# **Evaluation of Child360's Online Coaching Program,** 2017-2019

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#### Introduction

Child360, as part of its continuing support for the early education workforce, provides professional coaching to early childhood teachers. Coaches provide teachers with resources, offer them advice, and collaborate with them to create goals for their early learning programs. In Child360's traditional coaching model, coaches typically conduct in-person visits, in which they work one-on-one with teachers and administrators to help them improve their early learning programs through a cycle of appreciative inquiry, process consultation, feedback, reflection, and goalsetting. Recently, online coaching has emerged as another promising way to provide coaching to early learning teachers. Over the Internet, through the use of videos, coaches can remotely observe teachers and their classrooms, and video conferencing or online chats allow coaches and teachers to conduct conversations in real-time (e.g., Kraft, Blazar, & Hogan, 2018; Mashburn, Downer, Hamre, Justice, & Pianta, 2010; Pianta, Mashburn, Downer, Hamre, & Justice, 2008).

In 2016-17, Child360 conducted a pilot study of online coaching, the results of which indicated that online coaching had the potential to be an effective environment for Child360's coaching model (Barrett, 2017). Participants in that study used TORSH, a cloud-based platform that allowed teachers to record and upload videos of their classroom interactions. Coaches reviewed these videos and responded with highly customized feedback designed to help teachers meet their quality improvement goals. Please see Appendix J and visit <a href="https://www.torsh.co/clients/early">https://www.torsh.co/clients/early</a> for details on TORSH.

In light of this promising start, Child360 initiated a two-year, full-scale study of online coaching in 2017, using a larger sample of teachers and coaches. We decided to continue using TORSH in this study because of anecdotal evidence that it allowed teachers and coaches to build trusting relationships through virtual face-to-face interactions, to set quality improvement goals, and to track progress toward goals. We also initially observed that coaches could provide very specific and immediate feedback to teachers' own classroom videos, and that the platform allowed teachers flexibility in terms of when and where they reviewed this feedback. The overarching goals of this two-year study were to explore the viability and cost-effectiveness of online coaching via TORSH, in order to address four organizational goals: (1) to expand access to coaching supports, including access for geographically hard-to-reach programs; (2) to provide more affordable coaching for providers; (3) to increase coaching dosage for Child360's network of providers; and (4) to provide teachers with a high-quality coaching experience that would retain the core coaching principles of Child360's in-person coaching model. The evaluation used a mixed-methods design, incorporating descriptive quantitative methods, qualitative interviews, observation, and elements of a case study approach. A series of evaluation questions was developed and addressed over the two years of the study. The questions addressed five topical areas: experiences of teachers and coaches with online coaching, coaching time investment and activities, financial costs, technical support time investment and activities, and experiences of high-end users with online coaching.

During the first year of the study, we aimed to explore feasibility, refine the coaching model, and gain insight into the experiences of teachers and coaches. Findings from the first year were used largely to inform program improvements, address technical challenges, and understand the logistics of implementing all three coaching conditions. During the second year, the study focused on the cost-effectiveness of the online program and the experiences of "high-end users," those teachers who fully engaged in the online coaching experience. This evaluation report presents relevant findings from Years One and Two.

#### **Purpose**

The purpose of this evaluation was to pilot test the implementation of an online coaching program, including costs and benefits. Three conditions were created: traditional face-to-face coaching, a video-based online coaching condition, and a hybrid condition incorporating both face-to-face and video elements. The primary goals of the evaluation were to expand teachers' access to coaches, to reduce costs associated with coaching time and travel, and to explore a new technology which could be used to enhance Child360's existing coaching model.

## **Program Summary**

Child360 identified coaches and teachers who were interested in testing the TORSH online coaching system, and studied coach-teacher interactions over two consecutive years. Coaches in all three conditions worked with teachers according to the underlying principles of the Child360 coaching model, using a strengths-based, collaborative approach to identifying and achieving goals.

#### **Data Analyzed**

Researchers monitored coaching progress and collected data on time and cost requirements for each of the three models under evaluation. Qualitative data included classroom observations and interviews of participating teachers and coaches. Quantitative data included an accounting of coaching activities and investment (hours spent on coaching, time and costs of coaching activities).

#### **Key Findings**

Results demonstrated that the online coaching condition was cost-effective, as compared to the traditional and hybrid conditions, and was perceived positively by both teachers and coaches.

#### Recommendations

Suggestions for future practices are outlined in the Recommendations section of this report.

