Quick and Powerful AAC Trainings for Communication Partners

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Introductions & Disclosures

- Tara McCarty is an Assistant Professor at Penn State University- Harrisburg and receives a salary from the university.
- Jessica Gormley is an Assistant Professor at the University of Nebraska Medical Center and received a salary from the university.
- Dawn J. Sowers is an Assistant Research Professor at Penn State University and is funded in part by a grant (#90REG0014) from the National Institute on Disability, Independent Living, and Rehabilitation Research to the RERC on AAC and the Hintz Family Endowment for Communication Competence and AAC.

- This project is funded in part by a grant (#90REG0014) from the National Institute on Disability, Independent Living, and Rehabilitation Research to the RERC on AAC

Training communication partners: The evidence

Communicative exchanges involving individuals with complex communication needs:

- Partners contribute knowledge, skills, and attitudes (Light & McNaughton, 2014)
- Contributions may support (+) or impede (-) interactions

Communication partners require instruction to acquire knowledge and improve interaction skills (McNaughton et al., 2019)

Communication partner training effects are well documented (Kent-Walsh et al., 2015)

Training communication partners: The evidence

Who has been successfully trained?

Children

- Peers (Therrien et al., 2016)
- Siblings (Douglas et al., 2018)

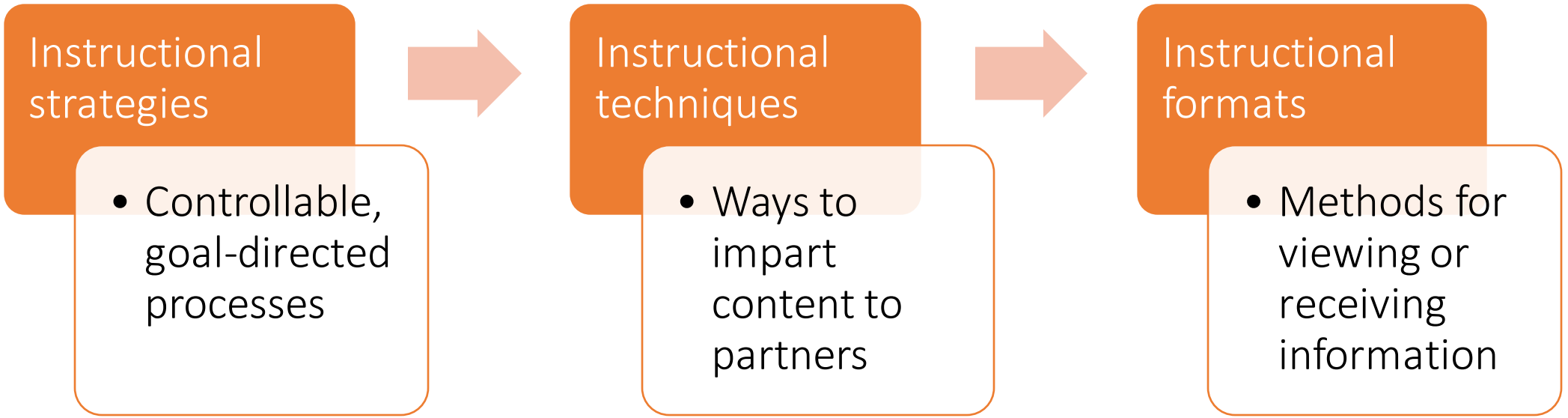
Adults

- Parents (Kent Walsh et al., 2010; Dodge-Chin et al., 2022)
- Professionals (i.e., paraprofessionals, assistants, health care workers; Bingham et al., 2007; Douglas et al., 2014; Kent Walsh et al., 2003; Gormley & Light, 2023; McCarty & Light, in preparation)

3 Essential Considerations for Partner Trainings

(Beukelman & Light, 2020)

- How have partners been successfully trained?



