

# Student Perceptions, Experiences, and Outcomes in Two Studies of Precepted and Traditional Clinical Learning Environments

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STTI/NLN Nursing Education Research Conference

April 4, 2014



Center of Excellence  
in Nursing Education



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# Significance

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- Schools of nursing are compelled to transform clinical education to prepare graduates for dynamic practice environments.
- Traditional clinical models have been called into question by educators.
- Previous clinical model comparison research used a single site with small samples.



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# Purpose of the Comparative Analysis

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- Discuss the strengths and challenges associated with assessment of innovative and traditional clinical learning.
- Compare and contrast findings from two studies of precepted vs. traditional clinical models:
  - Student practice opportunities
  - Satisfaction with the learning experience
  - Learning outcomes on standardized measures
  - Student qualitative themes



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# Definitions of Clinical Learning Environments

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- **Traditional:** A physically present faculty member directly supervises a group of 5 to 10 students
- **IUK Precepted Model:** A faculty member meets with students and preceptors during their shifts which may include weekdays, evenings, nights, and weekends. Faculty member on-call when students in clinical.
- **IUPUI Practice-Education Partnership (PEP):** A faculty member spends a portion of each clinical day mentoring 5 to 10 staff nurse preceptors who each directly supervise 1 to 2 students during a 12-hour day shift clinical. Faculty on-call if not present.
- **IUPUI Hybrid:** A physically present faculty member directly supervises a portion of the student group while mentoring 1-3 staff nurse preceptors who each supervise 1 to 2 students.



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# Comparison of Key Features of Clinical Models Across Studies

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## IUK's Precepted Model

- Cohort of up to 10 students with one faculty in one health care organization across multiple clinical courses.
- At the time of the study there were 2 precepted cohorts.
- Each student has one experienced RN preceptor for a clinical course, then changes to other preceptors and units for subsequent courses.

## IUPUI's (DEU) PEP Model

- Each student in a group of 10 has one RN preceptor for a clinical course.
- Faculty primarily teach in one clinical course.
- At the time of the study, there were 12 acute care PEP units in 5 health care organizations.
- Students may have experiences in several health care organizations over 3 years.



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# Comparison of Key Features of Clinical Models Across Studies con't.

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## IUK's Precepted Model

- Students are competitively chosen by faculty for participation.
- Faculty meet with students and preceptors on their shifts
- Faculty facilitate post-conference in person or asynchronously or synchronously on-line each week.

## IUPUI's (DEU) PEP Model

- Students select whether to participate in the DEU (PEP) model and at which site for each clinical course.
- PEP faculty are present for a significant part of each clinical day and mentor the staff nurse preceptors.
- Faculty meet with each student either individually and/or as a group during the shift.



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# Comparison of Study Designs

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## IUK's Study

- **Design:** Quasi-experimental mixed method study of traditional vs. precepted models.
- Data collected at 3 time points
- **Quantitative data collection:**
  - SECEE (Sand-Jecklin, 1998)
  - Self-reported skill performance frequency over a semester
  - ATI Integrated testing scores

## IUPUI's Study

- **Design:** Quasi-experimental mixed method study of traditional, PEP, and hybrid models
- Data collected once
- **Quantitative data collection:**
  - SECEE (Sand-Jecklin, 1998)
  - Self-reported skill performance frequency over a 6 week clinical experience
  - Kaplan Integrated testing scores



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# Comparison of Study Designs cont.

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## IUK's Study

- **Qualitative approach:**
  - Opened ended survey questions to elicit student perceptions of:
    - Satisfiers
    - Suggestions
    - Other relevant comments

## IUPUI's Study

- **Qualitative approach:**
  - Opened ended survey questions to elicit student perceptions of:
    - Satisfiers
    - Suggestions for improvement
    - Experiences promoting learning
    - Experiences hindering learning



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# QUANTITATIVE RESULTS



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# Sample Characteristics

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## IUK's Sample (N=73)

- Selection by application into junior-level precepted model (B or better grades and faculty recommendation).
- No statistically significant differences on standard test scores on ATI Fundamentals exam (prior to program starting).
- Students voluntarily surveyed near the end of semester

## IUPUI's Sample (N=148)

- Self selection into DEU, hybrid, or traditional model.
- No statistically significant differences on standard test scores on Kaplan Fundamentals exam (prior to program starting).
- Students voluntarily surveyed near the end of semester



