

Student and Faculty Satisfaction with a Pedagogical Framework: Research Findings Based on the ICARE Model

Presented by:

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Background & Rationale -1

- ❑ In 2006-07, 62 programs (37 BScN, 19 MScN, 6 PhD) offered in part or fully online distance education courses to facilitate nursing education access and support upgrading possibilities (CASN, 2008)
- ❑ Geographic accessibility, time constraints, scheduling difficulties, and a nationwide nursing shortage are highlighted as major barriers to advanced education in nursing (Townsend et al., 2002)

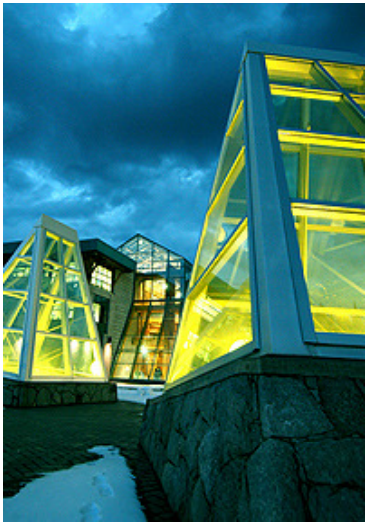


Background & Rationale -2

- ❑ Advantages to blended and online approaches include
 - ❑ capacity to self-regulate learning, asynchronicity, and satisfaction with alternative approaches (Kearns, Shoaf & Summey, 2004; Leasure, Davis, & Thievon et al., 2000; Mills-Zorzes, 2005; Salyers, 2005; Wheeler & Jarboe, 2001)



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Current UNBC Challenges

- ❑ Students distributed across 3 regional campuses
- ❑ Inconsistent formatting of courses hosted via Blackboard
- ❑ Lack of adequate instructional design support for faculty development
- ❑ Need for highly relevant mentoring (“just in time”) related to Blackboard and ICARE



Purpose of Study

- ❑ To determine faculty and student satisfaction with the ICARE format implemented within the School of nursing
- ❑ To determine the extent to which the ICARE format might support rich learning experiences that minimize the limitations posed by lack of accessibility, time constraints, and scheduling



Research Questions-1

- ❑ To what extent are students satisfied with the ICARE framework? To what extent are faculty satisfied with the ICARE framework?
- ❑ To what extent did all groups find the ICARE framework flexible?



Research Questions-2

- ❑ To what extent did the ICARE framework enhance the quality of interactions?
- ❑ To what extent did the ICARE framework enhance the quantity of interactions?



Pedagogical Model

- The Introduction, Connect, Apply, Reflect, and Extend System (ICARE) (SDSU, 1997)

COMPONENT	DEFINITION	FORMAT
Introduction (I)	•Provides module objectives, assignments and context.	•Microsoft Word document
Connect (C)	•Provides content, information and concepts related to topic.	•PowerPoint or Acrobat file
Apply (A)	•Assists students to apply new information.	•One to two-page responses to case scenarios, applying class content.
Reflect (R)	•Requires student to reflect on and synthesize new information	•One to two-page clinical reflections.
Extend (E)	•Provides enrichment activities as a means for extending obtaining more information to a related topic.	•Web resources, links for learning.

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Advanced Medical-Surgical Course (NURS 426)

NURS 426

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Methods

- ❑ Descriptive, mixed methods study
- ❑ Comparison of faculty & student perceptions of ICARE format
- ❑ Dependent variables
 - ICARE survey (students)
 - ICARE survey (faculty)



Sample

- ❑ Undergraduate nursing students enrolled in two nursing courses (NURS 210 & NURS 426)
- ❑ Students in the web-enhanced (n=29) courses completed ICARE modules outside of class; met with faculty via videoconferencing for 3-hour sessions throughout the semester
- ❑ Faculty (n=8) teaching courses in various programs at the undergraduate and graduate levels



Instrumentation-1

- ❑ Both instruments contained 13-items using 5-point Likert scale (1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree)
- ❑ Two qualitative items (advantages/disadvantages)



Instrumentation-2

- ❑ Researcher-developed End of Course Satisfaction Survey for Students (alpha =.91 [NURS 210]; alpha = .83 [NURS 426])
- ❑ Researcher-developed End of Course Satisfaction Survey for Faculty (alpha=.80)
- ❑ Combined End of Course Satisfaction (n=37; alpha=.88)