Instructional Strategies

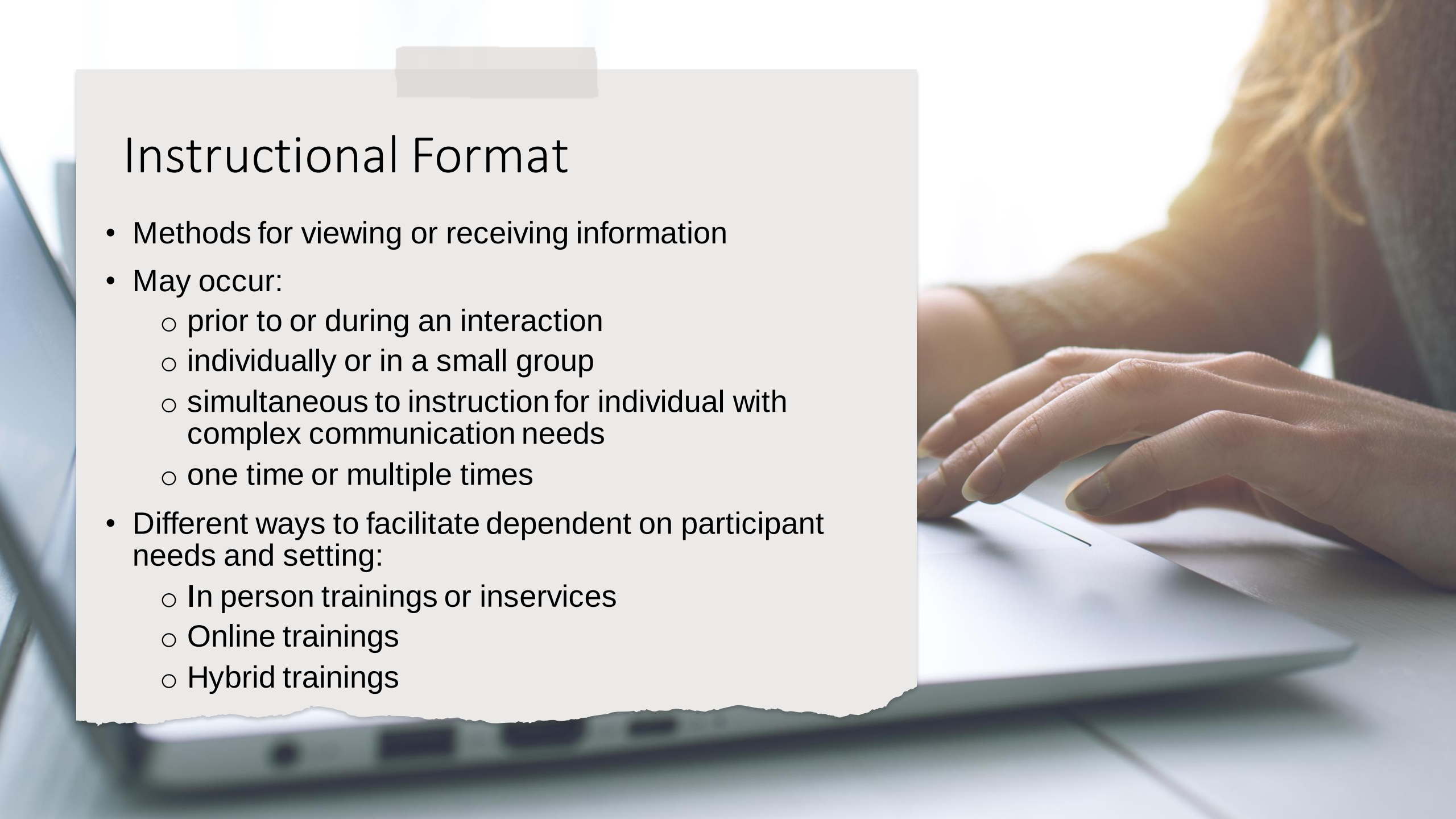
- Used to teach skills in sequence
- Promote performance
  - May utilize models or checklists
- Successfully utilized in previous partner trainings related to interactions with individuals with CCN
  - Single skill-modeling or prompting AAC use (Cosbey & Johnston, 2006)
  - Sequential skills taught via acronyms- POWR (Douglas et al., 2018) or RAAP (Binger et al., 2010)

Instructional Techniques

- Used to impart the strategy to communication partners
- May include:
  - Less structured single skill-based activity such as role play or modeling (Severini et al., 2019)
  - Multi-skill training techniques such as model, guided practice and independent practice (Therrien & Light, 2016)
  - Instructional models such as strategy instruction model (i.e., IMPAACT program; Binger et al., 2010; Kent-Walsh & McNaughton, 2005)

Instructional Format

- Methods for viewing or receiving information
- May occur:
  - prior to or during an interaction
  - individually or in a small group
  - simultaneous to instruction for individual with complex communication needs
  - one time or multiple times
- Different ways to facilitate dependent on participant needs and setting:
  - In person trainings or inservices
  - Online trainings
  - Hybrid trainings



