

Enhancing IPE with Beginning Level Students: The Importance of Conceptualizing their Learning



Kelly Lockeman, PhD
Sharon Lanning, DDS
Alan Dow, MD, MSHA

Objectives

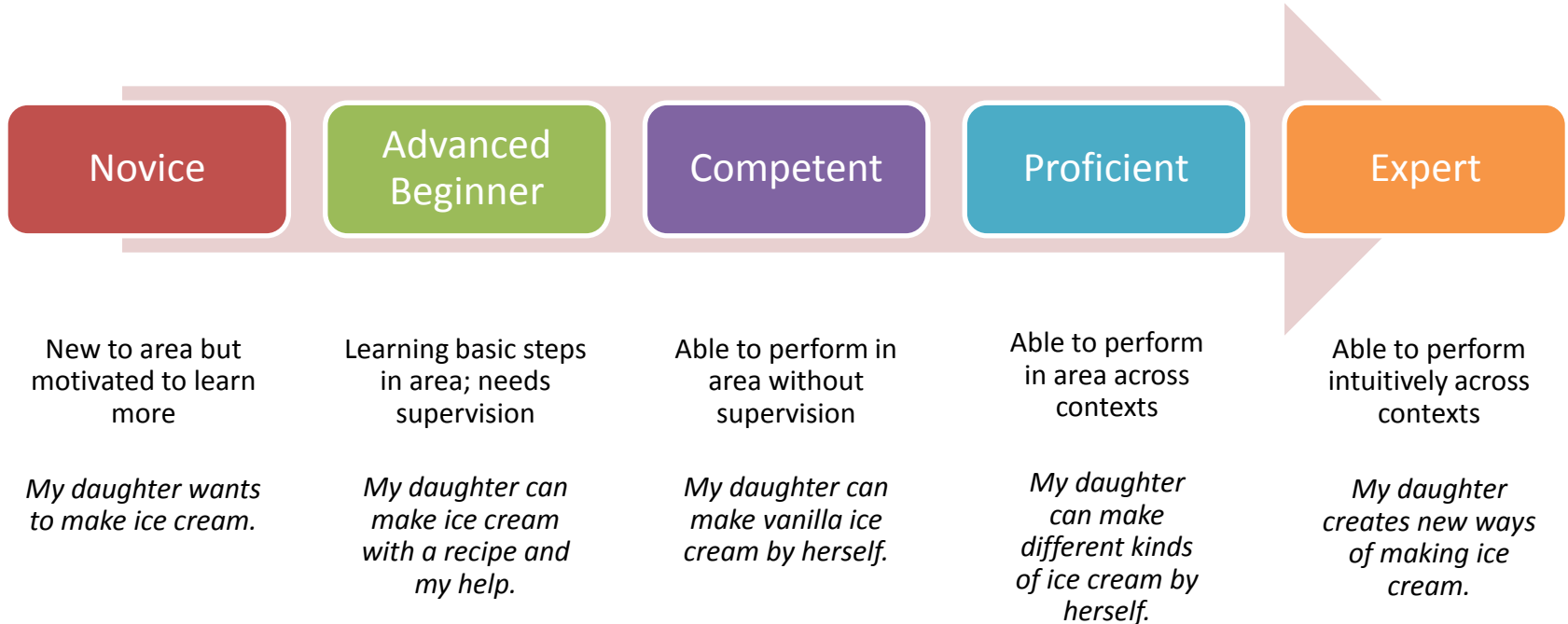
1. Briefly describe VCU's longitudinal IPE curriculum.
2. Share results from our evaluation of student learning in a course for early learners.
3. Discuss implications for designing IPE experiences for pre-clinical learners.

