



Technology Integration Among Faculty in Online Nursing Courses

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Background

- ❖ At the current time there are limited findings from research in regards to the integration of technology into nursing education settings (Williamson & Muckle, 2018).
- ❖ Nursing accrediting bodies call for integration of technology across nursing curriculums.
- ❖ The “millennial” generation expects faculty to implement technology to enhance the learning experience (May et al., 2013).
- ❖ Interactive video technology refers to technology used by faculty that enables students to interact with video content itself through a variety of modalities such as clicking, dragging, scrolling, gaming, immediate response systems, videoconferencing, or gesturing.
- ❖ By understanding faculty’s behavioral intention to use interactive video technology, which therefore determines technology acceptance, this information can be used to guide processes of technology selection and implementation as well as recognizing external variables that impact behavioral intention and acceptance.

Purpose

- ❖ To understand how nursing faculty perceive the usefulness and ease of use of interactive video technology integration in online and/or hybrid nursing courses.

Design

- ❖ A descriptive correlational design was used in this study.

Participants/Subjects

- ❖ A convenience sample of nurse educators in the United States who had an active membership in Sigma (N=820, n=46).

Hypotheses

- ❖ H₁: Perceived ease of use positively affects perceived usefulness of interactive video technology.
- ❖ H₂: Perceived ease of use positively affects attitudes towards using interactive video technology.
- ❖ H₃: Perceived usefulness positively affects attitude towards using interactive video technology.
- ❖ H₄: Perceived usefulness positively affects intention to use interactive video technology.
- ❖ H₅: Attitude towards using positively affects intention to use interactive video technology.

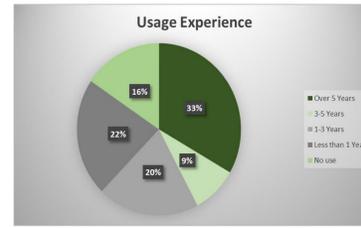
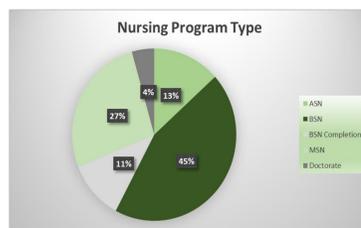
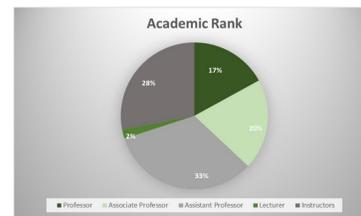
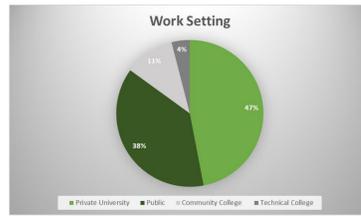
Operational Definitions

- ❖ Perceived usefulness is the faculty’s internal beliefs that interactive video technology can enhance their teaching/job performance (Davis, 1989).
- ❖ Perceived ease of use is the faculty’s internal belief that integration of interactive video technology into online nursing courses can be done effortlessly (Davis, 1989).
- ❖ Feelings faculty possess in regard to using interactive video technology were measured by the attitudes construct.
- ❖ The TAM theorizes that perceived usefulness and perceived ease of use are affected by external variables (Davis, Bagozzi, & Warshaw, 1989). The two external variables of interest in this study were usage experience and job relevance.

Study Procedures

- ❖ Tool: Modified TAM instrument reliability had a Cronbach’s α of 0.950.
- ❖ Framework: Technology Acceptance Model by Davis et al., 1989.
- ❖ Statistical Analysis: Spearman’s Rho
- ❖ Permissions: Institutional Review Board approval received, and Dr. Davis granted TAM tool permission.
- ❖ Software: Statistical Package for Social Sciences (SPSS) version 25 was used for data management and analysis.

Results



H1		PUSET	PEOSET
Spearman's rho	PUSET	1.000	.659**
	Correlation Coefficient		
	Sig. (2-tailed)		.000
	N	46	46
PEOSET	PUSET	.659**	1.000
	Correlation Coefficient		
	Sig. (2-tailed)	.000	
	N	46	46

** . Correlation is significant at the 0.01 level (2-tailed).

H2		PEOSET	ATUSET
Spearman's rho	PEOSET	1.000	.481**
	Correlation Coefficient		
	Sig. (2-tailed)		.001
	N	46	46
ATUSET	PEOSET	.481**	1.000
	Correlation Coefficient		
	Sig. (2-tailed)	.001	
	N	46	46

** . Correlation is significant at the 0.01 level (2-tailed).

H3		ATUSET	PUSET
Spearman's rho	ATUSET	1.000	.745**
	Correlation Coefficient		
	Sig. (2-tailed)		.000
	N	46	46
PUSET	ATUSET	.745**	1.000
	Correlation Coefficient		
	Sig. (2-tailed)	.000	
	N	46	46

** . Correlation is significant at the 0.01 level (2-tailed).

H4		PUSET	BIUSET
Spearman's rho	PUSET	1.000	.768**
	Correlation Coefficient		
	Sig. (2-tailed)		.000
	N	46	46
BIUSET	PUSET	.768**	1.000
	Correlation Coefficient		
	Sig. (2-tailed)	.000	
	N	46	46

** . Correlation is significant at the 0.01 level (2-tailed).



H5		BIUSET	ATUSET
Spearman's rho	BIUSET	1.000	.849**
	Correlation Coefficient		
	Sig. (2-tailed)		.000
	N	46	46
ATUSET	BIUSET	.849**	1.000
	Correlation Coefficient		
	Sig. (2-tailed)	.000	
	N	46	46

** . Correlation is significant at the 0.01 level (2-tailed).

External Variables

Usage Experience and Perceived Usefulness ($r_s = -.163, p = .285, N=46$)
 Usage Experience and Perceived Ease of Use ($r_s = -.372, p = .012, N=46$)
 Usage experience and Intention to Use ($r_s = -.198, p = .192, N=46$)
 Job Relevance and Perceived Usefulness ($r_s = .753, p < .05, N=46$)
 Job Relevance and Perceived Ease of Use ($r_s = .434, p < .05, N=46$).



Conclusion

- ❖ All five TAM-related hypotheses were proven to have positive correlations that were statistically significant.
- ❖ Findings were consistent with empirical evidence from the utilization of the TAM and validates the relationship between perceived ease of use, perceived usefulness, attitude towards usage, and behavioral intention to use
- ❖ Job relevance had statistically significant positive relationships with both perceived usefulness and perceived ease of use, which subsequently affects behavioral intention to use.
- ❖ Nursing faculty believe using interactive video technology is relevant to their job and is a useful resource.
- ❖ The moderator of usage experience did not have statistically significant effects on the TAM constructs and the direct relationship was not strong.
- ❖ One cannot assume usage experience to be an indicator of perceived usefulness, perceived ease of use, or predict behavior to use.
- ❖ The use of interactive video technology allows nursing educators to transform the educational experience while meeting a call-to-action to integrate technology in nursing curriculums which prepare future nurses in the use of a wide range of healthcare technologies to improve patient outcomes and increase access to care.
- ❖ Technology tools such as interactive video platforms offer an innovative method of content delivery and engage faculty and students in the use of technology as well as the teaching-learning process (Khan, Egbue, Palkie, & Madden, 2017).

References

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