

Use of Video as Stimulus in Assessing Oral skills in Mother Tongue Languages

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Abstract

The Mother Tongue Language (MTL) curriculum of Singapore aims to nurture students into proficient language users who can communicate in a confident and meaningful manner in real-life situations in their MTL languages (Chinese, Malay or Tamil language). To make learning more engaging, information and communication technology, particularly, the use of videos and animations, is identified as a key enabler.

This paper shares some key findings from a series of studies conducted on the use of video as stimulus in oral tasks for Grade 10 students in Singapore. Students' general perceptions on the use of technology in oral test and their performance were examined. The use of video stimulus to test integrative listening and speaking skills was also explored. A post-test questionnaire was administered to these students to gather more feedback on their experiences in taking the computer-based test involving the use of video as test stimulus. In general, students reported positive experiences in taking the oral test involving the use of video stimulus. They indicated that video, compared to still picture stimulus, provided a more engaging and authentic context for oral conversation and discussion.

Keywords: oral tests; video as test stimulus; Mother Tongue Language

Introduction

Teaching and learning in Singapore has evolved into preparing our students for the challenges of the 21st century. Over the past years, there is an increasing use of Information and Communication Technology (ICT) in teaching, learning and assessment. In the learning of Mother Tongue Languages (MTL), ICT is used to better engage and motivate students to develop oral proficiency, enabling them to communicate in a confident and effective manner in real-life situations. The 2010 MTL Review Committee¹ emphasised that MTL should be a living language rather than an examinable subject. It also highlighted the importance of oral communication as an important 21st century skill. To align closer with the changes in teaching and learning, video will replace picture as test stimulus in oral assessment as it can better portray real-life situations and provide authentic contexts for oral conversation and discussion. This exploratory study shares some key findings on the use of video as stimulus in assessing oral skills in MTL.

Literature review

Technological advances have made the use of multimedia in testing increasingly widespread during the last two decades. Studies have shown an interest in the application of

¹ <http://www.moe.gov.sg/media/press/2011/01/enhancing-the-teaching-and-testing-of-mtl.php>

multimedia in testing. For example, animations such as animated heart monitor trace, static electrocardiogram strip and an audio file related to the heart sound were used to assess health professionals' ability in diagnosing the patient's condition (Bennett, Goodman, et al (1997). In a teacher certification test on Physical Education (ETS, 1997), examinees will write an essay based on a video stimulus showing movements of students. The rationale for the incorporation of multimedia into the test stimulus is that it has capacity to display dynamic processes such as movements and human interactions more effectively, as compared to a static medium (Parshall & Harmes, 2007). Another reason for the preferred use of video is when test items are incorporated with multimedia elements, the test items closely resemble real-life tasks (Parshall & Harmes, 2007; De Leng, 2007). Other benefits associated with using multimedia in testing include the improvement in students' problem solving skills and enhancement of their creativity through computer simulations (Tennyson & Breuer, 2002).

In the field of language testing, there have also been studies conducted on the use of multimedia. According to a study conducted by Lee (2007), Korean speakers were assessed on their speaking competence in English through a Multimedia Assisted Test of English Speaking. The findings revealed positive impacts on authenticity, interactiveness and practicality. However, further studies need to be established to inform of the study's reliability, validity, impact and bias.

Although there are studies reported on the use of multimedia in assessment, research on attitudes and perceptions on the use of multimedia, in particular, videos in assessment remains an area that requires more research. Given the many benefits brought about by the use of multimedia in testing and the current emphasis on developing oral proficiency of students in the local context, this study aims to find out more about students' perceptions and experiences towards the use of video as test stimulus in assessing their oral proficiency in their respective MTL.

Methodology

Three studies were conducted to investigate the use of technology in assessing oral skills. Study A examined students' general perceptions towards the use of technology in oral test. Study B involved a quantitative research on a sub-group of students in Study A to establish if the computer-based mode of the oral test is equally accessible to the paper-based mode of the oral test. Study C explored the use of video clips to test integrative listening and speaking skills. Students were assessed on their ability to listen with understanding and extract key messages from the video stimulus provided to develop their oral presentation. Feedback was gathered from students participating in this new mode of oral skill assessment.

Participants

Study A and B

A representative sample of about 300 Grade 10 students taking Mother Tongue Language (MTL) participated in Study A. In Study B, students in the Chinese Language (CL) group were chosen as a proxy for Grade 10 Mother Tongue Language (MTL) students as they formed the largest group of students in the MTL group.

Study C

Study C involved a representative sample of about 300 Grade 10 students taking Higher Mother Tongue Language (HMTL). In Singapore, students with ability and interest in the MTL will offer the Higher MTL course.

Table 1 shows the breakdown of students according to their respective Mother Tongue Languages.

