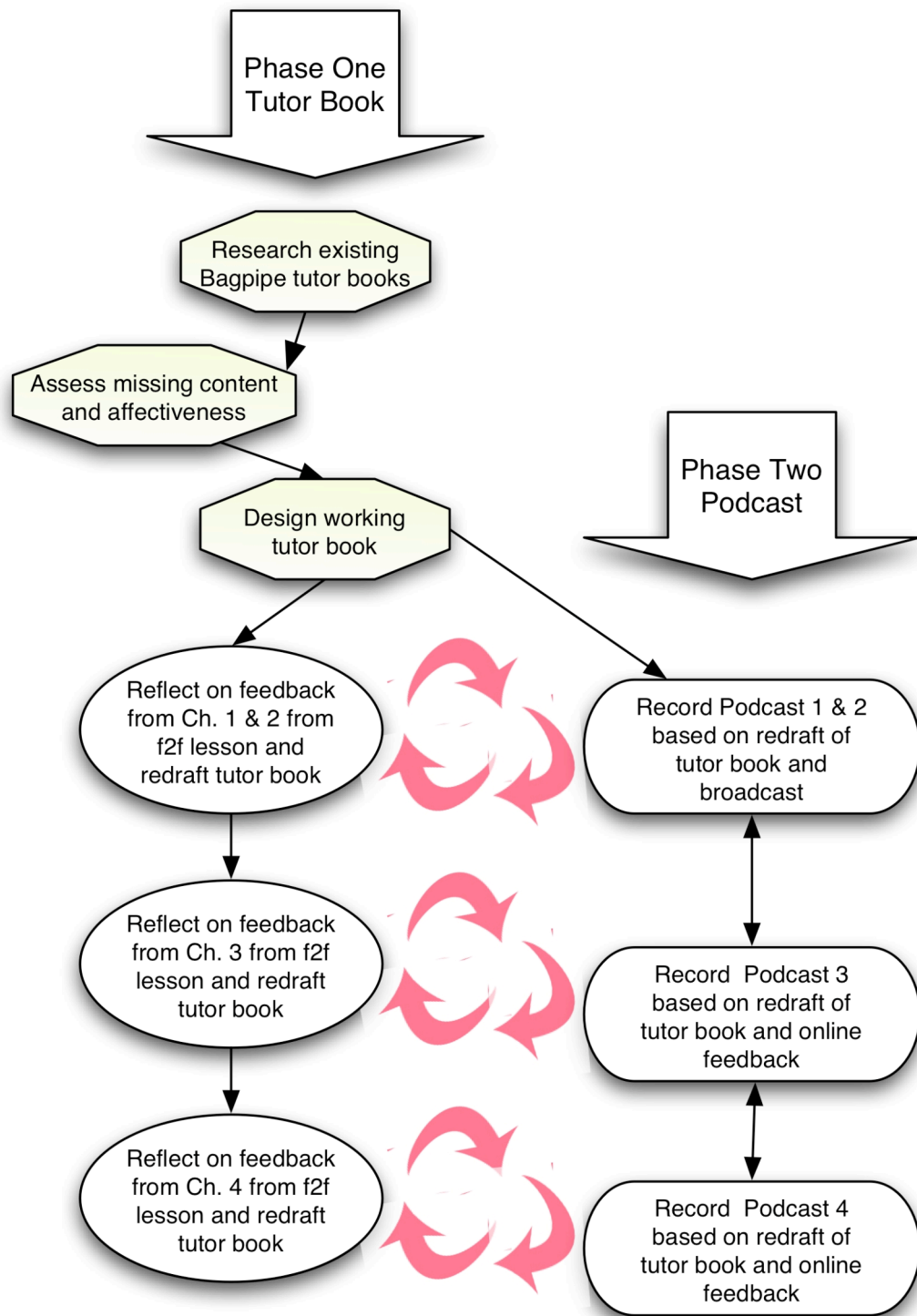


Figure 5: The Two Phase Action Research Spiral

### **Phase One - Creating the tutor materials**

Lessons were given to the face-to-face student prior to the study in order to ascertain the efficacy and appropriateness of available tutor books and teaching resources.

Early indications suggested that there were no resources adequately constructed for the purpose of the podcast process. One major example of the possible failings of the existing tutor books centred around the information and delivery of musical notation and musical literacy. Failings from a specific tutor book raised the following issues.

1. The musical notes in previous tutor books were all introduced at the same time, which made the task of learning the notes and playing unmanageable for the student. It was found to be difficult to remember the written note and its fingering in this way with very few exercises.
2. The same was true of the note rhythms, it was found generally that the tutors available introduced all the notes and all the rhythms followed by the grace notes in one large introductory lesson with no exercises to practise with. The face-to-face student struggled with this concept so it was necessary to adapt the materials.
3. It was also common to find that after the notes, rhythms and grace notes had been introduced there were very few exercises to practise technique and the tunes provided were not necessarily given incrementally, they were just presented as a list of tunes.

This demand for better materials from the existing tutor books precipitated the need for the new tutor book developed in this study. The remit for the new tutor book understood that if a face-to-face student struggled with the materials and learning pedagogy, a distance learner would almost certainly find the task too difficult to approach.

Previous tutor books appeared to assume that note lengths, pitches and grace notes could be presented in a list and that the student would subsequently be enabled to play proficiently. This method of learning only appeared to be effective where a teacher was able to explain and show each item in turn. It was apparent that the existing tutor books were an effective resource for a teacher who translated the

content for the learner but that these tutor books were not suitable for a set of remote lessons to be delivered using the autodidactic podcast medium.

To ascertain the degree to which these issues were evident and to inform the successful writing of the subsequent tutor book; the following questions were developed and applied to the six tutor books investigated:

*Were the notes all introduced at the same time?*

*Were the rhythms all introduced at the same time?*

*Were the grace notes all introduced at the same time?*

*Were there plenty of exercises to practise each new technical area?*

*Did the book include incremental tunes?*

*Could the tutor book support an autodidactic learner in isolation?*

The answers to the questions were collated into a table and analysed (see Chapter five). The outcome of this investigation determined the content and structure of the new tutor book.

During phase one this new tutor book and its lessons were presented to the two phase one students. The tutor book was subsequently developed using the self-reflective cycle through the experiences of both students.

The lessons were given to the face-to-face student at two week intervals to give them enough time to practise and reflect on the materials presented. The remote student was given the first iteration of the whole tutor book in one go and feedback received in their own time. Feedback was added to the tutor book and transferred in turn to the podcasts. *Table 1.* shows the timing of their feedback and involvement.

	<b>Face to Face beginner student</b>	<b>Remote Professional Musician</b>
Chapter 1	Wk 1 & wk 9 - explained during wk 1 and returned in wk 9 on receipt of pipes.	Wk 1 - using pipes in D, several typing errors corrected.
Chapter 2	Wk 1 - using a practise chanter exercises, extra historical text removed. Added extra exercises.	Wk1 errors corrected
Chapter 3	Wk 3- using practise chanter exercises all ok	Wk1 errors corrected

Chapter 4	Wk 5 - tunes changed round to give an easy tune to play earlier	Wk 2 some exercises altered
Chapter 5	Wk 7 more exercises to be added	Wk 3 some exercises altered
Chapter 6	Wk 9 with the pipes, control over bellows targeted	Wk 5 some exercises altered
Chapter 7	Wk 12 exercises simplified and extra tunes added.	Wk 7 some exercises altered
Chapter 8	Wk 14 chapter begun	Wk 8 some exercises simplified
Chapter 9	Not attempted	Wk 9 - exercises too difficult, grace notes simplified
Chapter 10	Not attempted	Not attempted

*Table 1: Diary of the initial development of the tutor book*

### **Phase Two - Creating the Podcasts**

The podcast phase consisted of the recording of all the exercises from the tutor book. The aural presentation was not solely a replication of the text but was expanded to include to an explanation of any text and any other observations and asides that were thought up during the recording process. The lessons were all, fundamentally, unscripted and unrehearsed to give the impression that the podcast was being delivered informally and as if the learner was in the same location. The intention was that the learner who had downloaded the podcast would experience the same content and spoken style of lesson as a face-to-face student. The experience was as close to a face-to-face lesson as possible. It must have been recognised, of course, that the podcast lessons were asynchronous and therefore the student was not able to play to the teacher and receive feedback on their performance in real time. The students were encouraged to e-mail audio files and request feedback on their playing asynchronously. After each podcast feedback was also requested in the form of comments on the blog, message board or via e-mail. The feedback was then reflected on and acted upon to improve the subsequent lesson / podcast.

For the first three podcasts, it was hoped that the personalised feedback from the participants would determine their own questions. As the study progressed, it became apparent that the participants needed guiding and focusing to ensure meaningful data. In order to focus the feedback the following questions were requested at the same time as the publication of the fourth podcast:



1. *Is the tutor book working as a podcast teaching tool? Not so much the pedagogy side of the actual book, but the medium by which I'm teaching with it? No is a perfectly good answer!*
2. *Did you prefer it when I was just doing tunes? I'm more than happy to go back to that. Obviously I will when the tutor is done with anyway!*
3. *What is the experience like? What is good about taking the tunes from here (or bad!) I'd like to know a bit about what is good about online learning. Is it essentially a lonesome thing, i.e. a personal and private thing, to remain anonymous or would you like some personal feedback?*
4. *Does this whole thing work for you, I guess people that feedback on the whole will be positive, but I'd like to hear negative stuff too!*
5. *If you're a teacher, are you managing to use any of this material?*

The feedback gained from the request for comments to be left on the blog and e-mail didn't meet with the initial expectations of numbers. To ascertain the volume of traffic hitting the podcast site, an invisible tracker was installed to monitor activity. It was apparent that many more people were reading the site than actively feeding back so a competition was run offering a prize to the first 20 respondents of a CD. A time limit of one week was set to encourage a quick response. The following 10 questions were asked:

1. *How would you describe the quality of your learning experience?*
2. *Describe what you learned from the podcast?*
3. *To what extent did you enjoy the experience*
4. *What changes could be made / added to these podcasts to improve the learning experience?*
5. *In creating the tutor book to podcast I have attempted to anticipate any difficulties and pitfalls, how successful did I manage this? (Rate me from 1 - 10, 1 being not very good and 10 being fantastic)*
6. *How was the sequencing of the material in the tutor? (so far) Was it pitched at the right level for a beginner through to more experienced player?*
7. *Chapters seven to ten haven't been recorded yet, how can the learning experience be improved?*
8. *Would you recommend this blog and podcast to other fellow (or would be) pipers?*

9. *What brought you to this podcast?*
10. *Any general observations?*

A total of four responses were received. This, again, was a disappointing return so after podcast six it was decided to change the delivery mechanism. Chapters seven to ten were only published to a hidden location so that the participants would only be able to access the relevant podcast file if they responded to the ten questions above.

The invisible tracker had revealed that a significant number of the participants had discovered the podcast from using a search engine, so the new location was password protected to prevent search engines from discovering the address by web trawling (the function by which search engines discover web sites; one of the major routes that the learners discovered the podcast). A request for feedback was given on the original podcast site and the promise to reveal the location by e-mail once the feedback was received. Not making the audio file or pdf available for the general public produced a higher than previously seen return. During this time the tracker was monitored and as a result it was decided to remove all the earlier podcasts and move them into the secret location, so that all except the first show would require feedback to be given before this secret location was revealed.

It must be noted that although these changes in delivery occurred periodically through the study period, a significant number of participants would have started the course in arrears and therefore would not have experienced the changes at the same point in their journey as the publication sequence.

These systems that were put in place created a wealth of data for both phases of the study that are discussed in Chapter 6.

### **Podcasting - The Technological Process**

At the start of the study it was necessary to create the audio files and broadcast them using several different programmes. In sequence:

- Audio recorded and edited using sound recording software
- Audio file uploaded to personal web space
- External Blog entry written

- RSS converted to be RSS2 compatible using external site

As the study developed and as podcasting became more popular across the board, Apple Computers created an integrated bundle of software for creating and publishing podcasts. This software and method was used for the final four chapters:

- Audio recorded and edited using GarageBand, then sent to iWeb
- Using a .mac account iWeb published audio to a podcast and produced RSS

This new site used the software iWeb, created by Apple Computers and allowed for the completed podcast to be ‘dragged into’ a website design programme that gave podcast templates. This programme published the podcast blog, hosted the podcasts and provided a valid RSS feed for use with aggregators such as iTunes. As the function of moving the podcasts was to create incentive to give feedback the site was given a password, this password authentication was also created by the iWeb software.

A pilot phase of podcasts had been used to check that the RSS technology and web space were functioning correctly. This pilot phase had shown that there were learners around the world that were willing and able to learn Scottish smallpipe tunes using podcasting and the Internet.

### **Radio Britfolk and CD distribution**

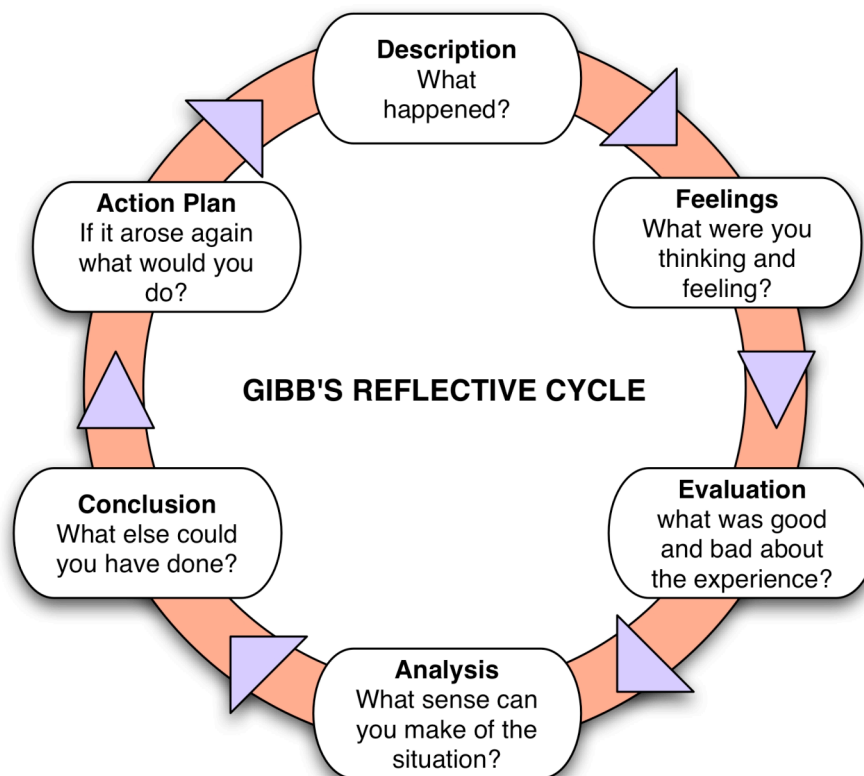
At the same time as the podcast distribution it was decided that a different distribution method also be employed as part of a control group. The episodes were released to a streaming Internet folk music radio station. They were broadcast several weeks after they were released on podcast so that the audience would favour the podcast over the radio show, so any feedback would be in addition to and not instead of the podcast. One of the negative aspect of using podcasting as a distribution was that the learner required broadband to be able to receive the lesson. The streaming radio station was available for dial-up listeners thus increasing the potential area of participation. The radio shows were available for free on the website for one week and then placed in an archive which required the listener to subscribe to the show to gain access. Learners wishing to participate that could not access the lessons online were sent a copy on a CD-ROM.

