Review Article

Teaching and Mentoring Students in the Life Participation Approach to Aphasia Service Delivery Perspective

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Purpose: This review article examines potential approaches for teaching and mentoring students in the Life Participation Approach to Aphasia (LPAA). The authors review applications of a variety of evidence-based pedagogies, including both course-based and non–course-based teaching interventions. The intent is to create a cohesive and comprehensive resource for teaching and mentoring in the LPAA framework. **Conclusion:** Multiple pedagogical strategies are available to support LPAA inside and outside of the classroom. A model for the LPAA teaching and learning framework is introduced, which identifies crucial elements of a comprehensive teaching and mentoring approach. Experiential learning, development of learner knowledge and service delivery perspectives, exposure to the lived experience, and authentic, relationship-based learning are emphasized. A multipronged approach is necessary to develop commitment to an LPAA framework.

The Life Participation Approach to Aphasia (LPAA) is a service delivery approach that holds re-integration into personally selected, meaningful life activities as paramount (Chapey et al., 2000). Adhering to this ideal, in a health care and rehabilitation context where productivity and efficiency are often in competition with person-centered care, is a challenge for health care providers with strong commitment to this service delivery framework. It can be even more challenging to train and enculturate new speech-language pathologists (SLPs) and related professionals in a manner that is sustainable and whereby early professionals are committed to the LPAA. Although the LPAA is gaining momentum in training programs, simply telling students about it or providing readings may not be enough to make it stick. In order to develop future professionals who are committed to LPAA principles across phases of recovery and rehabilitation, experience and practice opportunities are crucial.

It takes more than content knowledge to promote confidence and adherence to a service delivery framework. Difficulty understanding and integrating abstract clinical concepts and service delivery frameworks are common among novice SLPs (Hoben et al., 2007). Certainly, students require more than declarative knowledge to make the leap toward integrating higher level principles in treatment contexts. Finch et al. (2013) report that communication sciences and disorders students, who had received aphasia coursework but not clinical aphasia placement, were not confident in their communication abilities with individuals with aphasia. Subsequently, the authors suggest incorporation of practical training in communication strategies and opportunities to interact with individuals with aphasia. Although a lack of confidence is not uncommon in other preservice student populations such as nursing (Panduragan et al., 2011), it does have the potential to lessen the student's ability to focus on clinical decision making due to the cognitive load involved in skills training and communication training. Hands-on training was an effective means to enhance confidence, capability, and implementation of communication principles and techniques. This not only improved patient outcomes but also improved levels of confidence and the overall student experience. Finch et al. advocate for practical exposure to individuals with aphasia, such as a communication partner training program, and suggest that such a program is beneficial not just for communication

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sciences and disorders students but for other allied health students as well who would commonly be interacting with individuals with aphasia in a rehabilitation department or program (Finch et al., 2013). This suggests that hands-on experience is crucial for integrating knowledge and skills.

In this current paper, the authors propose a potential framework of core teaching elements within an LPAA framework. Although no single approach is a failsafe to ensure application and implementation of LPAA principles, the following framework is founded in research evidence:

1. Emphasize experiential learning, such as hands-on, contextualized interactions with individuals with aphasia.
2. Focus on learner development, which includes a broader understanding of service delivery principles, addresses course outcomes (e.g., characterization of aphasia type and severity, assessment and evaluation, interaction and intervention, and management), and addresses clinical outcomes (e.g., implementing assessments and evaluations, implementing effective interactions and interventions).
3. Emphasize the lived experience, including life related to the continuum of type and severity, time postonset of aphasia, and the impact on social participation.
4. Employ multipronged learning contexts within the classroom, community, clinic, or research settings; with a variety of collaborators including instructors, clinical supervisors, peers, people with aphasia, and their partners.
5. Emphasize authentic, relationship-based learning at the core of all instruction.

A curriculum for teaching and learning about the LPAA should be multipronged. It is not enough to simply talk about the approach. Hands-on, experiential learning and reflection are crucial in training students (Horton et al., 2004; Purves et al., 2013; Wilkinson et al., 2013). Learners must see it in action and learn to troubleshoot the barriers that will arise in their professional contexts (Walden & Bryan, 2011). Kagan et al. (2008) developed A Framework for Outcome Measurement in aphasia, which addresses living with aphasia from a life participation perspective. Following an educational framework that parallels the A Framework for Outcome Measurement (Kagan et al., 2008), the LPAA framework for teaching and learning includes experiential learning, a focus on learner development, emphasis on the lived experience, and multipronged learning contexts (see Figure 1 for the LPAA framework for teaching and learning).

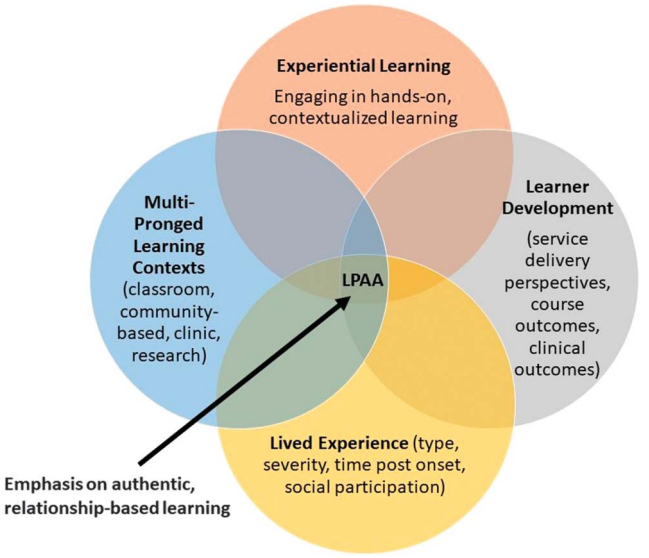
The following section addresses specific instructional pedagogies under the lens of this framework. Table 1 provides a comparison of these elements across pedagogies.

Applied Learning: Instructional Pedagogies

Pedagogy: Traditional, Lecture-Based Versus Active Learning

There is nothing fundamentally wrong with lecture. It remains an effective way to share declarative knowledge.

Figure 1. The Life Participation Approach to Aphasia (LPAA) framework for teaching and learning.



Lecture may be more effective, however, in conjunction with other experiential learning approaches. Flipped approaches move lectures outside of class time, whereas moving hands-on experiential learning and troubleshooting to the classroom context (Baker & Mentch, 2000). Although there is evidence that this approach fosters better academic performance, students' perceptions and attitudes toward the approach are not always positive (Bembenutty, 2009; Ferreri & O'Connor, 2013; O'Flaherty & Phillips, 2015). A frustration expressed by students, along with the expectation for more self-regulated learning, is the lack of verification and validation of learning in the flipped approach (S. G. Wilson, 2013; Yeung, 2014). Hoepner and Hemmerich (2018) compared traditional lecture-based teaching to flipped and modified flipped (sandwich) pedagogies. The sandwich approach, a modification to the flipped approach, blends experiential learning with contextualized, direct instruction and feedback (Hoepner & Hemmerich, 2018). In their multiyear, cross sectional, mixed methods investigation comparing lecture to flipped to sandwich, Hoepner and Hemmerich (2018) found that both the flipped and sandwich approaches outperform lecture, regarding exam performance. Furthermore, qualitative analyses reveal more positive student perceptions and sense of learning validation given the sandwich approach, addressing a key shortcoming in several studies of the flipped approach. Although this section is not intended to be an exhaustive review of instructional pedagogies, we hope that it encourages instructors to recognize the need for interactive learning opportunities where students can verify learning with instructors.

