Communicating Assessment Using Synchronized Video Feedback

2013 Colloquium for Teachers of Instrumental Music Methods

David A. Rickels david.rickels@colorado.edu



Background and Problem

- How to deliver effective feedback on preservice teacher performance at executing lessons?
 - Problem of time
 - Problem of feedback mode
- Two feedback models
 - Video-elicited reflection (VER) Sewall, 2009
 - Bug-in-the-ear (BIE) Giebelhaus, 1994; Kahan, 2002; Rock, Gregg, Gable, & Zigmond, 2009; Scheeler, Congdon, & Stansbery, 2010

Possible Solution

- Synchronized Video Feedback (SVF)
 - Student (preservice teacher) teaches lesson
 - Instructor layers audio/visual feedback on the student video
- Potential for more authentic feedback processing
- Purposes of the two studies represented in this presentation:
 - Explore the SVF concept on an operational basis
 - Gather data on student perceptions of SVF approach

Project Method

- Fall 2012 implementation
 - 23 students
 - Introduction to Music Education (IME) sophomore requirement
 - In class peer-teaching lessons (2)
- Spring 2013 implementation
 - 20 students
 - Teaching Instrumental Music (TIM) junior methods requirement for instrumental track
 - In class peer-teaching lessons (3)

Project Method

- Coach's Eye tablet app (TechSmith Corporation)
 - Used in Fall 2012 IME implementation
 - Capture lesson video in class
 - Instructor analyzes video with verbal comments and graphical annotations outside of class
 - Analyzed video is sent electronically to student for later review
- Adobe Connect web service (Adobe, Inc.)
 - Used in Spring 2013 TIM implementation
 - Video is streamed live from classroom to a remote location
 - Instructor records audio commentary onto video in real time
 - Analyzed video is sent electronically to student for later review



Coach's Eye







iPad 2 iShot G7 Tripod Mount Coach's Eye App

Coach's Eye



Adobe Connect







Receiving laptop on other end

Adobe Connect

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Video Examples

- Video examples from Fall 2012 IME class
 - http://youtu.be/bxr8QknxVas
- Video examples from Spring 2013 TIM class
 - http://youtu.be/6c7ld_jbBvs

Results

- Final Survey: Fall 2012 IME
 - n = 18, response rate 18 / 23 = 78.3%
- Final Survey: Spring 2013 TIM
 - n = 12, response rate 12 / 20 = 60.0%

 Students in both groups reported a very high daily use of mobile devices and a very high comfort level using technology for a variety of media tasks

Table 1a

	Fall 20	12 IME	Spring 2013 TIM		
Item	Mean	SD	Mean	SD	
The synchronized video feedback made it					
easy to understand exactly what the					
instructor was referring to.	4.39	1.037	3.42	.996	
I found the synchronized video feedback					
helpful in understanding what I had done					
well.	4.28	.958	2.67	1.073	
I found the synchronized video feedback					
helpful for understanding where I could					
improve.	4.22	·943	3.25	1.055	
The synchronized video feedback caused me					
to think about what I had learned from the					
teaching episode.	4.11	.963	3.08	•793	
I used the synchronized video feedback to					
plan for my next teaching experience.	4.00	.970	2.83	1.030	

Table 1b

Fall 20	12 IME	Spring 2013 TIN			
Mean	SD	Mean	SD		
4.11	.832	2.25	1.055		
3.33	.767	3.75	.622		
4.22	.808	4.33	.778		
2.67	.840	3.25	1.138		
	Fall 20 Mean 4.11 3.33 4.22 2.67	Fall 2012 IME Mean SD 4.11 .832 3.33 .767 4.22 .808 2.67 .840	Fall 2012 IME Spring 2 Mean SD Mean 4.11 .832 2.25 3.33 .767 3.75 4.22 .808 4.33 2.67 .840 3.25		

Table 2

	Fall 20	12 IME	Spring 2013 TIM		
Item	Mean	SD	Mean	SD	
This mode of feedback is most useful to					
me.	61.33	41.03	-25.00	44.42	
I feel comfortable applying feedback I					
receive in this mode in my next					
opportunity to teach.	71.67	38.57	-16.67	36.01	
This mode of feedback helped me learn					
the most.	40.00	45.61	-26.67	36.51	
This mode of feedback provided the most					
clear information to me.	48.89	42.96	-38.33	34.60	

Written = -100, SVF = +100, Neutral = 0

Results

- For each item in the Fall 2012 IME group, while responses were generally positive, there was at least one outlier at the extreme opposite end of the scale
- Open comments Fall 2012 IME:
 - "I found the video synchronized feedback extremely immediate, direct and specific. It cut right through to the issues that worked in my teaching and those I needed to work more on."
 - "Personally, I prefer receiving face to face feedback because I can ask questions easily and clarify, which is not as immediate when using other forms of feedback. However, I also feel video feedback is a useful tool."

Results

Open comments – Spring 2013 TIM:

- "If we are going to use this form of feedback, please use a system where the voice of the instructor is constantly above the sound of the video. Having the audio fade in and out made it extremely difficult to hear the instructor's feedback throughout the video."
- "Personally I respond better to feedback when I speak directly to an instructor. It was hard to hear comments because of the sound quality, also I had to try 3 computers before I found one (camel labs) that would play adobe on it."

• But:

- "The usefulness came from that it was immediate feedback without interruption of my teaching."
- "This is a really cool idea, and it's helpful to see/hear exactly what the instructor is referring to via the video feedback. This definitely helped me realize things about my teaching I hadn't noticed before, and I used the information to my advantage in planning future lessons."

Reflections

- Students responded positively to overall to the SVF experience in the IME group but not in the TIM group
- Students generally noted the utility of the SVF concept
- Students contrasted the SVF with in-person conferencing, which was not actually a goal or standard practice prior to implementation of SVF
- Technology can be a vehicle or barrier
- Student self-report does not imply actual effectiveness compared to other feedback models, further study is needed



Fall 2012 IME – Coach's Eye

PRO

- Easy to use
- May be good option for offsite videos
- Possibility of reflection
 before recording comments

CON

- Time needed to analyze video outside of class time
- Requires iOS or Android device
- Limits on file compatibility
- Time needed to transfer files to the device

Spring 2013 TIM – Adobe Connect

PRO

Instructor time commitment
 is no more than the normal
 class time

 Ideas can be recorded while fresh and immediate

CON

 Instructor physical presence is removed from classroom

- Issues with audio quality, compression, and leveling
- Issues with compatibility of Adobe products
- Requires internet connection and multiple computers

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College of Music university of colorado **boulder**

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