Barriers to Communication Partner Trainings

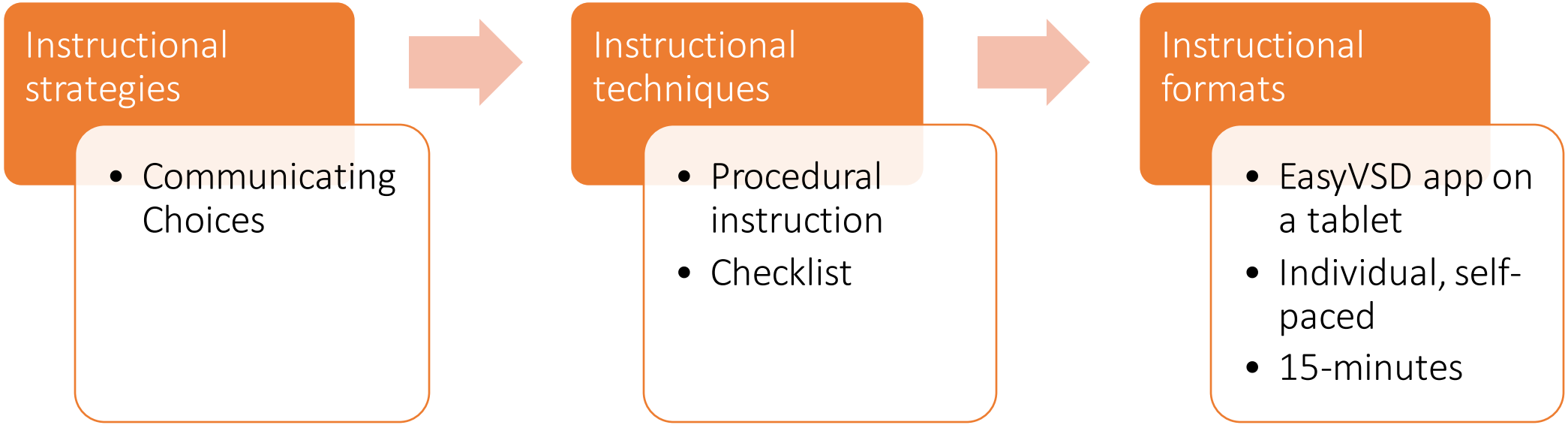
- Time
- Manpower
- Content
- Individualized vs. General
- Payment
- Generalization

