

## Supporting Infant-Toddler Teachers with Technology – July 27, 2020

### 1. Descriptive Information

<p><b>Supporting Infant-Toddler Teachers with Technology</b></p> <p>The goal of this session is to share different methods for promoting the competencies of infant-toddler teachers and caregivers. All three projects in this presentation use some form of technology accompanied by remote or in-person contact. Collectively these projects reach a variety of ECE settings (center-based, home-based, Early Head Start, community-based) and diverse populations. The projects vary in length, focus, and scope of the intervention; intended audience; expertise of the coach; and how the approach is individualized. The Virtual Lab School (VLS) Momentum pilot is a partnership with a local municipal government to address a shortage of credentialed teachers by supporting ECE teachers in earning their Child Development Associate Credential (CDA). VLS used technology to deliver content and support coaching and participants. We Grow Together, a nationally implemented OPRE project, supports coaching and the delivery of content to both coaches and participants with a focus on improving caregiver-child interactions that support different domains of child development. Content is individualized based on the caregiver’s strengths, opportunities for growth, and interests. Filming Interactions to Nurture Development (FIND), a video coaching program developed at the University of Oregon, identifies and strengthens positive interactions between caregivers and children through attachment-based professional development and has been scaled throughout Washington’s Quality Rating and Improvement System. The presentations will share initial findings, opportunities for improving and expanding these approaches, and lessons learned in their projects. General discussion will focus on:</p> <ul style="list-style-type: none"><li>• How to capitalize on the opportunities technology offers for different settings and contexts</li><li>• How to increase accessibility for diverse caregivers</li><li>• Ways to address challenges in implementing these efforts</li><li>• How to respond to the lessons learned in these and other projects</li></ul>	<p><b>Facilitator</b></p> <ul style="list-style-type: none"><li>• <b>Louisa Tarullo</b>, Mathematica   <i>Supporting Infant-Toddler Teachers with Technology Introduction</i></li></ul> <p><b>Presenters</b></p> <ul style="list-style-type: none"><li>• <b>Sarah Lang</b>, The Ohio State University   <i>Virtual Lab School Momentum Pilot</i></li><li>• <b>Rosalie Odean</b>, The Ohio State University   <i>Virtual Lab School Momentum Pilot</i></li><li>• <b>Shannon Monahan</b>, Mathematica   <i>We Grow Together: Use of Technology to Support Early Care and Education Professional Development</i></li><li>• <b>Juliet Taylor</b>, University of Washington   <i>Cultivate Learning</i></li></ul> <p><b>Scribe</b></p> <ul style="list-style-type: none"><li>• <b>Katie Caldwell</b>, ICF</li></ul>
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### 2. Documents Available on Website

- Lang\_VLS Momentum
- Monahan\_We Grow Together: Use of Technology to Support Early Care and Education Professional Development
- Tarullo\_Supporting Infant-Toddler Teachers with Technology
- Taylor\_Cultivate Learning

### 3. Brief Summary of Presentations

- **Summary of Presentation #1: Virtual Lab School Momentum Pilot**
  - Virtual Lab School (VLS) is a professional development training system for early childhood and youth educators to build their skills around research-based practices in child development.
  - VLS is partnership between the Department of Defense, the Department of Agriculture and The Ohio State University.
  - Content on the VLS website is publicly available.