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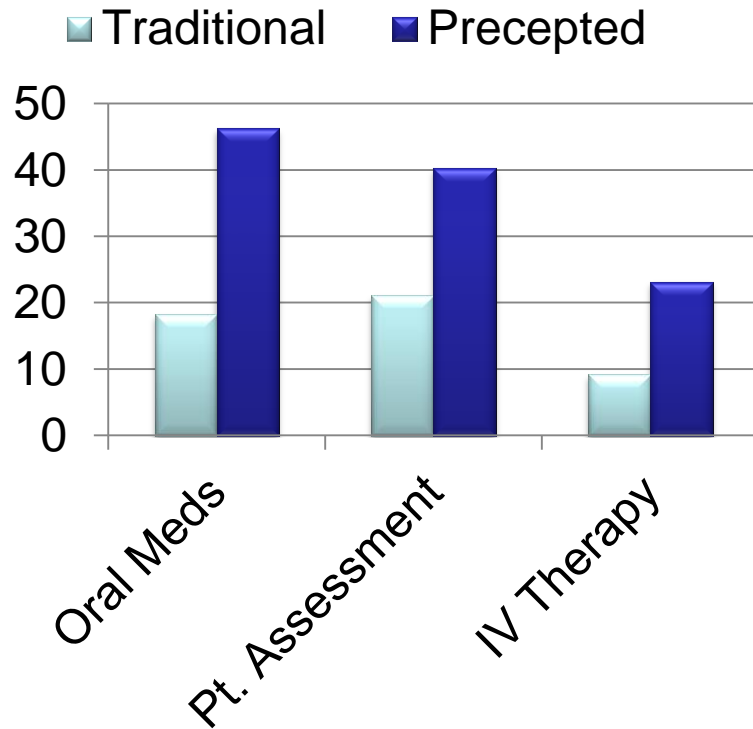


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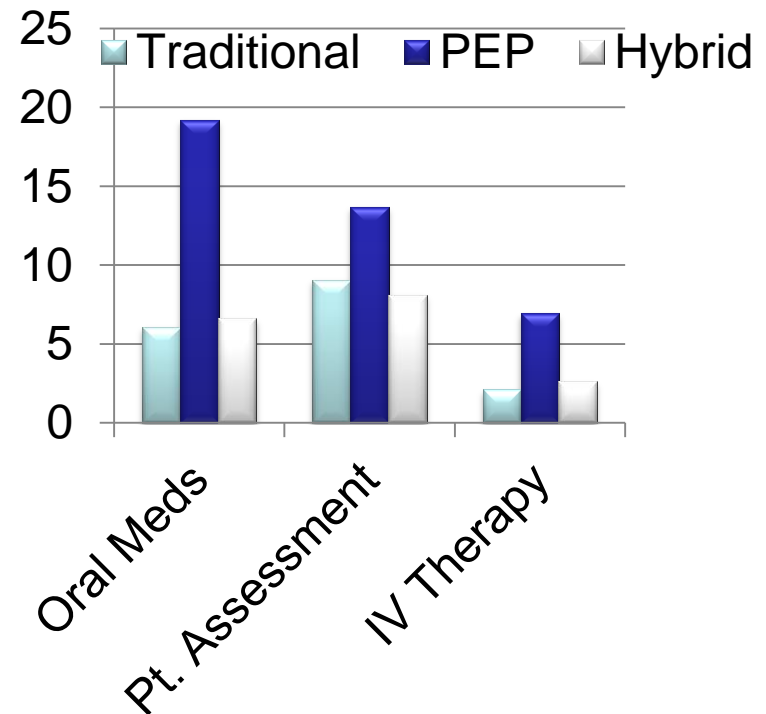
# 3 Nursing Skills: Significantly More Practice Opportunities in Models using Preceptors

**IU Kokomo Models: Semester means-more than one course**



**IUPUI Models:**

**6-week means for one course**



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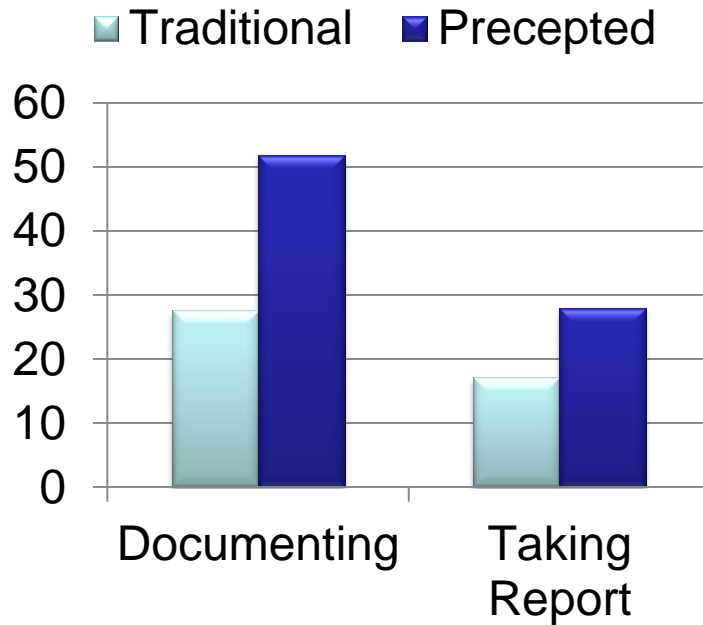