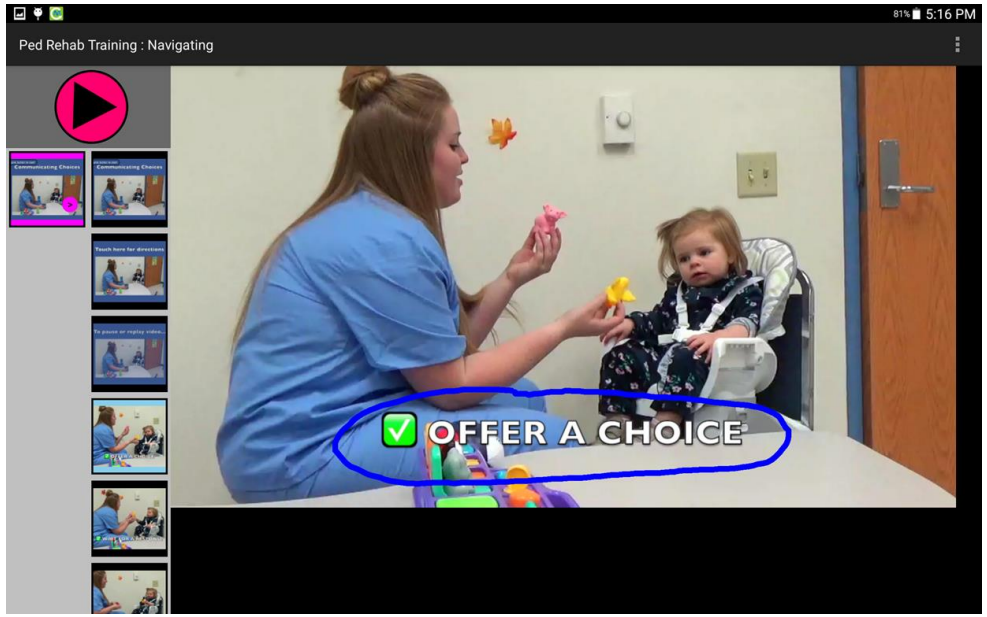
INSTRUCT

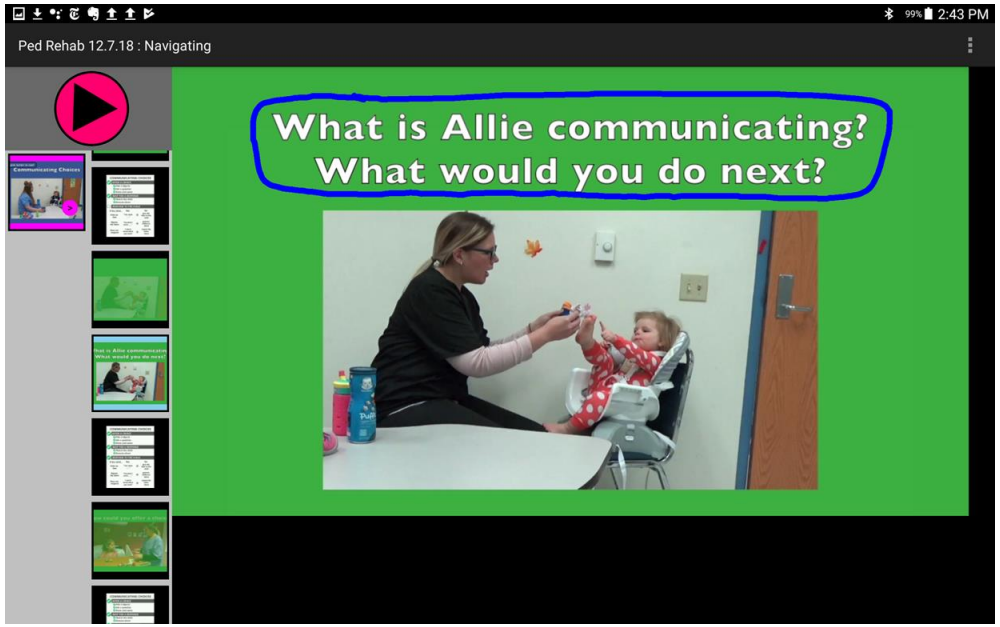
- A communication partner training app for delivering instructional strategies and techniques
- Currently under development by the RERC on AAC
- Can be used for general trainings or personalized for specific AAC user needs
- Can generate trainings "just in time"
- Once available, will be free across platforms
- A library of trainings will also be updated for people to use

