

# Strengthening Pediatric Audiology Graduate Training Programs:

## Peer Teaching in Preschool Community Hearing Screenings

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### Abstract

AuD programs disproportionately place students in adult and geriatric settings, leaving graduates underprepared for pediatric practice, a critical gap for the EHDI workforce. PHASE UP (Pediatric Hearing and Speech Education - University of Pittsburgh) applied a Scholarship of Teaching and Learning (SoTL) peer teaching model within preschool community hearing screening clinics, where senior AuD graduate students served as peer teachers for first-year AuD & SLP students.

#### Across five reflective surveys, peer teachers reported:

- Increased confidence in pediatric clinical skills
- Peer teaching as a valuable learning strategy & professional responsibility
- Sustained enthusiasm for pediatric practice throughout the term
- Growing professional identity as leaders and clinical instructors

This practical, low-cost, and replicable model offers AuD programs a straightforward path to more pediatric clinical experiences, stronger clinical educator development, and a more robust EHDI pediatric audiology workforce.

### Introduction

The Scholarship of Teaching and Learning (SoTL) promotes systematic study of instructional practices to improve student learning and educational effectiveness (Boyer, 1990; Glassick et al., 1997). In Communication Sciences and Disorders (CSD), SoTL supports the integration of foundational knowledge with developing clinical competencies.

Based on current peer-teaching research, surveys assessed self-reported confidence in teaching pediatric hearing screening procedures, comfort teaching peers, perceptions of peer teaching as a valuable professional responsibility, leadership development, integration and application of classroom knowledge to clinical practice, and attitudes toward pediatric care.

Instructional strategies such as simulation, case-based learning, and peer teaching have been examined within CSD to enhance engagement, knowledge retention, and clinical skill development (Lambiase, 2017). PHASE UP applies this framework within a pediatric screening clinic to:

- Expand pediatric clinical exposure for AuD students
- Build confidence in pediatric skills
- Develop clinical instructor leadership in peer teachers
- Strengthen the EHDI workforce pipeline

### References

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. The Carnegie Foundation for the Advancement of Teaching.

Glassick, C. E., Huber, M. T., & Maeroff, G. I. (1997). *Scholarship Assessed: Evaluation of the Professoriate*. Jossey-Bass.

Lambiase, M. J. (2017). Enhancing clinical education in Communication Sciences and Disorders through flipped classrooms. *American Journal of Speech-Language Pathology*, 26(3), 962-973.

### Methodology

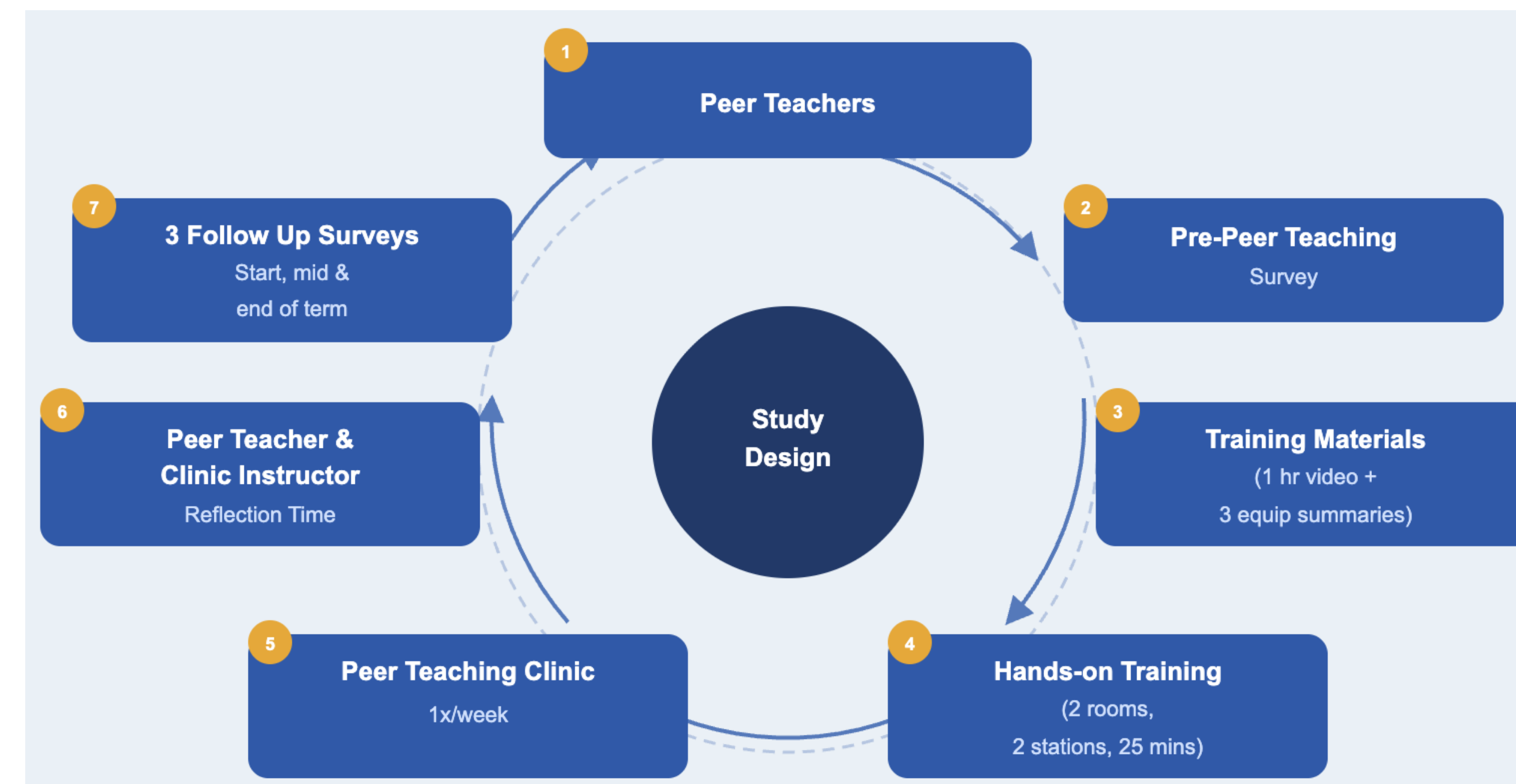


Figure 1. Timeline of peer teaching training and collecting data throughout the semester

