Improving Learning Outcomes with Podcasting

The Effect of Supplemental Podcasts as a Learning Strategy

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Disclosure

- No conflict of interest to declare.
- No affiliations with or involvement in any organization or entity with any financial interest.
OBJECTIVES

BY THE END OF THE SESSION, THE PARTICIPANT WILL BE ABLE TO:

• Identify three pedagogical benefits from integrating podcasts into learning strategies.
• Describe characteristics associated with adult learners in accelerated programs.
• Apply theoretical foundations and research evidence to teaching with podcasting.
Podcast Benefits

• A single instructor with minimal institutional support can easily implement the use of these new technologies in their teaching

• Educational podcasts can be distributed on course management systems, instructor websites, and public video websites such as YouTube.
Pedagogical Benefits

- Podcasts allow students to interact with content at their convenience and may enhance learning.
- Instructors may benefit from recording repetitive explanations, descriptions, illustrations and connection of concepts.
- The pause and rewind podcast features may aid students with attention deficits.
Pedagogical Benefits

• Spoken word can influence a learner’s cognition (adding clarity and meaning) and motivation (by conveying directly a sense of the person creating those words).

• Podcasts can increase student satisfaction and instructor evaluations.

http://mathcurmudgeon.blogspot.com/2012/10/

https://www.hcwbenefits.com/how-to-develop-your-employees-by-providing-feedback/
Learner Centered

- Understanding the needs of the learners is a key educational principle.
- The usual profile of ABSN student includes active involvement in family life, which requires balancing time.
- Stress and rigor of enrollment in a compressed curriculum.

Evidence Based

- “Providing learning materials in as many formats as possible, to suit individual students’ learning styles” (Walmsley et al., 2009, p. 159).

- The addition of podcasting provides recursion of key concepts, promoting reflection and understanding of the content.

- Utilize the devices and technologies that surround our students, “in an attempt to empower and enrich their learning, wherever and whoever they are” (Stead, 2005, p.3).
Evidence Based

• “Providing learning materials in as many formats as possible, to suit individual students’ learning styles” (Walmsley et al., 2009, p. 159).

• Providing assistive learning opportunities can be advantageous (Cebeci & Tekdal, 2006).

• The addition of podcasting provides recursion of key concepts, promoting reflection and understanding of the content.

• Utilize the devices and technologies that surround our students, “in an attempt to empower and enrich their learning, wherever and whoever they are” (Stead, 2005, p. 3).

• Takes “the learning to the learners when they have time to learn” (Stoten, 2007, p. 57).
Vygotsky’s Cultural-Historical Activity Theory (CHAT)
Applications

Supplemental Podcasts

• Preview lectures (Precast) or review past lectures (Postcast).

• Podcasts can supplement course curriculum with recorded demonstrations, illustrations, guest lectures, problem solving, interviews, and exam reviews.

• Aid student learning and provide support in relation to the core learning materials.

• Audio recordings of the teacher reviewing learning outcomes and adding clarification.
Participants

- ABSN students enrolled in required Research Course
- Students taking Maternal-Newborn during same module, scheduled for ATI.

Take part in research while studying research.
Demographics

N = 30

Between-Subjects Factors

<table>
<thead>
<tr>
<th>Value Label</th>
<th>N</th>
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<tbody>
<tr>
<td>listened for ATI</td>
<td></td>
</tr>
<tr>
<td>1.00 (yes)</td>
<td>18</td>
</tr>
<tr>
<td>2.00 (no)</td>
<td>12</td>
</tr>
</tbody>
</table>
Findings

- Grouping was self-selected by personal choice of whether to listen to podcast provided.
The analysis of variance was statistically significant at the $p \leq .05$ level, $F(1, 29) = 8.462$, $p = 0.007$.

A Cohen’s $d$ was calculated for effect size, resulting in $d = 1.09$, demonstrating a large effect size, inferring study relevance.

The statistical literature reports many educational researchers identify effect sizes around 0.20 to 0.25 as important related to academic achievement.

(Duriak, 2009; Valentine & Cooper, 2003).
### Survey Results

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would rather read the textbook than listen to a Podcast.</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>0</td>
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<tr>
<td></td>
<td>50%</td>
<td>22%</td>
<td>11%</td>
<td>17%</td>
<td>0%</td>
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<tr>
<td>I would rather study my notes than listen to the Podcast.</td>
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<td>4</td>
<td>7</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>28%</td>
<td>22%</td>
<td>39%</td>
<td>11%</td>
<td>0%</td>
</tr>
<tr>
<td>I did not have time to listen to the Podcasts.</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>44%</td>
<td>33%</td>
<td>17%</td>
<td>0%</td>
<td>6%</td>
</tr>
<tr>
<td>The Podcasts increased my understanding of the course concepts.</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>17%</td>
<td>6%</td>
<td>39%</td>
<td>39%</td>
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<tr>
<td>I felt listening to the podcasts was tedious and boring.</td>
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<td>5</td>
<td>4</td>
<td>1</td>
<td>0</td>
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<tr>
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<td>44%</td>
<td>28%</td>
<td>22%</td>
<td>6%</td>
<td>0%</td>
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<tr>
<td>Listening to the Podcasts was a waste of time.</td>
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<td>6</td>
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<tr>
<td></td>
<td>39%</td>
<td>28%</td>
<td>33%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>I wish other courses had Podcasts available.</td>
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<td>1</td>
<td>4</td>
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<td>72%</td>
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<td>Listening to the Podcasts did not increase my learning of the concepts.</td>
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<td>3</td>
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<tr>
<td>Listening to the podcasts was time well spent.</td>
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<td>2</td>
<td>6</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td></td>
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<td>11%</td>
<td>33%</td>
<td>44%</td>
<td>11%</td>
</tr>
<tr>
<td>I enjoyed listening to the Podcasts.</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>0%</td>
<td>22%</td>
<td>50%</td>
<td>28%</td>
</tr>
</tbody>
</table>

**Survey Tool Results: N = 18**

*Note: SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree; \( \bar{X} \) = Mean.*
Podcasts Concerns

• Effort and resources that are needed to produce podcasts.
  • Increase in teacher or instructor workload for those who create the podcasts
  • The level of effort and resources to produce podcasts will vary depending upon the podcast format.
• “…many professors remain wary of the technology… that it will lead to empty classrooms or a crutch for late-sleeping students” (Gattis)
  • Attendance will largely depend on how podcasts are used.
  • Several papers document the initial experiences with podcasting show little effect upon attendance
References

Cebeci & Tekdal. Using podcasts as audio learning objects.


Muppala & Kong. Podcasting and its use in enhancing course content. *HKUST Center for Enhanced Learning and Teaching*.