Examples of Communication Partner Training Studies

Pediatric Inpatient Setting







COMMUNICATING CHOICES

OFFER A CHOICE

- ☐ Pick 2 objects
- ☐ Ask a question
- ☐ Show and name

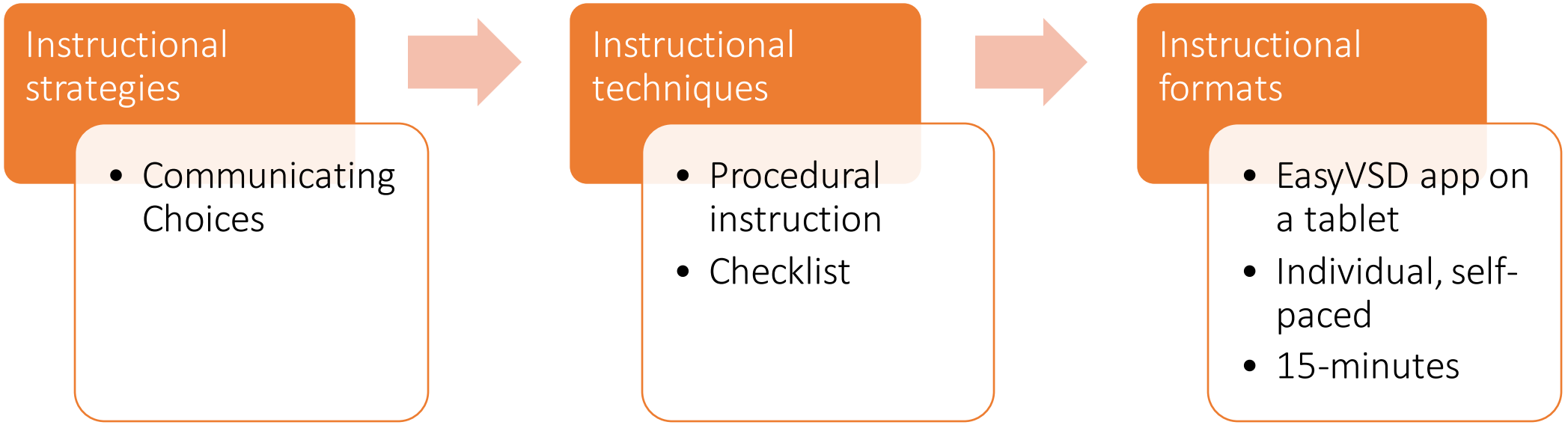
WAIT FOR A RESPONSE

- ☐ Watch the child
- ☐ Remain silent

RESPOND TO THE CHILD

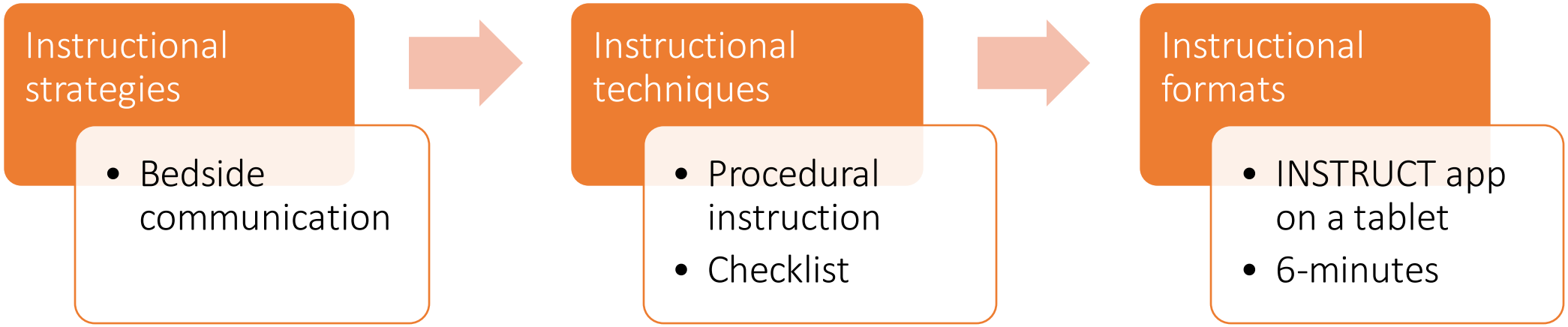
If the child...	Say		Do
Picks an item	"You want ___"	+	give the item to the child
Rejects the items	"You don't want ___"	+	present different items
Does not respond	"I don't know what you want"	+	repeat the same items

Pediatric Inpatient Setting



- Context = Inpatient pediatric unit
- Participants = Inpatient healthcare providers
- Outcomes =
  - **More healthcare providers offered more choices** to a child after completing the training (71% of providers vs 0-14%)
  - Inpatient providers completed the "Communicating Choices" procedure with **increased accuracy (gain score of +11.6 after the training)**
  - On average, it took **47 seconds** (range = 5-251 seconds) to implement the checklist
  - Children who used AAC **consistently communicated their choices** (I.e., 94% of the time), when given the opportunity to do so

