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The use of video in addressing anxiety prior to viva voce exams

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Introduction

Traditionally viva voce or oral exams are used as a complement to written exams in a wide range of disciplines. Whilst vivas are acknowledged as giving a unique insight into students' abilities, they tend to give rise to a great deal of anxiety and uncertainty for students. Although Davis and Karunathilake (2005) note that there is no evidence concerning whether vivas are more stressful than other types of exam, studies across disciplines suggest that vivas are indeed anxiety provoking. For example Ardnt et al. (1986, 277), investigating medical vivas, found 'a disproportionately high degree of anxiety in candidates, the level being substantially higher than a typical selection interview'. Similarly, Pearce and Lee (2009), discussing vivas in marketing education, found that many students noted pre-viva anxiety concerns, as did Sayce (2007) for business students. Ardnt et al. (1986) discuss the aspects of vivas which make candidates anxious, using Gray's (1982) neuropsychological theories. They note that people are anxious when in a situation where they might be punished or not rewarded, for example by not performing well enough to pass. New stimuli are also anxiety provoking, and students cannot prepare for the particular material presented in the viva. Furthermore situations involving social interactions - including face-to-face interaction in a viva - are innately fear or anxiety inducing.

Although the relationship between anxiety and academic performance is complex (see discussion in Mellanby and Zimdars, 2011), if anxiety levels are too high, learning will not be facilitated (Ashcroft and Foreman-Peck, 2002). Tinkler and Jackson (2002) note that anxiety levels for PhD vivas can be reduced by preparing students through careful guidelines and mock-vivas, whilst Sayce (2007) notes that a role-play was useful in helping students overcome their fear. Here we investigate if a video of a mock phonetics viva (acting as a symbolic model, in the terms of Bandura, 1977) can reduce student anxiety. We compare the video to strategies used in previous years: written information and a group practice session.

Method

We filmed a video of a successful mock-viva in phonetics, featuring an experienced examiner and a candidate who had passed her viva the previous year. The examiner and candidate were each reminded about the sections of the viva, but in order to make the video as ecologically valid as possible, the candidate did not see the viva material prior to the video being filmed. The resulting video clip was almost 14 minutes in duration, which is the average duration for phonetics vivas at the institution concerned.

Participants were 41 students in their 2nd year of a BSc (Hons) in Speech and Language Therapy at a metropolitan university in the UK. We tested student anxiety about the viva by gathering self-ratings

at four time points. Here we present data from those 30 students who provided ratings at all four time points. The first two testing times were baselines, and were administered at the same time for all students: at the end of the term before the viva, and then again immediately before our practice and video sessions. Thus, at these baselines, students had only received written information about the viva, which had been posted on the Virtual Learning Environment (VLE) at the start of the year. For the next two testing times the cohort was divided randomly into two groups. Group 1 (n=16) attended the usual practice session immediately followed by watching the video. Group 2 (n=14) watched the video first, immediately followed by the usual practice session. Both groups gave ratings at the end of each activity. Consequently we have three conditions: ratings post-written information (double baseline); ratings post-practice session; and ratings post-video.

Students used a self-chosen pseudonym so that their ratings could be directly compared across testing times whilst remaining anonymous. They responded to the question 'I am anxious about the viva' at each testing time. Ratings were on a 5 point Likert scale where 1 = strongly disagree, 2=disagree, 3=neither agree nor disagree, 4 =agree and 5=strongly agree.

Before watching the video, students were asked to imagine themselves in the position of the candidate, to try to work out the answers they would give in her place, and to consider if they thought her responses were correct. In the practice session, the lecturer presented an exercise from each section of the viva for the class to work on as a group, and then fed back on the correct response and clarified any difficulties.

Results

Table 1 about here

Results are shown in table 1 above. The difference in ratings across all testing times was analysed using Friedman's test. There was no significant effect of either the practice session or the viva video on ratings of anxiety, which remained high across testing times, never dropping below 3.9 out of 5 for either group (group1: $\chi^2(3)=3.4$, $p=.34$; group2: $\chi^2(3)=5.6$, $p=.13$). This indicated that there was no change in anxiety between the baselines, and that neither the video nor the practice session reduced anxiety relative to the written information alone.

Discussion

The lack of reduction in anxiety initially seems like an unusual finding, as fear has been successfully treated with symbolic modelling (e.g. Bandura and Menlove, 1968). However, similar non-significant results of video modelling have been found by Luzzo et al (1999), who demonstrated that a 15 minute video had no effect on the maths/science self-efficacy of undergraduate students. Luzzo et al (1999) used this finding to recommend the use of live models instead. However, whilst the relative merits of live and video models certainly warrant further investigation, we note that our video *did* affect students' ratings of their *knowledge about the format* of the viva (see Knight, Cruice and Dipper, in press). Therefore the lack of a reduction in anxiety seems to relate either to the nature of anxiety itself, or to the way in which anxiety was measured.

The scale we used did not measure how anxious students were, but instead asked them to agree or disagree with the statement 'I am anxious about the oral exam'. It is perhaps too much to ask that

any educational intervention will reduce anxiety so much that students will move into the range of disagreeing with, or even being neutral about, this statement. A closer look at the means reveals some numerical reduction in ratings from around 4.5 at the baselines to around 4 after both interventions, and 6 students in group 1, and 7 in group 2, gave a lower rating at the final time point than they had at the second baseline. Whilst not significant, these results might indicate that, although students still felt anxious, the *degree* of anxiety had reduced. In future we need to investigate alternative ways of measuring anxiety, such as the State-Trait Anxiety Inventory for Adults (Spielberger 1983) to see if a measure of the degree of anxiety might reveal a reduction across testing times and after specific interventions.

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Table 1. Mean (and SD) of anxiety ratings by group. Group 1's results are shaded for ease of reading.

	Time 1		Time 2		Time 3		Time 4	
Group	1	2	1	2	1	2	1	2
Information provided	Written	Written	Written	Written	Practice	Video	Video	Practice
Anxiety	4.44 (0.89)	4.14 (1.23)	4.44 (0.63)	4.50 (0.85)	4.06 (1.0)	4.00 (0.96)	4.31 (0.48)	3.93 (1.14)