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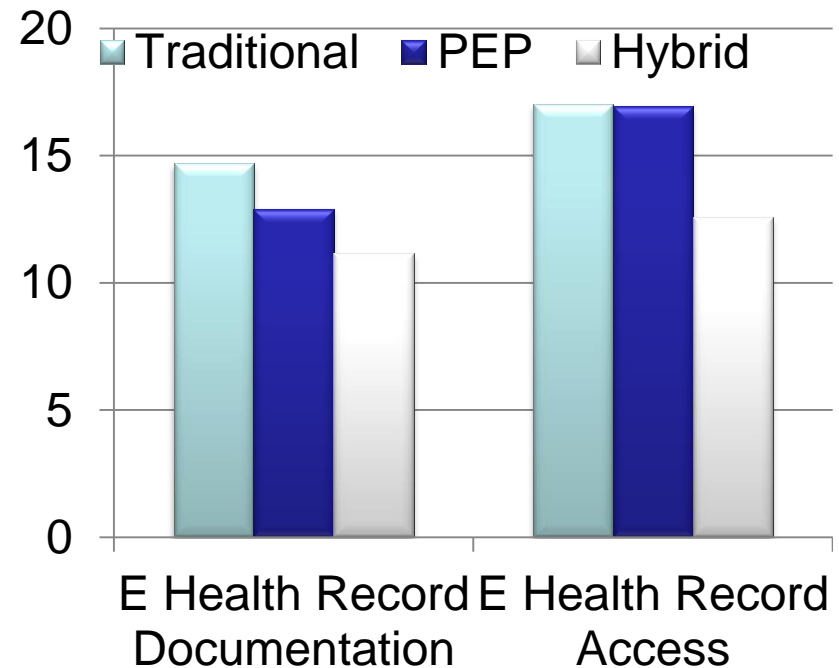
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# Documentation Skills: Differential Results by Site

**IUK Models: Semester means  
(more than one course\*)**



**IUPUI Models:  
6-week means for one course**



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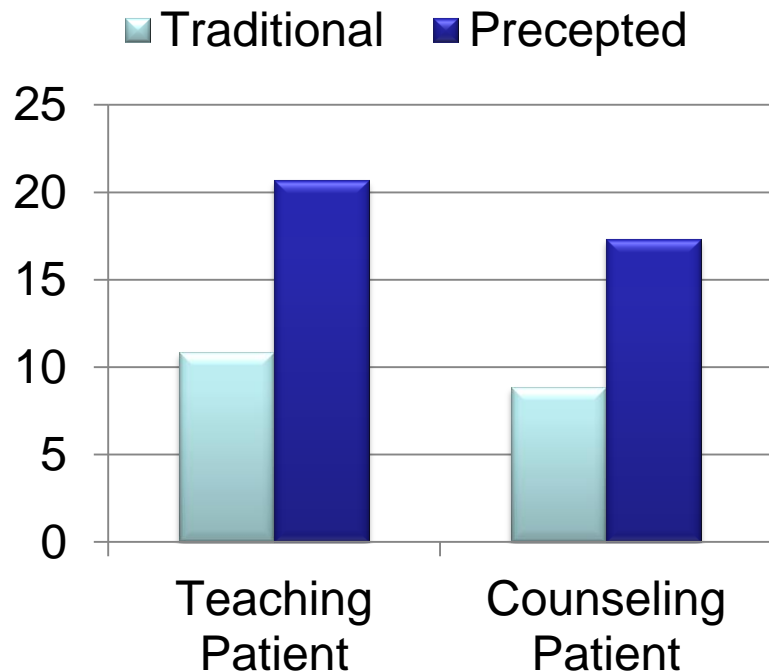