The podcasts, the Radio Britfolk broadcasts and the CD-ROMs essentially consisted of the same teaching pedagogy but by changing the distribution medium the integrity of the lessons were assured. In other words, the alternative mediums for the delivery of the same content acted as a control to guarantee that the remote and online pedagogy could be studied as distinct from technological obstacles. The feedback from these other sources were kept separate to see if there was any distinguishable difference.

## Chapter 5 - Analysis

### The Action Research Spiral

For each cycle of the research Gibb's (1988) reflective cycle was employed before moving onto the next episode. Gibb's reflective cycle (*Figure 6*) was thought to be an appropriate vehicle for the improvement of self-performance of teaching the Scottish smallpipes:



*Figure 6: Gibb's (1988) Reflective Cycle*

### Development of Suitable Materials

The issue under investigation was the personal improvement of teaching the Scottish smallpipes using podcasting as the distribution mechanism. In order to do this, existing smallpipe tutors were investigated to discover the most appropriate (if any) to use for the lessons. A total of six Highland Fingered Bagpipe Tutor books were investigated and in conjunction with the face to face student a number of criteria were developed for categorising the strengths and weaknesses of the books:

How To Play the Highland Bagpipe (Robertson 1946)

Logan's Complete Tutor for the Highland Bagpipe (MacLelland 1963)

The College of Piping Tutor Book (1950)

A Tutor for the Cauld Wind Pipes (Mooney 1993)

The Highland Bagpipe Tutor Book (MacLeod 2001)

More Power to your Elbow (Agnew 2003)

The pedagogy of each of these books was assessed using the six criteria developed in conjunction with the face-to-face student as follows (see page 41).

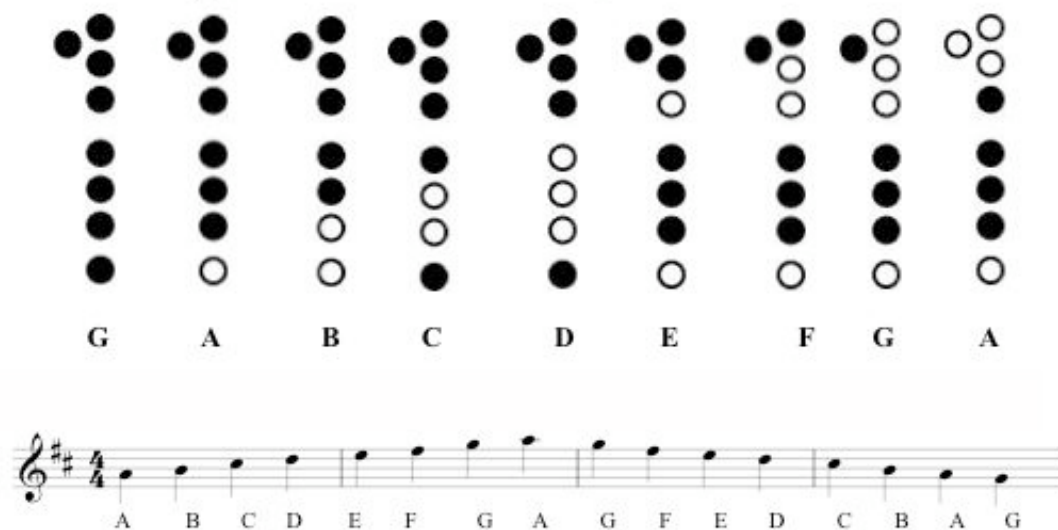
Taking each criteria separately, the indicators of success were discussed before determining each tutor book's facility in that area.

### Criteria 1 - Were the notes all introduced at the same time?

It was common to find in tutors of Highland fingered bagpipes that all the notes were introduced on the same page with the stave and fingering chart, see *Figure 7*.

Pedagogically this was very intimidating for the learner and so was considered not appropriate for a remote learner without face-to-face instruction.

The Scottish Smallpipe scale is nine notes from bottom to top.

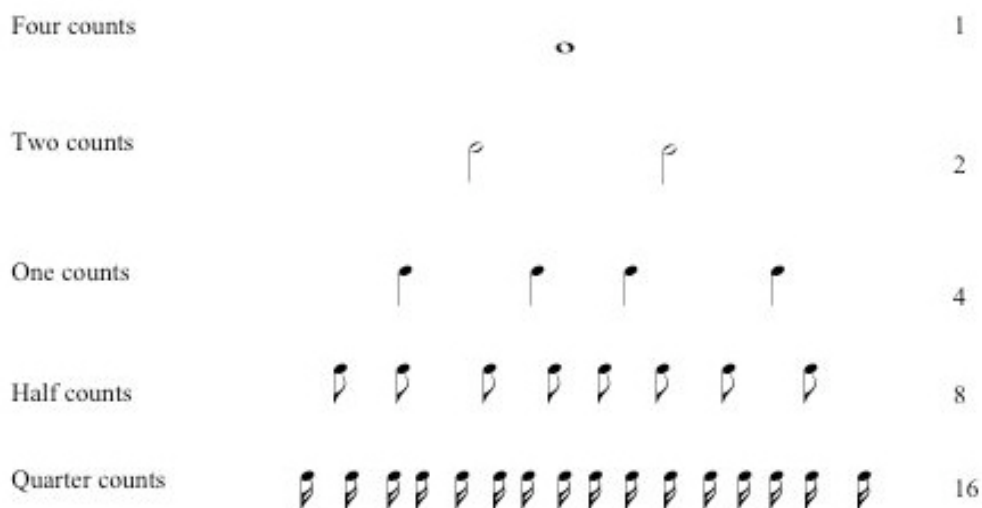


*Figure 7: All notes introduced as a chart*

An effective tutor would introduce the learner to the notes in stages with exercises limited to a small number of notes at a time. This would give the learners time to acclimatise themselves to each part of the learning journey.

### Criteria 2 - Were the rhythms all introduced at the same time?

It was also common to find in tutors of Highland fingered bagpipes that all the rhythms were introduced in the form of a time value chart, see *Figure 8*. This chart tended to be disassociated from any exercises, tunes or any part of the learning framework. This was also very intimidating for the learner as they felt that they were expected to understand and use the chart in its entirety straight away.



*Figure 8: Time Value Chart*

In a similar vein as the presentation of notes, a more effective tutor would take time to present the time values and rhythms in stages with easy examples and exercises to empower the learner.

### Criteria 3 - Were the grace notes all introduced at the same time?

As with the first two points it was common for the grace notes to be introduced at the same time as the fingering and the rhythms at the start of a tutor book. Grace notes can be a tricky concept to grasp in that they are not melody notes and are essentially assigned no time value. It was hard for the learner to know when and how to play these notes with no prior knowledge of playing a musical instrument. Furthermore, the temporal iteration of grace notes did not conform to the recently learnt note rhythms.

Again, a more effective tutor book would take the learner through stages of development. Grace notes are, perhaps, the most dextrously demanding function of

bagpipe playing and therefore one of the areas of study that would, most quickly, disengage a nervous or inexperienced player.

The first three questions were considered to be the most important for the effective construction of the new tutor book. If a tutor book began by introducing too many technical details exclusively from any tunes or exercises, it was found to be inaccessible to the learner. As a consequence, the tutor book would actively discourage the learner from taking part in the podcast investigation.

#### **Criteria 4 - Were there plenty of exercises to practise each new technical area?**

Having introduced the notes, rhythms and grace notes, the next stage of the tutor books was to coalesce these new skills into the learning of tunes. It was common to find that tutor books having introduced all the notes believed that this was sufficient information for the learner not to have to be ‘taught’ any more.

In line with previous questions, an effective tutor would be recognised as one that provided a substantial number of exercises that blended the various note, rhythm and grace notes journeys incrementally. A successful tutor would create specific exercises for particularly difficult finger patterns.

#### **Criteria 5 - Did the book include incremental tunes?**

The tutor book was also assessed on whether or not the tunes included were introduced so that they were incrementally more difficult, or if they were seemingly random in standard.

An effective tutor book would arrange the tunes in a similar way to the exercises discussed in criteria 4. Large leaps in dexterity or musicality from one tune to the next disengaged the learner and provided multiple opportunities for them to fail. Arranging the same tunes incrementally would have been much more successful; giving the learner small jumps to make at each stage and thereby empowering them.

#### **Criteria 6 - Could the tutor book support an autodidactic learner in isolation?**

Finally the book was judged in its overall performance, could a learner with no face-to-face real-time intervention use the tutor? Many learners of the Scottish smallpipes



have found themselves in remote locations with no access to a teacher and so a tutor book that could be used with as little intervention would be invaluable to the learner.

An effective tutor book would be arranged so that autodidactic learners could navigate themselves around the book picking out the resources that they required and jumping the areas not needed. For example, a musician who could already read music should have been able to recognise and ignore the sections on notes and rhythm whilst still accessing the incremental dextrous exercises and those instrument-specific sections such as the grace notes.

Using the dialogue with the phase one face-to-face participant and applied experience of the author, the tutor books were assessed against these six criteria. The results were placed in a table and colour coded. For a tutor to be successful it was deemed necessary to have fewer negative points and more positive points. In the table the red shading indicated negative conclusions (not matching the criteria for a successful tutor book) and green shading indicated positive conclusions (matching the criteria for a successful tutor book).

	Notes	Rhythms	Grace notes	Exercises	Tunes	Auto-didactic
How to play the Highland Pipe	Yes	Yes	Yes	None	None	No
Logan Tutor Book	Yes	Yes	Yes	None	None	No
College of Piping	Yes	Yes	Yes	Some	Few	No
LBPS	Yes	Yes	Yes	None	None	No
Highland Bagpipe Tutor book	Yes	Yes	Yes	Some	Some	Possibly
More Power to your elbow	Yes	Yes	Yes	Few	Some	No

*Table 2: Analysis of data from six bagpipe tutor books*

The results suggested that three of the six tutors considered should be discarded immediately. Only one tutor book showed equal positive to negative points. It was felt, however, that even for this tutor book, the overall presentation of the tutor book was insufficient for the purpose of this study; particularly with the recognition that the first three questions were answered negatively. The outcomes at this stage,

therefore, suggested that none of the existing tutor books would have been adequate for the needs of this study. None of them would have effectively supported an autodidactic remote learner.

To fulfil the action research purpose of improvement of self-practice it was deemed necessary to develop a pedagogical framework to enable a remote learner to be able to visit and download a podcast and learn using the materials provided with little or no support from face-to-face interaction.

In comparison to the experience of the Scottish smallpipe tutors, the classical tradition of instrumental tuition guides the learner through each step with carefully designed exercises incrementally in small steps. Even though face-to-face teaching were intrinsic to the delivery method, the tutor book paradigms were much better geared to the autodidactic learner. A few notes were introduced with one rhythm and gradually the repertoire of notes and rhythms was built up over a period of time. When there were enough notes and rhythms learnt, simple tunes were used to keep the learner motivated. This apparently effective process of tutor book construction was taken from the classical paradigm and was applied to teaching the Scottish smallpipes.

### **Phase One - The Tutor Book**

During phase one a number of self-reflective cycles were deployed. Each chapter of the tutor book was taught to the face-to-face student and to the remote musician. Feedback was given, reflected and acted upon before continuing to the next chapter. The following section discusses the outcomes of the reflective cycles during phase one.

### **Description and Feelings**

The tutor book contained ten chapters. Each chapter addressed a small chunk of learning using incremental exercises and tunes;

Chapter 1 contained instructions on the assembly and use of the Scottish smallpipes. This chapter, containing only text and pictures, was presented to the first participant during the first lesson in the study. As the participant at this stage was only using a

practise chanter (a basic instrument with no drones or bag used at the beginner stage of learning bagpipes) this lesson was returned to at week 9 of the study when the participant had taken receipt of a set of Scottish smallpipes. It was felt that although a learner might not have a set of pipes to use during at the start of learning that the best place to put these instructions was at the start of the tutor book.

Chapter 2 began with a diagrammatic fingering chart of the whole scale and a page of text that was primarily contextualisation of the art of reading music. The rest of the chapter introduced very simple rhythms (crotchets and minims and dotted minims) and only the four different notes on the bottom hand (low G, low A, B and C) with the inclusion of plenty of exercises. This lesson was also presented to the face-to-face participant in the first week. It was felt that the historical explanation that had been included was redundant and was subsequently removed. There appeared to be insufficient exercises to help the participant learn the first four notes and so extra exercises were subsequently added.

Chapter 3 kept to the very simple rhythms and introduced the remaining five notes (D, E, F, high G and high A) and again plenty of exercises were included. More exercises had been added to this chapter as a consequence of the outcomes of Chapter 2. This chapter was presented to the face-to-face participant during the third week of the study and appeared to have been written at the correct level of difficulty for the face-to-face participant. The rhythms were kept very simple so that the learner did not have to contend with two learning journeys at once, i.e. new notes and new rhythms in the same exercise.

Having introduced all the notes of the bagpipe scale the purpose of Chapter 4 was to teach the new note lengths of quavers and dotted crotchets. After some exercises that practised these rhythms some simple tunes were introduced. These tunes were specifically designed to not require any grace notes and to consolidate rather than stretch the learning achievements of the learner. Most traditional tunes contained passages that require grace notes. The tutor books assessed for this study relied upon traditional tunes for their learning resources and it was apparent that the learner could not have played such tunes at this stage so new tunes were composed. The remote musician gave very little feedback for Chapters 2 – 4 as he was already a

proficient music reader and therefore did not require much information from these chapters. He did have to assemble the Scottish smallpipes and learn the fingerings.