Experiential learning. A shortcoming of traditional, lecture-based instruction is the lack of application in context. Active learning approaches move learners to more hands-on application.

Table 1. Characteristics of applied learning instructional pedagogies.

Pedagogy	Demonstration of learning and potential outcomes of learning	The learner	Opportunity to see range of recovery continuum and types of aphasia	Potential instructors	Recurrence of learning opportunities	Observational versus interactional opportunities	Involvement of individual with aphasia and/or care partner	Consistency across learners
Traditional, lecture-based pedagogies	Range of traditional and innovative assignments	UG and G in courses	Yes, exposure to examples across the continuum	Traditional course instructor, teaching assistant	Yes, dependent on course design and assignments/ requirements	Potential opportunities for interactions within the classroom	Potentially, but would need to be explicitly set up by instructor	High
Skills training	Return demonstration of targeted skill in interactions with someone who has aphasia or simulated aphasia	UG and G in course, clinic, and UG, G, CV, IDIS in preservice learning for nontraditional learning environments	Dependent on how skills training tasks are set up	Traditional course instructor, teaching assistant, or SLP, rehab professional; individual with aphasia, care partner	Yes— dependent on course design and assignments/ requirements	Both	Potentially, sometimes involved in preservice training	High
Clinical experiences	Wide range of clinically based outcomes, and service delivery	UG and G student clinicians	Potentially, may be constrained to one client or many across continuum	Clinical supervisor and other members of the care team	Yes	Both	Yes	Varied
Student–faculty collaborative research	Various aspects of research project from design to dissemination	UG and G student researchers	Potentially— dependent on topic and level of involvement	Research mentor, research participants (indirectly)	Potentially	Depending on project could be either or both	Potentially as either research consultant or participant	Varied
Simulations	Completion of simulated activity/ skill	UG and G in courses and nontraditional learning environments	Yes, typically multiple individuals are represented	Course and/or clinical supervisor	Yes	Both	Could guide development of simulation but not directly involved	High
Standardized patients	Skill-based/scenario-based tasks and situations	UG and G in courses and nontraditional learning environments	Potentially, if multiple individuals are represented	The standardized patient and the supervising instructor	Potentially	Both	Could guide development of standardized patient but not directly involved	High
Immersion	Highly varied from specific communication objectives to interactional proficiency, and service delivery	UG, G, CV, and IDIS in nontraditional learning environments	Yes, multiple individuals along the continuum	Immersion staff, peers, individuals with aphasia, and care partners	Yes	Interactional	Yes	Varied

(*table continues*)

Table 1. *(Continued).*

Pedagogy	Demonstration of learning and potential outcomes of learning	The learner	Opportunity to see range of recovery continuum and types of aphasia	Potential instructors	Recurrence of learning opportunities	Observational versus interactional opportunities	Involvement of individual with aphasia and/or care partner	Consistency across learners
Communication partners	Ranging from specific communication objectives to interactional tasks communication objectives	UG, G, CV, and IDIS in nontraditional learning environments	Possibly, typically one or two individuals along the continuum	Person with aphasia, partner, communication partner program supervisor	Yes	Interactional	Yes	Varied
Groups	Ranging from specific communication objectives to interactional tasks communication objectives and service delivery	UG, G, CV, and IDIS in clinic or nontraditional learning environments	Yes, multiple individuals along continuum	Aphasia group clinician, peers, people with aphasia, and care partners	Yes	Interactional	Yes	Varied
Mentorship programs	Communication, interaction, participation tasks	UG, G, CV, and IDIS in nontraditional learning environments	Typically, just one individual	The individual with aphasia	Yes	Interactional	Yes	Varied
Course-embedded clinical experiences	Ranging from specific communication objectives to interactional proficiency and communication objectives, and service delivery	UG, G, and IDIS in course/clinic/ nontraditional environments	Yes, multiple individuals along continuum	The course instructor, clinical supervisors, peers, individuals with aphasia, and care partners	Yes	Interactional	Yes	Varied

Note. The writers acknowledge that, in nearly all scenarios, there is opportunity for some degree of variability and innovation to modify the categories listed. Presented here are typical applications of such items/content. UG = undergraduate student; G = graduate student; CV = community volunteer; IDIS = interdisciplinary students.

Learner development. Typical lecture-based approaches focus primarily on course-based learner outcomes, which are heavy on declarative knowledge and light on clinical outcomes and service delivery applications. There is potential for the learner to be a passive recipient.

Lived experience. Typical lecture-based approaches focus on factual knowledge related to type and severity but focus less on social participation and the experience of persons with aphasia.

Multipronged learning contexts. Typical contexts are constrained to classroom settings.

Pedagogy: Skills Training

Skills training is a component of several of the other pedagogies addressed in this review article, including preservice training for clinical experiences, immersion, communication partners, groups, and course-embedded clinical experiences (CECEs). As such, understanding the framework for skills training is foundational for implementing those pedagogies. Supported conversation is a technique crucial to supporting everyday interactions with many individuals with aphasia. Kagan et al. (2001) examined this training through a 1-day workshop, where volunteers were trained in the background and purpose of Supported Conversation for Adults with Aphasia (SCA), followed by a 1.5-hr hands-on session. The investigation demonstrated efficacy of SCA training in improving skills of volunteer conversation partners. Their partners with aphasia also demonstrated improved conversational skills. This framework was also used to train undergraduate and graduate SLP students in communication partner training. The training provides firsthand exposure to the LPAA (Wilkinson et al., 2013). Along with training, reflection was used to extend student learning. Student reflections indicated that students appreciated the opportunity to practice communication skills, connect with people with aphasia, and improve knowledge of communication strategies. Welsh and Szabo (2011) trained certified nursing assistants to implement supported conversation techniques. The program was person driven, as the group had previously identified nursing staff training as a priority. A 90-min training was conducted, including 75 min of direct instruction, preceded, and followed by a pretest and posttest, accounting for the remaining 15 min. The training followed a format of first-person narratives, group discussions, video examples, and question and answer exchanges. The authors reported percent change from pre- to posttest, with most participants demonstrating improvement from pre- to posttest. There also appear to be benefits to the individuals with aphasia who participated in the project. The authors remark that aphasia groups and community programs are a logical setting to employ such education initiatives. They emphasized that individuals with aphasia have expert knowledge and should be a part of training students in the LPAA. While it is noteworthy that a 90-min training produced less robust changes than a full-day workshop plus 1.5 hr of hands-on practice, this is a feasible and scalable training, which reached 262 nursing students.

Cohen-Schneider (2019), via the Aphasia Institute of Toronto, provides example objectives and activities that may be implemented into field placement to support teaching and understanding of the LPAA framework. The approach embeds opportunities such as shadowing, observing proficient SCA users, completing life history books with clients, and guided observation exercises. Charon (2001) encourages narrative competence and advocates for seeing clients outside of the typical clinical setting. The Aphasia Institute also utilizes a "mediator model" to incorporate trained, lay volunteers within the Aphasia Institute's programming (Cohen-Schneider & Hill, 2019). After screening and selecting volunteers (who range in age from 18 to 65 years, with approximately half in the 18- to 25-year-old range), the volunteers participate in a structured 7-week training and support program, followed by ongoing review afterwards. Training includes observation of individuals with aphasia and seasoned volunteers, technique training, conversation and role plays, and hands-on training followed by transitioning roles toward cofacilitator of groups.

Experiential learning. Hands-on practice is at the heart of a skills training approach. Experiences may or may not include direct interactions with individuals with aphasia.

Learner development. Skills training is highly focused on development of clinical skills.

