

Development of a Case-Based Podcast Series to Improve Spaced Learning for USMLE Step I

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Background

- Spaced learning improves acquisition and retention of instruction as compared to bolus education, or massed distribution of educational encounters.¹
- Wake Forest School of Medicine MD preclinical curriculum presents general principles including Microbiology prior to organ system block instruction.
- Spaced Learning, or reinforcement of Microbiology instruction throughout the preclinical curriculum, is likely to improve student performance.
- Podcast learning is growing in popularity and acceptance.^{2,3} We created and evaluated a case-based podcast to reinforce high-yield, board-relevant microbiology instruction for use by medical students throughout the preclinical MD curriculum.

Podcast Design and Assessment

- An eight-minute podcast was developed and distributed to first-year medical students.
- A document with key USMLE Step I learning points was also distributed as “show notes.”
- This podcast is available on Apple Podcasts, under Show Title searchable heading “Board Basics,” podcast title “Meningitis feat. Dr. Tim Peters”
- Student perceptions of the effectiveness of the podcast as an instructional tool was assessed by learner survey.

Results

- Twenty-one students responded to the survey (n=21).
- 95% of respondents thought podcast format was an effective and helpful instructional method for this specific purpose (n=20)
- 90.5% (n=19) of respondents felt that podcasts are an effective modality for learning high-yield, board-relevant material.

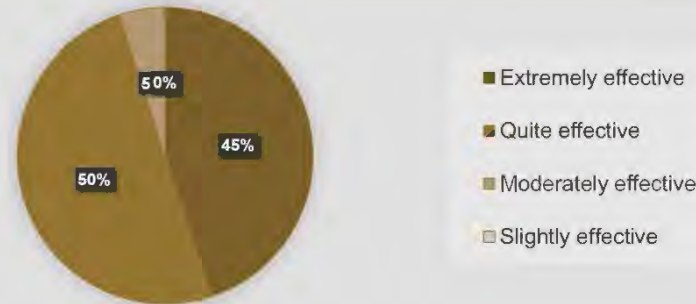


Figure 1. Podcast Effectiveness as Learning Modality for Board Material

- 100% of respondents found the show notes to be effective.
- 85% (n=18) of respondents found the podcast duration of 8 minutes to be an appropriate length of time.
- 90.5% (n=19) of respondents felt that podcasts are an effective modality for learning high-yield, board-relevant material.
- 85.7% (n=18) of respondents rated 5 or higher on the likelihood scale that they would revisit the podcast later in the curriculum to review the material, to reinforce learning for board examination preparation.

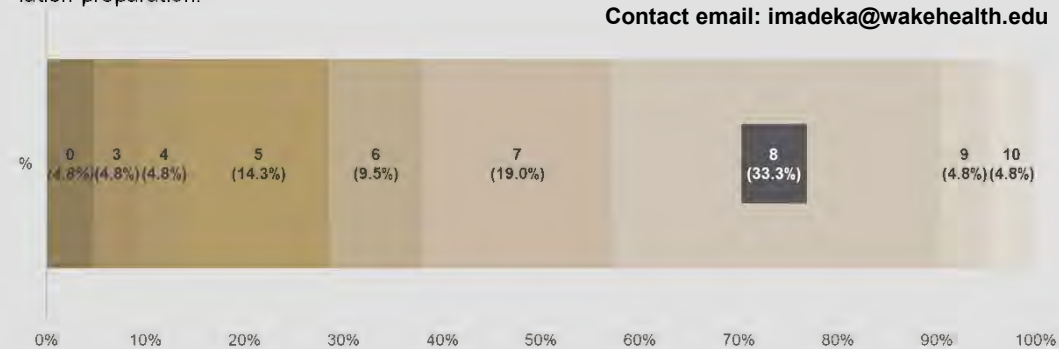


Figure 2. Likelihood of Utilizing Podcast for Spaced Learning of Material

Conclusions

- Medical students found podcasts to be an effective instructional method appropriate for spaced learning of board relevant material.
- Students prefer podcasts that are 10 minutes or less in duration.
- Students strongly prefer podcasts that are readily accessible from their smartphones.
- Students valued “show notes” as a written adjunct to audio podcasts.
- Students were likely to revisit podcasts as a board-review resource later in the curriculum, suggesting value to including podcast-based instruction in the preclinical MD curriculum.

References

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