Virginia Commonwealth University

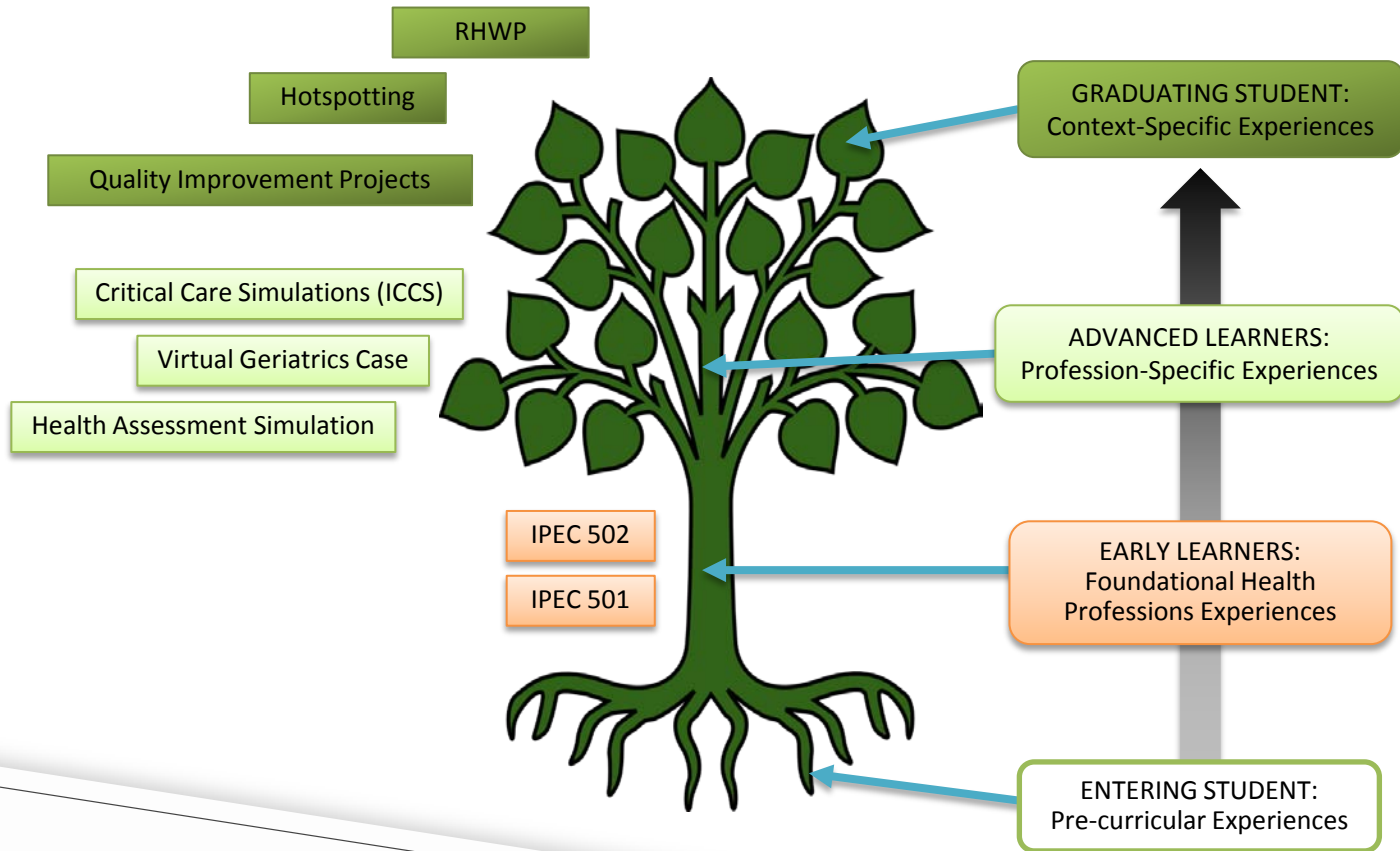
- 53 acre Health Science campus, tertiary academic medical center
- 5 health professional schools: Allied Health, Dentistry, Medicine, Nursing, Pharmacy
- 3200 clinical learners and 700+ faculty who train them
- Monroe Park campus: social work, psychology, health & human performance, and other programs that participate in IPE
- Additional distant training sites