Lived experience. Such approaches may or may not address the continuum of type and severity and may or may not address effects on social participation directly among individuals with aphasia.

Multipronged learning contexts. This can happen in a classroom, community-based, or clinic context and can include observations, peer learning, role plays, or hands-on practice with individuals with aphasia.

Pedagogy: Clinical Experiences (On and Off Campus)

Although it is beyond the scope of this review article to discuss clinical supervision and learning practices broadly, clinical experiences are certainly a context where LPAA teaching and mentoring takes place. There is a rich literature about supervision approaches for traditional on-campus clinic, off-campus/site supervision, and externship–clinical fellowship learning contexts. On- and off-campus clinic provides many opportunities for implementing several creative principles discussed in this review article. Refer to Glista and Pollens (2007) for a strong framework regarding clinical supervision in group contexts. See Sheepway et al. (2011) for a review of clinical supervision models and a discussion of innovative, "non-traditional" models.

Experiential learning. By nature, clinical experiences are highly experiential and hands on and includes some degree of guidance and/or apprenticeship.

Learner development. Clinical experiences are most likely constrained to clinical learning outcomes, although it may provide insights into service delivery perspectives.

Lived experience. If clinic involves a single client, the experience may provide a narrow exposure to the continuum of aphasia type and severity. The learner may get deep

exposure to a particular type and severity of aphasia, and deep exposure to an individual's lived experience.

Multipronged learning contexts. Although clinic generally assumes some transfer of knowledge from course-based learning contexts, the focus is on clinic contexts.

Pedagogy: Student–Faculty Collaborative Research

Many clinical researchers can attest to the value of engaging in research, as a means of learning about aphasia and related topics. Beyond a consensus of anecdotal evidence that conducting clinical research fosters deep learning about research topics, there is a small body of research examining student learning outcomes related to engaging in collaborative research. Student learning outcomes have been examined in relation to engagement in clinical research outside of our discipline. Engaging undergraduate students in collaborative research has a positive influence on mindset regarding the importance of clinical research in everyday practice (Thompson et al., 2001). Beyond shaping students' mindsets, some clinical research contributes to the development of skills required to be effective clinicians. Having a role in data collection alone helps students see research as an important part of clinical work (Slattery et al., 2016; Thompson et al., 2001). In addition to learning deeply about the research process, students gain high-level clinical knowledge specific to their research topic (Slattery et al., 2016). Within our discipline, outcomes of student learning connected to research experiences is emerging. Look et al. (2019) examined student learning outcomes related to undergraduate student contributions to a systematic review of right hemisphere brain damage. Along with growth in research skills, particularly database searching and information literacy, students identified an increased ability to apply course-based learning and clinical approaches included in the articles they examined. Dincher et al. (2020) examined student perspectives related to their role in a research project examining constraint induced aphasia therapy. Student researchers served as clinicians in this treatment study. Upon reviewing student reflections, this investigation found that hands-on experience increases confidence. Viewing peers in action is a factor in building that confidence. With increased confidence comes increased flexibility. Clinical research increased understanding of the clinical process. Being involved in clinical research helped students reach a level of competency that they would not have reached in a typical clinical experience. At the outset, all four students identified that they had been adequately trained and yet they felt a lack of confidence at the outset of the project. Seeing real people with aphasia and apraxia helped to bridge the gap between classroom and clinic. Although not easily scalable for teaching cohorts about high-level principles such as LPAA, collaborative research can be one element of a multipronged approach, and selecting LPAA-based research topics increases student–researchers' exposure to the LPAA as a viable research and clinical framework.

Experiential learning. Research may include direct interactions with individuals with aphasia, either as a treatment study or as an assessment/interview/observation context or may include no direct interactions with individuals with aphasia.

Learner development. The type of development depends on the type of research. It may address clinical outcomes or development of service delivery perspectives or factors unrelated to typical student learner outcomes.

Lived experience. Exposure is dependent upon the type of research. It may address the type and severity continuum of impairment or factors related to social participation, or it may have little connection to the lived experience.

Multipronged learning contexts. The type of learning contexts is dependent upon the nature of research. It could include community-based or clinical contexts but may be constrained to research contexts.

Pedagogy: Simulations

Simulations substitute direct clinical experiences with complex cases that create an authentic representation of clinical contexts. This approach enables instructors to guide the learning and create equivalency across students and can be scaled to any number of students quite easily. Hill et al. (2014) examined a simulated 12-week, 3-hr per week, clinical placement that used a hybrid framework of standardized patient interviews, group workshops, case-based discussions, and real client screening assessments. An outline and timeline for the simulated clinical placement is included on p. 467 (Hill et al., 2014). Although the simulated clinical placement was not specific to aphasia or the LPAA, it provides a framework for incorporating experiential learning in a manner that creates a relatively homogenous experience across students. A benefit of this type of placement is that performance can be measured across the placement elements, so that students can focus on refining deficient skills in subsequent clinical practicum placements. Horton and colleagues (Horton & Byng, 2000a, 2000b; Horton et al., 2004) have also examined a framework for integrating clinical training into courses and other academic contexts. They employed an interaction analysis system along with video observations and practice simulations to examine self-perceptions and self-assessment of their own therapeutic interactions and then compared them to an objective written assessment, objective video observation assessment, and assessment of their abilities in clinical practice. Therapy enactment frameworks were used to foster reflection on their own experiences implementing interventions and on video observations of interventions by more experienced clinicians. This was intended to help students reflect on action (i.e., reflect on the quality of what they or the more experienced clinician did) and to eventually enable them to reflect in action (i.e., evaluate quality of their interactions in the moment so that they could make adjustments online). Teaching simulations paired two students who took turns serving as the trainer and trainee, whereas a third person served as an observer. Reflection in action was examined by comparing reflections from the trainer and the observer. Including clinical supervisors in scenario development, implementation, and assessment allows instructors to generate cases that are very representative of real cases

(Moule et al., 2008). In the context of LPAA, this gives the flexibility to weave principles within the case scenario.

Clinard and Dudding (2019) examined student perceptions of a computer-based simulation. Although the simulation was not specific to aphasia, some student perceptions of strengths and weaknesses were identified that have relevance to the LPAA. Broadly, themes of communication, skill practice, technology, and independent learning were identified by students as both strengths and weaknesses. Students valued the opportunity to communicate following feedback from the system, but there was often confusion about logistics and a lack of clear expectations. It was a good venue to practice the skills of collecting case history and collaborating with other professionals/peers, but students would appreciate more practice selecting, administering, and interpreting assessments and more opportunities to practice. Although students appreciated the exposure and context provided by the technology, it was not as complex as real life, so it became too easy and limiting. Specifically, students felt that live diagnostic evaluations would have been better. Opportunities for independent learning were appreciated as a way to apply coursework and use resources; however, challenges with the program and system feedback were drawbacks.

Like actual clinical experiences, students engaged in simulations learn through doing (Hope et al., 2011). The hands-on application allows students to solidify understanding of course content, while extending it to clinical application. Hope et al. (2011) report that students feel safe to ask questions in this context, which increases their self-confidence. In addition to increased confidence, students report improved competence and skills (Moule et al., 2008; Murray et al., 2008). This type of complex, believable environment also fosters development of professionalism (Hope et al., 2011). Because students do not interact with living people, simulation does not fully encompass the unpredictability of actual interactions (Murray et al., 2008). That being said, problem solving, decision making, and creative thinking skills develop as a result of simulation. As is evident in the articles reviewed previously, simulation can be a blend of computerized, role play, and "real" interactions. It may be useful to draw upon a hybrid approach to address limitations of a fully simulated approach.