Chapter 5 introduced some very simple grace notes that are played above the melody note. This enabled the learner to understand the purpose of grace notes and allowed tunes to be played that required grace notes. Again plenty of exercises and incrementally difficult tunes were included. During this lesson the face-to-face participant needed more exercises to be added to help with the concept of the timings of grace notes. The remote participant suggested some alterations to the exercises to make them more efficient.

Chapter 6 introduced the grace notes that are played from below the melody note, called strikes and then combined the grace notes from the previous chapter. At this stage, the face-to-face participant received her own set of pipes. Chapter 1 was revisited to assist her begin playing the complete set. It was apparent that lessons 2-5 had been valuable for the face-to-face learner on a practise chanter and that her learning could be transferred easily to the new instrument.

Chapter 7 brought in the more complicated compound time signature of 6/8. The remote participant had great difficulty in completing a page of exercises that focussed upon new rhythm. As a consequence, some of the exercises were replaced or amended to simplify the experience.

Chapter 8 introduced the semi-quaver and the dotted quaver / semi-quaver rhythm and the slip jig time signature of 9/8. At this stage Chapter 8 was the final chapter of the tutor book. Although there was a great deal more complexity of playing technique to be learnt, the learner should, at this stage, be able to attempt simple tunes without the aid of a teacher. The face-to-face participant did indeed feel that on completion of chapter 8 she had learned enough technique to be able to continue without the direction of a teacher.

Subsequent to the completion of Chapters 1 – 8 by both the face-to-face and remote participant, two more chapters were explored. Discussions with the remote participant highlighted two areas that would be useful to the empowered learner.

Firstly more complex grace notes (to encompass all grace note figures) and secondly a discussion about playing bagpipes with other instruments i.e. their transposing properties and limitations.

Chapter 9 was written to introduce the new grace note figures of doublings, triplings and birls. It was felt, however by the remote learner that this lesson was indeed too difficult with too many complicated grace notes. This was agreed and the lesson simplified.

Chapter 10 was a lesson that attempted to explain the concept of the Scottish smallpipe as a transposing instrument. In hindsight with no new tunes or technique, the section was more an appendix than a chapter.

### **Evaluation and Analysis**

As the lessons progressed there were a large number of typing errors to remove. In general the lessons had a good level of empathy with the student and the grading of the exercises were well presented. For the most part the changes made concerned the addition of exercises to simplify each stage of the learning process. The only chapter to have given significant problem was chapter nine which was re-written to accommodate the feedback from the remote participant.

### **Conclusion and Action Plan**

Feedback from the phase one lessons were extremely positive and the students were able to practise and play tunes within the allotted time frame for the study. These lessons consolidated the teaching pedagogy and enabled unanticipated problems to be addressed, providing the study with an operational tutor book that could be transferred to the podcasting forum.

### **Phase Two - The Podcasts**

As with phase one, a number of self-reflective cycles were deployed. Each chapter of the tutor book was translated into a podcast and presented to the phase two participants. The following section discusses the outcomes of the reflective cycles during phase two. The transcripts of the communications with the questionnaire participants can be seen in appendices I and II.

### **Description and Feelings**

Each podcast was recorded in one long unbroken session and subsequently edited to avoid extraneous noises such as coughing, sneezing and muddled up words. The audio file was very carefully edited so as not to reveal this level of cutting so that the listener perceived that the lesson had been recorded in one smooth take. The objective for each lesson was to create an audio file of approximately 30 minutes, slightly longer than an average podcast, but long enough to contain all the required information. Each exercise was explained in a colloquial fashion and then performed slowly. Depending upon the length of the exercise, the exercise may have been broken down into smaller sections. The objective was for the learner to listen to the audio; then pause the recording whilst attempting the exercise independently and finally to play along with the audio. Each new technique was described at length with any pitfalls or difficulties elaborated upon. Where exercises had been created for a particular rhythm or note sequence, this was explained. The tunes were predominantly broken down into four bar phrases and played slowly.

Chapters 1 and 2 were recorded and presented together and were edited down to 35 minutes and 27 seconds. This file was 32.4 Megabytes for the listener to download. Two participants made contact after the broadcast of this file, the first participant pointed out some technical points to correct in the tutor book, but hadn't downloaded the audio file as he was only on dialup and the connection wasn't fast enough. The suggestions that this participant made were acted upon and the tutor book chapter 1 re-uploaded to the web space. The second participant to respond left a comment on the podcast site just to say hello.

Chapter 3 was 24 minutes and 15 seconds long and was 22.2 Megabytes. Seven participants responded at this stage. It should be noted that although these responses were received after podcast 2 (Chapter 3), six of their communications covered the first two podcasts collectively. As with the first podcast, the participant who had given typographical suggestions and corrections also gave feedback in a similar vein. He struggled to be able to download the tutor book, this had to be re-exported from its original format and uploaded into a different web space for him to be able to access it, thus highlighting the need to keep the technology simple. A further two

participants also gave typographical and technique suggestions on the tutor book but not the podcast. . This information was acted upon; alterations were made to the tutor book and it was subsequently re-uploaded. A fourth participant e-mailed and suggested that learners could benefit from being able to e-mail or podcast their own playing and request feedback. Video podcasts were suggested. The fifth response was from a Highland Piper saying that they'd been inspired to take up the Scottish smallpipes as a result of the podcasts. A sixth participant e-mailed to say that he had re-taken up the Scottish smallpipes as a result of the podcasts. The seventh participant wished to take part but was only on dialup, so a CD-ROM was sent with the first two podcasts as audio files.

Chapter 4 was 28 minutes and 16 seconds with a file size of 26 Megabytes. In order to focus the participant responses, the five questions listed on page 43 were included on the podcast site. At this stage none of the participants answered these questions. This podcast precipitated only three participant replies, two of which had responded to the previous lessons with typographical errors. The first participant gave typographical feedback and had also managed to download and listen to the audio from the previous lessons to which his response was:

*“Easy to follow, clear diction --- great podcasting!!”*

The second participant gave typographical corrections and also suggested an alteration in the ordering of technique. This suggestion was to introduce the higher notes to the learner before the lower notes to make it easier for the learner to cover all the holes. This suggestion was considered, but as it would require a re-writing of the whole of the beginning of the tutor book, it was not instigated at this stage. The third participant was from a learner in Brazil, who said,

*“Thank you so much for your podcasts! Without them, I wouldn't be able to even think about picking up the smallpipes, since I'm located in Brazil.”*

As only three responses had been gained after the broadcast of Chapter 4 an invisible tracker was placed on the podcast site from Chapter 5 onwards to ascertain how many people were accessing the content.

Chapter 5 was 50 minutes and 23 seconds with a file size of 46.1 Megabytes. Four responses were received. One participant printed out the five chapters and marked the typographical errors and posted the copy back. These errors were then transferred onto the master copy of the tutor book and re-uploaded. The second participant suggested that as they had Scottish smallpipes in D that the tutor could be changed to accommodate his requirements. This suggestion was placed to one side for further consideration. The third participant requested that grace notes be included in the learning. This request was presumably referring to previous chapters as Chapter 5 dealt grace notes. The fourth participant stated:

*“Thank you so much for making this great resource available to us!”*

Chapter 6 was 49 minutes and 50 seconds and had a file size of 45.6 Megabytes. There were no comments posted to the podcast site after this show, but the tracker revealed that the site was getting approximately ten hits per day and that participants were downloading both the audio files and the pdfs. Chapter 6 gained four responses (again it should be noted that participants were commenting on all the chapters and not just the more recent podcast). Two new participants left feedback. The first feedback was from a learner who had accessed the tutorial using the Radio Norfolk streaming site he stated:

*“We play the Northumbrian Small Pipes but I certainly like the sound of the Scottish Small Pipes and applaud your initiative in providing an online tutorial to encourage more people to play”*

The second participant stated:

*“I’ve just worked through your most recent smallpipe tutorial podcast. I think it is wonderful! You’ve packed a lot of instruction into the 50 minutes of the podcast. I expect most students will “rewind” the mp3 often so this podcast is really a five-hour or longer lesson.”*

The comments were reassuring but didn’t give any feedback to reflect upon for this study. As a result of the poor response, ten questions (see page 43) were devised and participants were requested to answer the questionnaire and send them back. To encourage responses a prize of a CD (of Scottish smallpipe music by the author) was offered to the first 20 replies sent in. A total of four questionnaires were received. The first questionnaire requested the addition of video. The second questionnaire said that they were able to read music as a direct consequence of the podcasts. The



third questionnaire made the suggestion that the USA musical notation convention (note names) be used alongside the European convention. He also stated that the podcast website was a little confusing to navigate. The fourth just requested that the podcasting continue. A further four participants made contact but only to say hello and thank you for the materials.

Chapter 7 was 36 minutes and 46 seconds in length and 42 Megabytes in size. As only four questionnaires had been received from chapter 6, Chapter 7 was placed in a secure location where completion of the questionnaire was requisite for access to the podcast content. A further four questionnaires were received. The fifth questionnaire (following on from Chapter 6's responses) argued that they believed there was no substitute for a face-to-face lesson. This participant, however, was on dial-up, hadn't been able to access the audio files and wasn't responding to the holistic experience. He also queried the tutor books statement that the use of the little finger of the right hand to play the note C was optional. The sixth questionnaire was from a participant who had used the tutor to teach with. This participant suggested that his students were enjoying learning using the exercises and tunes without having to perfect the whole repertoire of grace notes before continuing to perform tunes. A suggestion was made that it would be useful if the software "Bagpipe Writer" were used. This software was utilised by the CD-ROM of one of the six tutor books examined for the study. Unfortunately the software was not cross platform and as a consequence, would be exclusive. The seventh questionnaire suggested the addition of video and potentially adding more exercises. The eighth questionnaire was received from a teacher using the materials to teach who stated that; on comparing two learners using an existing tutor book and the book written for this study, the new materials were far more musical and enjoyable to use.

After Chapter 7 it was decided to retrospectively move the entire set of podcast lessons to the new location and password protect them so that only people that had responded to the questionnaire could gain access to any materials after podcast 1.

Chapter 8 was a very long chapter and it was decided to split it into two lessons; Chapter 8a was 48 minutes and 57 seconds with a file size of 56 Megabytes and Chapter 8b was 52 minutes and 21 seconds with a file size of 59.9 Megabytes.

A further seven questionnaires were received. Questionnaire nine suggested that more time should be taken over the process of tuning the drones of the Scottish smallpipes. Questionnaire ten suggested the addition of some tunes that could be played in a session with a track of session playing. Questionnaire eleven requested a change in format to make it easier for the listener to navigate through the podcast. The suggestion included two possible solutions: firstly saying the exercise number more often or secondly, by breaking the file up into smaller chunks (This participant had only completed up to chapter 4 and was not commenting on the later five chapters). Questionnaire twelve requested that an archive be made of tunes to be learnt in different keys. Questionnaire thirteen gave very positive comments:

*“I think to begin talking about the results is the better way to describe the quality of my learning experience curve.  
I had my set of smallpipes forgotten in a wooden box since I bought it the last spring because I tried to play it several times before knowing about Smallpipe Podcast and it was really impossible to start learning to play it more or less properly without a tutor, a guidance, a line to follow... Unfortunately and for those reasons I lost the flavour of that I think now is an incredible musical instrument, with a rich sound and an amazing ‘gameplay’... I remember my mind was so busy thinking about the bellows, the fingering, the music, the bag pressure, the sound, etc... so I was just ‘lost in the paradise’.  
Finding Smallpipe Podcast and follow the tutor every month has brought to me the joy of my smallpipes, the funny of practice and play the instrument.” [sic.  
This participant was not a native English speaker].*

He also requested video and more harmonies to be included. Questionnaires fourteen and fifteen gave responses only to Chapter 1 as they were unable to gain access to the complete set of podcasts until after they had sent the questionnaires back.

The final two chapters were presented in one podcast because Chapter 10 contained no music material. The length of the podcast was 40 minute and 39 seconds and had a file size of 46.5 Megabytes.

A video podcast was created in response to the earlier requests. This video podcast was 12 minutes and 28 seconds and had a file size of 35 Megabytes. The response was mixed to this podcast, one participant suggested that the file size was too large but others suggested that the ability to be able to see the tunes performed was of

great benefit. A greater analysis of this event can be seen in the video reflective cycle (see page 63).

### **Evaluation and Analysis**

During the temporal progression of the podcast phase, typographical errors were removed from the tutor book. The participants changed over the period of the ten months of podcasting, generally feeding back over a period of one or two podcasts before disappearing. The contact and questionnaires from this study requested information concerning the participant's learning experience but many participants gave typographical errors. The feedback was categorised into five different categories for analysis:

- Answers to the Questionnaire
- Suggestions for improvement
- Musical Query
- Typographical Errors
- General Contact

In addition to this categorisation of the comments, the data from the tracker was analysed. The tracker registered 2035 hits and analysis of the visitors revealed that 622 of these visitors downloaded materials. As the hits were calculated by IP address (which often does not remain the same for each visitor to a site) it could not be ascertained accurately how many of these visits were unique or repeats. Of the 622 hits, feedback was received from 42 unique participants. Of these 42 unique participants, only 15 returned the answers to the questionnaire.

The downloads using the RSS were also tracked, but detailed information about how many hits or location of the visitor was not monitored. At the start of the investigation the RSS was receiving less than 10 hits per day and increased to in excess of 50 at the end. A large jump was seen when the feed was advertised on iTunes. The detailed statistics were collected from the invisible tracker monitoring the website. This method was preferred to the alternative RSS monitor (Feedburner.com) because it was thought to be more accurate. The tracking offered by the RSS monitor purported to offer a tracking of the number of downloads but

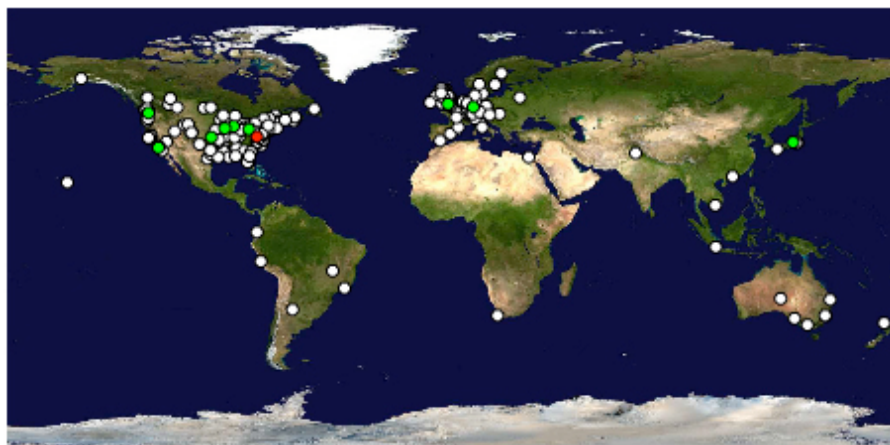
statistics were unable to differentiate between a visitor downloading and a search engine probing the site.