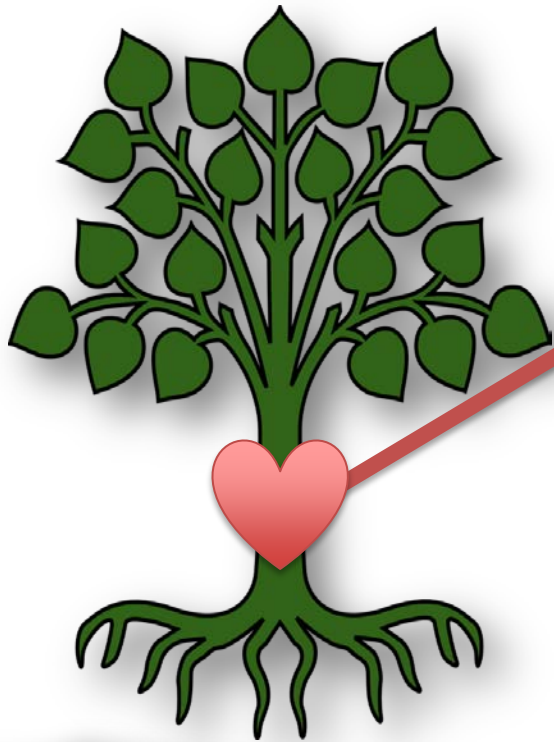
Developmental Approach to IPE



Conceptual Framework for IPE at VCU



Study Aims



Objective
for Early Learners:

**Understand
Collaborative
Practice
Conceptually**

Research Question:

**Do we see
evidence of
that?**

Participants and Educational Setting

- 1 credit classroom-based course with weekly sessions and pass/fail grading
- 487 students from 6 professions
- 88 interprofessional student teams
- 4 classrooms designed for team-based learning
- 16 faculty facilitators (5-6 teams per facilitator)



Educational Intervention

- Content:
 - professional roles/responsibilities
 - teams and teamwork
 - interprofessional collaborative care
- Delivery:
 - mini lectures
 - team-based activities
- Grading:
 - Individual: quizzes, attendance
 - Team: assignment completion, graded capstone project

Capstone Project

- ✓ Brief video (< 2 min.)
- ✓ Objective: Highlight interprofessional care from the patient perspective.
- ✓ Focus on its benefits in a specific context or setting of healthcare.

Evaluation Methods

Evidence of Learning

Team products
(videos)

Attitudes
about IPE +
comments

Assessment Measures

Rubric for
scoring videos

SPICE-R2 +
course
evaluation
survey

Quantitative Analyses

Descriptive
statistics and
comparisons

Retrospective
pre-post
comparisons

Qualitative Analyses

Review of
videos for
content and
themes

Review of
course
comment
themes

Video Scoring Rubric

Required elements:

1. healthcare setting
2. interprofessional collaborative practice
3. storyline
4. video production

- Scoring for each element:
 - fully met requirements
 - somewhat met requirements
 - did not meet requirements
- Total possible score:
 - Minimum = 10
 - Maximum = 40

