

Evaluation of Near-Peer Teacher Experience within Pharmacy Skills Laboratories

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Background

- Near-peer education (NPE) is defined as senior trainees with at least one more year experience educating junior trainees¹
 - Senior trainees referred to as near-peer teachers (NPTs)
 - Junior trainees referred to as near-peer learners (NPLs)
- Possible benefits of NPE include creating a comfortable and safe learning environment, providing an opportunity for mentorship, preparing the next generation of educators, providing the practice of peer feedback, and generating interest in teaching²
- There is limited information on NPE in pharmacy education³⁻⁵
- No studies on perspectives of NPTs in pharmacy skills lab are available

Objectives

- Primary Objective:**
 - To describe experiences in instruction and assessment of NPTs in pharmacy skills lab
- Secondary Objectives:**
 - To assess training and feedback NPTs received
 - To describe benefits of near-peer instruction and assessment
 - To describe limitations of near peer instruction and assessment

Methods

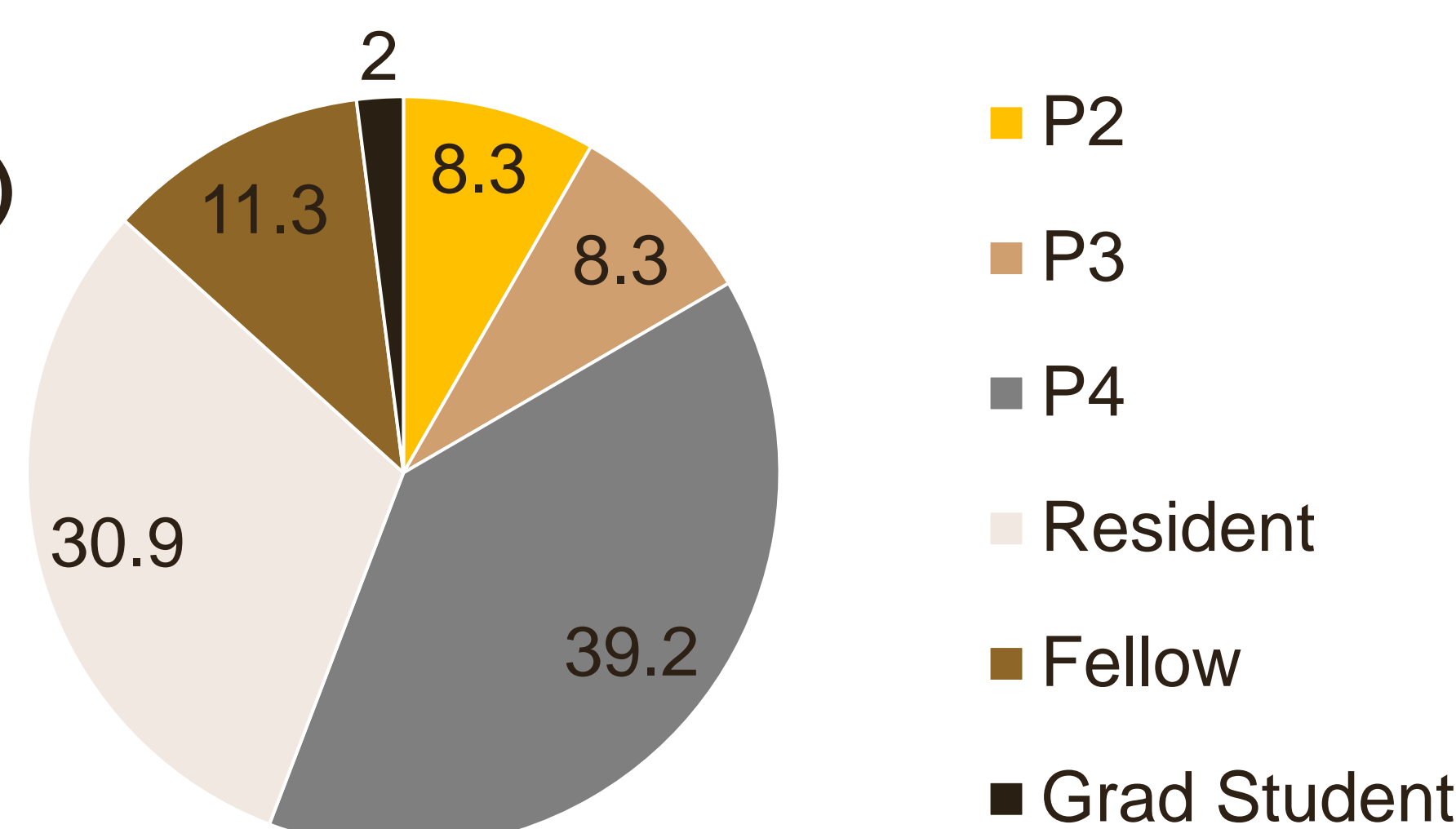
- An anonymous, 19-item, cross-sectional survey including matrix, Likert-type, multiple answer, and open-ended questions on demographics, experiences, training, feedback, most meaningful experience, and benefits/limitations was administered using Qualtrics (Qualtrics, Provo, UT)
- Six pharmacy skills laboratory coordinators from the Big Ten Academic Alliance distributed the survey link to eligible NPTs
- Reminder emails were sent out at two and three weeks after the initial survey request
- Participants had the opportunity to enter a drawing for one of 30 \$50 Amazon gift card upon completion of the study
- Data were analyzed using descriptive statistics in SAS version 9.4 (SAS Institute, Cary, NC)
- Inclusion criteria:** P2-P4 student pharmacists, pharmacy residents, pharmacy graduate students or pharmacy fellows who participated in at least one skills laboratory in the fall semester of 2022
- Exclusion criteria:** Did not agree to participate, did not participate in skills laboratory in fall of 2022, and incomplete survey responses
- This study was deemed exempt by the Purdue University IRB and reviewed at participating university IRBs