It was important that the tracker was invisible to the learners to ensure that they were not discouraged from visiting the site. The important data gathered was: general location of learner and materials downloaded. The tracker showed that there were, on average, 13 visitors to the site every day and 3+ visitors downloading materials. These statistics, coupled with the tracker figures from above suggest that there was a significantly greater population of people accessing the materials than were responding to the study's needs. Indeed, only 2% of active visitors made any kind of contact.

In an attempt to engage more participants and receive more questionnaires, the podcasts were made less accessible and forcing dialogue. These actions did not precipitate as much feedback as had been hoped. Although this change in structure determined that people could not access the resources unless they communicated with the author, there was no significant change to the volume of responses.

### **Conclusion and Action Plan**

From the quantity and nature of the feedback given it could be seen that learners from all round the world (see *Figure 9*) were accessing and using the content. Although the site was advertised in numerous locations around the web, the quantity of the feedback was disappointing. It could be seen from both the on-site tracker and the RSS feed monitor that a large number of people were accessing the site directly and also using the podcast mechanism to access the audio files.



*Figure 9: Location of the participants to the podcast site*

A number of suggestions were made in the feedback:

- that video be included
- that the website was confusing to navigate.
- that the note names should be either using the American terminology or both American and European terminology.
- that the notes should be introduced “top hand” then “bottom hand”
- that the little finger of the right hand be placed down on the note C
- that the tutor also be available on the key of D

Each of these points were considered in the context of the original iteration of the podcast phase and in subsequent changes. The first two suggestions were escalated to further reflective cycles. The final four were reflected upon and discussed in the findings chapter (see page 67).

## **The Video Podcast Reflective Cycle**

### **Description and Feelings**

A video podcast was created from archive video resources. Audio podcasts are usually around 1 megabyte per minute of audio recording. Thus for a 30 minute podcast the file size was 30 megabytes which is downloadable using broadband. The video podcast was 12 minutes 28 seconds with a file size of 35 megabytes making the per megabyte size 2.8 times larger than purely audio. The video footage was far more difficult to prepare than purely audio footage. It was possible to record an audio podcast in one sitting and edit out any glitches extremely easily. This was not the case with the video. Any edits were visible to the viewer so it took a substantially longer amount of time to be recorded. It took time to set up the shot so that the correct image was in view and the sound quality of the video recording was far inferior to that of an audio only podcast.

### **Evaluation and Analysis**

The video podcast show appeared to be successful because it was downloaded from the website in excess of 100 times making it appear to be one of the more popular files. However, one participant fed back and said that the file was too large and very cumbersome to download. Matching this against the download statistics, this

appeared to be an isolated case. The final few audio podcast files were greater in size than the video file and there had been no feedback to state that those files were too big.

The most interesting statistic picked up by the tracker was that the movie was downloaded 110 times whilst the accompanying jpeg of the manuscript was only downloaded 35 times (more than three times as many downloads). In comparison, the accompanying written materials to the podcast were downloaded nearly twice as much as the podcast itself.

### **Conclusion and Action Plan**

The movie was hard to edit and more time consuming to create than the audio, but as a download it was very popular. Due to the demands and limitations of the upload/download technologies, there appeared to be a compromise between the audio quality and the video. In other words, video would be added at the expense of audio quality and vice versa. Similarly, the greater per-minute file size of the video podcast would restrict the amount of time available for content and would almost certainly exclude the presentation of a whole chapter of the tutor. There was insufficient feedback from this reflective cycle to determine whether the audio or video had greater value but it may be apparent that the two services are exchangeable from one chapter to another. At least one audio podcast participant enjoyed the experience whilst driving. This participant would necessarily have been excluded if video material had been used. The feedback that was received suggested that the value of video *was* significant and that further iterations of online lessons should contain some video content.

### **The Website Reflective Cycle**

#### **Description and Feelings**

One of the participants suggested that the website was difficult to navigate. This could have been due to the nature of blog entries; as new entries were made on the blog the earlier chapters descended down the web site in reverse, so a new participant searching for Chapter 1 would have had to scan down the page to find the relevant chapter. At the point of moving the complete set of podcasts to a secure

area the site was completely redesigned to try to make it more easily navigable and keep full RSS functionality.

By creating a website using Apple's iWeb and using a .mac account it was possible to create and publish a podcast blog with full RSS with password protection. To make the web site easier to navigate the podcast entries were placed in order of chapter. This also meant that the podcast would be visible in chronological order in an aggregator, but would be in reverse to the expected podcast format. Only two participants commented on the new website, one stated that they like the site but the second found the reversing of the entries to be unsatisfactory;

*"The podcasts show up in reverse order on my iPod. I have to play one, then start over to get the next lesson/previous podcast. I had trouble downloading from the blog. It worked better when I found them on iTunes."*

### **Evaluation and Analysis**

The new site appeared to be well presented and easier to navigate. The change in order of presentation of the podcasts appeared to have been effective in the improvement of the site but raised a general query over the requirement for the blogging and RSS construction.

A further finding concerned the size of the podcast website and its associated data transfer. The website created was 384 megabytes, and it was found that participant downloads were in danger of exceeding the .mac data transfer allowance.

### **Conclusion and Action Plan**

The podcast site was hosted on two different sites. The blogger system was more convenient for the content provider (the author) whilst the iWeb system appeared to be more effective for the content receivers (the participants). The differences in provision raised a more general and fundamental question as to the requirements of the participants and consequently challenged the need for RSS. This should be a major consideration for the next iteration.

Although the data transfer limit was breached, this only occurred after the study had been completed and therefore it was a finding to be noted for the future although it did not affect the function of the study in this instance.

**Control Group - Radio Britfolk & CD-ROM students**

Only two e-mails were received as a result of broadcasting the tutor on Radio Britfolk. The first participant e-mailed only to enquire about when the next show was going to be and to say:

*“just thought I’d let you know that people are interested in you workshops and do enjoy them”*

The second participant was not a learner of the Scottish smallpipes and was requesting the written accompaniment for one of the tunes performed.

The statistics received from the radio station suggested that the shows were being listened to. Although the volume of return from this group appeared to be very small, the return versus listen rate was consistent with the podcast participants at around 2%.

Three students were sent the CD-ROM of which one returned the questionnaire. The responses in this questionnaire were consistent with those of the other online participants. This supported the notion that the material as an asynchronous learning aid was effective irrespective of its specific transfer medium.



## **Chapter 6 - Findings**

The main aim of this action research study was the improvement of self-practice in the teaching of the Scottish smallpipes online using podcasting as a medium.

Feedback was gathered in the form of e-mails and questionnaires. For efficiency, the feedback and findings have been grouped into two distinct areas of discussion: The pedagogical findings and the technological findings.

### **The Pedagogy**

There were a number of points raised during phase one that determined that existing tutor books were inadequate for the purpose of this study.

Principally, these inadequacies centred on:

- 1 the tutor books were not designed to stand alone. Instead they were created as resources for a face-to-face tutor
- 2 the tutor books all presented information regarding written musical notation, but did not explain or introduce them effectively
- 3 the tutor books didn't create an incremental journey of empowerment for the learner.

These discoveries precipitated the development of a new tutor book that focussed upon:

- notation, rhythms and grace notes needing to be taught incrementally.
- exercises and incremental tunes should be written to help the learner retain and utilise new techniques.

There was a requirement that the tutor book could be used by remote participants who were unable to request synchronous feedback. The teaching pedagogy was carefully assessed to enable the tutor book be used by auto-didactic learners.

Once created, tested and re-written through the experience of the phase one participants, the tutor book was presented to the online audience with the accompanying Podcast.

The questionnaire to the participants attempted to ascertain whether or not the two points had succeeded, the participants were asked to grade the tutor book and on average gave a grading of nine out of ten. For the most part feedback consisted of participants applauding its development, stating:

*“It was as a result of your on line tutor that gave me the confidence to go out and buy a set of pipes.”*

*“...and applaud your initiative in providing an online tutorial to encourage more people to play.”*

*“I really like what you're doing, there is a lot of work in all this, which I really respect. And all for free, unbelievable. Most artists would ask [a lot of] money. I wish there were more people like you.....”*

E-mail feedback from participants suggested that the tutor book achieved its intention to provide a learner vehicle for online, remote and diverse learners:

*“I think that you have been very successful as I personally have been able to follow the chapters without assistance”*

*“I have now managed to access your podcasts and like the way you have simplified the theoretical side of the music and I like the way you progressively build up the speed of the tunes so that people can join in at their level”*

The podcasts were aimed at reaching learners who would not be able to gain tuition from any other source. The following feedback suggested that this was achieved:

*“Let me just say how much I appreciate your podcast lessons and what a difference it makes to have a person with a voice and played examples to guide me rather than trying to make my own way with a manual. I live in the Netherlands and I have yet to find an instructor (and I don't really want to don a kilt and join a GHP pipe band).”*

During the course of the podcasts the following points were raised:

- that the note names should be either using the American terminology or both American and European terminology.
- that the notes should be introduced “top hand” then “bottom hand”
- that the little finger of the right hand be placed down on the note C
- that the tutor also be available in the key of D
- that video be included

The following section discusses each point in turn:

## Terminology

The European method of naming notes and American method are quite different:

European note names	American note names
Semi-breve	Whole note
Minim	Half note
Crotchet	Quarter note
Quaver	Eighth note
Semi-quaver	Sixteenth note

*Table 3: Note naming conventions*

During the recording, it was found that it was far too complicated to try and record a combination of both names. As a musician from the European tradition, it is usual to combine talking about crotchets and their value being that of one beat, a whole count note. To try to integrate the American system, where a whole note is worth four counts was too confusing (not only for the student). It was decided in the end that the terminology should remain using the European convention, as that was the tradition from which it was developed, but it was acknowledged that this could be an issue for American learners.

## Top hand or bottom hand?

The participant who raised this query understood the importance of learning a small number of notes at a time. It was suggested that by learning notes using the left hand (top hand) first, the learner wouldn't have to concentrate so hard on getting both hands to seal all the holes. For a learner to concentrate on the bottom hand whilst not managing to cover the holes in the top hand would provide them inaccurate and confusing sounds. This suggestion appeared valid, but as the fingers of the bottom hand are also used during the top hand notes, learning the top hand notes independently could create bad habits. So this suggestion was discarded on the grounds of encouraging good technique. A compromise procedure, taking the concerns of both arguments, could be to continue with the bottom-hand-first routine, but build in an exercise before each lesson of carefully placing all the fingers down on the chanter sequentially thereby ensuring the player was in the right physical position.

### **Little finger**

In the tutor book the option is given as to whether or not to place the little finger down or not on the note C (known as an open or a closed C). This appeared to be an arbitrary decision. Players migrating from the Highland Pipe tradition would automatically play with the closed C. Most Scottish smallpipes are designed in such a way that closed C and open C has no audible difference. Some of the Scottish smallpipes made by Highland Pipe makers have a 'C' designed to be played closed. Rather than decide to conform to one choice or the other, a paragraph in the tutor and on the podcast discussing the differences would probably suffice in allowing the learner to make their own decision.

### **Available in the key of D**

The Scottish smallpipes are available in a range of different keys, the most common being A, Bb, C and D. It was decided to record the podcasts in the key of A as that was one of the more popular keys. The key of D is the next most popular key. Highland Pipers converting over to the Scottish smallpipes quite often choose a chanter in Bb.

The written tutor book is unaffected by these differences, for the most part, until such time as the sounds are recorded. A previous pilot study suggested that recordings of tunes and exercises could be transposed using software with reasonable results though this was time consuming.

The findings from the study suggested that it would be impractical to cover more than one key in a podcast. Therefore, the only effective way to cover these four different keys would be create four iterations of the same podcast. Outside of the time constraints of this study, such a duplication of work could be carried out. It would be beneficial to explore, through makers' sites and online communities to ascertain the demand for different keys more fully.

### **Video podcasting**

From a pedagogical perspective, it was suggested that:

*"I think some video might prove useful, particularly for beginning students."*

The inferred criteria for video was to assist beginners ‘see’ what they were trying to achieve. Although a number of participants thought that video would enhance the success of the tutor book facility, none of them felt it was requisite. To this end, although the benefits of video can be clearly recognised, their inclusion was more dependent upon the technological implications that will be discussed in the following section (Technological Findings).

### The Technological Findings

The most significant finding from the study was the difficulty in reaching the target audience. The intended audience was Scottish smallpipers that were remote from teachers and / or other sources of learning for the instrument. For this purpose the podcast was advertised in several different places not only on the web, but also in the Lowland and Border Pipers Society journal. The invisible tracker was able to track the major referrals from these sites:

Website referrer	%
<a href="http://www.smallpiper.co.uk">http://www.smallpiper.co.uk</a>	16.3%
<a href="http://www.celticpodcastnetwork.com">http://www.celticpodcastnetwork.com</a>	9.0%
<a href="http://www.bobdunsire.com">http://www.bobdunsire.com</a>	5.3%
<a href="http://www.bagpiper.com">http://www.bagpiper.com</a>	3.2%
<a href="http://www.thesession.org">http://www.thesession.org</a>	1.3%
<a href="http://rmartin.proboards23.com">http://rmartin.proboards23.com</a>	1.0%
<a href="http://www.mudcat.org">http://www.mudcat.org</a>	0.9%
<a href="http://groups.yahoo.com/group/bellowspipes">http://groups.yahoo.com/group/bellowspipes</a>	0.6%
<a href="http://wetootwaag.podomatic.com/">http://wetootwaag.podomatic.com/</a>	0.4%
Self referral through search engine	23%
Unknown or other	38.6%

*Table 4: Percentage of referrers to the podcast site*

One method of reaching the audience was to advertise the feed on iTunes. A participant posted this feed on iTunes and so no statistics could be gained from it, but the Feedburner.com feed showed that there was a distinct upward trend from March 2006 (see ‘1’ in *figure 10*) due to the extra exposure on iTunes. The statistics shown in *Figure 10* show the sharp increase in visitors using the RSS:

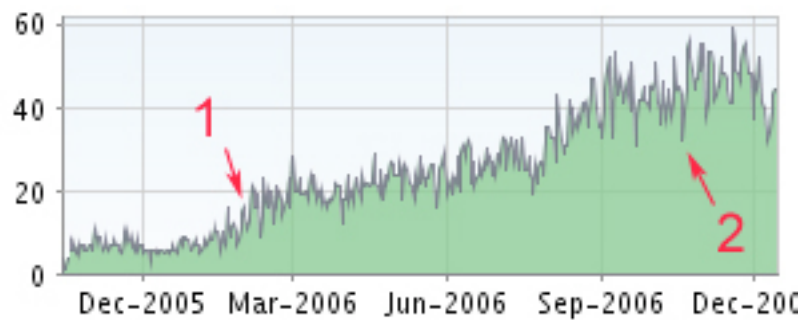


Figure 10: Numbers of daily RSS hits recorded on Feedburner.com

The Bob Dunshire Bagpipe Forum was of particular interest. A positive reference was placed there by one of the phase two participants in late October – towards the end of the study. Until that time, there had been no reference to the podcast at this location. In the short time after the ‘advert’ had been placed, the RSS hits rose significantly (see ‘2’ in figure 10) and in the same short time, this site became the third biggest referrer.

