### Chapter 5

## Three Primary Science Podcasts: Illustrating the Contextual and Staging Dimensions of Language in Podcasts

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#### **ABSTRACT**

In this chapter the authors examine three podcasts created by the same class. This particular class generated three different types of podcasts and this allows us to explore the contextual and staging dimensions of language found within these podcasts. The podcasts were created as part of a project investigating the use of podcasting in primary science. The teachers used class time over three-four weeks to allow the pupils to generate podcasts that were then uploaded onto a site for public dissemination. The authors examine the podcasts from various perspectives in order to explore the notion of multiple literacy.

#### INTRODUCTION

The Partnership in Primary Science Project 3: podcasting in primary science (PIPS3), funded by the Astrazeneca Science Teaching Trust (AZSTT), began in September 2007. Podcasting is a way of broadcasting involving various media, usually audio "radio" files, via the internet. The PIPS3 project provided teachers with time and resources to explore the use of podcasting with their classes when learning science. The teachers were expected to use

class time in the three-four weeks between face-to-face project team meetings to work with pupils and others to generate podcasts, but the podcasts were to be pupil- driven. Some teachers began by familiarising the pupils with the technology because though some pupils may have used MP3 players, many may not have used them to create digital records. Other teachers began with the science and the pupils developed the skills to podcast in order to showcase pupil activity.

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#### SO WHY PODCAST?

There are two main reasons for employing podcasts. The first reason draws on the Vygtoskian notion of higher mental actions being mediated by tools, artefacts and cultural inventions (Vygotsky, 1997), and that speech, according to Vygtosky was an important tool (Wertsch, 1990). The second reason is based on the fact that in the UK, podcasting is now a fairly common form of dissemination in the public arena. Luft (2008) reported on a study by a research group looking at the habits of web users. The Pew Research group signalled an increase in podcast use/access in the last two years. In 2006, approximately 12% of the web users had downloaded podcasts, but by 2008, this figure had reached 19% (Luft, 2008). Webster (2008) reported that similar figures were seen in a podcast consumer study conducted in 2008 by the 2008 Arbitron/Edison Media Research Internet and Multimedia study. We should point out that these figures relate specifically to the US. rather than worldwide. Interestingly a BBC report (Fildes, 2006) showed that a survey found that about 8 million British users would go in search of a podcast in the next six years. Does this imply that British people are more likely than their US counterparts to be interested in podcasts and podcasting? However, what we found interesting was how do people (surveyors/researchers) collect this type of data in the first place? Clearly there are some obvious challenges. For example, can we say that podcast download is an accurate, reliable, valid measurement when it comes to depicting the number of users? At present we really do not have a valid or reliable auditing mechanism to quantify podcast use and therefore, in reality, it is difficult to ascertain the number individuals downloading the podcast. Nevertheless, the web user podcast download data makes for interesting reading.

When we submitted the first draft of this chapter, reviewer feedback stipulated the need for the chapter to include some recent and relevant research. But trying to trace recent and relevant

research that was more than anecdotal or generated for commercial purposes involving podcasts in education was a challenge. Very few studies are reported in peer reviewed academic journals. Brittain, Glowacki, Van Ittersum, and Johnson (2006) reported on three pilot case studies on the use of podcasts with a dental group. Chan and Lee (2005) reported on podcasting and suggested that podcasts provided a 'low-cost, low-barrier tool for disseminating content across the Internet (p65) while ensuring that 'podcasting allows fresh content to be delivered to students' desktops and handheld devices, as it becomes available. This makes it possible to tailor content "just in-time" to suit students' needs, and promotes a sense of currency and direct relevance of the content to the cohort...'(p66).

From an educational perspective, there is anecdotal evidence to suggest that podcasting provides pupils averse to writing with an opportunity to make public their understanding. There is also an argument for podcasting in terms of supporting and sharing pupils' creative skills. However, we have little evidence to show whether the rhetoric is matched with evidence. Nevertheless, given recent moves in Scotland to promote a new curriculum, advocating creativity, funds were obtained to provide teacher professional development with specific regard to podcasting in science.

#### THE CONTEXT

There were seven schools involved in the PIPS3 project. Most of the schools (five) involved two teachers, but two schools were very small and were only able to involve one teacher from each school. Each of the schools produced an unexpected variety of podcasts. Each class also hosted a synchronous chat to discuss their podcast with other pupils and parents. The topics that were selected depended upon the topic scheduled in that particular school's scheme of work. Hence there was an array of topics, including electricity,

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