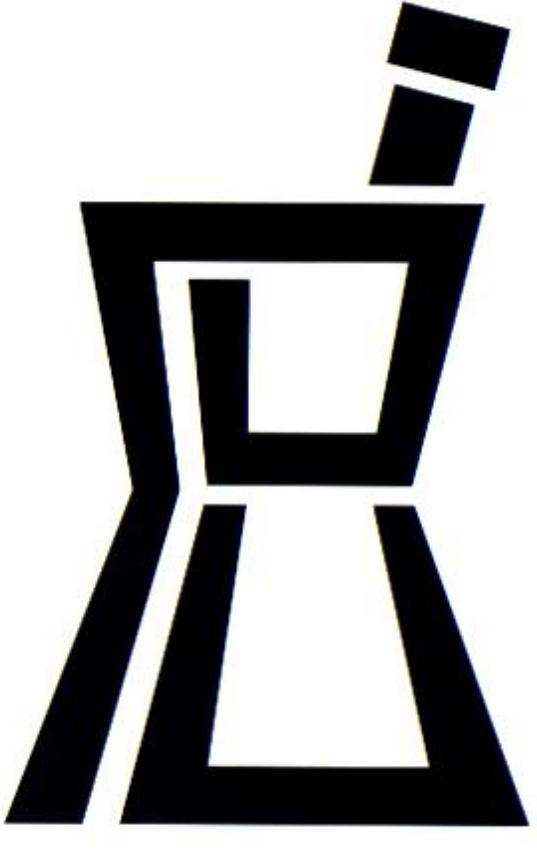


# Evaluation of Near-Peer Teacher Experience within Pharmacy Skills Laboratories

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## Background

- Near-peer education (NPE) is defined as senior trainees with at least one more year experience educating junior trainees<sup>1</sup>
  - 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 teaching<sup>2</sup>
- There is limited information on NPE in pharmacy education<sup>3-5</sup>
- 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