Figure 11 below shows the general increase of hits to the website. As with the RSS feed statistics, before the point of advertising in this forum the hits shown were on-course to be lower than the previous month.

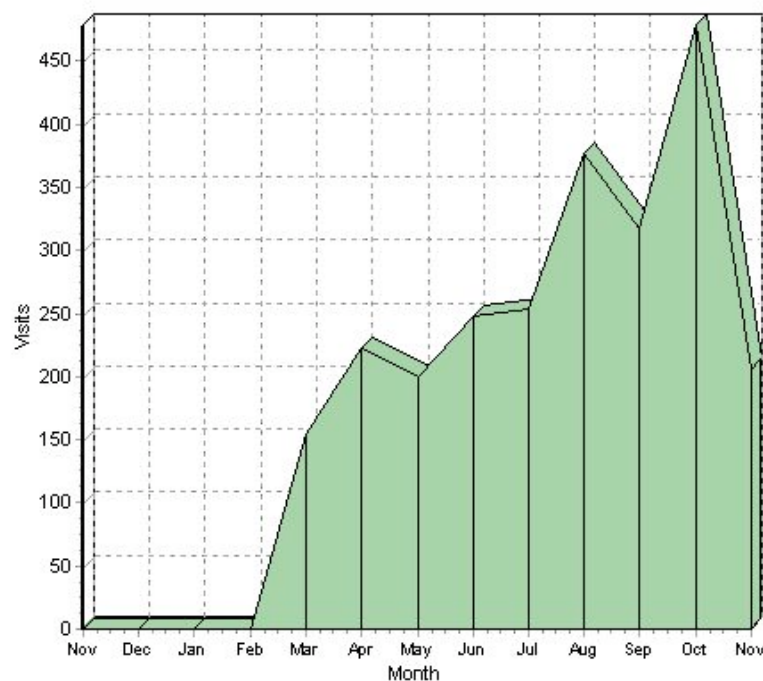


Figure 11: Numbers of visits recorded to the podcast site

The only hits shown were from the instigation of the tracker and not the start of the study. The apparent sharp drop at the end was due to the end of the six month tracking period falling in the middle of the month.

### **Finding online participants**

Table 4 showed the percentages of visitors who reached the podcast site via known advertising channels. Most interestingly, most visitors appeared to have come through unknown routes and through search engines. In an attempt to understand what these ‘surfers’ were looking for, their search criteria were analysed.

The 23% of visitors referred by various search engines using terms including:

*smallpiper, scottish smallpipes, smallpipes, lone pipers, dunfion smallpipes, practise chanter, scottish smallpipes tutor, smallpipes podcast, small piper blog etc.*

There is a culture of sharing free material; whether it be legal or not, within the environment of the Internet (BPI 2006; Shade 1995). Examples of shared resources include downloads of music, pictures, DVDs etc. Although sites such as [www.limewire.com](http://www.limewire.com) include documents about the legality of sharing using P2P software it is still possible to share many music tracks illegally for free (this study was very careful not to use any copyright material). With this free culture on the web it was surprising that only two visitors included the word free in their search criteria.

With over 2,000 hits to the site, it was apparent that these advertising sets, word of mouth and self-motivated searches generated enough interest in the site to be confident that the resource was valuable and accessible. However, the numbers of responses to the requests for feedback in the first instance were disappointingly low.

### **Generating feedback**

Three methods were used to try to engage the downloading individuals into becoming participants.

1. A competition was run. It was felt that if a prize of a free CD were offered more participants would offer the information requested. A time limit was put on the competition so that the information could be gathered in quickly. One of the learners that sent back the questionnaire and ‘won a CD’ expressed surprise that

he had won. He expected to have been too late assuming that there would have been many more responses. This suggested that people were not logging into the site in time to enter the competition or that they felt that it was not worth entering, as they wouldn't win. A third alternative is that any responses required the sharing of an email address or real address (to receive the CD prize) with an unknown person (the author). This may have discouraged some respondents. There were four participants as a result of this method.

2. Stage two uploaded podcast chapter seven to a secret location that would only be released to a participant filling in the questionnaire. This again produced another four completed questionnaires. This total of eight completed questionnaires, though not large, supported the notion that controlling access to the podcasts was, probably, the only way of ensuring feedback.
3. To this end, Stage 3 hid all of the podcasts apart from podcast one that was left as a taster for visitors.

These three stages of control successfully engaged participants so that 36% of the learners who made contact at all filled in questionnaires.

The global numbers of Scottish smallpipe students are thought to be very few; and the number that are web literate and internet-connected enough to participate in a study such as this: even fewer. It is not possible to determine easily the actual population of Scottish smallpipers who would benefit from these resources.

The questions in the questionnaire were written in English. As such, they could have been too complicated for some of the international participants. Indeed, one participant apologised:

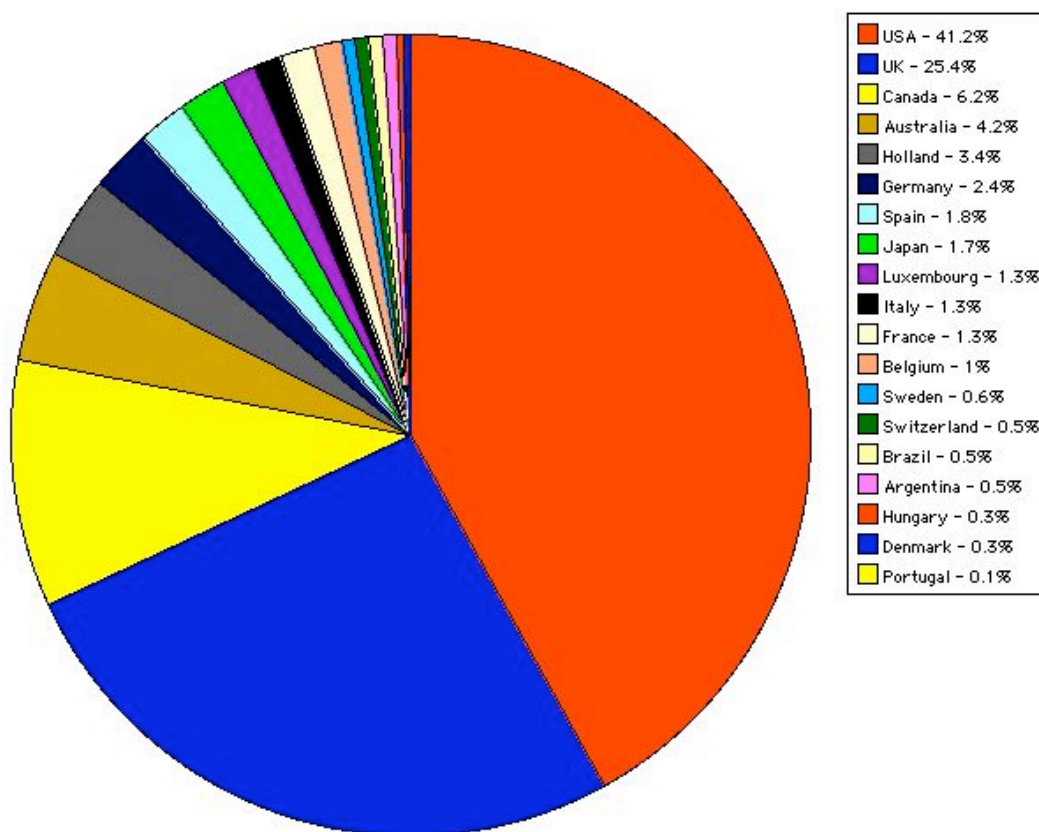
*"I don't understand some your questions because of my bad english but I'll try my best ;-)"*

It was expected that the majority of visitors would be from North America, the UK and that the predominant language would be English. The invisible tracker recorded the relevant data to determine the variety of countries and languages that visited the

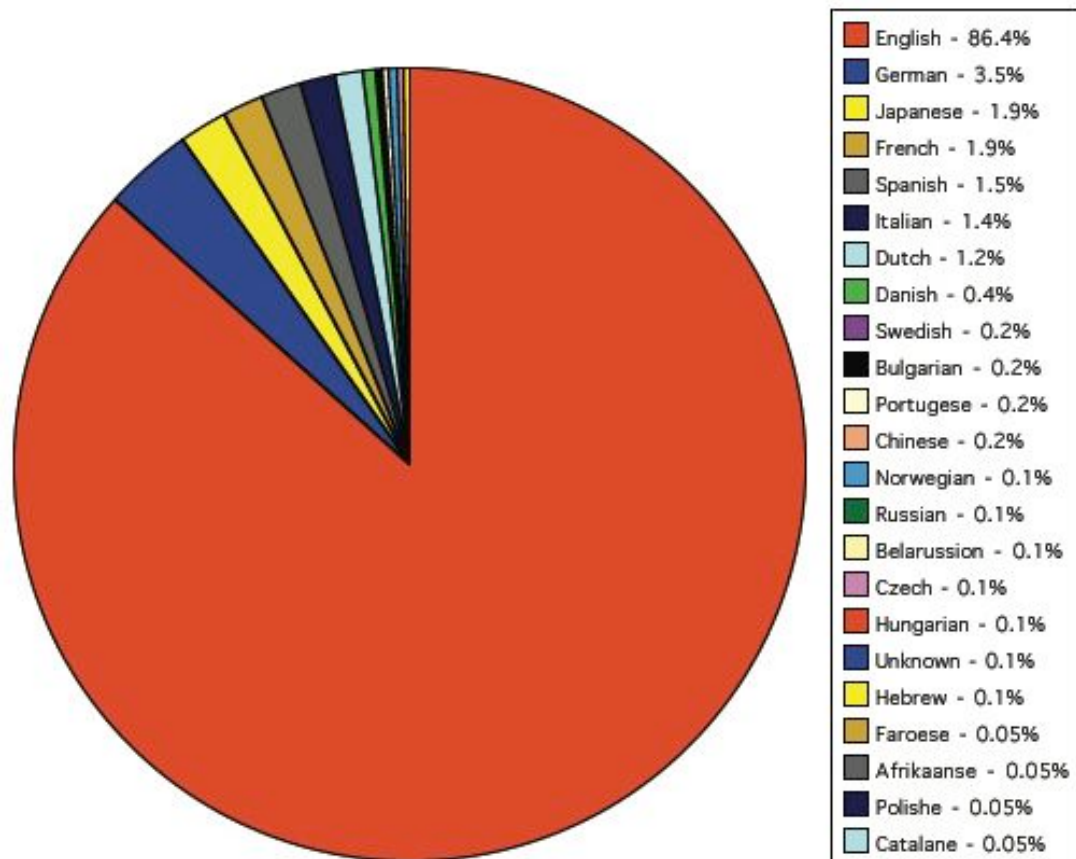


podcast (see *figure 12* and *figure 13*). ‘Country’ was determined by the location of the visitor’s Internet service provider. ‘Language’ was determined by the language settings of their Internet browser. 81% of the visitors that downloaded materials to the site were English speaking and 86% of the questionnaires that were returned were from English speaking participants. These figures show, unsurprisingly, that the study was inherently biased towards an English speaking audience. Indeed, presenting the podcast and tutor book in English would necessarily exclude non-English speakers although it did appear to attract a significant number of individuals for whom English was their second language:

*“I think your website is very useful to learn tunes. For us, it is also good to learn English.”*



*Figure 12: Percentages of the different nationalities that visited the site*



*Figure 13: Percentages of different browser languages*

The invisible tracker was installed to determine the traffic and involvement after four months of the study. Installed as a direct response to fears that the site was receiving negligible traffic, the invisible tracker revealed not only that there were visitors to the site, but also that they were also actively downloading materials.

Of the forty-two participants that gave feedback nearly 80% only gave feedback on one occasion. The mechanisms put in place for this study determined that only one feedback per participant was required for access to the resources. With various facilities in place for communication between the participants and the author, the lack of communication suggests that feedback was given in order to obtain the resources and not (as had been hoped) to enter into a mutually beneficial discussion for improvement. It must be noted that the participants, although informed of the teaching resources' existence within this study, for the most part would have viewed the resources as a downloadable product.

## **The Podcasts**

The podcasts appeared to be relatively easy to create and broadcast. Using web space that had no specific capacity or transfer limits it was possible to create podcasts of size and to encourage as many participants as possible to download. Once the site was placed in a password protected area, like most podcasters, bandwidth and data transfer limits became a significant issue. The new site's 10 Gigabyte monthly transfer limit was easily reached and this created difficulties. The termination of the study mitigated these difficulties but it should be noted that a continuation of the service whether as a study or a product, would have required financial support either through sponsorship or through 'donations' from the participants.

The RSS feed was found to be an efficient way of distributing the episodes for the author and allowed for the expression of the chronological development of the podcasts. Conversely, the technology of downloading the podcasts was less accessible to many of the participants. A large number of content consumers (over and above the participants) downloaded the material straight from the site to their computers without taking advantage of the podcast facilities. Those participants that did subscribe to the podcast still had to visit the website and download the accompanying pdf file of lesson material. If the participant subscribed using iTunes they would still have to visit the website to fetch the pdf.

As podcasting and blogging has become more widely accepted, new aggregators such as Newsfire, a dedicated RSS blog reader, have given subscribers the option to download the pdf straight from the application, but such applications are very new and to date have not been standard.

*Figure 14* is a snapshot of the subscribers taken on one day at the end of the study showing that 60% of subscribers on that day used iTunes. These subscribers would have had to visit the website, thereby reducing the benefit of having subscribed to the RSS feed. Although the tracking available for the RSS subscriptions was not comprehensive it was possible to see that the RSS was being used. None of the returned questionnaires commented on the podcast process. This could have been

because the participant was downloading straight from the website or it may simply have been that the questions were not specific enough.