- The site combines research-based information on infant and toddler development with best practices in adult education and offers six different tracks for ECE professionals to choose from.
  - The site uses the Learn, Explore, Apply, Demonstrate (LEAD) framework; VLS provides intentional workforce supports with a coaching model.
  - VLS Momentum is an ongoing pilot program in Columbus, Ohio, currently involving 29 child care centers with a total of 115 teachers, 50 of whom are participating in an affiliated research study.
  - Many child care providers in Ohio do not hold a degree or credential like a CDA, particularly true for infant and toddler caregivers, and this year Ohio will require that all programs who provide state supported child care be included in the QRIS.
  - The coaches are all trained in a consistent manner and they meet regularly as a team and with the lead coach to check in and offer support to each other.
  - The course completion schedule goes as follows:
    - Learners complete a pretest.
    - Learners are enrolled in a course
    - Learners complete the lessons and submit accompanying activities to their coach, coach provides feedback on these activities
    - Coach observes the learner and they meet to identify strength and areas of growth.
    - Learners complete a post assessment.
    - A certification is issued when the course is completed.
  - Changes due to Covid-19:
    - Coaches now only meet with providers via virtual means and no longer in person.
    - Most centers were closed between 3/26 and 6/1 so coaches did not observe the classroom as their usual procedure.
    - Coaches complete reflective questions and engage in a dialogue around practice with learners for each course instead of completing a competency reflection together.
  - Some teachers in the program were struggling to save PDF activities and attached them to emails. The tech team stepped in and added a feature to the website to automatically email activities to the coaches.
  - Preliminary Findings:
    - Learners increased their knowledge and practices after completing each course.
    - After switching to a virtual model, more coaches were better able to focus on 3 strengths of the learner and using reflective questioning.
  - Once learners complete a full VLS model, they can leverage the certificate toward 13 free credits in the AA Degree in Early Care and Education at OSU.
- **Summary of Presentation #2: We Grow Together: Use of Technology to Support Early Care and Education Professional Development**
    - We Grow Together (WGT) is a professional development (PD) system for caregivers working with infants and toddlers in center- based care and family child care homes.
    - WGT is supported by OPRE and the research is being performed by Mathematica.
    - WGT provides relationship-based coaching from a trained local PD provider to child care providers.
    - Key findings from literature review:
      - Technologies can be a good fit to provide PD; video is an effective modality.
      - PD participants like supplementing online content with in-person connection.
      - Providing technical support is an important consideration when launching an online PD system.
    - WGT is based on research and best practices identified in Quality of Caregiver-Child Interactions for Infants and Toddlers (Q-CCIIT) observational tool and this data informed the WGT website and coaching model.

- WGT process: caregivers learn about the WGT website, PD provider and caregiver meet to discuss and decide on the specific module to use and key practices to work on and then caregivers use the WGT website.
- Tools available to caregivers on the website include:
  - Narrated presentations
  - Handouts for colleagues and families
  - Step-by-Step guides and checklists
  - Videos of caregivers implementing key practices
  - Activities and reflection exercises
  - Classroom supports
  - Role plays
  - Progress checklists/graphs
  - Links to additional resources
- 2018-2019 WGT field test participants
  - Analytic sample included 271 caregivers and 168 PD providers:
    - 89 Early Head Start center-based pairs
    - 125 community center-based pairs
    - 57 family child care pairs
  - Purposive sampling to obtain diversity in setting types in 10 different geographic areas.
  - 4 months of implementation.
  - Data collection was before, during, and after WGT implementation.
    - Q-CCIIT observations (fall and spring)
    - Surveys (fall and spring)
    - Web-analytics and implementation data (during implementation)
- WGT orientations and supports provided:
  - Remote PD provider training (webinar and online activities)
  - Website navigation video and printable instructions
  - Technical assistance: phone, email, office hours
  - PD provider implementation webinar
  - Online discussion boards
  - For field tests, iPad mini for use during the intervention
- Technology related findings:
  - Some PD providers ended up printing resources for caregivers.
  - 93.4% of caregivers logged into the website at least once.
  - 74.7% of caregivers used the study iPad to log in.
  - More than 1 in 10 caregivers (14.2%) reported they didn't have access to a reliable internet connection to use WGT.
  - 3.9 hours total average time on website by caregivers.
  - Nearly all caregivers video-recorded themselves for self-reflection. 93% recorded themselves at least once.
  - Caregivers gave the website a mean rating of 5.2 out of 6 and reported it was easy to navigate once they logged in.
  - Several PD providers anecdotally noted that video recording helped caregivers self reflect.
  - It was found that initial comfort with technology related to satisfaction with WGT.
- **Summary of Presentation #3: FIND Intervention in Washington State QRIS, Early Achievers**
  - Early achievers is a video based intervention that has been tied to the state QRIS.
  - Washington's QRIS was scaled in 2011 and data had demonstrated that the quality of infant and toddler care needed attention.