Experiential learning. Hands-on practice is a hallmark of simulation, although it typically achieves this through avatars or standardized patients with a somewhat scripted, profile-based response system.

Learner development. Simulation has the potential to address course-based outcomes, clinical outcomes, and development of service delivery perspectives. Learning outcomes are consistent across learners given standardization of scenarios.

Lived experience. Simulation can provide exposure to a continuum of type and severity. This may provide limited, case-based exposure to factors that contribute to social participation.

Multipronged learning contexts. Simulation is most likely to address a clinical context.

The section that follows discusses the use of standardized patients, an approach that is sometimes considered interchangeable and equivalent to simulated patients. We see standardized patients as a subtype of simulation worthy of specific discussion.

Pedagogy: Standardized Patients

Standardized patients are individuals who have been trained to portray specific patient profiles within particular contexts (Burns et al., 2012). A particular value of this type of instruction is that the supervisor can contribute to design, control the interaction, and repeat scenarios across learners. The structured interaction allows students to transfer concepts from classroom to a mock clinical context. Although the approach can be powerful in delivering opportunities for interaction, there are limits to how authentic standardized patients can be. Typically, the standardized patient is prepared for limited scenarios, such as interviews, screenings, and assessments. More informal and flexible interactions would be atypical. Furthermore, there is cost and training time associated with standardized patients that may make it infeasible for many training programs without access to trained actors.

Zraick et al. (2003) specifically examined the use of standardized patients with aphasia for training interpersonal and communication skills to graduate students. Standardized patients with Broca's, Wernicke's, and anomic aphasia were chosen given their relatively higher prevalence. All students identified standardized patients as appropriate, and 89% indicated that they should be incorporated in future courses. Furthermore, results indicated that guided practice with standardized patients could substantially improve students' interactional competency with individuals with aphasia.

Experiential learning. Hands-on practice is a hallmark of simulation and standardized patients, although it typically achieves this through interactions with trained actors with a somewhat scripted, profile-based response system.

Learner development. Standardized patients have the potential to address course-based outcomes, clinical outcomes, and development of service delivery perspectives. Learning outcomes are consistent across learners given standardization of scenarios.

Lived experience. Standardized patients can provide exposure to a continuum of type and severity. It may provide limited, case-based exposure to factors that contribute to social participation.

Multipronged learning contexts. Standardized patients most likely address a clinical context.

Pedagogy: Immersion

Immersion learning is a broad concept, which can include domestic or international settings, but ultimately includes a period of residing among people from another culture. In the context of aphasia, we will consider the culture of living with aphasia, and our examples are domestic immersions. Quinn-Lee and Olson-McBride (2012) define domestic immersions as "an innovative pedagogy in which

students are removed from the traditional, brick-and-mortar classroom setting and immersed into and guided through a culture that differs significantly from their home culture" (p. 121). This includes residing with and engaging with another culture, 24 hr a day for an extended time (Stachowski & Mahan, 1998). Although the length of time required to meet criteria is debatable, extended contact and living alongside of another culture are core elements of immersion. Such criteria can be applied to residential contexts for individuals with aphasia, where students live among and interact with people with aphasia for an extended time.

Rustic, residential aphasia camps have been discussed as one example of immersion learning involving the LPAA. Hoepner et al. (2012) completed a 9-year review of student learning outcomes at an aphasia camp (n = 90 students, 144 experiences). At that time, it was the first empirical investigation of domestic immersion among persons with communication disorders, specifically aphasia, within the discipline. Students applied for the opportunity to serve as volunteers at camp. Those accepted attended three trainings to learn supported conversation skills, camp logistics, and other preparations. For 3 days, students lived among individuals with aphasia and their care partners in a rustic, supportive context. Many students reported a transformative experience that takes place at camp. Qualitative analyses of student reflections revealed an *increased ability to apply content knowledge*, *an evolving perspective of living with aphasia*, *commitment to making a meaningful impact as a professional/service*, *interpersonal relationships*, *collaborative learning*, *inspirational/rewarding experience*, *increased confidence/self-efficacy*, and *meeting the challenge* following their experience at camp. A more recent study examined the use of video journals as a modality for student reflections (Hoepner, Sather, Homolka, Clark, & Knutson, 2019). Sixty-two video reflections were recorded over 3 days of camp for 22 students (i.e., one per day per student minus four students not present on the final day). Statements were initially coded into categories established a priori based on the previous investigation (Hoepner et al., 2012), but inductive analysis was used to identify overarching themes and to drill down to subcategories. Three overarching themes were identified: applied learning, service, and clinical experience. All three of those themes have potential implications for learning about the LPAA framework. Three categories fall within applied learning, which are expanded below. Applied learning includes "increased application of content knowledge" acquired in classroom contexts, as evidenced from the following student quote: "I, um, communicated with some people who have more severe aphasia, so I actually got to practice [smiles] some of the communication techniques that we've been working on in, um, our prep sessions." An *evolving perspective of living with aphasia* addresses insights into the realities of living with aphasia, outside of a typical clinical context. One student commented: "They (the campers) are just so intelligent and loving [emphasis]. So, it's amazing at the relationships that they each have and how involved they are and how willing they are to do everything." *Collaborative learning* recognizes staff, fellow students, and campers with aphasia or their partners as contributors to their mentorship and learning. "Even, I honestly feel like I've learned more from the campers than the campers learned from me [gestures to self]. Which, I mean, I guess is great but [laughs]." Three categories fall within service, which follow below. *Commitment to making a meaningful impact* addresses a dedication to taking a life participation approach. One student remarked: "Yeah! And it was a great time [smiles] so once again I'm just um, gonna take all the experiences with me and ya know, have this experience now and use it in my future and ya know, as a resource to look back to and make connections with." Speaking to the importance of making personal connections to individuals with aphasia, *interpersonal relationships* address the centrality of authentic relationships to a person-centered approach. *Meeting the challenge* includes moments when students overcome challenging interactions and persevere to provide the support needed to foster effective participation. "I wanted to challenge myself to go out and have a lot of one on one interactions with campers and I had a lot of opportunities to do that which was great." The final theme, *clinical experience*, includes the increased *confidence/self-efficacy* and *inspirational/rewarding* categories. Students frequently commented about their anxiety and uncertainty leading up to camp. Fortunately, that anxiety diminishes as they begin to interact with individuals with aphasia at camp. *Increased confidence and self-efficacy* for applying supported communication is certainly central to preparing students to implement LPAA upon becoming a professional. "I feel like I'm learning to communicate with people with aphasia in a lot more of an effective way." Furthermore, recognizing an LPAA-supported context as "inspirational/rewarding" may very well increase motivation to employ an LPAA framework. Beyond examining student learning outcomes related to the immersion experience, the investigation demonstrated the feasibility and potential benefits of using video journaling as a modality to foster free flowing reflection and learning.