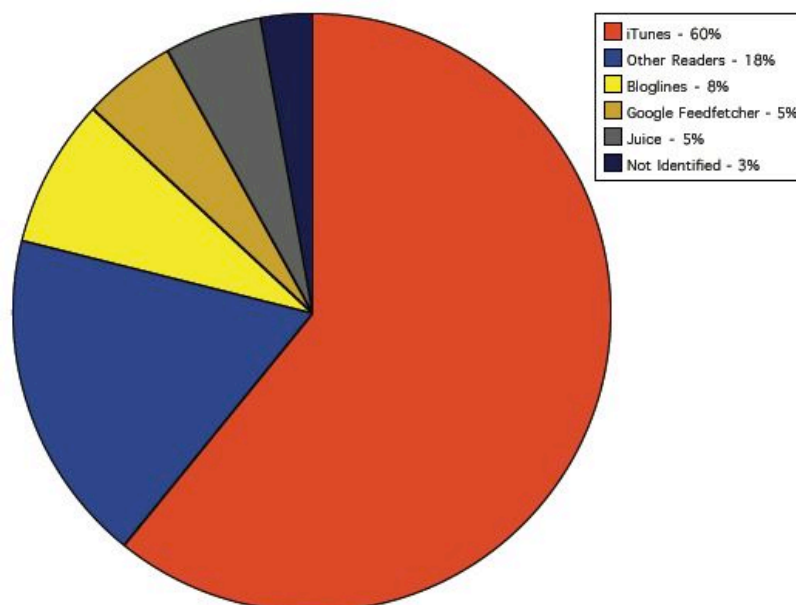


Figure 14: Feedburner statistics showing different RSS aggregators

### The Downloads

The invisible tracker recorded the numbers of downloads of the materials from the website as shown below.

	<i>Ch1 &amp; 2</i>	<i>Ch3</i>	<i>Ch4</i>	<i>Ch5</i>	<i>Ch6</i>	<i>Ch7</i>	<i>Ch8+</i>	<i>Video</i>
<i>mp3</i>	109	47	29	40	57	36	15	110
<i>pdf</i>	124	61	59	62	87	1	0	37
<i>rss</i>	68	80	301	143	153	60	78	99

Table 5: The number of downloads of each mp3 or pdf

Table 5 suggested that the pdfs were generally more popular than the audio file.

Table 5 also suggested that the video was far more popular than the accompanying manuscript. The RSS column was the data available from the Feedburner RSS feed. Unfortunately the data was not reliable as a download from a participant could not be distinguished from a hit by a web-bot such as iTunes or other.

Due to the limitations of the monitoring software, it was not possible to assess with any certainty, the extent to which individuals downloaded both items. Nor could it

determine the individuals who accessed the audio file via RSS and the pdf via the site.

The purpose of tracking the numbers of downloads was purely for checking whether or not the materials were being downloaded. If the technology were available, a greater assessment of consumer choice for download mechanism would be an interesting area for further investigation.

Although the pdf file, as the downloadable version of the tutor book, was designed to work without the audio file, there were no references to this on the site. This precipitates the question: “why did so many learners only download the pdf”? At the time of downloading, the learners would not have known that the pdf was sufficient alone.

There is no data from those who downloaded the resources without becoming participants to ascertain the answer to the above question but it may be that they downloaded the pdf first (in preference to the smaller file size) as a taster and then either found the resources so useful that the audio was redundant or so unhelpful that the audio was rendered irrelevant.

Radio Britfolk was a station dedicated to the broadcasting of folk music from the British Isles and although workshop shows were a feature of this, they were not the main feature. The benefit of using the station was that it enabled participants on dial-up to be able to listen to the show and take part. However as it was a radio station it meant that the show could not be downloaded and listened to or worked with offline. This meant that a participant could, feasibly, be online for an hour or more listening to the show and accumulating large phone bills. Equally, the requirement for broadcast to be online meant that the listener had to be ‘at their computer’ without the spatial advantages of podcasts. It was also not necessarily possible for the listener to start or stop the show. The podcasts had been created with the functionality of stopping and starting included; allowing the learner to progress at their own speed. To take away the facility to download and stop and start the show rendered this pedagogy unstable.

Based on participant feedback, the video podcast was generated. Video casting was a new technology and, although used by iTunes, was still relatively uncommon. It had been assumed that a video would be too large to download and one participant backed this up:

*“The video was a HUGE Download. For me, I think you could save a bit of space by doing a “hello with video then link up to the sound only files”*

However the file was the same size and even smaller than some of the later podcasts and no such comment was made on the size of those.

Further area for study using video should be investigated. With the emergence of video centric websites and communities such as YouTube.com (recently purchased by google.com) that allows 10-minute videos to be uploaded and broadcast, the bias towards video must be changing. Theoretically, it would be possible to host these 10 minute videos on YouTube.com and then reference them to a teaching website. It would even be possible to distribute the video via the RSS podcast technology. This study focussed upon audio podcasting rather than video. Further studies could embrace the emergence of accessible video formats and compare such teaching facilities on the new media.

These findings are the output of the primary research of the study in isolation. The two main areas of investigation: pedagogy and technology have raised some pertinent questions and issues. The final chapter, conclusions will place the findings back into the context of the critical review of literature to ascertain meaningful outcomes.

## **Chapter 7 – Conclusion**

The intention of this study was to investigate distance teaching of the Scottish smallpipes using podcasting as a distribution medium. To achieve this, the study aimed to use the World Wide Web and the Internet to create and facilitate a global community of students that could learn remotely.

### **The Pedagogy**

Phase one of the action research study evaluated existing Scottish smallpipe teaching resources in a face-to-face environment and determined that the study could not be fulfilled without the creation of a new tutor book. The subsequent new tutor book was written in conjunction with the experiences of both a face-to-face and a remote student. It was apparent from the cycles of development that the pedagogy of the learning needed to be changed to support the learners in their online environment. Furthermore the cycles determined that, inline with the findings of the critical literature review, the principal changes needed to recognise the needs of the learner as an individual and to facilitate their autonomous access to the resources that they required.

It was apparent that the existing tutor books:

1. relied upon face-to-face tutoring as the primary teaching medium.
2. had areas of study that were insufficiently detailed
3. did not have sufficient exercises or linear journeys for the student to be empowered for success.

The new tutor book accommodated these three overlapping criteria to produce a tutor book that, it was hoped, capable of being self sufficient in the teaching of the Scottish smallpipes. Through the generation of a tutor book that systematically took the learner through notes, rhythms and grace notes and guided them along an incremental journey through the use of many exercises the existing obstacles were overcome.

The overwhelming participant responses specific to the pedagogical construct of the tutor book during phase two suggested that the teaching method and organised

journey had been successfully created. Their responses also supported this study's introductory preconception that there existed a learning void for which traditional teaching resource were inadequate. This online tutor book appears to have gone some way to fill this void for some of the participants. Many of the participant's responses to information requests were typographical. Although frustratingly tangential to the information requested this could be perceived as a positive response because the responses weren't focusing on major pedagogical flaws or omissions.

The inclusion of the podcast during phase two was two fold: firstly to provide audio resources to support these remote learners; and secondly to form the foundations of a 'community' that would enable the learners to communicate with the author; symbiotically to assist their learning and to complete this study's Gibbs' self-reflective cycles.

As with the responses regarding the tutor book much of this feedback centred around technical issues and experiences as opposed to pedagogy. It is hoped such feedback, again, underlined the success of the construction, showing that although a musical instrument could be learnt through either the aural or written traditions, a synthesis of the two would almost certainly be more successful allowing for the learner to prescribe their own pathway (Keegan-Phipps 2004, Swanwick 1996).

That both media were downloaded with positive feedback supports the success of this symbiosis where auto-didactic learners were able to find the resources most suited to their needs. Conversely that many more pdfs were downloaded than audio files suggested that for many the written tutor book was sufficient and therefore the audio files may have been redundant.

The apparent successful engagement of learners as remote as Brazil (*cf* page 57) supported the notion that this tutor book's pedagogy and presentation was successful.

Participants downloaded materials from all round the world and not only used it for personal learning, but also in their own teaching of students. Again, this active utilisation of the resources by other professionals supports the notion of the tutor book's success.



## **The Technology**

Evidence from the number of downloads of the tutor book and audio files along with the questionnaires from the participants supported the theory that the technological advancements were capable of supporting online instrumental teaching.

The actions of many site visitors alongside some of the respondents suggested that although the RSS mechanism was an effective notification tool, it may not have been efficient as a distribution tool. In part this may have been to do with the learners perception of resource (see below) but also may have been the embodiment of over complication of the technology. The complexity of RSS, blogging and podcasting, for all its advantages and strengths may have disengaged some participants.

*“I haven't looked at the podcasts yet - not being quite sure what a podcast is exactly and why the name... Wrong generation, I suppose ;-(.”*

It was found that, even after software improvements during the course of the study participants were still either not familiar with podcasting or did not have the technological literacy. Instead it was found that some participants were successful when encouraged to visit the website and ‘right click to download’. For many participants the concept of ‘blogging’ and using an RSS feed to notify of updates was unfamiliar and so the idea of podcasting was lost.

The relocation of the podcast site precipitated a website and RSS function conflict. To make the website visually appealing and easy to use meant that the podcasts when downloaded via RSS into an aggregator were back to front and visa versa.

## **Participation**

The research suggested that whilst the tutor book was successful, the RSS and podcasting functions were under utilised. Immediate evaluations may have decided that these results indicated that the audio files and the associated ‘community’ aspects of the podcast blog were redundant. However, it is possible that the symptoms of this scenario are more complex than this. Some of the positive feedback from the participants intimated that, although active in their responses, they were not considering the accessed content as a negotiated and developed resource.

Indeed, they were viewing the materials as a final product. This change in the consumers' perception of product could go some way to explain their behaviour. Participants completed the questionnaire as 'payment' for the download of the resources; not, as hoped by the author, as part of a mutually beneficial journey of development and improvement. This perception of 'finished product' by participants can be seen in the following quote:

*"I hope you will find a possibility to keep the podcasts online. If there will be one I will "click the [donate] button" "*

For the most part participants for this study were drawn from adverts placed in online communities and message boards. As such the participants must have had some technical literacy and a high degree of written English literacy. Although no ethnographic study was made of the participants it is likely that the participant's command of the written English language meant that they were very comfortable with the written tutor book, more so than a cross-section of a more general population of learners.

### **Summary**

This study attempted to both improve personal practice of teaching the Scottish smallpipes and reach students from around the world that would not have otherwise gained any learning experience. The study suggested that it was possible to teach a musical instrument using podcasting and although this method did have its restrictions and weak points it achieved both these targets. Learners around the world were able to benefit from the resources, and indeed, there were learners who managed to advance in locations that had no other Scottish smallpipe facilities.

*" ... the podcast is a must for pipers at all stages. Without finding this site I would not be learning the pipes. There must be others around the world who would love to learn to play the pipes. "*

Furthermore, there were incidences of teachers who were able to use the materials produced for their own teaching requirements thereby supporting the success of the Pedagogy within the tutor book and the assertion of need for this resource.

The materials, learning and pedagogy created by this study supported the theories highlighted in the critical literature review that the Internet and World Wide Web

provide major opportunities for learning but this potential can only be realised with changes in pedagogical approach and a rewriting of the resources that put the learner at the centre of the experience.

### **Further research**

This study focussed upon teaching and learning resources for Scottish smallpipe players. It would be expected that many of the learning outcomes of the research would be transferred to most other instruments. Further research would be valuable to assess the extent to which these outcomes are transferable to all other instruments, or whether they are more suitable to those that exist within the “aural tradition”.

This study explored podcasting in its infancy. A more longitudinal study may find that Podcasting’s benefits would be embraced more fully as the technology becomes more commonplace. Such a study may not find this increase in use; it may be that podcasting is only a fad that will be superseded by more applicable technologies in the future (Mincey 2006).

The Videocast had surprisingly high download volumes. Further study would ascertain whether this alternative approach is significantly more beneficial as a learning and teaching tool or whether this was an isolated rush of enthusiasm.

*“Anyway - please keep up the good work. I can see that in the not to distant future, your methodology (or pod casts) and perhaps your work, will be one of the best ways to promote (pardon the phrase) 'unpopular' instrument playing”*

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## APPENDIX I - The Questionnaire

Question One: - How would you describe the quality of your learning experience?

1. Well, I'm an experienced piper, so what I've learned has been something about ways to incorporate technology for distance learning. We done. I like the idea of having the audio available to go along with the book.
2. Very pleased so far, extremely useful, still a beginner!
3. As for my students, they enjoyed getting into tunes without having to perfect the doublings and grace notes first. This meant they were "reading" music at a much earlier stage and feeling a sense of accomplishment.
4. I have been playing the Great Highland pipes for eight years so the material in Tutorial Lessons 1-6 has been mostly review for me. Nonetheless, I am impressed with the clarity and pace of the tutorials. I think the learning experience must be of very high quality for a novice.
5. Excellent and very enjoyable.
6. I think it is good: I have the feeling that I am covering the ground: the way new lessons are phrased and presented is not unnecessarily technical (I have played other wind instruments since school and have taken lessons for several years). Your voice is clear, the structure is logical, I don't find that I am being rushed, though I am taking several weeks over the later lessons, involving the grace notes (and spending a lot of time on a practice chanter before attempting anything on the pipes).
7. no answer
8. I am totally satisfied with your lessons.
9. The quality of the information has been good and has been a useful aid to my learning. I have also used the College of Piping's tutor for the GHB and the combination of both has taught me a great deal.
10. Super, has complemented and added to the material I knew from learning GHB
11. The quality of my learning experience is very much helped by your podcast. I learned to play the 'penny whistle' as a young boy and I did not read music as I played the whistle by ear. On occasions I have had a notion to learn to read music and never got round to it. Now by using your podcast I am learning to read music and at the same time learning the practice chanter and then follow on to the Bagpipes.
12. Great, a combination of having my hand held and being encouraged to do my own thing. The course is systematic, thorough and follows clearly through one step to the next...
13. I think to begin talking about the results is the better way to describe the quality of my learning experience curve. I had my set of smallpipes forgotten in a wooden box since I bought it the last spring because I tried to play it several times before knowing about Smallpipe Podcast and it was really impossible to start learning to play it more or less properly without a tutor, a guidance, a line to follow... Unfortunately and for those reasons I lost the flavour of that I think now is an incredible musical instrument, with a rich sound and an amazing 'gameplay'... I remember my mind was so busy thinking about the bellows, the fingering, the music, the bag pressure, the sound, etc... so I was just 'lost in the paradise'. Finding Smallpipe Podcast and follow the tutor every month has brought to me the joy of my smallpipes, the funny of practice and play the instrument. The experience curve is very

balanced, the tunes and exercises very well selected and the combination between the Audio explanations and the Text tutorial, also the videocast (to see how the instrument works) makes a great and complete experience of learning.