- Intervention used: Filming Interactions to Nurture Development (FIND). Developed by researchers at the University of Oregon, FIND is a job embedded professional development intervention that focuses on adults' interaction with infants and toddlers.
- FIND was adapted to use in childcare settings with a strength-based video coaching model that uses positive micro-moments to increase the quality of interactions and is supported by coaching sessions.
- The video model has caregivers taking videos of themselves during an interaction with a child; the video is then clipped and tagged with components of the interactions to show the providers they are doing these skills prior to the intervention and then it is discussed how to increase the skill even more.
- 19 coaches were recruited and trained for the study and 10-15 minutes of raw video of providers were taken over the course of a few weeks.
- The 5 Elements of the FIND Intervention:
  - Sharing the child's focus
  - Supporting and encouraging, returning serves for an interaction
  - Naming, providing a label
  - Back and forth
  - Endings and beginnings, noticing the ending of an interaction and beginning of another
- Evaluation overview
  - From 2016-2018, evaluated the effectiveness of a 10 week FIND intervention.
  - Quasi-experimental design with control and treatment groups of childcare providers throughout WA.
  - Language Environment Analysis (LENA) device to measure language use and adult-child interactions.
  - Observational measures to look at change in classroom quality and developmentally supportive behaviors for children.
- Research Questions:
  - What is the effect of FIND on language use and conversational turn taking?
  - What is the effect of FIND on caregiver-child interactions?
  - Do programs participating in FIND improve overall classroom quality?
- Results:
  - Caregivers who received FIND coaching were more responsive and encouraging to young children.
  - Engaged in more serve and return interactions.
  - Used more language facilitation.
  - Had more sense of job control.
  - Improved significantly in CLASS Emotional Support and Instructional Support.
- Scaling FIND within early achievers
  - Infant-Toddler Consultants are now available in all regions of the state to partners with Early Achievers coaches on FIND implementation.
  - Promising way to provide more specialized coaching and support for attachment-based interactions to help promote higher levels of quality.

#### 4. Brief Summary of Discussion

Q: What approaches have worked best to ensure comfort of coaches or caregivers?

A: (Shannon) Caregivers were nervous about being recorded but since they were able to do it themselves and to process it with the PD provider in a strengths based way, that was helpful.

Q: Were there any other measures of "classroom quality" improved besides CLASS? One would expect measures to improve on CLASS as FIND is an interactions based support/PD?

A: (Juliet) PICCOLO, serve and return observation rating scale. Can look into this question more and get back to people.

Q: What work was done initially to gauge the technology capacity or readiness of providers to determine if they had the tools or capacity to use technology for professional development?

A: (Rosalie) We didn't want to limit caregivers to only those who had technological skills so we did coach people through some basic technology like setting up email, using passwords, etc.

Follow-up response: The VLS is also mobile enabled, so learners can access on computers, tablets and smart phones, thus learners could use different available devices to access depending on location and resources.

(Juliet): Coaches were the primary users of the technology. We did work up front but there was still a learning curve. Did establish capacity at editing hub to field questions about technology from coaches.

(Shannon): Measured comfort with technology before the intervention. Initially, logging in was the most common problem. We encountered a lot of work around of the technologies (printing resources, etc.) during implementation.

Q: Are any of the VLS aligned with the community college coursework and can they use it toward course credits?

A: (Sarah) This is based on individual colleges policies and what they will accept for credit. At Ohio State, we award 13 credit hours.

Q: As much infant/toddler caregiving and learning occurs in family child care settings, are there any plans to expand access these approaches, models to family child care providers?

A: (Sarah): We are interested in piloting the family child care track. The FCC track is available, but we are seeking the right partner to pilot with.

(Shannon): WGT is designed for center-based care and family child care; family child care had more access to technology since they running a business but they also work longer hours with less time for coaching.

(Juliet) FIND is designed for both settings as well; the issue we've come across is when is there time for coaching in a family child care setting?