Development of empathy is a common outcome of immersion experiences, even when empathy and compassion are high at the outset (Plante et al., 2009). Kim and Renzo Garcia (2019) examined the aphasia camp environment as a context for learning about empathy, client-centered interventions, and interdisciplinary interventions. Content analysis revealed three primary outcomes, including thinking beyond the disability, developing empathy, and supporting communication. The camp environment facilitated deeper connections with the individuals with aphasia, beyond just aphasia type and severity, small talk, and impairment-focused intervention—learning about the person's life and the impact of aphasia on everyday interactions. One student commented: "Wow, I learned so much more about you as a person. Not just your ability or disability, what have you. I learned not just about the type of severity of aphasia, I learned about how that actually hits your life." Another stated: "I did a quality of life scale

[in clinic], you know, and arguably, I asked questions that were supposed to get at other aspects of my client's life. But I feel like until aphasia camp, I didn't get at anything actually outside of the specific type/severity of aphasia kind of thing…[it] was very impairment focused." Students remarked that authentic empathy only occurs when you actually share experiences with individuals with aphasia (Kim & Renzo Garcia, 2019). Camp facilitates those shared experiences. Students also identify aphasia camp as a context for practicing, refining, and adapting their supported conversation skills. These three learning outcomes were facilitated by several environmental factors, including the absence of evaluation, absence of power differential, and an interdisciplinary environment. Students perceived less pressure than typical classroom and clinic contexts because they were not being evaluated and graded. The absence of the typical clinician–client power differential allowed for more genuine interactions. Students knew it was not a context to work on therapy but saw it as an opportunity to facilitate participation. Speech-language pathology students learned about what occupational and physical therapists do and emphasized the importance and value of collaboration. Furthermore, students reported that they learned more at aphasia camp than they did in a semester-long course on interdisciplinary practices.

Experiential learning. Hands-on, experiential learning is the primary modality of learning, as preservice training tends to be hands on and focused on skill development and onsite learning is fully immersion based.

Learner development. Immersion includes some clinic-like applications but is focused more broadly on service delivery perspectives. Apprenticeship is used to guide learners with models and in-the-moment feedback. Reflection is a primary tool for solidifying learning.

Lived experience. Immersion includes exposure to individuals from across the severity and type continuum. Learners are immersed within the lived experience and social participation context. Learning experience is unique to each student's individual experience.

Multipronged learning contexts. Immersion typically occurs in a community-based context.

*Note: Research examining video reflections as a measure of student immersion at the Chippewa Valley Aphasia Camp was approved by the University of Wisconsin–Eau Claire Internal Review Board for the Protection of Human Subjects protocol number 46072015.

Pedagogy: Communication Partners

Given the limited resources available for individuals with aphasia and the frequent long-term, chronic communication difficulties present, utilizing trained communication partners has become a viable way to support participation and communication among individuals with aphasia. In addition to addressing an ongoing need among individuals with aphasia, communication partner opportunities also provide students an authentic, long-term opportunity to gain better appreciation for the lived experience of aphasia and opportunities to incorporate course content into regular interactions. Jagoe and Roseingrave (2011) describe the Communication Partner Scheme (CPS), a service learning/volunteer experience for students, whereby a pair of students visits a conversation partner with aphasia on a weekly basis. In addition to providing an opportunity for individuals with aphasia to socialize, students had the opportunity to see an individual with aphasia in a natural context. This was a collaboration with a network of programs involved in the Connect program. Training for the broader Connect program involved several hands-on learning experiences. Students reviewed training videos created by the Connect team to identify strategies for communicating effectively with individuals with aphasia (McVicker, 2007). All together, students participated in 6 hr of training. Individuals with aphasia were involved during the final practical session and gave direct feedback to students (McVicker et al., 2009). Coupled with regular tutorials, students reflected on their experiences, deepening their understanding of the lived experience. Although the intent of communication partners is to develop attitudes and values consistent with the social model, no direct teaching about the model was provided. McVicker and Horton (2007) examined universities from the United Kingdom and Ireland who participate in the CPS, finding that students who participated in the CPS developed attitudes and skills that are consistent with the social model. Furthermore, students developed communication skills, reflected on their own attitudes toward their partners with aphasia, and gained insights into living with aphasia. At the heart of insights into the social model is the development of authentic relationships and learning about the communication partner beyond the aphasia (Jagoe & Roseingrave, 2011). This was accompanied by growth in empathy attitudes toward the individual with aphasia. The overall experience helped students move from feeling apprehensive about communicating with the individual with aphasia to confident. Students developed their communication skills and became more comfortable with silence. It is noteworthy that, at the outset, students did not feel like there was enough organization and direction of the program. That changed after students began to recognize that, as their communication skills and confidence developed, they began to enjoy visits more. Students recognized the relevance of this learning to coursework learning and their future profession. The program "…helped put a face to the people we had been learning about in classes" (Jagoe & Roseingrave, 2011, p. 144). Overall, the program helped students to better understand the effects of aphasia on a person's identity, to be able to see the person behind the aphasia, and the importance of conversation for life participation. Considering that students did not receive direct training on the LPAA/social approach, these outcomes highlight the power of experiential learning on the development of higher order principles of service delivery.

Scully (2015) examined a similar program, Visiting Aphasia Scheme, where first-year graduate students were paired with individuals with aphasia. This work is presently an unpublished master's thesis. Students received a day and a

half training, as well as a conversation workshop with an individual with aphasia. The individual with aphasia provided feedback to the student, as part of the training. Students were part of weekly meetings for the entire first semester of their graduate program. Students completed a preservice questionnaire prior to training and participated in a focus group discussion following their participation in the program. Prior to the program, students varied in their understanding of the lived experience and their attitudes toward individuals with aphasia. Following the program, students developed insights into living with aphasia, particularly the individual beyond the aphasia. Like Jagoe and Roseingrave (2011), participants in this study expressed frustrations over logistics initially. Knowledge and confidence grew for use of communication ramps to support individuals with aphasia.

Sather (2019) has begun to examine student outcomes from the communication partner program. A key preliminary finding is the development of deep, authentic relationships. One student commented: "As a student, I got to experience firsthand what it is like to live with aphasia and my partner was able to share his funny stories and beat me in countless games of cribbage. Jumping head first into the world of aphasia made this experience incredibly hard at times, especially when there were communication breakdowns that I thought I would never get through. However, being a part of this program has been so rewarding and showed me that patience and hard work always pays off." Along with establishing relationships, students identified direct contributions to the couple's communication: "As a part of this experience, I am getting to know a man diagnosed with primary progressive aphasia who volunteered to be a part of this program. It is extremely gratifying to meet with this individual outside of my studies and learn more about this specific case in a more personal manner. I have been able to help the couple with relevant communication needs to allow them to have proficient conversations to work through their daily life." Students moved from limited skills to applying communication strategies in context, to support relationship development: "Having no prior experience with aphasia, my peer and I decided to embrace the unfamiliar situation and learn from experience. Each visit improved as we discovered the most effective ways to communicate. A memorable strategy that strengthened our relationship was a modified cribbage board game. The joy brought by scheduling a time to get together and play this game was heartwarming. At this point, I realized my peer and I were serving our purpose. I could not be more thankful to be put in this challenging situation, as I learned the importance of firsthand experience. I gained confidence to step out of my comfort zone which led me to an organization I am still involved with today. Through this experience, I have gained effective communication skills and a new-found interest in aphasia. I am eager to seek out opportunities in the future to do research in this topic area."

Experiential learning. Hands-on, experiential learning is the primary modality of learning, as preservice training tends to be hands on and focused on skill development and in-home/community-based learning is fully immersion based.

Learner development. The CPS includes some clinic-like applications but is focused more broadly on service delivery perspectives. Reflection is a primary tool for solidifying learning.

Lived experience. The CPS typically involves a single client, so the experience provides a narrow exposure to the continuum of aphasia type and severity. The learner is likely to get deep exposure to an individual's lived experience. Learners are immersed within the lived experience and social participation context. Learning experience is unique to each student's individual experience.

Multipronged learning contexts. The CPS typically occurs in a community-based context.

*Note: Research examining communication partners at the University of Wisconsin–Eau Claire was approved by the University of Wisconsin–Eau Claire Internal Review Board for the Protection of Human Subjects protocol number 69502016.

