

# **Teaching and Learning Methods in Nursing Education**

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Evidence Base for Nursing Education

By

Kathleen A. O'Connell and Tresa Kaur

# Objectives



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- A. Describe experimental and quasi-experimental nursing education research on teaching and learning methods
  - B. Characterize the findings and the methodological challenges in this body of research.

# A Structured Integrative Review

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Cumulative Index of Nursing and Allied Health Literature (CINAHL) was searched with the following search terms

- Education, nursing
- Learning methods or teaching methods
- Experimental or quasi-experimental studies

# Inclusion criteria

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- Peer reviewed
- Articles in the Nursing Journal Subset
- With RN's or students studying for RN as participants
- Published in English
- Not solely in *Dissertation Abstracts*
- Quasi-Experimental and Experimental Designs

# Search Results



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145  
studies

113 after eliminating  
duplicates and  
ineligible

# Method

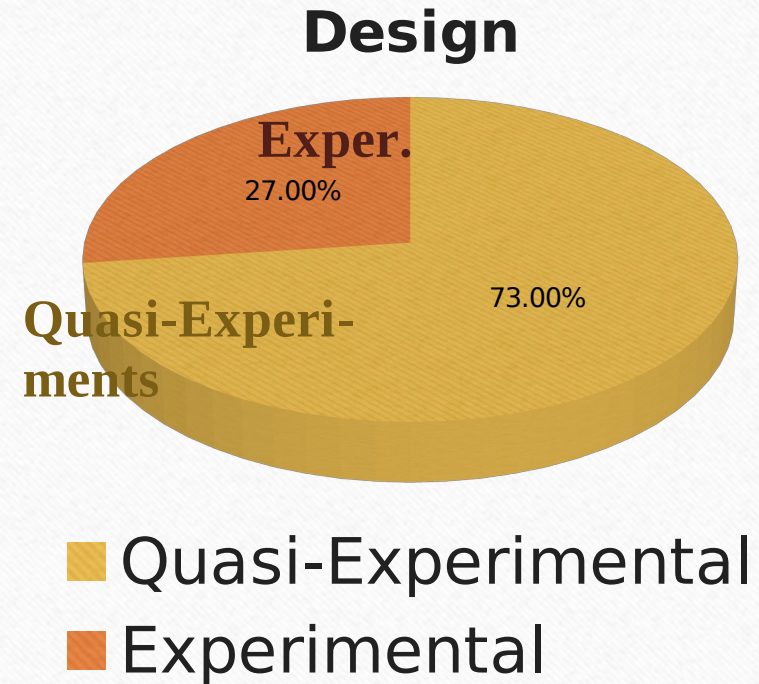
1. Each article was reviewed by one investigator
2. Article was coded on 39 variables
3. 25% of the articles were reviewed by a second coder to establish inter-coder reliability
4. Inter-coder agreement rates on the 39 variables averaged .89

# Review Findings

Description	Findings
Nursing Education Journals	59%
Publication Dates 20% before 2000 30% between 2000 and 2009 50% 2010 to 2015	1972 to 2015
First Author From US	53%

# Research Designs

- Quasi-experimental Designs
  - One group studies 22%
    - 79% of one-group studies since 2010
  - Two groups 70%
- True Experimental Designs
  - 78% had two groups
  - 40% of True Experiments since 2010



# Designs



Test	# of Articles	Percentage
Pretest/ Posttest	72	64%
Post-test only	39	34.5%
Solomon 4- group	1	0.9%
Unclear	1	0.9%



# Study references

- Age of participants
  - 82% included children (average 96 to 104)
  - 36% included adults greater than 100.
- Types of participants
  - 82% included Undergraduates as subjects
  - 12% included Staff Members
  - 6% included Graduate students

# Teaching/Learning Methods Studied

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Study Topics	Number of Studies
Problem-Based Learning	4
Online Strategies	17
Cooperative Learning	22
Simulation	22
Other Types of Methods	37

# Content or Specialty Are



Content/ Specialty	# of Articles
Leadership/ Management	2
Community	5
Obstetrics	6
Pediatrics	8
Mental Health Nursing	9

Content/ Specialty	# of Articles
Pharmacology and Calculations	14
Assessment & Fundamentals	21
Medical/ Surgical	31
Other	29

# Dependent Variables

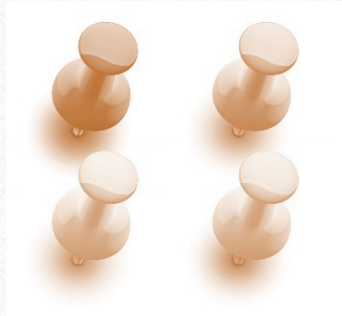
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Variables	Percentages
Learning outcomes only	36%
Other outcomes, but not learning (i.e., attitudes, self-efficacy, etc.)	23%
Both learning and other outcomes	41%

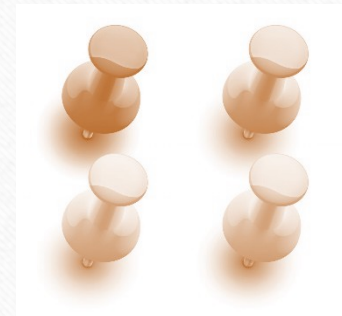
# Statistically Significant Findi



- 79.5% showed statistically significant differences on at least one outcome variable
  - 52% significant on major outcome only
  - 20% significant on both major and other outcomes
  - 7% significant on other outcome but not on major outcome
- 20.5% showed no significant differences on either variable



# Summary



Considerable increase of studies in recent years

Majority of the studies focused on learning outcomes

Methodological rigor is a concern

Most were one-off studies not programs of research

Nearly half conducted outside of the U. S.

# What's Needed in Future Research

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Conduct research in multiple sites.



Effects of different instructors.



Collaboration across sites among nurse educators.



More emphasis on true experiments or higher quality quasi-experiments.