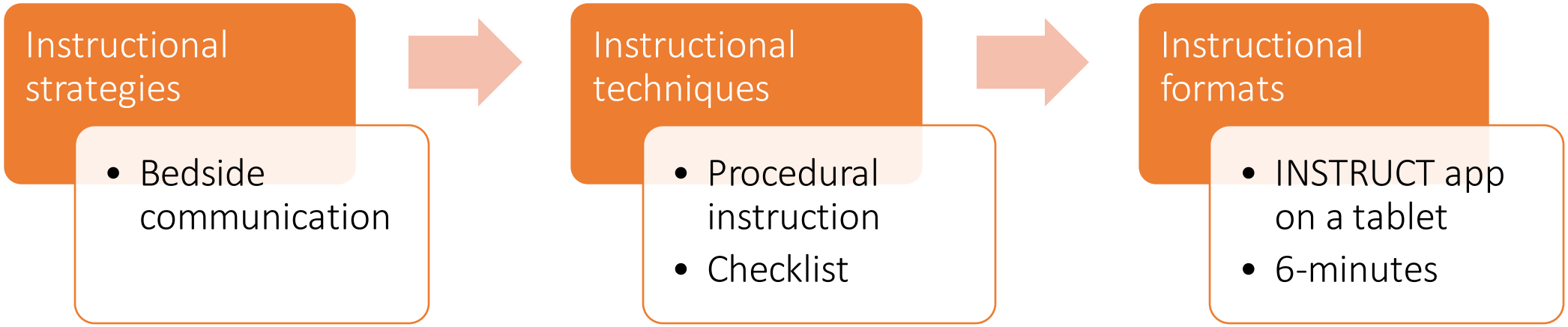
Adult Inpatient Settings



3 Quick Steps to Effective Bedside Communication

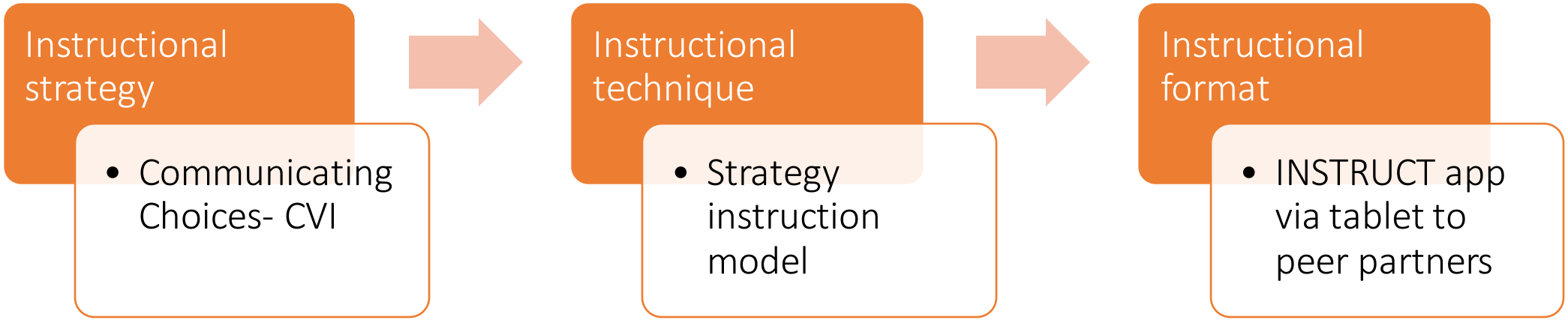
1. **Ready the environment**
   - Lights on
   - Quiet environment
2. **Ready the person and their communication tools**
   - Make sure patient is awake/alert
   - Make sure patient has their hearing aids, glasses, etc.
   - Make sure communication tools are within arm's reach
3. **Interact using the tools**
   - Talk directly to the patient
   - Keep the tool accessible to the patient

Adult Inpatient Settings



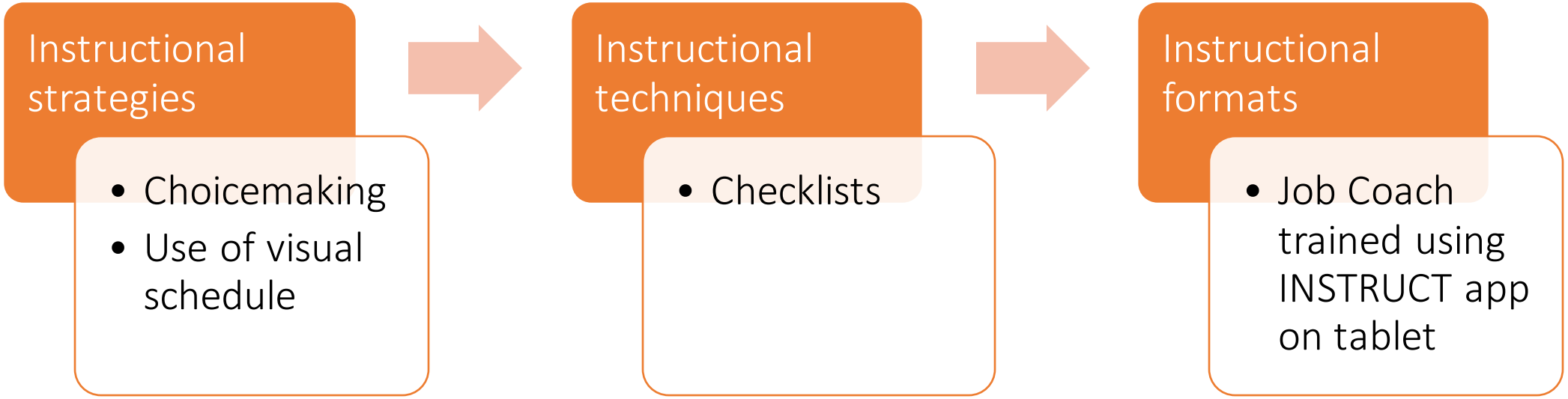
- Context = intensive care units, acute care units
- Participants = Inpatient healthcare providers (nurses, nursing assistants)
- Outcomes =
  - **Training format is feasible in the ICU & acute care setting**
  - **Training format was highly rated in terms of ease of use, appropriate time spent in workflow**
  - **Limit generalization into natural patient-provider interaction (gain score of +1.5 in treatment group vs. -0.14 in control group)**
  - **Data collection is ongoing**