Pedagogy: Groups

Groups are a powerful learning context, which also provides a meaningful service to individuals with aphasia and related neurogenic disorders. Glista and Pollens (2007) stress the importance of personal relevance, meaningfulness, and life purpose to all graduate students involved in their university-based, on-campus aphasia group programming. Their program, Aphasia Communication Enhancement, is based on the LPAA and foundational to the services delivered, as well as to the training student clinicians receive. The authors explicitly embed tenets of the LPAA in their aphasia group training protocols, group curriculum, goals development, outcome measures, and documentation. Group is a rich context for learning about the LPAA framework. Keegan and Togher (2018) introduced an innovative model for student learning in the context of groups for individuals with traumatic brain injury. Instead of being clinician driven, meetings were client led. The group meetings take place in community contexts, such as coffee shops, bowling alleys, restaurants, and museums. A student reflected that the group context "…pushed me as a clinician to embrace the individuality of my clients and consider the natural applications of therapy" (p. 26). The student goes on to say about one group member: "I gained more insight into his life and who he is as a person" (p. 26). Such insights align clearly with the principles of LPAA. By the end of their experiences, students became more confident and autonomous, which resulted in better communication skills. Students found that the client-led approach helped them to break traditional therapist–client roles, which allowed for better connections to group members.

K. P. Wilson et al. (2017) identified the power of groups for providing opportunities to interact with a wide range of individuals across type and severity. Students identified the benefits of interacting with multiple individuals

as a means to expose them to a variety of strengths, needs, interests, and communication abilities. The power of groups as a learning context can also be seen in the reflections of master clinicians and aphasiologists. In a Twitter exchange curated by @WeSpeechies in October of 2017, aphasiologists were asked about influences on their learning regarding aphasia. They did not identify texts or even research articles but rather identified mentors and the power of aphasia groups as a learning context. When asked what advice she had for students or early career clinicians who are interested in working with individuals with aphasia and their care partners, Linda Worrall responded:

> I would advise any early career aphasia therapist to learn to facilitate an aphasia group that participants love! It is so rewarding to run a group that it will sustain your passion for many years. (used with permission)

Sarah E. Wallace responded:

> So many experiences come to mind, but I thought I would share one of my first experiences that has stayed with me for many years. I decided that I wanted to work with people with aphasia after an amazing opportunity to provide group therapy during an international study abroad trip during my undergraduate program. This early opportunity to learn alongside people with aphasia has stayed with me in many ways. One woman from group began creating chalk drawings after her stroke. During some of our downtime, I would sit with her while she was doing drawings of flowers and lily pads - I still have one of her drawings hanging in my office. This time was very special to me, perhaps in part because I had a good opportunity to see people with aphasia outside of a medical setting, laughing and enjoying life. (used with permission)

By participating in aphasia groups, students have opportunities to learn concepts and philosophies of the LPAA fundamental for implementation. Students may have a variety of roles in the group setting, and these roles vary based on group structure and philosophy as well as student experience and supervisor expectations. Both authors of this review article began their interactions with people with aphasia and the social approach as students, volunteering within the community-based aphasia group and serving one-on-one as communication partners. Since then, we have served as mentors to undergraduate and graduate students in community-based contexts, graduate students in externships and clinical fellowships, and students within our courses. In our experience, students can be effective apprentices and collaborators in group facilitation regardless of academic year. In a university setting, Beeson and Holland (2006) identify multiple roles of the group facilitator, including facilitating conversations, maximizing communicative effectiveness, promoting independence, teaching, encouraging support within the group, and setting a caring and respectful tone for the group. These responsibilities are mediated in various capacities by students involved in a group setting and could provide opportunities for learning and implementation of the LPAA principles.

Aphasia groups are a setting in which authentic context is likely present. Students are communicating with multiple individuals with varying degrees of aphasia severity and are doing so in real time. Often, community-based groups include multiple supervising and collaborating clinicians from whom to learn alongside. As such, students may be able to receive in-the-moment feedback directly, through direct cuing and commentary from the supervising clinician, or indirectly, by observing the supervising clinician's interaction during the group, if the supervising clinician is indeed embedded directly within the group rather than observing from a physical or technological distance. Additionally, the presence of person-centered, LPAA aphasia group resources provide structured support for training and implementation (Attard et al., 2017). Cubirka et al. (2015) highlight the pedagogical values of a group-based learning environment for students in higher education, including the value of a cooperative framework for self-reflection and self-evaluation. Like other experiential pedagogies, students express some reticence about group settings. Students working in an aphasia group context expressed concerns that their inexperience would be exposed, particularly in less structured tasks such as more open-ended discourse. This anxiety resolved with experience in conversational contexts. Two main types of therapy approaches were used in this study, a psychosocial approach and a functional approach that focused on practicing and applying communication strategies. Interestingly, students viewed the psychosocial approach as fun and casual but not necessarily linked to any short or long-term goals. One student identified such interventions as "very relaxed but not therapeutic" (p. 1505). Conversely, more structured interventions were seen as therapeutic and linked to goals. This highlights the importance of guidance and conversations about rationales for the LPAA approach. Students recognized some group members, who took on a teaching role, as positive contributors to their learning.

Experiential learning. Hands-on interactions with group members is the primary modality of learning, as preservice training is typically hands on and focused on skill development.

Learner development. Groups are primarily in a clinic context, with some emphasis on the need to address chronic phase of recovery in service delivery. Reflection is a primary tool for solidifying learning.

Lived Experience. Because the context involves multiple people with aphasia who likely represent a continuum of aphasia type, severity, time postonset, and life experiences that take place outside of a more traditional clinic context, students are likely to be exposed to more elements of the lived experience.

Multipronged learning contexts. Groups may be held in an academic, clinic, or community-based context.

Pedagogy: Mentorship Programs (From Patients to Teachers)

Mentorship programs are an innovative clinical teaching model whereby individuals with aphasia mentor SLP graduate students (Avent et al., 2009; Purves et al., 2013; Swart & Horton, 2015). In most mentoring schemes, the focus is on giving the person with aphasia a purpose and sense of contribution, but there are clear benefits to students who interact with these aphasia mentors. Avent et al. (2009) trained individuals with aphasia to train graduate students in communication strategies. Similarly, Swart and Horton (2015) engaged individuals with aphasia as communication partner trainers. Individuals with aphasia train students, volunteers, and health care professionals in communication training that focuses on their own communication challenges. A more intentional focus on student learning suggests that this teaching paradigm addresses life participation from the perspective of the individual with aphasia. Purves et al. (2013) developed an 8-month program that engaged students in a variety of activities where mentors with aphasia interact with and teach student clinicians. Students identified the benefits of meeting consistently with their mentors, ultimately developing authentic relationships. Specific benefits included the opportunity to apply theory of practice, instructor guidance, clinical experience, opportunity for aphasia advocacy, and the application of classroom lessons to authentic clinical learning. Although the program was not linked directly to a course, students made connections to their coursework. Students emphasized that the mentorship program "made classroom learning real" (Purves et al., 2013, p. 377). Worrall et al. (2007) recognize individuals with aphasia in their university-based aphasia groups as teachers and mentors to students. "I go there [to the university speech pathology clinic] because I feel that I can help the students" (p. 128). Along with providing an opportunity to practice specific skills, individuals with aphasia provide direct feedback to students about what they do well and what they can do better. Using a mentorship approach assures direct exposure to the lived experience and opportunities for contextualized feedback from individuals with aphasia.

Experiential learning. Hands-on interactions with an individual with aphasia is the primary modality of learning.