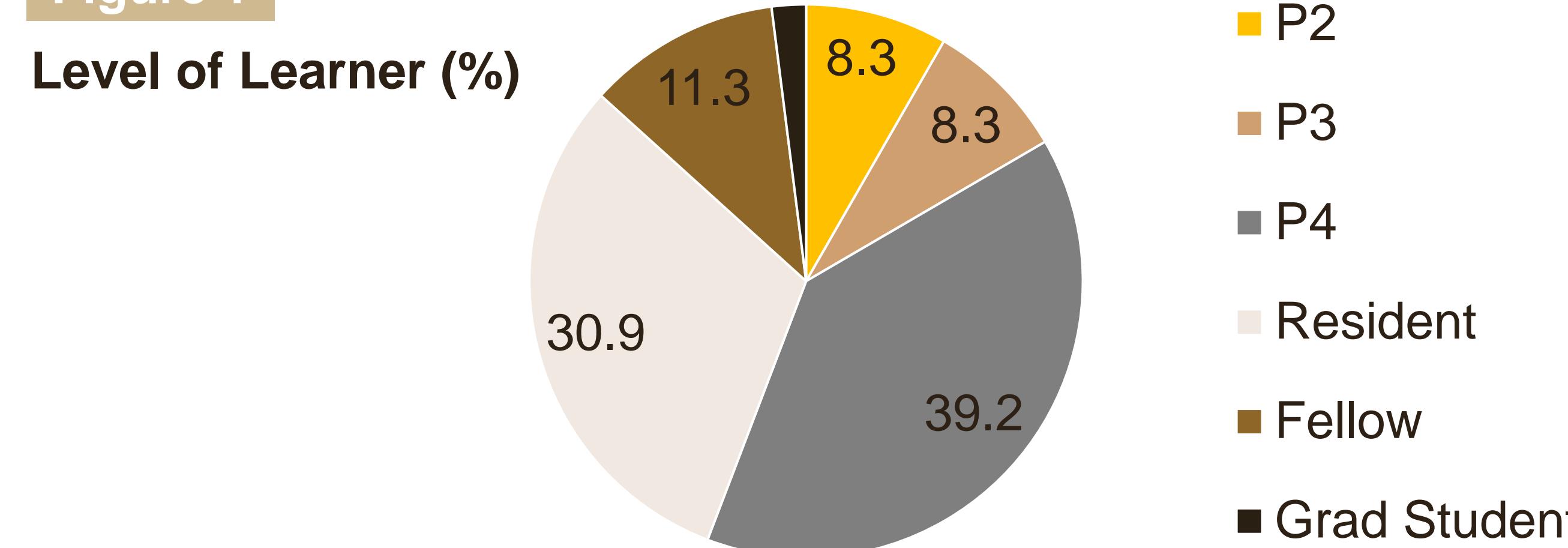
## Methods

- 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

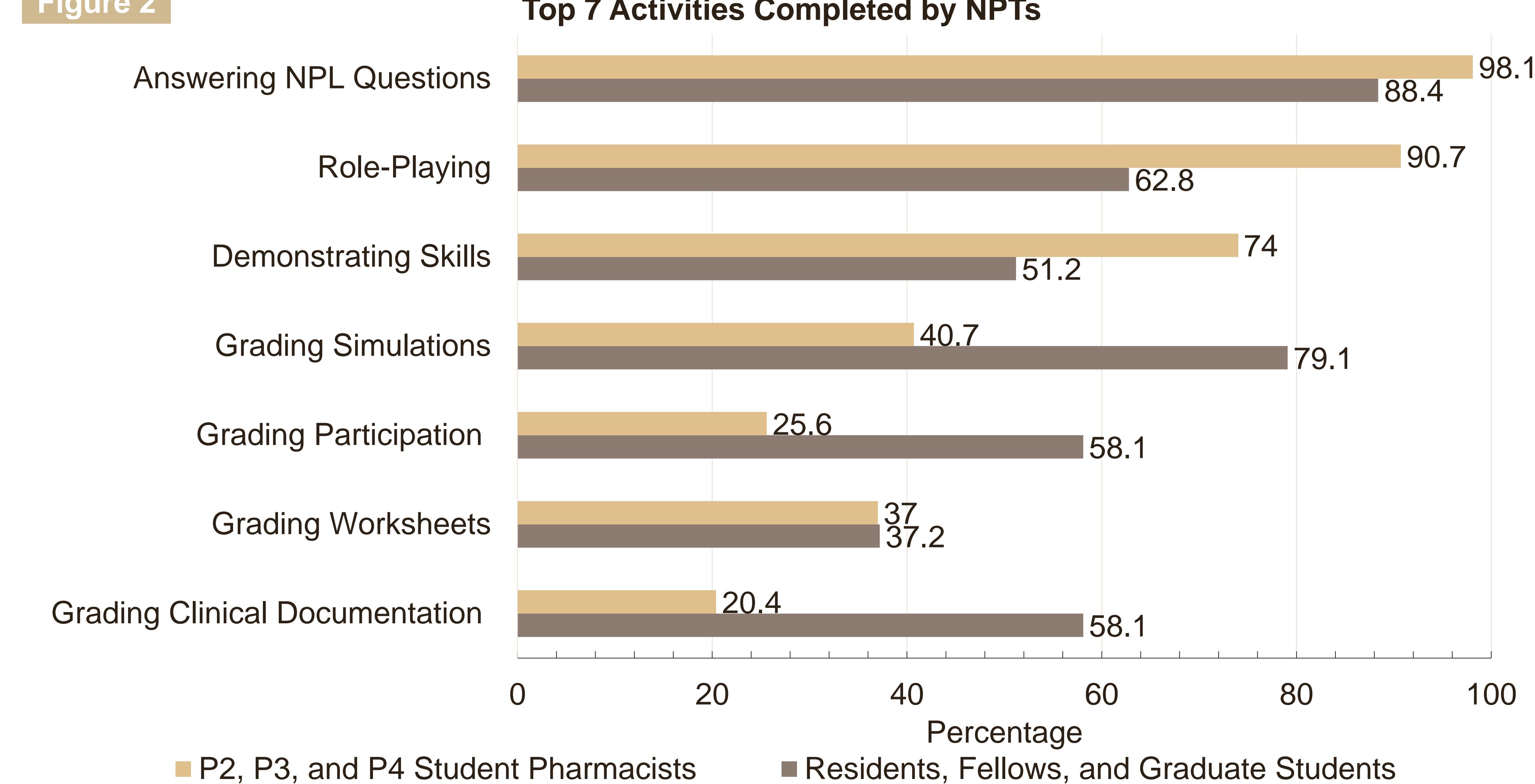
- 237 surveys were distributed with 133 responses (56% response rate)
  - 35 responses (26%) excluded from analysis due to exclusion criteria
- Most participants were female (72.9%), from Purdue University (40.2%), and P4 students (39.2%) (Fig.1)
- NPTs reported participation in pharmacy skills lab NPE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

Figure 1



## Primary Objective Data

Figure 2



## 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 4

### Top 3 Limitations of NPT Experience (Total: 194)

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

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 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%

## 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 NPTs 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