Table 1: Breakdown of sample for Grades 10 students

Mother Tongue Language (MTL)	No. of students	
	Grade 10	Grade 10 (Higher Mother Tongue)
Chinese	130	98
Malay	101	85
Tamil	85	91
Total	316	274

In Singapore, the use of ICT is an integral part of the MTL curriculum. To support teaching and learning in MTL, i-MTL portal², which is a web-based portal that uses multimedia to engage students in authentic learning tasks and strengthen their language skills, was rolled out progressively to all schools from 2013. For instance, they are able to record their conversations using audio and video recording, after having viewed a video stimulus. Hence, in this study, students in both samples were familiar with using video as stimulus to engage in oral conversation tasks.

Test design and instrument

(i) Study A and B

Each Grade 10 student was given 10 minutes to prepare for the Reading Aloud component and to watch a short video clip of about 60 seconds. The Reading Aloud passage was presented on the computer screen. The content in the video stimulus was accompanied by a short audio narration to set the context for oral communication. Half of the students in the Chinese Language group (CL) took part in the computer-based oral test which involved watching the video stimulus first followed by a paper-based test which involved viewing a picture stimulus. The order of the test for the other half was reversed to counterbalance the test order.

The video stimulus showed a group of students participating in team building activities at a campsite whilst the picture stimulus showed a group of students participating in a community service programme. Both contexts were familiar to the Grade 10 students as they would have had participated in similar activities organised by their schools.

² <http://www.moe.gov.sg/media/press/2012/08/new-imtl-portal-to-help-students.php>

(ii) *Study C*

For Grade 10 students taking Higher Mother Tongue (HMT), each was given 10 minutes to view a short video clip of about 90 seconds and to prepare an oral presentation using the video as a stimulus. The video stimulus showed the public response to the nation-wide ‘Tray Return Campaign’ at a food centre. Interviews with members of the public, showing opposing viewpoints, were included in the video. Students were required to deliver a 2-minute presentation on whether they think the ‘*Tray Return Campaign*’ will be a success. After the presentation, students were engaged in a discussion with the examiners based on their presentation.

Procedure

Before the study was conducted, several preparation steps were taken to ensure the study was conducted as intended. The oral examiners would attend a standardisation briefing to familiarise themselves with the marking rubrics and to ensure the marking rubrics were applied in a consistent manner for the oral test.

Upon completion of the test, a survey was administered to the students to gather feedback on their experiences. The survey used 6-point Likert scale³ to elicit students’ perceptions in taking the test involving the use of video stimulus. Students were also selected for focus group discussion to gather more in-depth views about the test.

Results

Study A - Students’ perception on the use of video as oral test stimulus

Generally, students responded well to the use of technology for oral test. About 98% of students commented that the words on the computer screen were clear to them and about 89% of students did not experience visual discomfort while reading the passage onscreen.

Survey findings also revealed that about 88% of students agreed that “the video is a useful stimulus for discussion.” Some comments from the students were:

1. *“It helps jog the memory and brings up more useful topics for discussion as compared to pictures.”*
2. *“It gives a more visual point of view and the different scenes give a range of examples rather than just a photo.”*
3. *“It gives students real life experiences to talk about.”*

About 85% of the students agreed that the video stimulus made the oral test more interesting and engaging as compared to a still picture stimulus. As one student put it, *“The video was interesting because it provided visual and audio effect which is appealing to me”*. Another student found the video stimulus more authentic than still picture stimulus as it aptly portrayed real-life situations through watching *“the people’s expression in the video and hearing their voices.”* One student even commented *“the soundtrack was soothing and the*

³ Strongly agree, agree slightly agree, slightly disagree, disagree and strongly disagree

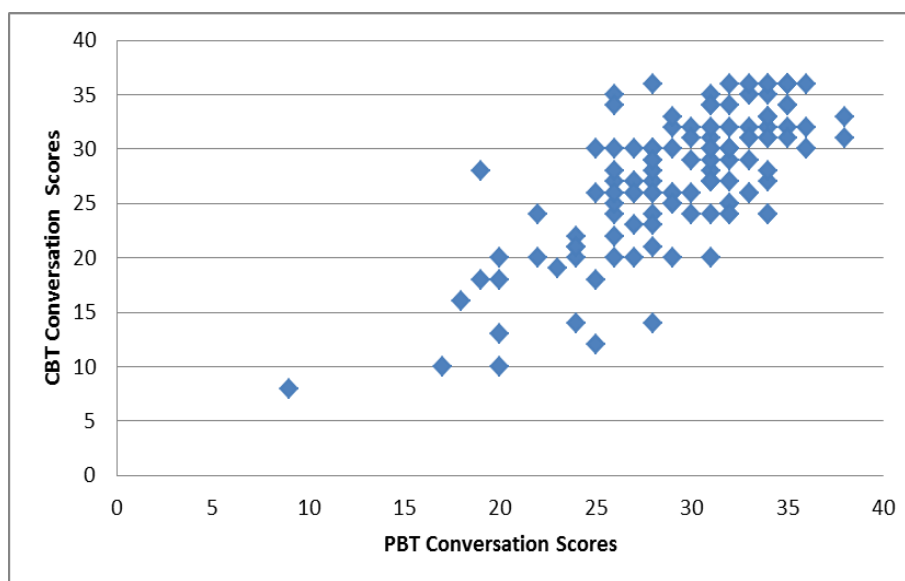
images were cheerful” and another mentioned *“it was a lot more fun and less stress; more enjoyable.”* It seems the video stimulus was not only helpful to students in generating ideas for their discussion but also to a certain extent gave them a positive test experience.