Data Analysis

- ❑ Descriptive
- ❑ Analysis of variance (ANOVA)
- ❑ Recurrent themes with qualitative data
- ❑ SPSS, version 17.0



Table 1. Responses by Students & Faculty on End-Of-Course Survey

Survey Item	Mean (SD)		U	Sig.*
	Students (n=29)	Faculty (n=8)		
The Web-Enhanced Format (ICARE Modules, Blackboard, Video-Conferences & Monthly Onsite Visits) of the Course Facilitated Learning (Q1)	4.00 (.93)	4.25 (.71)	101.50	.599
The ICARE Modules Were Well-Organized & Facilitated Learning (Teaching) of Course Content (Q2)	4.38 (.56)	4.00 (.76)	83.00	.236
I Spent Too Much Time Learning the Technology (Q3)	3.31 (1.28)	3.63 (.92)	102.50	.625
I had Adequate Access to Technical Support (Q4)	3.45 (.95)	3.88 (1.36)	80.50	.194
Technical Issues Limited My Ability to Access Course Materials (Q5)	3.38 (1.18)	3.38 (1.51)	112.00	.899
I Would Take (Teach) Another Course Using the ICARE & Web-Enhanced Format (Q7)	4.00 (.80)	4.50 (.76)	75.00	.137
I Would Recommend this Course to Other Students (Faculty) (Q8)	3.90 (.72)	4.25 (1.17)	79.50	.182
The Course Provided Me with Creativity & Flexibility in Completing (Developing) Assignments (Q9)	3.80 (.82)	3.75 (.71)	109.00	.814
The Quality of Interactions Between Students & Faculty Was Sufficient to Meet Course Objectives (Q10)	3.55 (1.15)	3.75 (.46)	112.00	.899
The Quantity of Interactions Between Students & Faculty Was Sufficient to Meet Course Objectives (Q11)	3.72 (1.10)	3.75 (.46)	105.00	.704
As a Student Taking (Faculty Teaching) Courses at a Regional Campus, the Web-Enhanced Format of this Course Provided Me with an Adequate Alternative to a More Traditional Format (Q12)	3.83 (.85)	3.88 (.64)	115.00	.986
In General, I am Satisfied with My Overall Experience with this Web-Enhanced Course (Q13)	3.93 (.75)	4.25 (1.17)	80.50	.194

*Exact significance reported

Table 2. Themes from Narrative Comments

Advantages of ICARE (Student Responses)	Advantages of ICARE (Faculty Responses)
Course material was available and accessible	Can be utilized with any learning management system
Provided flexibility in scheduling learning activities*	Provided increased ability to structure online learning activities*
Decreased geographic and weather barriers	Provided for consistent design & layout
Provided ability to easily navigate through course*	Provided for ease of navigation in course*
Disadvantages of ICARE (Student Responses)	Disadvantages of ICARE (Faculty Responses)
Instructor may be less accessible	Challenges with finding something for each component of ICARE
Difficulties with technology*	Difficulties with technology* Unless all components of a module are required, students may not take full advantage of the learning opportunities

* Indicates shared perception

Discussion-1

- ❑ Moderate degree of satisfaction (agree) with web-enhanced and ICARE format of the courses
- ❑ From faculty perspective, the ICARE format provides the ability to structure the course in meaningful ways
- ❑ From student perspective, the ICARE format provides capacity to navigate through different courses more easily (e.g., more consistency)



Discussion-2

- ❑ Increased accessibility, decreased time constraints, and scheduling difficulties
- ❑ Implementation challenges: faculty & student orientation to ICARE format; increased instructional design demand at onset
- ❑ Pedagogically sound practices



Implementation Challenges & Recommendations from the Instructional Design Perspective

Challenges:

- ❑ Getting buy-in from faculty
- ❑ Legacy course conversions (e.g. amount of time to covert courses can be HR intensive and costly)
- ❑ Faculty freedom and autonomy

Recommendations:

- ❑ Establish guidelines for variations
- ❑ Support training and/or mentoring (e.g. HRM model)
- ❑ Standardize back-end best practices



Limitations of the Study

- ❑ Self-reported data, subject to bias
- ❑ Technological difficulties
- ❑ Non-standardized instruments
- ❑ Small sample sizes



Future Directions

- ❑ More research evaluating web-enhanced/blended formats and impact on learning and instruction
- ❑ Campus-wide studies
- ❑ Multi-site studies
- ❑ Evaluation of standardized Blackboard courses using ICARE
- ❑ Course sharing



Comments and Questions?

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