	Fully Meets Requirements		Somewhat Meets Requirements		Does Not Meet Requirements	
	Criteria	Points	Criteria	Points	Criteria	Points
Healthcare Setting	Video describes the healthcare setting including its purpose or function and at least three associated healthcare professionals.	5	Video is missing the purpose/function of the healthcare setting, <u>or</u> it does not include three associated healthcare professionals.	3	Video is missing the purpose/function of the healthcare setting, <u>and</u> it does not include three associated healthcare professionals.	1
	Descriptions are appropriate and clear.	5	Descriptions are appropriate and somewhat clear.	3	Descriptions are not appropriate or vague.	1
Interprofessional Collaborative Practice (IPCP)	The message is compelling and informs the audience about the key benefits of IPCP	5	The message is somewhat compelling and informs the audience about the key benefits of IPCP	3	The message is not compelling nor informs the audience about the key benefits of IPCP	1
	Video thoroughly depicts effective teamwork principles	5	Video partially depicts effective teamwork principles	3	Video does not depict effective teamwork principles	1
Storyline	Storyline is well organized and transitions are logical and contribute to the overall message	5	Storyline could be better organized and transitions are logical and somewhat contribute to the overall message	3	Storyline is not organized or there is need for more supporting information	1
	Content is accurate and referenced appropriately	5	Content is somewhat accurate and referenced appropriately	3	Content is not accurate nor referenced appropriately	1
Video	Video (including title and references, as needed) is 1-2 minutes in duration.	4	Video (including title and references, as needed) is 1-2 minutes in duration.	4	Video (including title and references, as needed) is less than 1 minute or greater than 2 minutes in duration.	2
	Audio and visual effects contribute to the delivery of the video's storyline.	3	Audio and visual effects somewhat contribute to the delivery of the video's storyline.	2	Audio and visual effects are distracting to the delivery of the video's storyline.	1
	Video is submitted on time.	3	Video is submitted within 24 hours of due date/time.	2	Video is submitted more than 24 hours after due date/time.	1
Maximum Points for a Video that Fully Meets Requirements		40				

Student Perceptions of Interprofessional Clinical Education (SPICE-R2)*

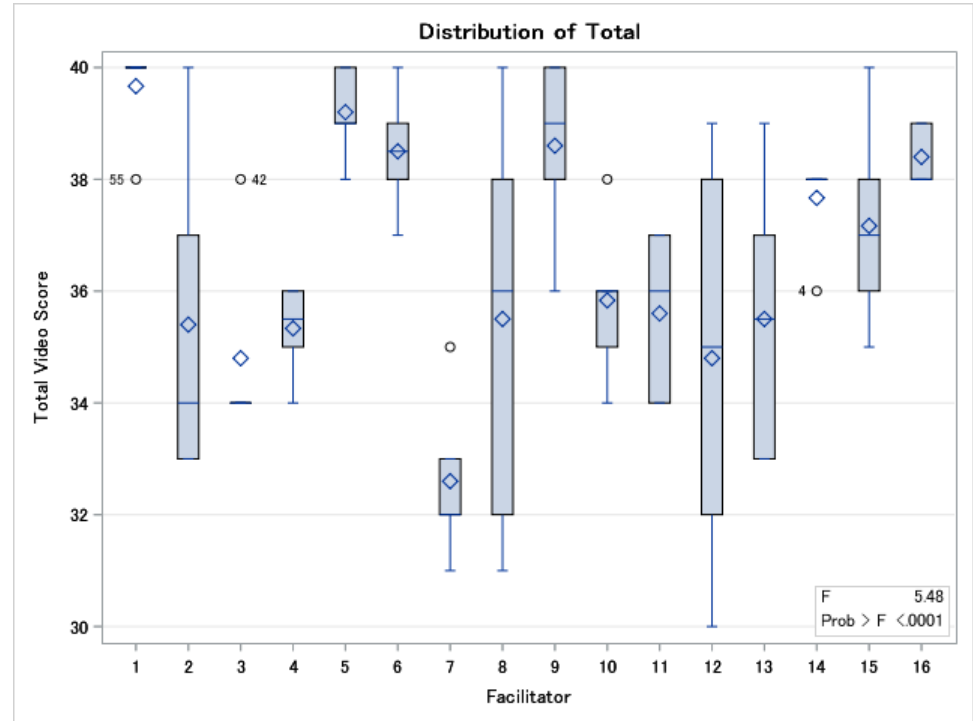
- 10-item survey on perceptions about 3 areas of IPE:
 - Interprofessional Teamwork and Team-based Practice
 - Roles and Responsibilities for Collaborative Practice
 - Patient Outcomes from Collaborative Practice
- Each item is rated on a 5-point Likert scale.
- We use a retrospective pretest-posttest design.

Results

What does the evidence say?