When asked on their preference on the mode for the oral test (computer or paper), close to 80% of the students preferred the use of computers as compared to paper for oral test. One student liked it because the video helps to *“calm myself down and gather my thoughts to prepare for the questions later on.”* Another commented he found the oral test enjoyable, as he said *“Interesting oral session video, this was the first time I had taken this kind of oral session, I enjoyed the oral session, it will be memorable.”*

Study B – Comparing oral performance using video (CBT) versus picture (PBT) as stimulus

Results showed that students’ oral performance in CBT mode was consistent with that in PBT mode, that is, students who did well in CBT mode also did well in PBT and vice versa (see **Figure 1**). The ranking orders in CBT and PBT were largely preserved with correlation coefficient, r , of 0.73.

Figure 1: Scatter Plot of Total Marks for CBT vs PBT



Study C: Students’ perception on oral presentation assessment test using video as stimulus

Results showed that students in the Grade 10 HMT oral field test reported positive experience towards the use of video as stimulus for the oral tasks. In particular, about 93% agreed that the video content was a useful stimulus to trigger oral conversation and 91% agreed that the topic provided enough scope for the oral presentation. Some comments from the students were:

1. the narration *“highlights the situation at hand with key details”*.
2. the narration prompted them to *“think of ideas for the oral presentation”*.
3. the video helped them *“in formulating their thoughts”*.

In addition, 93% of the students felt that the use of video clip made the oral examination more interesting and engaging. Students indicated that the video provided them with “*better mental images*” such as the “*location of the venue*” and “*reactions (facial) of people*” and allowed them to “*gather other ideas to support their statements*”.

Overall, Grade 10 students taking HMT also had overall positive experiences in taking the oral test. When asked on their preference on the mode for the oral test (computer or paper), about 86% of Grade 10 students taking HMT preferred the use of computers as compared to paper for oral test.

On the inclusion of oral assessment into the Higher MT examination, one student opined that: “*Originally, Higher MT was too focused on written assessments and this resulted in my neglecting of oral components. With this change, people will be able to have a more rounded HMT learning experience.*” These feedback gathered from students suggest that they welcomed and supported the notion of using technology to assess 21st century skills such as oral communication skills which require both presentation and oral interaction skills.

Discussion

Overall, students responded well to the use of video stimulus in the oral test. The idea of the value-addedness of video stimulus was frequently highlighted in their comments, which were positive and supported the use of video in oral assessment. Students indicated that the use of video stimulus provided a more stimulating and engaging context for conversation as video stimulus have the capacity to display dynamic processes such as movements of people, objects and aspects of human interaction as compared to a still picture stimulus.

Related to the above point, with respect to measurement, one key consideration to take into account when including multimedia in assessment tasks is that test developers have to be clear of the construct to be measured. Certainly, we do not want to introduce irrelevant constructs to the test or distort the intended construct, especially when multimedia is included in the task. If the video stimulus contains too many multimedia elements (such as text, images, rapid transitions etc), it might confuse students and overload them with too much information that they can handle. The test has to be constructed in such a way it does not compromise the principles of test validity and fairness to the student.

We also noted that the mode of the test may have a positive influence on students’ mood in taking the test. Notably, the use of video stimulus made students feel more interested and engaged. Some even mentioned it gave them confidence in taking the oral test. Advocates claimed that students were more motivated when doing the test on a computer as compared to paper (Johnson & Green, 2004). In future studies, it would be interesting to also investigate whether taking a computer-based test had a positive influence on their motivation towards taking the test and influenced their test performance positively.

While the findings so far have been focused mainly on the value-addedness created from the use of ICT in assessment, it should be noted that there is still value in using paper-based assessment. The potential loss of value and benefits of paper-based assessment have not been examined in detail in this study. In addition, we are also mindful that we are only

beginning to embark on the journey towards the use of ICT in teaching, learning and assessment, it would take a while before the actual impact could be felt.

Conclusion

This exploratory study yields important observations and key findings on the use of video stimulus in assessing oral skills. Overall, students gave positive feedback towards the use of video stimulus in the oral tests. Most found the video stimulus helpful as it gave them a more authentic and engaging context for conversation and discussion and in developing the 21st century skills of effective oral communication. Results from the quantitative study also indicated that students' oral performance in PBT mode was consistent with that in CBT mode.

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