14. Mixed. It may be that I'm missing material because I've come in to the podcasts late.
15. Very Good. easy to read and understand.

Question Two: - Describe what you learned from the pod cast?

1. I'm somewhat impatient to wait for the pod casts to load and play. I think it would be a good strategy for someone like me to download the PDfs first and then download the pod cast, save it to iTunes or QuickTime for later viewing and listening at the same time.
2. Back to basics / Step by Step...ideal.
3. For me, chapter 1 showing the bellows was interesting and informative. I am going to stay with the mouth blown pipes.
4. The first lessons on bellows technique were useful for me as I have been playing smallpipes for less than a year. I also liked the discussion of the advantages and disadvantages of playing high g grace notes versus strikes because the high hand grace notes can be so loud. It has also been useful to hear drones well-tuned to the chanter. I have found tuning a smallpiper to be trickier than tuning a Great Highland Bagpipe because the smallpipe high A is so loud.
5. My students are learning lots. I've picked up some good exercises - much more fun than doing scales.
6. I followed through the lessons and can more or less do what you've taught (I began in July). I have to judge myself just how good I am at it. If I was taking lessons in the ways I have done with other instruments I would have an instructor on my case telling just what was unacceptable in my technique and approach and providing a mirror for improvement. As it is I listen to the lesson, read the text, go away and practise a piece a lot and then come back to see if the row I am producing sounds anything like your music. But I am doing this for my own pleasure and am happy with everything you gave me (I had the musical theory already). The new element was the whole experience of the Scottish pipe style, so different from ?classical? musical styles.
7. Fingering, rhythm, gracing, etc. In particular I have gained a much greater appreciation for counting out rhythm (and how difficult it can be!)
8. At the moment The mystery world of grace notes applied to the smallpipe.
9. Unfortunately I have had considerable problems downloading the PodCast, perhaps thing will improve now that I am on Broadband. I have solely been using the printed Chapters from your site.
10. How to better try to tune the drones, hearing that pitch is difficult for me.
11. I have learned as stated above to read music properly understand correct timing and not to cut corners and play the chanter "by ear".
12. Podcast, as opposed to just the printed text: gives the quality of sound you want to achieve and someone to play along with, which is encouraging when you're learning on your own. Really adds a new (and essential) dimension to a text-based music tutor.
13. When I started with the first two chapters from the .pdf tutorial I was mainly focussed on getting the correct placement for the bellows, the chanter, the

elbows... trying to be comfortable, but being sincere, trying for not doing serious mistakes with things difficult to correct in the future... this means seeking the video and your pictures trying to fit the pipes to my body properly... after that, I followed the exercises knowing that they was going surely to teach me well.

14. I'm an experienced Highland piper, so the lessons on the low and high hand fingering didn't help. As I said in the last question, I may have edited podcasts, with most of the content removed... there is mention of grace notes, but no indication of how to play them. I hope my content is incomplete. I did learn that the A chanter can be used with the D drones!
15. The lessons on using the bellows was most helpful. The tuning lesson was also very good. One of the easiest to understand I have heard yet.

Question Three - To what extent did you enjoy the experience?

1. I found the format enjoyable- rather like a radio show, including the familiar theme song at the beginning.
2. So far, very much so.
3. The tunes you have written are really great. I know that my students have enjoyed being able to play simple tunes.
4. Immensely. I eagerly look forward to each tutorial feed.
5. I like listening to you play!
6. I enjoyed it very much. I liked the progression, I liked the pieces you give for practice (and appreciate that they are not all GHP). It is encouraging to have someone give the lessons with a patient and pleasant voice.
7. I really enjoyed it. I liked having lots of tunes to choose from to learn and work on, and the exercises were appropriate and confidence building.
8. Really high due to the new concept tunes!
9. No comment but I do see the advantage of being able to see and play along with you.
10. Tremendously, I especially liked your comments on on the earlier lessons with the music
11. I am still in the process of learning and using your tutor books which I have printed for easy reference. I am enjoying the experience immensely as I am improving every week and I intend this September to join a local pipe band and continue practicing.
12. Really enjoying still, probably due to the early introduction of simple tunes.
13. I've found the smallpipes is a very funny instrument. It is very pleasant to play with a very smooth sound and I enjoy to play it very much... I think in the very next future I will be going to find myself fully comfortable and I'm thinking to play with other musicians even though in Spain is quite impossible to play Celtic music. Anyway and again I have to be grateful with you because I've found very very useful the Harmonies... I've started to play with the Pushbike and "The lament for the lone piper" harmonies and the experience again is wonderful. I think this is the way in that I will extend my experience... play with your harmonies... so please, keep posting more tunes with harmonies... I think this is the way to enjoy the experience, to be near with you even the distance, to keep alive the podcast, to play your tunes, definitely to play with you despite the distance... for musicians who play alone like me it is really the real tool to keep practising and to keep enjoying the experience.

14. Enjoyable. I downloaded the podcasts to my iPod, and played them on a cross-country drive.
15. I liked the accompanying MP3 file to the written text. Being able to listen to the actual lesson instead of the usual tracks of some on playing the exercises on the chanter was great.

Question Four - What changes could be made / added to these pod casts to improve the learning experience?

1. For an international audience, particularly a North American audience, durations of quavers, minims, crochets, etc. are generally a mystery. We use eighths, quarters, halves, etc. A minor point, but I could see some of my kids zoning out at that point.
2. I'm learning in D ...would like a D section only ideally and all tunes written in D
3. A possible addition could be to use "Bagpipe Writer" by Doug Wickstrom for your tunes. This allows the student to change the tempo (slower at first and then speeded it up later) and repeat the music easily while practicing.
4. I think some video might prove useful, particularly for beginning students.
5. Being able to speed-up or slow down your playing would be helpful. I discovered a way using Audacity (<http://audacity.sourceforge.net/>). You can select a portion of the audio, then click "Effect" -"Tempo" and slow down a section without changing the pitch. Just remember not to save the changes! It's a little combersome, but it works (it also makes your voice sound a little drunk though).
6. Well little to say. Obviously I make comparisons to lessons on other instruments (though I think I have blotted from memory the beginner's phase with them). The lessons are of a different type to the ones I have with a real-time teacher (where I prepare a piece, play it and receive criticism and suggestions). I do listen to them on an mp3 player and it's difficult to scroll thru to a given point, so maybe the lessons could be divided into smaller portions. I did like the one video you gave of you playing a piece: it let me check my fingering against yours (and you look RELAXED while you're playing). I would appreciate more of these (but I should probably try to catch one of your gigs too).
7. One thing that would be nice is if there were a way to seek to a specific location in the podcast based on the tutor book. For example, for each exercise in the tutor book give the time into the podcast where that exercise can be found. Another option might be to break the podcast up into tracks according to the exercise (not sure how technically feasible that is, or if it breaks the "wholeness" of the podcast???). Maybe another option is to say the exercise number more frequently so when one is randomly seeking through the podcast they can find the landmarks more easily. i.e., "304, again", instead of "again" when repeating the exercise...doubling the occurrences of the exercise number.
8. Maybe you can add some general rules about the session. I mean, what about playing with guitar or flute? Why not add a few tunes for a home made session?
9. No answer
10. Continue with podcasting



11. I don't think much needs improving, maybe more basic practice exercises in chapter 3 and some sample rhythm music to assist with learning the timing in chapter 4. I am now starting chapter 5.
12. I've really enjoyed the format and sequencing, the style and content. Only problem I've encountered really has been finding tuning the drones harder than expected.
13. No changes needed but Video. I enjoyed very much and it has been very useful the "Birch" videocast. Anyway I think a full learning experience despite the contact with the teacher consist on: Text Tutorial, Audio files, Video, Tune Harmonies and Scores.
14. Some content is incomplete or missing (I hope.) The podcasts show up in reverse order on my iPod. I have to play one, then start over to get the next lesson/previous podcast. I had trouble downloading from the blog. It worked better when I found them on iTunes. The video broadcast is not formatted for iPod, although it works on computer. I converted mine to iPod format (although I can't put it into the Podcast list.) Would you like a copy?
15. nothing, leave as is

Question Five - In creating the tutor book to pod cast I have attempted to anticipate any difficulties and pitfalls, how successful did I manage this? (Rate me from 1 - 10, 1 being not very good and 10 being fantastic).

1. I'd give you at least a 9. Your tutorial approach is a lot closer to the more successful beginning instrumental methods I've used as a school band director than most bagpipe tutors I've seen. I'll try to spend more time in depth soon, but I like what I saw and heard so far.
2. 9
3. I rate your success as 9 out of 10. You can never anticipate all possible questions or difficulties, but you have produced a very workable set of lessons. The fact that you are available to answer questions by e-mail puts your lessons above a CD-ROM or book format.
4. I would give you a 9 for anticipating pitfalls. You do a nice job of pointing out tricky passages. I think your statement of how long it took to record a clean version of Speed the Plough shows students how tough it is to get a smallpipe tune perfect and therefore keeps a student from becoming frustrated.
5. Fantastic (10). Everytime I think: "there's a gotcha she didn't cover", you go back and explain it in the next movement. For example in Lesson six, Speed the Plough, you played the triplet in the B-part once through, then went on to explain what a triplet is before playing it the second time through.
6. I think pretty successful though as a beginner on the pipes and you my only teacher I am not sure what the difficulties would be (keeping the ruddy thing inflated?). Rate 8
7. No rate
8. No rate
9. Generally the information has been very good 8/10. However, I recently attended a weekend smallpipe course run by Ian Kinnear as I personally believe that there is no substitute one to one tuition particularly at the early stage, before you develop bad habits. Following this course there is one issue that I must take and that relates to your 1st chapter, page 6, on fingering the chanter. I had followed your advice, "the use of the little finger is optional", and because of the stretch on the 'A' chanter was inclined to leave it off. I

was only when I attended this course that I realised the tuning is affected on notes C & D if you do not hold the little finger over the G hole, The effect is only slight but if you are playing with another instrument it is very noticeable. I would suggest that you change your advice and insist that the little finger is used.

10. No rate
11. I think that you have been very successful as I personally have been able to follow the chapters without assistance. Maybe a raw beginner (remember I play the penny whistle) would need support from a tutor while still following your lessons. Rated 9+
12. I have to give you 9, as it seems to be covering what I need, the only part where I've really really needed extra outside input (apart from my own practising of course) has been additional tips on tuning those drones.
13. My rate is 9 I think you've anticipated very very well all the music difficulties and you have explained in the same way all concerning the music concepts like rithms, notes, etc... all that parts are excellent but I think you should improve the tutorial for instance inserting detailed pictures on how to fit the smallpipes to the body, grip the chanter, bellows possition, bag possition down the elbow (because this is the first problem the pupils have when we start to play the smallpipes... we don't know how to do with all that number of wood parts, bellow and bag). Also you could talk about the instrument like bag sizes, types of chanters, maintenance. Talk about more embelishments will be for the next future... the next step.
14. I haven't been able to use the book and podcasts together. I looked through the tutor while I downloaded the podcasts, and it seems good. But I played the podcasts while driving, so didn't have the book.
15. 10 (And no BS here) Explanations of difficulties and why they occur are helpful.

Question Six - How was the sequencing of the material in the tutor? (so far) Was it pitched at the right level for a beginner through to more experienced player?

1. Hard to say about that as yet
2. Yes very much so... I tried jumping forward but realised i lacked the capability ...Step by Step!
3. Very good. A more experienced player can easily skim through the beginning parts.
4. I think the sequence has been logical and sound. Techniques for bellow, then the scale, then types of notes (quavers, semiquavers, etc.), then grace notes.
5. Yes. I think so. I'm enjoying the music, I hadn't played High Road to Linton since I was wee, and you turned me on to Speed the Plough, which I'd heard before, but not had the music for.
6. The sequencing was fine: it might work better for a practice pipe (in the sense that working the bag and learning to 'emote with your elbows' turned out to be more of an undertaking than I had expected). I jumped the musical theory and spent several weeks at a time on the later lessons, just getting my fingers around the new combinations of notes and gracing.
7. So far its working for me (I'm only in Chapter 4)
8. My personal feedback is yes, I think you get the right answer for who, like me, was looking for a smallpipe tutor.

9. The level of tuition is pitched just about right though I cannot honestly comment on how it would be for someone who does not read music. I was inclined to skip those bits.
10. No answer
11. The sequence is good, as long as the pupil understands that the secret is to practice at each level prior to advancing too early and not getting bogged down and losing interest.
12. I was a total newcomer to pipes, although playing other instruments and reading music. Level was fine, as those bits about note value, etc. were easy to run over quickly and they were always in the context of something practical. Sequence seemed fine, although I am still not working with a lot of the more complex gracings, it will be easy to refer back to them when I want to.
13. Yes, you was very right... There are very much sense on this book. Nothing to say about but go ahead with the next step tutorial... more grace notes, embellishments, more complexity.
14. It seems good, although I don't have the later chapters. The beginning material seems paced about like the College of Piping green tutor.
15. Lessons 1 - 3 are the right pace for a beginner

Question Seven - Chapters seven to ten haven't been recorded yet, how can the learning experience be improved?

1. No answer
2. Ensure tunes are in D for me, keep separating the sections of the tune
3. (I have no suggestions at this time.)
4. With the exception of perhaps adding some video content, I can't offer a lot of suggestions here. I think the podcasts are great and highly effective.
5. Continue on as before. Will you be doing compound grace notes like doublings, burls, and throws? In your other lessons (pre-disertation?) you would introduce a tune, go through it, then at the end play it ensemble, which was very inspiring to hear. I love your SSPs with the double bass, and to hear the tune fleshed out in that way brings it to life for the learner: "Ahh, that's what I can do with this!".
6. I am not sure what is coming, but maybe slightly slower pacing (so I don't feel I am stuck on a lesson), some more smaller practice pieces before getting on to tunes, maybe some more of what you did on the video, breaking the tunes into fragments (though I end up doing this anyway: some things you don't need to be told perhaps). I do like some of the background to the pipes and style that you give (so why are smallpipes played like this, where is it different from GHP).
7. See #4
8. Maybe answer to 4.
9. Just keep on as you are.
10. I'm finding that jigs and reels are the most commonly played tunes/set in sessions and anticipate what will be forthcoming.
11. I can't really comment too much here. Maybe by communication with other pupils where technique and pitfalls can be discussed and passed on.
12. The real "USP" of the recordings, if I may put it that way, apart from hearing how it should sound, is that they give you the possibility of playing along with someone else, albeit synthetically. Listening to yourself and to others is such a hard (and totally essential) skill to develop when you're also concentrating on

all these other mechanical aspects of playing: perhaps a few "session" or group recordings, to practise these playing and listening skills alongside several different instruments?