| Phase                    | Who   | What  | Details   |
|--------------------------|---|---|---|
| <b>Participants</b>      | 3 senior AuD students   | Selected as peer teachers                           | ≥1 year PHASE UP experience; selected by clinical availability  |
| <b>Pre-Learning</b>      | Peer teachers   | Asynchronous self-study                             | 1-hr Panopto video + 3 one-page graphic organizers on screening equipment   |
| <b>Hands-On Training</b> | 2 peer teachers & 2 clinical instructors                      | Simultaneous station-based training                 | 2 rooms<br>• 1 peer teacher + 1 clinical instructor per room<br>• 2 stations each · 25-min rotations<br>• Four 1-hr blocks<br>• Peer teachers: otoscopy, pure-tone, conditioned play audiometry<br>• Instructors: tympanometry, DPOAEs (Figure 1) |
| <b>Screening Clinics</b> | 1 peer teacher: 2-4 first yr. students, 1 clinical instructor | Preschool community hearing screenings              | 2 stations<br>• 3-hr block<br>• 11-30 preschoolers/session<br>• Skills: otoscopy, tympanometry, DPOAE, pure-tone screening, conditioned play audiometry   |
| <b>Data Collection</b>   | 2 peer teachers   | 5 surveys total, 2 pre clinic, 3 during fall clinic | 5-point Likert scale · anonymous & voluntary  |
| <b>Survey</b>            | <b>Interval Time</b>  | <b>Peer Teachers</b>                                |   |
| Survey 1                 | Pre Peer-Teacher Survey                                       | All 3 Peer Teacher                                  |   |
| Survey 2                 | Post-Hands-on Training Peer Teacher Survey                    | 2 Peer Teachers                                     |   |
| Survey 3                 | Start of Clinic Peer Teacher Survey                           | 2 Peer Teachers assigned to PHASE UP                |   |
| Survey 4                 | Midterm Clinic Peer Teacher Survey                            | 2 Peer Teachers assigned to PHASE UP                |   |
| Survey 5                 | End of Term Clinic Peer Teacher Survey                        | 2 Peer Teachers assigned to PHASE UP                |   |

Figure 2. Phase descriptions and peer teacher survey schedule

### Results

|                                   |  |
|-----------------------------------|--|
| <b>Confidence &amp; Comfort</b>   | <ul style="list-style-type: none"> <li>• Self-reported confidence in teaching pediatric hearing screening procedures increased over the semester</li> <li>• Comfort teaching peers started and remained consistently high in both supervised and independent contexts</li> <li>• Ratings regarding whether independent teaching further increased confidence were neutral</li> </ul> |
| <b>Peer Teaching Perceptions:</b> | Perceptions of peer teaching were strongly positive across time, with participants endorsing it as: <ul style="list-style-type: none"> <li>• A valuable and effective learning method</li> <li>• An important professional responsibility of audiologists</li> </ul>   |
| <b>Qualitative Themes</b>         | <ul style="list-style-type: none"> <li>• Increased leadership awareness</li> <li>• Strengthened integration of foundational knowledge</li> <li>• Improved application of classroom concepts to clinical practice</li> <li>• Sustained positive attitudes toward pediatric care throughout the semester</li> </ul>  |

### Discussion

Findings suggest that structured peer teaching within a pediatric screening clinic can reinforce clinical learning while supporting early professional development. Taking on a teaching role did not reduce comfort or interest in pediatric practice, but instead, it appeared to deepen clinical reasoning and knowledge through active explanation and leadership engagement.

#### Key Interpretations

- **Dual benefit:** Peer teaching expanded pediatric clinical exposure for AuD students while building clinical instruction skills in peer teachers; two distinct but complementary outcomes
- **Knowledge deepening:** Teaching responsibilities promoted stronger knowledge integration through cognitive rehearsal and peer explanation
- **Confidence maintained:** Comfort remained high in both supervised and independent contexts; peer teaching did not increase anxiety or reduce clinical confidence
- **Leadership growth:** Reported growth in leadership awareness supports peer teaching as a tool for early professional identity development within audiology's scope of practice
- **EHDI workforce:** Sustained positive attitudes toward pediatric practice suggest this model may increase the likelihood graduates pursue pediatric and EHDI workforce roles

#### Limitations

- Small sample size (N = 2)
- Reliance on self-reported perceptions
- Single program context

### Conclusion

Peer teaching in a preschool community hearing screening clinic is a practical, effective, and easy-to-replicate model that addresses two key gaps in AuD training: too few pediatric clinical placements and limited opportunities to develop clinical teaching skills. Results support peer teaching as a meaningful educational approach with direct relevance to growing the EHDI pediatric audiology workforce. This model gives AuD programs a straightforward way for graduate students to be more confident working with children and better prepared to teach and lead in clinical settings, strengthening the profession from the inside out.

#### Future Directions

- Multi-site replication with larger samples
- Evaluate outcomes of first year peer learners
- Longitudinal career tracking: exploring percentage of AuD graduates seeking pediatric careers upon graduation who also served as peer teachers in PHASE UP