Results

- 237 surveys were distributed with 133 responses (56% response rate)
 - 35 responses (26%) excluded from analysis due to exclusion criteria
- Most participants were female (72.9%), from Purdue University (40.2%), and P4 students (39.2%) (Fig.1)
- NPTs reported participation in pharmacy skills lab NPE as voluntary (35.1%), required (28.9%), or a combination (36.1%)

Figure 1

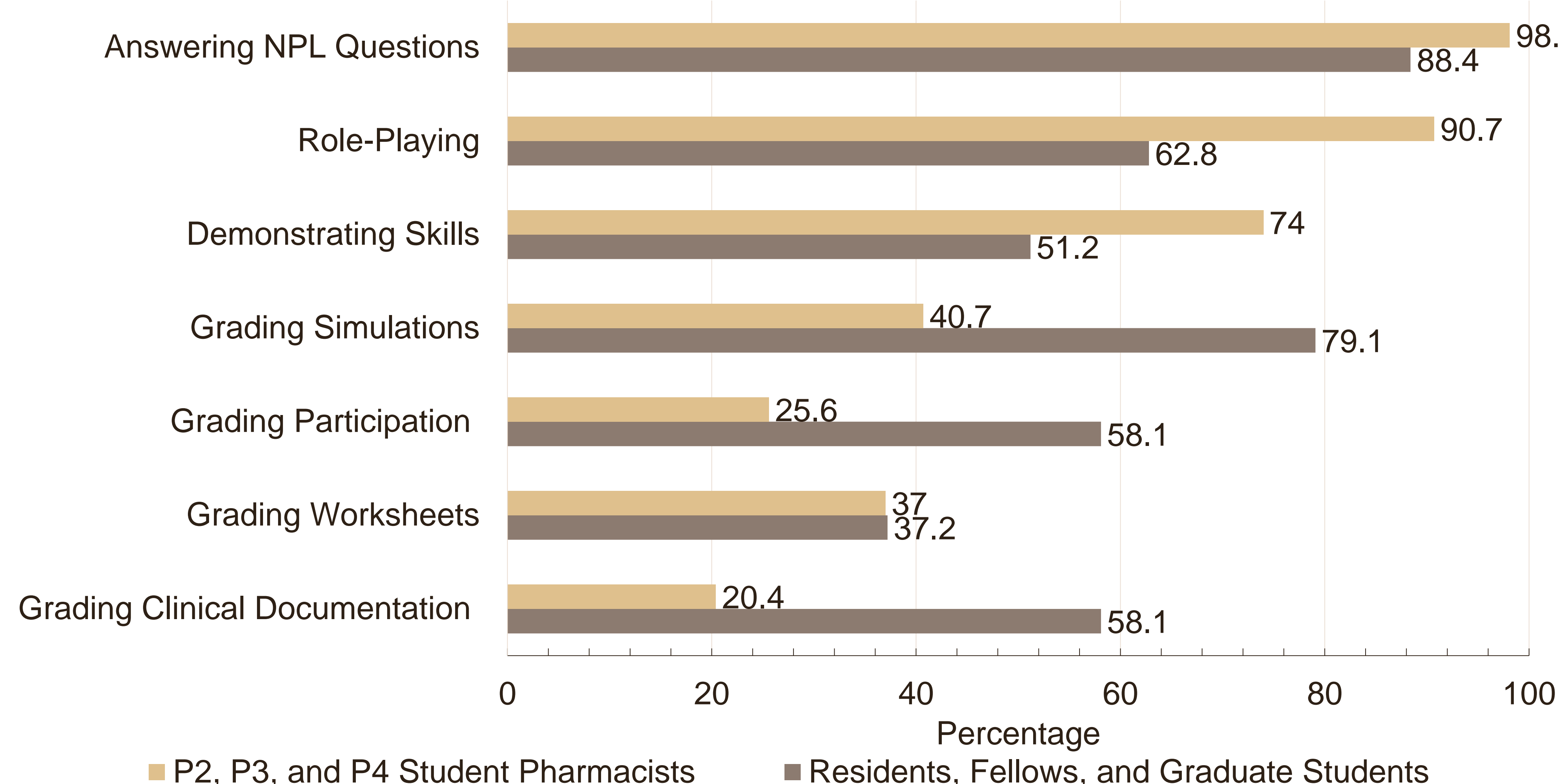
Level of Learner (%)