Results: Video Scores

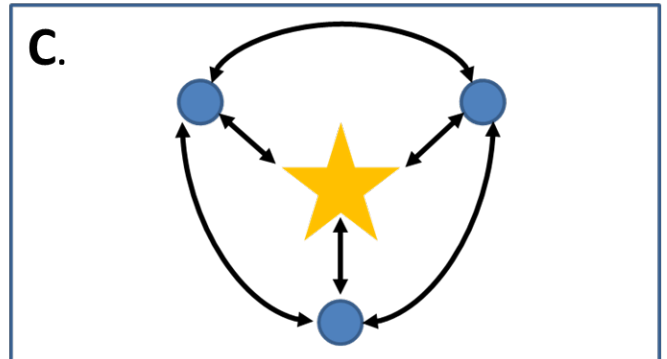
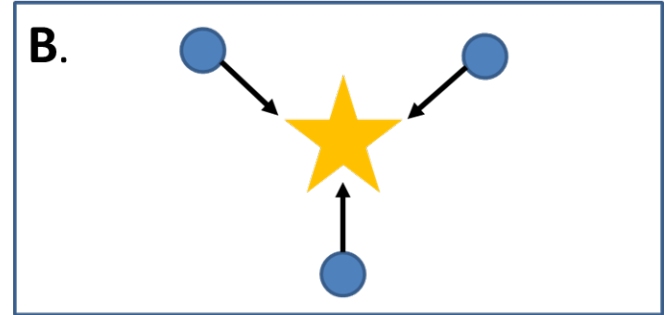
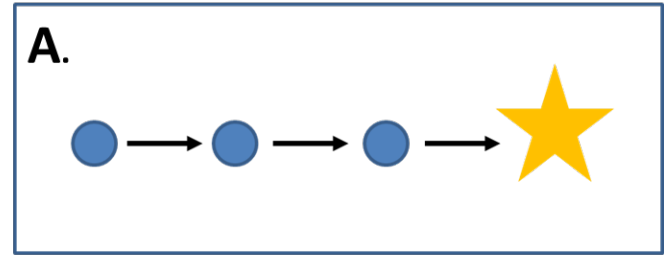
- Scores negatively skewed;
Range: 30 to 40
- Mean = 36.6 (SD = 2.6);
Median = 37
- One-way ANOVA →
Differences by instructor,
 $F(15, 72) = 5.48, p < .001$.



Results: Video Themes

Heterogeneity in portrayal of interprofessional collaborative practice:

- A. Second Most Frequent:** Interprofessional team members working in serial fashion
- B. Most Frequent:** Team members working in parallel
- C. Least Frequent:** True interprofessional collaborative practice



Results: Change in SPICE-R2 Scores

1. Teamwork: Highest mean score at pretest; smallest change ($p = .002$, Cohen's $d = .179$).
2. Roles/Responsibilities: Lowest average score at pretest; greatest change ($p < .001$, Cohen's $d = .771$)
3. Patient Care: Moderate change ($p < .001$, Cohen's $d = .434$).

Results: Student Comments

- Acknowledge the need for IPE and value of IPE
- See interprofessional socialization as key outcome
- View theoretical content as “basic common sense”
- Seek challenging clinical examples and opportunities for hands-on practice

Conclusions

- Video scores: HIGH; true depiction of collaborative care: LOW
- Rater bias, lack of faculty calibration may → high scores
- Students need richer examples of interprofessional practice, perhaps through experiential learning.
- Reviewing both scores and content of videos added value to the overall evaluation.
- Early learners may benefit from interprofessional education but need ongoing support from faculty to contextualize learning.

Questions and Contact Information

Visit our website: <http://ipe.vcu.edu/>

Follow us:

- Twitter: [@VCUCIPE](https://twitter.com/VCUCIPE)
- Facebook: <https://www.facebook.com/VCUIPE>

Contact me directly:

Kelly Lockeman, PhD

Director of Evaluation and Assessment

VCU Center for Interprofessional Education and Collaborative Care

Kelly.Lockeman@vcuhealth.org