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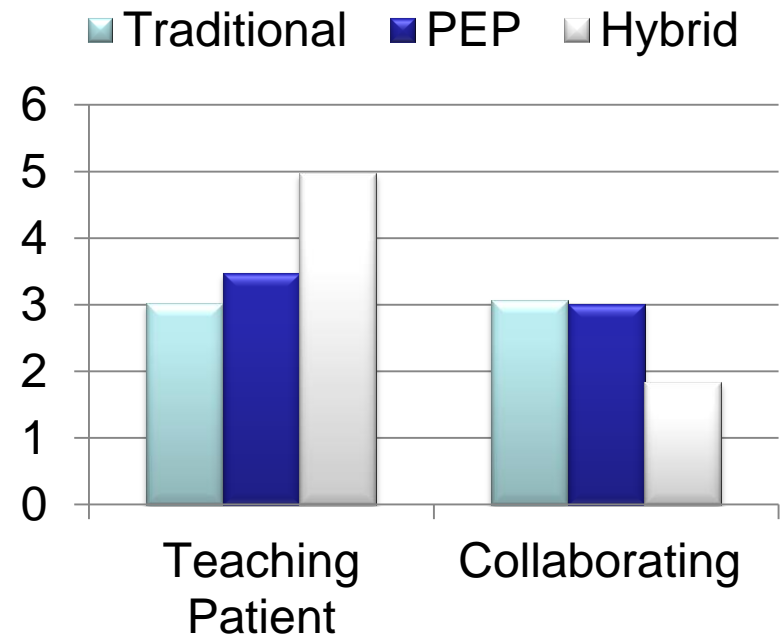
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# Interpersonal Nursing Skills: Differential Results by Site

**IUK Models: Semester means-more than one course (found significant differences)**



**IUPUI Models: 6-week means (one course (no differences))**



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# Integrated Testing Results: ATI or Kaplan, Inc.

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## IUK's Models

- Assessment Technologies Incorporated Testing (ATI)
  - Medical-Surgical Nursing Exam Scores
- Compared mean scores for the precepted students vs. traditional students
- There were no significant differences between groups

## IUPUI's Models

- Kaplan Integrated Testing
  - 1<sup>st</sup> Semester Juniors: Medical-Surgical Nursing 1 Exam Scores
  - 2<sup>nd</sup> Semester Juniors: Medical-Surgical Nursing 2 Exam Scores
- Compared mean scores for each group (Traditional, PEP, and Hybrid).
- There were no significant differences among groups.



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# SECEE Results (Student Perception of Clinical Learning Environment, Sand-Jecklin, 1998)

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## IUK Models

- **Instructor Facilitation of Learning**
- **Preceptor Facilitation of Learning**
- **Learning Opportunities**
- Studied 3 times: First semester of new program--precepted model showed better scores on all three subscales, but no significant differences on any subscale when measured at mid- and end- point of curriculum.



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## IUPUI Models

- **Instructor Facilitation of Learning** (no difference among groups)
- **Preceptor Facilitation of Learning** (no differences among groups)
- **Learning Opportunities**
  - PEP Model significantly more learning opportunities than Hybrid or Traditional



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# RESULTS: QUALITATIVE THEMES



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# Themes Across Models

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## IUK Precepted and IUPUI PEP

- Welcome me
- Guide me and engage me

## IUK/IUPUI Traditional Model

- Help me make cognitive connections
- Chasing my faculty member



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## Across Models

- Let me start an IV
- Doing the work of a nurse
- Don't you remember being a student?
- I appreciate high expectations



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# Theme Differences Across Models

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- What can I learn while my patients are asleep? (IUK Precepted)
- Why do I have to do all this paperwork? (IUPUI across models)



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# Putting it all together



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# Quantitative Comparison Summary

- We need to think about how we help students learn to think, do, and be effective nurses.
- We need to consider whether a precepted or traditional model *alone* will help us achieve our desired student learning outcomes—think about how students spend their clinical time learning.
- We have *not studied* the transition to initial practice and how clinical learning prepare students.
- Students do more psychomotor skills in a precepted clinical environment.
- Other types of learning activities (documentation and communication-related) do not show such a clear pattern, though there may be some differences.
- No evidence that the learning environment model itself (traditional, precepted, PEP, or hybrid) makes a significant difference in standard test performance.



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# Qualitative Theme Comparison Summary

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- Student participants in models using preceptors valued inclusion and guidance
- Both studies revealed that participants in traditional models described positive faculty influences on cognition.
- Student participants were focused on psychomotor skill performance as an indicator of success regardless of the model used.
- Although participants across models reported desiring more experiences, those assigned to night or evening shift were likely to mention the shift as a limiting factor.



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# Discussion Questions

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- How can we promote metacognition across models?
- What are best practices for faculty in models that use preceptors?
- We found few significant differences. What outcomes should be studied with new clinical models?
- Does shift assignment make a difference in learning outcomes?



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# Contact Information

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