Q: I've been talking to another colleague about providing more real-world, hands-on training for topics such as challenging behavior and "serve and return". The typical training involves a Powerpoint slide with a scenario, and then the providers are asked, "What would you do in this situation?" Do you have any suggestions for us about how to begin the process of developing a role-play or classroom video?

A: (Juliet) We have a rich library of video clips at Cultivate Learning and folks can gain access to it.

Follow-up from VLS: We also have a rich video library throughout the Infant and Toddler track course work which is publicly available. Embedded throughout the Infant Toddler Track there are a number of activities that can facilitate reflection on a use of "serve and return" exchanges.

Q: I was one of the We grow PD providers. We loved the way it was designed for adult learners. We are looking for resources to help adult learners to understand how their cultural background, beliefs and trauma is affecting their teaching?

A: (Sarah) With VLS there are many opportunities to do self-reflections; some shared with coaches, some just personal and we offer an entire course on trauma informed care.

(Shannon) For WGT one of the key principles we are hoping to develop is that the PD/provider relationship could mirror the responsiveness caregivers show when interacting with the children.

Q: What factors are most important for scalability and keeping these programs going?

A: (Shannon) Finding time to meet with PD providers was hard for caregivers as was finding time to practice the interventions. Would need to make sure WGT could become seamless with other PD requirements or systems for the caregivers.

(Juliet) We connected it to the QRIS and coordination is key. It's important to think through how to connect the intervention to the policy landscape and funding.

(Sarah) VLS is also mapped to the QRIS for professional development. We did ask that programs give their participants an hour each week but this was hard for many programs to accomplish without additional supports. In

our track for program managers the same messages regarding research-based strategies is given, but for program managers at a policy/leadership of the program perspective.

## 5. Questions from Attendees That Were Unanswered during the Webinar

### 1. How costly is the training for the coaches?

(Sarah and Rosalie) Our coaches for the current pilot project are fulltime employees on our VLS Momentum project. Their training was part of the onboarding process. These coaches are funded by our partnership with Future Ready Columbus. We would welcome opportunities to work with other municipalities or States.

### 2. Is VLS available in different languages? If so, which languages?

(Sarah and Rosalie) Currently the VLS is only available in English. *Our military partners require staff read and speak English. There is definitely a need for trainings in other languages though. In our local community Arabic would be valuable. About 13.5% of US residents speak Spanish at home, so there is also a huge need for good ECE training in Spanish. Although not a sufficient fix by any means, we do provide guidance around browser plugins for translation in this VLS news article: <https://www.virtuallabschool.org/news/2018-Q2-Newsletter>*

### 3. How many hours does a coach spend coaching each participant?

(Sarah and Rosalie) Our coaches are in contact with all participants by phone, email, or in-person visits (prior to COVID) at least once a week, and spend a full hour with participants every other week. As the project is ongoing, we are still gathering data on the average per-learner coaching connect, pre- and post-Covid19. For the Foundational Courses in the Infant Toddler Track, each learner gets at least 2 hours of coaching support per course (i.e., 30 hours over the 15 courses).

### 4. What are the qualifications of the coaches? Are any Community College faculty?

(Sarah and Rosalie) All of our coaches have at least a Bachelors degree in a related field and experience in Early Childhood Education. Several of our coaches have a Masters degree, and some have taught at community colleges or 4-year universities.

(Juliet) Eligibility included a BA degree in ECE or a related field, meet competencies for Relationship Based Professional Development standards, having working knowledge of ITERs-R and the CLASS-toddler as well as completed training on the Washington State Early Learning Guidelines. We then trained people in the FIND process which was a four-phase certification process. There is some overlap between coaches and faculty at local colleges.

### 5. Are you planning to open VLS coaching to other programs outside of Ohio during the pilot program? Or in the future?

