Video tutorials help students in the Health Sciences improve the quality of their cited sources
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Objectives
Through a University Emerging Scholars program grant, GW Health Sciences faculty asked the Himmelfarb Health Sciences Library to collaborate on developing a series of video tutorials for new graduate and undergraduate students in the Health Sciences to improve their scholarship skills.

Methods
For the library skills portion of the video series, a medical reference librarian recorded video tutorials on identifying credible sources using Camtasia and uploaded them to YouTube:
- Himmelfarb Library Website Orientation
- Finding Relevant Sources
- Credibility and Peer Review
- Fine Tuning Your Search Strategy
- Finding High Impact Journal Articles
- Citation Tools

Other video tutorials in the series were recorded by Health Sciences faculty about research and academic integrity. Links to the video tutorials on YouTube were posted on a website and deployed in several ways:
- Graduate and undergraduate online orientation (Fall 2014 & Spring 2015)
- Resources section in online courses
- Student resources webpage

Results
Feedback from student orientation surveys (n=147, 98% response) was positive with >94% of respondents finding the video tutorials to be helpful. We measured improvements in post-orientation quiz scores testing student retention of the information delivered and ability to discriminate between credible and informal information sources. Health Sciences faculty were surveyed about changes in student behavior after the video sequence was added to their course sites in Blackboard. Anecdotal evidence suggests improvements in citation formatting, particularly APA formatting, and an overall higher standard of articles being cited in assignments due to a greater effort from students to use library databases to find peer-reviewed journal articles.

Spring student feedback: student response on helpfulness of videos to academic preparation (Response rate 147/150)

<table>
<thead>
<tr>
<th>Answer choice</th>
<th># of respondents</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very helpful</td>
<td>104</td>
<td>73.13%</td>
</tr>
<tr>
<td>Somewhat helpful</td>
<td>35</td>
<td>24.38%</td>
</tr>
<tr>
<td>Only a little helpful</td>
<td>11</td>
<td>7.33%</td>
</tr>
<tr>
<td>Not helpful at all</td>
<td>3</td>
<td>2.0%</td>
</tr>
<tr>
<td>N/A: Did not review this module</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
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Quiz administered after watching the “Credible Resources” video

<table>
<thead>
<tr>
<th>Question</th>
<th>Question Type</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal sources: Informal sources can be credible.</td>
<td>True/False</td>
<td>9.24</td>
</tr>
<tr>
<td>Informal sources: Informal sources can be used without checking credibility</td>
<td>True/False</td>
<td>9.34</td>
</tr>
<tr>
<td>If you are using an informal source, which of the following questions should you consider in checking source credibility?</td>
<td>Multiple Choice</td>
<td>8.88</td>
</tr>
<tr>
<td>When are informal sources appropriate to use in academic work?</td>
<td>Multiple Choice</td>
<td>8.72</td>
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Multiple choice with four questions testing understanding of the key take home messages from the 8 minute video. Students received feedback on why the answer was correct or incorrect to ensure comprehension. The average total score was 38.47 out of 40 possible points.

Conclusions
- Devising, story-boarding, recording, editing, uploading the video tutorials, editing the closed-captioning transcripts in YouTube, and programming the post-video multiple choice question tests in Blackboard used the technical skills and co-operation of three instructional designers, a reference librarian, and the teaching faculty.
- Multiple choice tests were administered in Blackboard and counted towards students final grade, ensuring student buy-in and motivation to pay attention.
- Monitoring changes over time was necessary after the University IT Department revised the off-campus login method over winter break, which required the reference librarian to re-record the videos to keep the information updated.
- Multiple uses - the videos were also posted as research tutorials on the library website.

Useful resources
- Camtasia - https://www.techsmith.com/camtasia.html
- YouTube - particularly useful for closed captioning
- USB Microphone – higher quality than computer mic

The video tutorials are online at http://goo.gl/Z1TfnB