Primary Objective Data

Figure 2

Top 7 Activities Completed by NPTs



Secondary Objective Data

Figure 3

Top 3 Benefits of NPT Experience (Total: 663):

- Improved teaching skills and development (97.9%)
- Opportunity for teaching experiences (96.9%)
- Opportunity to give back to pharmacy program (80.4%)

Figure 5

Time Spent Preparing/Training:

- 15 minutes or less (12.4%)
- 16-30 minutes (40.2%)
- 31-59 minutes (23.7%)
- 60 minutes or more (23.7%)

Figure 4

Top 3 Limitations of NPT Experience (Total: 194)

- Increased workload (55.7%)
- Time constraints (53.6%)
- Unclear expectations of roles (32%)

Figure 6

Adequate Feedback Received:

- Yes (78.4%)
- No (21.6%)

Table 1. Most Meaningful NPT Activities

	P2 (n=8)	P3 (n=8)	P4 (n=38)	Resident (n=30)	Fellow (n=11)	Grad Student (n=2)	Total (n=97)
Answering NPL Questions	12.5%	37.5%	39.5%	33.3%	18.2%	-	32%
Creating Lab Activities	-	-	2.6%	10%	-	-	4.1%
Demonstrating Skills	-	25%	21.1%	16.7%	9.1%	-	16.5%
Facilitating Lab	-	-	7.9%	16.7%	18.2%	-	10.3%
Grading Exams	-	-	2.6%	-	-	-	1%
Grading Simulations	-	-	-	10%	18.2%	50%	6.2%
Grading OSCEs	-	-	2.6%	3.3%	18.2%	-	4.1%
Grading Clinical Documentation	-	-	-	3.3%	-	-	1%
Role-Playing	87.5%	37.5%	21.1%	3.3%	18.2%	50%	22.7%
Other	-	-	2.6%	3.3%	-	-	2.1%

Key 75-100% 50-74% 25-54%

Discussion

- A majority of NPTs were P4 students or residents (Fig. 1)
 - May reflect the population sampled and indicate additional opportunities available at level of training and/or rotation or program requirements
- Most NPTs answered NPL questions as part of their NPE experience, however, higher level NPTs indicated they performed grading and assessment more frequently (Fig. 2)
 - May be due to higher level of entrustment based on higher level of NPT training
- A greater frequency of benefits was selected as compared to limitations, despite having similar numbers of benefit (10) and limitation (9) choices presented on the survey (Fig. 3 and 4)
 - Results suggests that NPTs perceive NPE opportunities favorably
- The top benefits noted are related to teaching opportunities and giving back to a pharmacy program, with a majority of NPTs indicating their participation as voluntary or a combination of voluntary and required
 - May suggest that NPTs seek out NPE experience for professional development and altruistic reasons
- NPTs noted unclear expectations of role as a limitation (Fig. 4)
- Increased workload and time constraints were indicated as limitations of the NPE experience (Fig. 4), yet a majority of NPT's reported spending 60 minutes or less preparing for their NPE experience (Fig 5)
 - Results suggests pharmacy lab coordinators should be cognizant of NPT time commitment and set clear expectations for participation
- A majority of NPTs (78.4%) indicated they received adequate feedback
 - Indicates current feedback practices on NPE experience are appropriate
- Answering NPL questions was most meaningful experience (32%) for NPTs, however greater variety is observed with higher level NPTs
 - Results may be reflective of overall experiences offered to NPTs
 - Suggest that activities with higher level of entrustment should be offered to higher level NPTs to increase perceived benefit of experience

Limitations

- Opportunity exist for participant recall bias in survey responses
- Majority of survey responses from two of six surveyed institutions in Big Ten schools of pharmacy

Future Directions

Identify preferred methods for NPT preparation and feedback on NPE experience

Establish best practices for incorporation of NPT in skills labs

Assess effectiveness of NPT on NPL performance

Disclosures

The authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation

References