Learner development. Mentorship could occur in a clinic or academic context, focused heavily on service delivery perspectives.

Lived experience. Mentorship may be limited to one individual with aphasia but provides deeper exposure to type, severity, and social consequences.

Multipronged learning contexts. Mentorship may take place in an academic, clinic, or community-based context.

Pedagogy: CECEs

Hoepner and colleagues have begun to examine outcomes regarding authentic clinical experiences that take place within courses (Hoepner, 2018; Hoepner, Sather, Pakanich, & Hansen, 2019; Hoepner & Zigler, 2019). Given the uptick in intentional learning that they witnessed for students who had attended aphasia camp, Hoepner and colleagues sought to scale up in order to reach more students. The concept of Surge Week was the first CECE they offered. That experience delivered a weeklong LPAA intervention to individuals with aphasia by students enrolled in an Aphasia and Related Disorders course. Students were trained in supported conversation techniques, developed a curriculum for the entire week, and implemented their social interventions. Hoepner, Sather, Pakanich, et al. (2019) examined student outcomes from individual reflections and group debriefings. Qualitative analyses of individual reflections yielded five main schemes: clinical learning, self-reflection, application and professional preparation, feedback, and recommendations. Under clinical learning, students recognized the value of seeing the lived experience, seeing people with aphasia as the experts/teachers, acknowledging competence, acting as a facilitator not a fixer, and applying course material. Within the scheme of application and professional preparation, students commented on the long-term application of this experience, relating the personal benefits to their scope of understanding and the lasting impact it will have on their clinical work. Qualitative analyses of student debriefings revealed five main schemes: program issues, learning about people affected by aphasia, task analysis, sources of clinical learning, and clinic-to-classroom insights. Within the scheme of learning about people affected by aphasia, they expressed the value of community, particularly with regard to care partners and for people with related impairments (e.g., traumatic brain injury and primary progressive aphasia). Students also noted developing broader perspectives of what aphasia is and the continuum of time and supports needed. It is noteworthy that, in the second year of implementing the LPAA Surge Week CECE, the authors expanded to develop a weeklong impairment-based intervention where students deliver an impairment-based intervention (i.e., semantic feature analysis, response elaboration treatment, oral reading and language in aphasia, and verb network strengthening treatment). Students deliver four consecutive, 30-min sessions back to back. Although the authors have not completed analyses on reflections for the combination of LPAA and impairment-based Surge Weeks, preliminary review of debriefings and individual reflections suggests that students developed a better understanding of the LPAA framework by simply implementing a contrastive, impairment-based service delivery model. One student remarked about the impairment-based Surge Week: "I thought this experience was a really beneficial experience that fostered my learning as I have never worked with individuals with aphasia until this semester and experience. The impairment-based approaches seemed really decontextualized, but if that is what someone wants then I think they are beneficial techniques to have knowledge of." The LPAA Surge Week allowed students to compare experiences with impairment-based interventions directly to psychosocial interventions. One student remarked: "I really enjoyed this clinical experience and felt that this helped to increase my understanding

of aphasia, supported conversation techniques and LPAA immensely." Another identified the value of having both experiences and seeing individuals across the continuum of type and severity: "I thought that it was beneficial to see the differences between surge week 1 [LPAA focus] and surge week 2 [impairment-based focus], but I wish I would have gotten equal amount of time to participate in both weeks. It was nice having another student clinician to work with when teaching these interventions. It was great to meet different individuals with aphasia." It should be noted that several students remarked on the unease they felt initially but the confidence that developed as they engaged in the experience. Although much is still to be learned about the CECE framework, initial outcomes suggest this type of mentored, hands-on clinical experience is useful in developing an understanding and commitment to the LPAA framework.

One student contacted us during her externship to comment on the value of CECEs on her learning. She remarked: "My supervisor is good but she doesn't really believe in getting too close to the patients. She says that gets in the way of what we have to do. I know she's wrong on that point and continue to spend time connecting with people as I work with them. …Can you believe my supervisor has never heard of the WHO-ICF model? How is that possible? Once I explained it to her, she understood better why I wanted to work on things like the environment." At follow-up: "Can't believe it is my last week here, I'm sad to leave. My supervisor talked today about how much she learned from me. Not everyone has had exposure to this way of thinking." This is the type of evidence that makes the substantial time investment necessary for CECEs worthwhile.

In summary, key elements of the CECEs include (a) exposure to the lived experience; (b) seeing and interacting with individuals with aphasia outside of the typical clinical context; (c) multiple exposures; (d) guided reflections, apprenticeship, processing, and applications of service delivery; (e) exposure to experiences prior to coursework or content learning; (f) the power of groups in providing a continuum of individuals versus just one individual with aphasia; and (g) a contrastive service delivery that helps students understand both service delivery models better.

Experiential learning. Hands-on interactions with multiple individuals and/or groups of individuals are the primary modality of learning. Preservice training is typically hands on and focused on skill development.

Learner development. CECEs blend course outcomes with clinical outcomes and service delivery perspectives. Reflection and debriefing are primary tools for solidifying learning.

Lived experience. Because the context involves multiple people with aphasia who likely represent a continuum of aphasia type, severity, time postonset, and life experiences that take place outside of a more traditional clinic context, students are likely to be exposed to more elements of the lived experience.

Multipronged learning contexts. CECEs may be held in an academic, clinic, or community-based context.

*Note: Research examining CECEs was approved by the University of Wisconsin–Eau Claire Internal Review Board for the Protection of Human Subjects protocol number 73292016.

Learner Development: LPAA Service Delivery Perspectives

Although we primarily discuss students as learners in this review article, it is important to recognize that learners could apply to any of us or our colleagues or clients. Along with learning comes an evolving sense of what we do, how, and why. Some learners have a strong sense for those factors while others are still in the process of sorting them out. In the context of undergraduate or graduate students, it is important to recognize that aphasia is likely one of many courses or clinical experiences that your students are engaged in at any given time. Therefore, the influences of other service delivery perspectives are likely to shape the thinking of students as well. Although some courses may have a social, participation emphasis, other courses may have a mindset of impairment-based assessment and intervention. Moving toward the social, LPAA framework may mark a mindset shift, toward thinking about the importance of participation and environment. Students may think of the social approach as "very relaxed but not therapeutic" (Cubirka et al., 2015, p. 1505). The onus is on us to demonstrate the rigor and validity of the approach and to provide authentic exposure and interactional opportunities from which students can develop and modulate their clinical frameworks.

Lived Experience: Beyond Classification

Following the LPAA framework, learning about aphasia is more than simply defining type, severity, assessment, and intervention. Certainly, those elements are important, but addressing the lived experience is crucial for understanding the need for the LPAA. It is often said, if you have seen one person with aphasia, you have seen one person with aphasia. This is an important mantra to consider as one addresses learning about aphasia type and severity in the context of heterogeneity in life experiences, situation, and priorities. Classifying aphasia type and severity begins with understanding etiology and definitions but should also include observation and interactions with individuals who exemplify those diagnoses. The Aphasia Bank (https://aphasia.talkbank.org/) offers videos and transcripts of individuals with various types and severities of aphasia. Viewing such videos provides learners with a better understanding of each type, the continuum of severity, and individual differences. Connecting that declarative learning with direct interactions can be a powerful means of solidifying understanding of type and severity. Experiences of interacting with individuals with aphasia may take place before or after that declarative learning.