Educational Setting: Peer Training



- Setting: 2 public elementary schools with Multiple Disabilities Support (MDS) programs
- Participants: 3rd and 4th grade students
- Outcomes:
  - Gain scores of +4.9 sub steps for trained peers
  - Students with MD participated in 77-84% of opportunities provided once peers were trained
  - Peers completed 83% of the trainings independently (INSTRUCT app and role play)

Community Settings



- SETTING – Adult day program vocational training
- TRAINING TIME – less than 15 minutes
- PARTICIPANTS- Job Coaches (4 so far)
- OUTCOMES
  - Coaches understood the value of the skill being taught and implemented it with individuals
  - (-) one coach didn't use it with intended individuals but used it in other settings
  - Pre-training, the client took over 20 minutes to begin work tasks at job site and post training started work in less than 5 minutes with visual schedule Job Coach created from training
  - Coaches reported the quick, interactive trainings were informative, easy to learn from, and fit into their workday.

Contact Info

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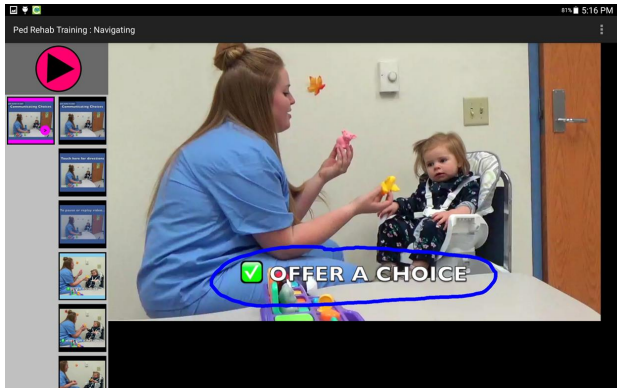
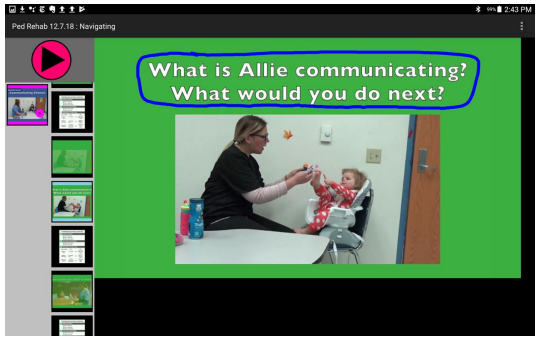
References

