Instructor-learner Engagement: using Video-recorded Instructions in Online Courses

School of Nursing

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Disclosures

No conflict of interest to report
Background
University of West Florida’s RN to BSN Program

Key Features

• 800 online students
• Serve licensed RNs who are studying for BSN
• Convenient, flexible schedules
• Asynchronous (24-hour course availability from any location)
• Ranked top 20 in the country among RN to BSN online programs
Two (2) significant changes in our RN to BSN Distance Learning Program

1. Traditional 14-week semester course accelerated to 7-week course (2 courses per semester).

2. Class sections increased in size from 30 to 100 distance learners.

Therefore, efficient learning is critically important.
Problem, study questions and research hypothesis
Problem:

• Too many questions from large number of frustrated learners;
• Taxed the online instructor 24/7.
Study questions:

Will instructor’s narrated video instructions
1. Increase student satisfaction?
2. Reduce students’ questions?
Hypothesis:

Narrated video instructions in the online course will reduce questions by increasing instructor presence.
Methods
UWF IRB approval was obtained

- Students consented by agreeing to complete the *anonymous end-of-course* survey.
Educational setting

NUR 4636

• Public Health Nursing distance-learning course
• Same instructor and assignments
• Quality Matters © National Standards met
  • Alignment of critical course components
Population:

Licensed RN to BSN learners enrolled in NUR 4636
The Intervention: 4 Instructor-narrated Videos

*Camtasia* ©recording software: Captured Full-screen image with Instructor’s audio narration on video file

Video Topics
- Welcome to course video
- Three assignment directions videos
- Duration: 4-10 min.
- Saved to Google Drive
- Embedded code in course HTML
# Level & Quality of Evidence table

<table>
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<tr>
<th>Articles</th>
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<tr>
<td>L-1 Systematic Review, RCT</td>
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Study Design

• A comparison of outcomes were analyzed between:
  • Control group: Enrolled in Public Health course taught without instructor narrated videos
  • Intervention group: Enrolled in Public Health course with the four (4) Instructor - narrated videos
Outcomes measured

1. Course Satisfaction
   - Course satisfaction scores on post-course surveys
   - Comments from students in their own words

2. Number of students’ questions
Statistics

• Median course satisfaction scores for both groups were compared using Mann-Whitney-U test.

• Two-sample Z-test was used to compare the intervention vs. control group for proportion of clarification questions.
Results
1. Satisfaction Survey: Number of negative responses were reduced (trend) but not statistically significant

Chi-square = 2.73; p = 0.098

N = 17

N = 13
Review of Survey ‘Comments’

“I appreciate the very clear detailed instructions that you give and the time you take to clearly spell out the assignment via the videos you put together.”

“I was confused with this assignment but watching the professor video helped a lot….

“Thanks for another great class and for making this BSN stuff less painful for me!”
“I liked the video with each of the assignments…
Sometimes reading a whole page of instructions can be difficult especially with a toddler running around. Thanks for thinking outside the box.”
2. Number of questions were reduced

<table>
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Proportion of total questions for all 4 modules was reduced by 34% with video intervention (p<0.001)

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<tr>
<td>N</td>
<td>81</td>
<td>50</td>
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<tr>
<td>%</td>
<td>58</td>
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Z value = 3.8; p < 0.001
Discussion
Satisfaction Score Improvement

- Although not statistically significant, a large trend in reduced negative responses is seen on satisfaction surveys.
Lack of Statistical Significance For Course Satisfaction Survey Most Likely Due to Either:

• The high quality of the original online course, meeting QM © Standards, made it hard to measure improvements in satisfaction:
  • Ease of course navigation
  • Content organization
  • Alignment of course-components
• Low numbers and low power led to type II error—it is possible, given the magnitude of reduction in negative responses, that there would be a difference if n was larger
Based on the 100% positive comments:

• Videos give learners a more personal connection to the instructor by seeing and hearing the instructor on screen-capture videos.
Study’s major finding: Video Instruction Reduced Questions

• There was a statistically significant reduction in questions:
  • 58% pre to 25% post introduction of video narrated
  • P<0.001 on 2 proportion Z-test

• Reduced questions makes the online course more efficient and less burdensome for the instructor.
Limitations

- No standardized video;
- Not generalizable: One nursing course;
- Response rate was low: 17 (pre) and 13 (post) on anonymous end-of-course survey;
- All 131 learners had RN license, but may have had other unmeasured differences.
Conclusions
Video-guided Online Instruction Resulted in:

- Statistically significant reduction in learners’ course questions.
- High learner satisfaction feedback received with positive comments; no negative comments were received.
- Instructor time was freed-up for other constructive course interactions.
- Further studies are needed to assess video use in other courses.
References


Foronda, C., PhD, RN, CNE. (2014). November/December). Spice up teaching online! *Nurse Educator, 39*(6), 265-266.


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