Multipronged Learning Contexts

Learning about the LPAA takes place in many contexts, which means the teachers and mentors are not just faculty. If we parallel the World Health Organization (2001), environments include both the physical and partner environment. Potential physical environments addressed in pedagogies discussed here include the classroom, clinic, community, camps, people's homes, and perhaps online learning contexts. Partners include but are not limited to professors, clinical instructors, site supervisors, professionals from related disciplines (physicians, occupational therapy, physical therapy, nursing, social work, etc.), peers, individuals with aphasia, partners of individuals with aphasia, volunteer staff, and other community-based programming staff.

Pulling It All Together: Implementation of the LPAA Teaching and Learning Framework

Evidence across pedagogies provides insight into elements critical for teaching and learning in the LPAA. There is not one single approach that addresses all factors of the LPAA, nor one approach that fits each instructor or institution. Different programs have different resources and different needs, so they should assemble a teaching curriculum that fits their program. Below are some elements we believe are essential to developing a comprehensive, evidence-based teaching and mentoring plan for the LPAA:

Experiential learning. A key element of learning opportunities is hands-on, experiential learning. This could include but is not limited to volunteer experiences, student–faculty collaborative research, immersion experiences, communication partners, community groups, clinic, and CECEs. This hands-on learning helps students to apply coursework (Hoepner et al., 2012, Hoepner, Sather, Homolka, et al., 2019; Jagoe & Roseingrave, 2011). Furthermore, such experiences provide opportunities to practice and refine skills, while receiving contextualized feedback (Hoepner et al., 2012, Hoepner, Sather, Homolka, et al., 2019; Hoepner, Sather, Pakanich, et al., 2019; Jagoe & Roseingrave, 2011; Kim & Renzo Garcia, 2019).

Learner development. Kagan and Simmons-Mackie (2007) wisely recommend beginning with the end in mind. If we truly value LPAA and want knowledge and experience in this service delivery approach to be an outcome of our courses, we need to include opportunities to experience this model directly. Perhaps rather than assigning a paper on a given topic, consider providing an experience along with reflections on spending time with a person(s) with aphasia. LPAA-based learning experiences may not be captured as well by traditional learning assessments, and this presents some challenges. We encourage other learning measures, such as ongoing video and written reflections, communication competencies and session leadership as means to address LPAA learning, and consideration of such experiences occurring early and often, from early undergraduate through graduate training.

Across several of the pedagogies discussed here, investigators identified an initial perception of uneasiness and frustration on the part of student learners (Finch et al., 2013; Hoepner et al., in preparation, under review; Jagoe & Roseingrave, 2011; Scully, 2015). Experiential learning is not always comfortable, so teachers and mentors should be prepared to encounter some unease and frustration initially. In each of the studies above, however, students grow to recognize their ability to meet those challenges. Furthermore, they reflect on the value and power of those learning experiences.

Lived experience. We believe that relationships are crucial to moving beyond impairment focus. Developing relationships helps students to develop authentic empathy and insights into the lived experience (Hoepner et al., 2012, Hoepner, Sather, Homolka et al., 2019; Hoepner, Sather, Pakanich, et al., 2019; Jagoe & Roseingrave, 2011; Keegan & Togher, 2018; Kim & Renzo Garcia, 2019; Scully, 2015).

Multipronged learning contexts. One single learning experience cannot prepare a student to be versed in the values of the LPAA, nor to deliver it. Effective preparation to adhere to and implement the LPAA as a professional should not be a single module in a course but rather should be threaded through opportunities that precede and follow course-based learning. This should draw upon numerous learning opportunities and pedagogies. Ideally, across experiences, students will have the opportunity to interact with individuals across the recovery continuum, from acute to subacute, chronic, and community-based services.

Limitations

Implementing the LPAA framework within, and outside of, the traditional classroom remains challenging. Even amidst the multiple pedagogies described within this review article, it remains unclear which, if any, are the "best" strategies to implement. Rather, multiple factors including the context, the learner, and the availability of resources all influence pedagogy selection and integrity of implementation. Multiple barriers can confound implementation. Concerns about consistency of experiences, access to individuals with aphasia and their care partners, liabilities when moving into the community realm, and objective measurements of performance within such contexts all present challenges to the instructors. It is hoped that, while these barriers certainly present challenges, instructors and supervisors can use the content within this review article, as well as available resources, to pursue implementation of the LPAA in feasible and innovative ways. The authors also recognize the need for further research to solidify best teaching practices to support learning and adherence to the LPAA.

Takeaways and Conclusions

Just as the principles of the LPAA are being increasingly implemented throughout a multitude of settings in clinical and research practice, so too is the LPAA increasingly present in higher education. Over the past several years as our programming and intentionality have grown, we have gained several insights that bear consideration.

- *Reciprocal benefits.* Many of the innovative pedagogies addressed in this review article have reciprocal benefits to the community. In this sense, the student learning experiences are authentic, as are the opportunities for individuals with aphasia. These opportunities are truly needed and valued by both parties. Several programs described in this review article employ reciprocity in teaching and clinical service delivery (Hoepner et al., 2012, Hoepner, Sather, Homolka, et al., 2019; Hoepner, Sather, Pakanich, et al., 2019; Jagoe & Roseingrave, 2011; Keegan & Togher, 2018; Kim & Renzo Garcia, 2019; Scully, 2015; K. P. Wilson et al., 2017).
- *Context matters.* Although there are some necessary and unavoidable constraints set forth in traditional academic settings, we need to think creatively and optimistically about ways to increase authenticity of aphasia programming at the university level. A key aspect of the LPAA is that environment matters. It is important that we work creatively to provide services in authentic contexts and, by doing so, model to students the importance and ability to provide such services in authentic contexts. This includes exposure to nontraditional clinical environments.
- *The value of the "ripple effect."* We can forge innovative pedagogies, which are paired with authentic services to extend the LPAA principles beyond individuals with aphasia. For instance, in our program, we have seen the development of Camp Campus, a college-transition program for individuals with high-functioning autism; the home visits program—a community-based program for language development among at-risk families; and programming for communication partners with juvenile offenders, and we look forward to more ripples. These programs truly exemplify life participation principles and increase exposure to such service delivery models across a multitude of populations. Likewise, one could apply this framework to a variety of other neurogenic conditions such as traumatic brain injury and dementias.
- *Work with the system you have.* Not everyone has the time or resources to carry out all of the pedagogies and contexts discussed in this review article. Instructors, supervisors, and other trainers must consider what the right fit for their program is and draw upon those techniques. That being said, there are a number of evidence-based teaching and mentoring techniques to draw upon that are feasible for a variety of teachers and mentors. The LPAA framework can be embedded on a very small scale, as a way of using a different framework with a single student clinician, or it can be embedded on a broader scale through curricular revisions, CECEs, and a multipronged approach. You may have an extensive array of human and fiscal resources, administrative support, and macrolevel supports. Others may be working in relative isolation with little supports. Work with what you have to begin embedding the LPAA into your curriculum and/or clinic.

Depending on the setting you are in, you may draw more heavily from some principles than others. A number of resources already exist to help you enhance your teaching and mentoring of the LPAA framework:

- Aphasia Access has several resources for helping you to develop your toolbox (https://www.aphasiaaccess.org). This includes academic modules and access to webinars and podcasts that address elements of the LPAA framework.
- The Aphasia Institute provides access to several resources and tools for health care professionals (https://www.aphasia.ca/home-page/health-care-professionals/resources-and-tools/).
- Aphasia Corner offers online simulations that can help viewers understand what it might be like to have aphasia (https://aphasiacorner.com//aphasia-simulations/index.html).
- Aphasia Bank provides video examples and transcripts across the aphasia type and severity continuum (https://aphasia.talkbank.org/)

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