

Improving Nursing Students' Attitude Towards Research Course: Incorporating Immediate Feedback Assessment Technique

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Nursing Students' Attitude Towards Research/EBP Course

Nursing students often perceive research as complex, and do not have the context to connect to clinical practice (Keib, 2017).



Complexity in research methodology and analysis, and high stakes in passing course examinations, can create anxiety and negative attitudes for many students (Halibi, 2016).



Improving students' attitudes concerning nursing research needs to begin in pre-licensure programs (Halibi, 2016).
Need for evidence-based pedagogies in the design and delivery of nursing courses (Sowan & Jenkins, 2013).

► Methodology

- ▶ Students' attitudes were assessed at the beginning and end of the research course with a [Semantic Differential Scale](#) (SD).
 - ▶ SD is an established technique of measuring the meaning of concepts; it is applicable for comparisons of [affective reactions](#) on widely disparate items (Verhagen, van den Hoof, & Meents, 2015).
 - ▶ Theory presents the SD as one of the most appropriate techniques to assess the intensity and direction of the meaning of concepts, especially complex and multidimensional concepts (Verhagen et al., 2015)

Methodology

- ▶ Course designed with principles of Collaborative Learning.
 - ▶ Educational approach to teaching and learning that involves groups of learners working together to solve a problem, complete a task, or create a product.
 - ▶ Flipped classroom with review of key concepts in class
 - ▶ Develop PICOT, Critique Research, Create EBP Poster
 - ▶ Jeopardy, Group Work, Group Presentations
 - ▶ Research Librarian, Database Searches
 - ▶ Collaborative testing using the [Immediate Feedback Assessment Technique](#)
- ▶ Focused class discussion and course evaluations



Immediate Feedback-Assessment Technique

- ▶ IF-AT incorporates evidence-based methods of team-based and cooperative learning.
 - ▶ Interactive, decreases stress from high stake exams, and provides motivation (Epstein, n.d.)
 - ▶ Collaborative testing methods provide students an opportunity to actively engage with the content, obtain instant feedback, and foster their learning (Peck, Werner, & Raleigh, 2013)
 - ▶ The format of the examination forces students to rethink some of their answers that do not show initial mastery, increasing their understanding of concepts and correcting any misinformation (Peck et al., 2013).
 - ▶ Test teaches as well as assesses; IF-AT is a good example of [assessment as learning](#) (Merrel, Cirillo, Schwartz & Webb, 2015).

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT®)					
Name _____				Test # _____	
Subject _____				Total _____	
SCRATCH OFF COVERING TO EXPOSE ANSWER					
	A	B	C	D	Score
1.					_____
2.					_____
3.					_____
4.					_____
5.					_____
6.					_____
7.					_____
8.					_____

IF-AT SCRATCH-OFF CARD

- Students scratch off what they believe are the correct answers.
- A star would be revealed if answered correctly.
- Allowing group testing promotes students debating rationales.
- If not correct, students scratch off a second choice, or even a third, receiving partial credit aligned with number of attempts.

(Epstein Educational Enterprises).

GROUP ACTIVITY

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT®)					
Name _____				Test # _____	
Subject _____				Total _____	
SCRATCH OFF COVERING TO EXPOSE ANSWER					
	A	B	C	D	Score
1.					2
2.					4
3.					4
4.					2
5.					1
6.					4

► SEMANTIC DIFFERENTIATION SCALE RESULTS

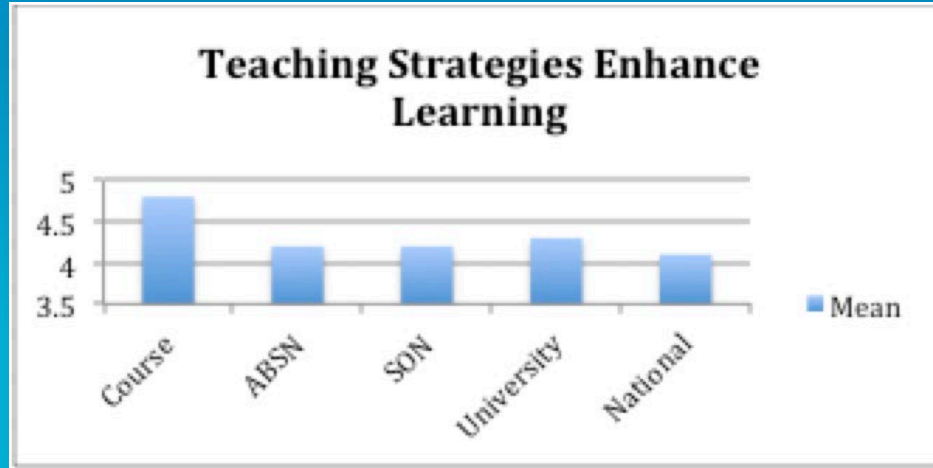
	Mean	SD	SE	95% Confidence Interval of the difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pre-interested/bored Post-interested/bored	1.61	1.27	.25	1.103	2.13	6.50	25	.000*
Pre-Confident/afraid Post-Confident/afraid	1.35	1.35	.27	.80	1.89	5.07	25	.000*
Pre-Pleasant-unpleasant Post- Pleasant-unpleasant	1.65	1.60	.31	.69	1.01	5.28	25	.000*
Pre-Good/bad Post-Good/bad	1.46	1.30	.26	.93	1.99	5.72	25	.000*
Pre-Warm/cold Post-Warm/cold	1.65	1.32	.26	1.19	2.19	6.37	25	.000*
Pre-Invigorated/tired Post-Invigorated/tired	1.96	1.64	.32	1.30	2.62	6.11	25	.000*
Pre-Curious/disinterested Post-Curious/disinterested	1.88	1.61	.32	1.24	2.53	5.98	25	.000*
Pre-Adequate/inadequate Post-Adequate/inadequate	1.50	1.33	.26	.96	2.04	5.73	25	.000*
Pre-Comfortable/uncomfortable Post-Comfortable/uncomfortable	1.58	1.60	.31	.93	2.22	5.01	25	.000*
Pre-Inspired/turned off Post-Inspired/turned off	1.81	1.58	.31	1.17	2.44	5.85	25	.000*

*Statistically significant at $p \leq 0.05$

Paired samples T-tests were conducted on the paradoxical pairing of words on a semantic survey tool to measure attitudes on nursing research.

The findings reflect a positive change in students' attitudes, statistically significant with $p = .000$

► COURSE EVALUATION RESULTS



78% of students reporting teaching strategies positively improved their attitude toward nursing research

"Loved the scratch-off tickets!"

"I could be a research nurse."

"I really learned a lot!"

"I wish other classes used these."

Student Surveys

Conclusions

- Balancing the students' needs and responsibilities is necessary in moving towards meeting meaningful goals for learning complex concepts.
- Evidence based engaging strategies such as the IFAT are needed to improve learning and attitudes concerning nursing research.
- Reflective, intentional learning in a safe, engaging environment is critical.



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