13. Also more embellishments or tricks from the instrument. Sincerelly, I remember it was very much difficult without the audio... I remember me visiting the podcast with the hope you was going to post the audio. In my opinion is not only a thing of Audio files but the enormous ability you have to teach. With the tutor it has been demonstrated you have a great capacity to organize and structure things. Your voice and the 'cadence' with that you explain the exercises and tunes makes the rest.
14. I'm looking for material more specific to smallpipes. As I said, I'm a Highland piper, so I know the fingering and Highland grace notes. I recently got a set of John Walsh A/D mouth-blown smallpipes, and I want to get the best out of them. What can I take from Highland piping, and what do I need to do differently? Any notes on playing with other instruments? The D chanter seems more difficult to play than the A., and I tend to avoid it. Any tips on playing in one key versus the other, and when and why to use one or the other key?
15. Let me work my way through the rest and I'll let you know

Question Eight - Would you recommend this blog and pod cast to other fellow (or would be) pipers?

1. I would recommend it to beginning pipers and their teachers. I am not teaching piping yet, but I think I would use this with any beginning pipe students I had, particularly those who were interested in playing smallpipes.
2. Essential ingredient.
3. I have already!
4. Absolutely. In fact, I already have.
5. Yes. Already have. ;-)
6. I certainly would (and have) to anyone in the same situation as I am (i.e. without an instructor and unlikely to find one anytime soon).
7. Yes, definitely!
8. Yes, of course! My GHB colleagues have been informed about that.
9. I have recommended your site to other learners on my recent course and to local musicians.
10. Yes, I have already
11. Absolutely the podcast is a must for pipers at all stages. Without finding this site I would not be learning the pipes. There must be others around the world who would love to learn to play the pipes.
12. Absolutely
13. Without any doubt and I did it on Dunshire's forum... but the Scottish piping world is certainly quite 'closed'... I mean the finger technique is very close and there are lots of embellishments that they use to say made a good piper, so they think it is necessary to play smallpipes like the Great Highland Bagpipe and not like Celtic Ceilidh music... Taorluaths, Leumluaths, grips, birls and also the music Light and Ceol Mhor... so I think it is difficult to get a connection point between both music worlds, The Scottish traditions and the other more close to the Irish celtic music.
14. Yes! Absolutely. And I'm going to buy your CD's after hearing the Vicki and Johnny podcast.

15. yes, already sent the link along to a fiend or two.

Question Nine - What brought you to this pod cast?

1. Your email message
2. Meeting Vicki at festivals and hearing Smallpipes for the first time..
3. I was looking into different types of small pipes before I bought mine. A "Google" search and the rest is history.
4. I was made aware of your earlier web-based tutorials (<http://intra.ultralab.net/~vicki/masters/tunes/scottys.html#>) from a bagpipng discussion board. I stumbled across smallpiper.co.uk as I searched for the ultralab.net site on Google. I am glad I found the podcast!
5. I stumbled accross your site while looking for recordings of various makers' smallpipes to hear which I might be able to buy from without breaking my bank account.
6. A reference in the bellowspipes discussion list on Yahoo groups.
7. Hmmmm, I can't exaclty remember. A message board ([www.thesession.org](http://www.thesession.org)?), or Google perhaps.
8. No answer
9. I searched the web for information on smallpipes.
10. An internet search on smallpipe tutors, and then later your posting on C&F I think
11. I was surfing the web to buy a practice chanter with the possibility of learning the pipes. I fell upon your site while surfing and I am enjoying the experience.
12. Meeting you in Gower, trying out your student pipes and then getting my own...
13. The need to learn to play the smallpipes... not only to learn but to play more flexible music than I play with the GHB (Marches, Strathspeys, reels, Piobaireachd, etc)... the joy to think I will be able to play with other instruments also very beautiful music.
14. I found the discussion on bobdunsire.com. I found it only recently, as I'm not a frequent visitor.
15. A posting on Bob Dunsire's bagpipe forums

Question Ten - Any general observations?

1. Just a thought- maybe occasional beaks in the exercises prompting the student to try / I realize the student could pause and maybe repeat depending on what he's using to play the pod cast, but thinking of my middle school kids, I wonder how many would just passively listen rather than to play along? In general, you have a good idea going, and much better suited to smallpipes than, say learning scales and scales of grace notes and doublings before paying a tune or going page by page through the COP tutor the way many of us GHB players started out. As one who started out on a brass instrument, your system seems more like what i used as a kid and what I've used with beginners on band instruments,
2. To me this is really my only resource, I have as many tunes in D (and A) as you can possibly submit. Keep the tunes pure for learning..not too much accompaniment. Create an online library of tunes to learn in certain Keys. (I know youve done abit of this already) I'd love a "CD" or MP3 Zip full of about 25+ tunes to learn. (by ear)

3. I hope you will be able to complete the remaining chapters. I will enclose an article in jpeg format from the alumni magazine of McMaster University in Hamilton, Ontario, Canada. It refers to research into music as being multisensory, and into music pedagogy, amongst other things,
4. I like the fact you are contributing your considerable smallpiping skills to provide instruction via the podcast medium. I think podcasting is a great new technology. As a matter of fact, I plan to incorporate a podcast into my introductory biology course here at Colby College next spring. I think the smallpipe tutorial podcasts have already demonstrated the effectiveness of podcasting in music instruction. Thanks for your hard work!
5. Thank you for all your hard work in creating these. I hope my answers are usefull to you for your Dissertation. (happy diserting!)
6. Just again to thank you warmly for doing this.
7. No answer
8. However you must go ahead with your podcast! I really believe in your work! Good job Vicky!
9. An interesting project and would find it interesting to know what numbers of pipers are using your site and where they are from.
10. thank you for offering these course requirements and beyond to us in the piping world.
11. I passed your web site to a friend at work. He comments that initially he found the site difficult to get around. After visiting the site a few times he found it a lot easier. The more that I visit your web site I find it very interesting and helpful.
12. No, keep up the good work, I hope to join your on-line students after Christmas when broadband finally arrives.
13. I love very much your tunes. Specially Pushbike, Lament for the Lone piper, Birch and I also would like you should post in the next future a tutor with the Finger Technique to play tunes on the flute like "To catch a cat"... I also love flutes. Please keep posting Tunes and Harmonies. My personalvision of the perfect next step tutorial will be as follows:
  - Score
  - Audio: Tune played on A
  - Audio: Tune played slow and with details or remarks explained
  - Tune Harmonies with flutes, guitar, percussions (very usefull to practice at home and alone) and the greatest experience to play with other musicians when you can not do it.
  - Viodeocast playing the whole tune... and maybe a few remarks about the new tricks or embelishments but not needed to play every part slowly, etc.
14. No Answer
15. No answer

**APPENDIX II - Data**

Categorisation of e-mail responses

1 Questionnaire reply

2 Suggestion

3 Query

4 Typographical comment

5 General Hello

6 Technical Issue

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## Numbers of downloads from the website

website mp3	109	47	29	40	57	25	110	36	15	25
website pdf	124	61	59	62	87	0	37	1	0	0
feedburner mp3	68	80	301	143	153	371	99	60	78	92

## E-mail Comments:

## POSITIVE

The great thing about about the internet is that you can actually reach people all over the world. I too started as a Great Highland Piper, and after a University break from music, I'm headed back to the pipes. This time with small pipes. They are due to arrive in early February, hopefully the wait won't drive me batty. Thank you for providing this service. Hello from Canada; keep it up eh!

We play the Northumbrian Small Pipes but I certainly like the sound of the Scottish Small Pipes and applaud your initiative in providing an online tutorial to encourage more people to play.

So far, I have found your podcasts very enlightening

What your pod casts have brought to the table is talking about the instruments, and the sounds, and your songs into normal conversation. This is WONDERFULLY USEFUL - especially to someone who just can't walk up to someone and start yacking on about ITM tunes or the like.... Anyway - please keep up the good work. I can see that in the not to distant future, your methodology(or pod casts) and perhaps your work, will be one of the best ways to promote (pardon the phrase) 'un-popular' instrument playing. (Here the chances of finding a house with a guitar is slim, a piano slightly better, but both likely to be millions of times higher than finding a house with a piper!)

For about 4 months I have been teaching two adult men with little musical experience to play the GHB. From the start I have used your PDF chapters and also encouraged them to try your podcasts at home. I believe that one of my students sent in responses to your "competition" questionnaire.

Exceptionally Useful!!!

Thank you so much for your podcasts! Without them, I wouldn't be able to even think about picking up the smallpipes, since I'm located in Brazil.

Let me just say how much I appreciate your podcast lessons and what a difference it makes to have a person with a voice and played examples to guide me rather than trying to make my own way with a manual. I live in the Netherlands and I have yet to find an instructor (and I don?t really want to don a kilt and join a GHP pipe band).



Absolutely the podcast is a must for pipers at all stages. Without finding this site I would not be learning the pipes. There must be others around the world who would love to learn to play the pipes.

It was as a result of your on line tutor that gave me the confidence to go out and buy a set of pipes.

I really like what you're doing, there is a lot of work in all this, which I really respect. And all for free, unbelievable. Most artists would ask [a lot of] money. I wish there were more people like you.....

#### NOTE NAMES

For an international audience, particularly a North American audience, durations of quavers, minims, crochets, etc. are generally a mystery. We use eighths, quarters, halves, etc. A minor point, but I could see some of my kids zoning out at that point.

The only suggestion I would make would be that you may want to mention the alternative names for notation, i.e. quarter notes, half notes, and whole notes for your USA students that are just learning to read.

#### LANGUAGE

"I think your website is very useful to learn tunes. For us, it is also good to learn English."

I hope you can understand my english... it is not very good and for that reason has been quite difficult to answer all questions with the words I was feeling in my own language.

#### TRANSPOSING

What would be helpful is a D-version of the sound files, so that the D-set player could play along with your version.

a little more discussion of the different keys would be helpful.

#### PODCAST

I haven't looked at the podcasts yet - not being quite sure what a podcast is exactly and why the name... Wrong generation, i suppose ;-(

My only problem with the podcast was that for a beginner tutorial 1 and 2 was too much for me to do in one session and my PC didn't allow me to come back to the podcast and start again say half way through. It would only start at the beginning.

I do listen to them on an mp3 player and it's difficult to scroll thru to a given point, so maybe the lessons could be divided into smaller portions.

One thing that would be nice is if there were a way to seek to a specific location in the podcast based on the tutor book. For example, for each exercise in the tutor book give the time into the podcast where that exercise can be found. Another option might be to break the podcast up into tracks according to the exercise (not sure

how technically feasible that is, or if it breaks the "wholeness" of the podcast??). Maybe another option is to say the exercise number more frequently so when one is randomly seeking through the podcast they can find the landmarks more easily. i.e., "304, again", instead of "again" when repeating the exercise...doubling the occurrences of the exercise number.

Question: If I have a telephone connection to the internet, can I operate the sound parts of the tutor? I am only semi-literate on the computer and don't know what a Blog or Podcast is.

2. Unfortunately I have had considerable problems downloading the PodCast, perhaps thing will improve now that I am on Broadband. I have solely been using the printed Chapters from your site.

## LEARNING

As for my students, they enjoyed getting into tunes without having to perfect the doublings and grace notes first. This meant they were "reading" music at a much earlier stage and feeling a sense of accomplishment.

In general, you have a good idea going, and much better suited to smallpipes than, say learning scales and scales of grace notes and doublings before playing a tune or going page by page through the COP tutor the way many of us GHB players started out. As one who started out on a brass instrument, your system seems more like what I used as a kid and what I've used with beginners on band instruments

One of the great weaknesses of many "introductions" to piping is that they tend to go: Lesson 1 - here's note A. Lesson 2 - Here's another note, it's called B ... Lesson 8 - and finally here's the last note which is also called A. Lesson 9 - And here's a didley-didley tune with all the notes you've now learnt which you play really fast. Your much slower, systematic approach is far better suited to the kind of person who will be using it.

was very impressed with the detail and quality of your lessons. I, like most GHPipers was taught using "the green book", and did the same with my first student. With my second student, I find your exercises to be much more musical and enjoyable to play than those in the green book (Logan's Tutor?). The GHP practice chanter is in the same key as your smallpipes, so my students can play along right along with you, even when I'm not there to guide them. They can pause or rewind as needed.

PS your pipes are sounding very nice. The balance of chanter to drones is a bit low for drones in the mix but that is better for the learning of the tunes than per se a "recording" Your voice is perfect in the volume mix. I would not change your levels. Very polished presentation. You knew where you were going in the lesson plan and that showed.

I think that you have been very successful as I personally have been able to follow the chapters without assistance

Ok, I decided to start with your lesson. The very first one is usefull for my bellow technique on uilleann pipe... and up to lesson 3 is a good excercise to clean the finger technique. Pleasant tunes on lesson 4: totally different from those on the GHB tutor book (traditional and a little bit boring for a no novice user) and rich of "something" that I was looking for on the smallpipe!

I have now managed to access your podcasts and like the way you have simplified the theoretical side of the music and I like the way you progressively build up the speed of the tunes so that people can join in at their level.

#### VIDEO

I think some video might prove useful, particularly for beginning students.

I did like the one video you gave of you playing a piece: it let me check my fingering against yours (and you look RELAXED while you're playing). I would appreciate more of these (but I should probably try to catch one of your gigs too).

The video was a HUGE Download. For me, I think you could save a bit of space by doing a "hello with video then link up to the sound only files." I have not found myself watching the hands as much. Now if you're doing bellows technique video is a must for the posture length of draw for a beginner etc.

#### PINKY

Following this course there is one issue that I must take and that relates to your 1st chapter, page 6, on fingering the chanter. I had followed you advice, "the use of the little finger is optional", and because of the stretch on the 'A' chanter was inclined to leave it off. I was only when I attended this course that I realised the tuning is affected on notes C & D if you do not hold the little finger over the G hole, The effect is only slight but if you are playing with another instrument it is very noticeable. I would suggest that you change your advice and insist that the little finger is used.

**APPENDIX III - CD-ROM of Website, podcasts and tutor book**

A STUDY INTO THE TEACHING OF THE SCOTTISH SMALLPIPES ON THE  
INTERNET USING PODCASTING AS A DISTRIBUTION MEDIUM

VICKI SWAN

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