- Beukelman, D. R., & Light, J. C. (2020). *Augmentative & alternative communication: Supporting children and adults with complex communication needs*. Brookes Publishing. http://ebookcentral.proquest.com/lib/pensu/detail.action?docID=6229697
- Binger, C., Kent-Walsh, J., Ewing, C., & Taylor, S. (2010). Teaching educational assistants to facilitate the multisymbol message productions of young students who require augmentative and alternative communication. *American Journal of Speech-Language Pathology, 19*(2), 108–120. https://doi.org/10.1044/1058-0360(2009/09-0015
- Bingham, M. A., Spooner, F., & Browder, D. (2007). Training paraeducators to promote the use of augmentative and alternative communication by students with significant disabilities. *Education and Training in Developmental Disabilities*, *42*(3), 339–352. https://www.jstor.org/stable/23879627
- Cosbey, J., & Johnston, S. (2006). Using a single-switch voice output communication aid to increase social access for children with severe disabilities in inclusive classrooms. *Research & Practice for Persons with Severe Disabilities*, *31*(2), 144–156.
- Dodge-Chin, C., Shigetomi-Toyama, S., & Quinn, E. D. (2022). Teaching parents read, ask, answer, prompt strategies via telepractice: Effects on parent strategy use and child communication. *Language, Speech & Hearing Services in Schools (Online), 53*(2), 237–255. https://doi.org/10.1044/2021_LSHSS-21-00075
- Douglas, S. N., Kammes, R., Nordquist, E., & D'Agostino, S. (2018). A pilot study to teach siblings to support children with complex communication needs. *Communication Disorders Quarterly, 39*(2), 346–355. https://doi.org/10.1177/1525740117703366
- Douglas, S. N., McNaughton, D., & Light, J. (2014). Online training for paraeducators to support the communication of young children. *Journal of Early Intervention, 35*(3), 223–242. https://doi.org/10.1177/1053815114526782
- Gormley, J., McNaughton, D., & Light, J. (2023). Supporting children's communication of choices during inpatient rehabilitation: Effects of a mobile training for health care providers. *American Journal of Speech-Language Pathology, 32*(2), 545–564. https://doi.org/10.1044/2022_AJSLP-22-00200
- Kent-Walsh, T. (2003). *The effects of an educational assistant instructional program on the communicative turns of students who use augmentative and alternative communication during book reading activities* (Publication No. 3106268) [Doctoral dissertation, Pennsylvania State University]. ProQuest Dissertations Publishing.
- Kent-Walsh, J., Binger, C., & Hasham, Z. (2010). Effects of parent instruction on the symbolic communication of children using augmentative and alternative communication during storybook reading. *American Journal of Speech - Language Pathology, 19*(2), 97–107. https://doi.org/http://dx.doi.org.ezaccess.libraries.psu.edu/10.1044/1058-0360(2010/09-0014)
- Kent-Walsh, J., & McNaughton, D. (2005). Communication partner instruction in AAC: Present practices and future directions. *Augmentative and Alternative Communication, 21*(3), 195–204. https://doi.org/10.1080/07434610400006646
- Kent-Walsh, J., Muzra, K.A., Malani, M.D., & Binger, C. (2015). Effects of communication partner instruction on the communication of individuals using AAC: A meta-analysis. *Augmentative and Alternative Communication, 31*, 271-284. https://doi.org/10.3109/07434618.2015.1052153
- Light, J., & McNaughton, D. (2014). Communicative competence for individuals who require augmentative and alternative communication: A new definition for a new era of communication? *Augmentative and Alternative Communication, 30*(1), 1–18. https://doi.org/10.3109/07434618.2014.885080
- McCarty, T. V., & Light, J. (under review). *Teletraining to teach communication partners a strategy to support students with multiple disabilities including cortical visual impairment and complex communication needs in communicating choices*. [Manuscript in preparation]. Department of Communication Sciences and Disorders, Pennsylvania State University.
- McNaughton, D., Light, J., Beukelman, D. R., Klein, C., Nieder, D., & Nazareth, G. (2019). Building capacity in AAC: A person-centred approach to supporting participation by people with complex communication needs. *Augmentative and Alternative Communication, 35*(1), 56–68. https://doi.org/10.1080/07434618.2018.1556731
- Severini, K. E., Ledford, J. R., Barton, E. E., & Osborne, K. C. (2019). Implementing stay-play-talk with children who use AAC. *Topics in Early Childhood Special Education*, *38*(4), 220–233. https://doi.org/10.1177/0271121418776091
- Therrien, M., Light, J., & Pope, L. (2016). Systematic review of the effects of interventions to promote peer interactions for children who use aided AAC. *Augmentative and Alternative Communication, 32*(2), 81–93. https://doi.org/10.3109/07434618.2016.114633

Video Modeling

- Demonstrates the procedure being taught using examples filmed in a real-world context (Moore & Fisher, 2007)
- Can be very short to capture and watch
- Don’t underestimate the power of seeing success!





RERC on AAC: mTraining in AAC for Communication Partners

- **Challenge**
  - Communication partners are often unfamiliar & untrained in AAC.
  - Current approaches to partner training are often *inefficient*, *ineffective*, *not personalized*, and *limited in scope & reach*.
- **Solution**
  - Develop a user-friendly app to create partner mTrainings that can be deployed “just in time” to teach partners AAC strategies. The app will include step-by-step instructions and video demonstrations of each step.