(Sarah and Rosalie) We would love to expand our program outside Ohio and to other regions in Ohio. Our current funding is just for Columbus, but we have had conversations with other areas, and are always open to expanding. If other municipalities or States are interested in partnering, please reach out to us at [inquiries@virtuallabschool.org](mailto:inquiries@virtuallabschool.org)

### 6. In Ohio, what are the pay differences between having a certificate, Associates or Bachelors for teachers?

(Sarah and Rosalie) The state does not have a formal structure regarding early childhood teacher pay, and the pay teachers receive is influenced by the institution they work for and whether it is overseen by the Ohio Department of Education (ODE; PreK-12), or the Ohio Department of Job and Family Services (ODJFS; Birth-school age child care programs ). In our state, infant and toddler caregivers and family child care providers would work at programs overseen by ODJFS. From an assessment published in 2014, differences existed at every education level and job classification, with the highest average ODJFS-reported wages being lower than the average starting wages for ODE affiliated programs. Wage differences are also evident between education levels, with a low of \$10.05 per hour for a teacher with a high school diploma or GED to \$23.98 per hour for a teacher with a bachelor's degree (OERC, 2014).

Connected to our QRIS, programs that are higher rated receive greater PFCC reimbursement rates and there is some initial evidence that these higher reimbursement rates are passed on to teacher salaries. Program's QRIS ratings are influenced by the qualifications of their staff, as well as other indicators.

**7. What organization(s) provide coaches/consultants? Are they paid/provided by gov agency, R+R, nonprofit?**

(Sarah and Rosalie) For VLS: please see question 1. We would be very interested in partnerships with R&Rs and other non-profits to launch a similar project in other communities.

(Juliet) We have a mix of agencies both our local Child Care Aware agencies (intermediary for our QRIS) and educational service districts.

**8. Especially around family child care and around access to not only technology and high quality PD support - EQUITY is obviously a critical consideration right now.**

(Sarah and Rosalie) In regards to our intervention, we took steps to make sure this program was available to those who would benefit most. Rather than relying on advertisements or word-of-mouth, we called all eligible centers based on licensing records. Our coaches individualize their work to meet the needs of staff where they are, and to help them grow. We work with many English-language learners, to provide training that is not available through other sources that have a strict English proficiency requirement. As we look to expand our training we are considering how future models of implementation will need to consider the unique technology access issues for rural settings, for example.

(Shannon) For WGT, the coaches were a local PD providers. There was variety to their roles (e.g., coach, supervisor, mentor) but most were full-time coaches internal to the caregivers' settings.

(Juliet) The underlying coaching for FIND puts the providers in the driver's seat in order to individualize feedback and also learn more about the communities of families and children that each program serves. Coaches are encouraged to provide coaching around the FIND implementation as well which could center on other goals that may center on equity. We are doing much more support to coaches around equity and anti-bias training so it will be important to see how this impacts FIND implementation.

**9. For each intervention, how many hours does a coach spend coaching each participant? Are these all grant funded with ACF? How do you foresee these interventions being funded in the future?**

(Sarah and Rosalie) Our coaches spend an hour or two per course with each participant. Over the 21 courses in our training, that is equivalent to between 20-40 hours total, although some participants may need more coaching time, and we allow our coaches the flexibility to provide that as needed. Our pilot is funded by the City of Columbus and a local foundation, Future Ready Columbus. Our larger project is a partnership between Ohio State University, the Department of Defense, and the USDA. As we look to expand, we are exploring funding options from local governments, states, foundations, and federal funding sources.

(Shannon) At the outset, we estimated that coaches would spend 1.5 hours on WGT activities per week. We asked they touch-base with caregivers (e.g., by phone, text, or email) at least once a week and that they have a formal meeting with the caregiver to plan at least once a month. WGT was developed as part of a research project funded by OPRE (ACF).

(Juliet) Coaches visit provider after each filming session - 5 times over the course of 10-week intervention for 1-2 hours.

**6. Summary of Key Issues Raised**

- When using technology to work with providers, it is helpful and effective to pair it with a coaching model to work with providers to process the material and reflect on their skills.
- Strengths based models show positive outcomes when working with infant-toddler providers.
- Challenges to using technology with infant-toddler providers are a lack of time for providers to complete professional development activities and providers feeling less than comfortable with using technology.
- Additional research and funding is needed to bring some of these practices (such as We Grow Together) to scale for wide implementation.
- Tying online professional development programs to the QRIS has been key to sustainability and wider implementation.