#### **Evaluation Overview**

The primary purpose of this two-year evaluation was to pilot test the implementation of a new online coaching modality, by examining coaching practices, costs, and benefits across three conditions: (1) traditional coaching, via inperson, face-to-face contact; (2) a mixture of half traditional coaching and half online coaching ("hybrid coaching"); and (3) 100% online coaching ("online-only coaching"). The evaluation was designed to characterize the subjective experiences of teachers and coaches participating in online coaching; to quantify the investment of money and time that could be expected in each condition; to determine the extent to which teachers and coaches would require additional technical support; and to understand the motivations and attitudes of teachers and coaches who successfully and frequently participated in online coaching. Coaches and teachers worked together from November 2017 through June 2019.

At the start of Year One (2017-18), two coaches were selected for each delivery mode, and were assigned to work with a full caseload of new teachers (i.e., teachers with whom they did not have an existing coaching relationship) for two academic years. A total of 215 teachers from 50 child care centers and 66 family child care homes were also assigned to one of the three conditions. All teachers and coaches were selected at random, with a few subsequent replacements due to site or scheduling issues. Teacher and site attrition also took place over the course of the two-year study period; however, this attrition did not affect completion of the study or interpretation of results.

The evaluation sought to understand the costs and benefits of online coaching, as compared to traditional coaching. These comparisons focused on coaches' use of time and financial costs across conditions. We asked coaches from all three conditions to track their daily activities using time management software. Data from participating coaches was compiled and sorted into four main categories: administrative time, drive time, classroom visit time, and debrief visit time. Financial costs were calculated by multiplying coaches' hours logged in each of these categories by their average hourly salaries. To compare classroom quality across the three conditions, we had planned to use the Classroom Assessment Scoring System (CLASS). Child360's primary purpose in administering the CLASS, however, was to assign ratings of site quality as part of our Quality Rating and Improvement System, and not to serve the purposes of this evaluation; that is, the methods for this evaluation were based on existing Child360 operations. For the most part, classrooms selected for Child360 QRIS assessment in Year One of the study were not selected in Year Two, making classroom quality comparisons impossible.

During the second year of the evaluation (2018-19), we utilized a case study approach to document and learn from the experiences and attitudes of teachers who engaged regularly with their assigned coach and closely followed Child360's coaching model. We purposively sampled four participants who exemplified the concept of a "high-end user." A high-end user was defined as a teacher who regularly sent videos, responded promptly to comments, and was responsive to Child360 staff throughout the year. High-end users were selected by each coach in the hybrid and online-only conditions. Complete descriptions of sampling techniques, data collection tools, and methods for both years of the study are presented in Appendix A.

#### **Evaluation Questions**

The following evaluation questions were designed to address Child360's organizational goals, cost-effectiveness, and the impact of the online coaching experience. The questions were grouped into five topical areas:

#### Experiences of Teachers and Coaches with Online Coaching (First Year)

- How did teachers and coaches experience online coaching through use of TORSH?
- Did teachers and coaches find online coaching to be an effective and valuable approach?
- Did teachers and coaches enjoy a positive relationship with each other, and did the degree to which they worked collaboratively vary across coaching conditions?

#### **Coach Time and Activities**

· How did coaching vary across the three approaches in terms of coaching interactions, hours, and visits?

#### **Financial Costs**

 How did the financial costs of the online-only and hybrid coaching conditions compare to the costs of the traditional coaching condition?

## **Technical Support Time and Activities**

- To what degree did teachers and coaches experience technical challenges with online coaching?
- How much time did support staff dedicate to providing technical support?

#### **High-End User Experience (Second Year)**

- What were high-end users' attitudes towards technology in Early Childhood Education?
- · How did high-end users utilize the 6-week cycle of coaching?
- What motivated high-end users to invest their time and energy in a new project such as online coaching?
- · How did high-end users operate in their classroom during recording times?

## **Findings: Experiences of Teachers and Coaches**

Despite a challenging initial adjustment period, by the end of the first year, coaches and teachers in both online-only and hybrid coaching conditions had positive perceptions of the online platform. With any new program or initiative, investing in building a positive attitude among participants can improve buy-in and likelihood of success. Teachers' levels of buy-in were affected by their levels of experience with technology. When teachers were not comfortable with technology, the usefulness of the software diminished. However, as teachers became more comfortable with the software, their levels of engagement increased. Similarly, coaches experienced an extended learning period and an uncomfortable shift in their coaching approach as they learned to use the TORSH online coaching software; however, as coaches in the online-only and hybrid conditions slowly gained experience with the online coaching modality, they also gained confidence in the process. The online coaches believed that the opportunity to learn a new method of coaching was challenging but exciting. By the end of Year One, these coaches also reported that online coaching allowed them to be more intentional with their feedback. One hybrid coach stated: "I am learning to appreciate and like the online process. Just as the teachers are learning a new process, I as a coach am going through the same. Do I like it more than at the beginning of the study? Yes!" An online coach stated:

"...I am enjoying learning and exploring more about the online coaching. Online coaching also allows me more intentionality in its focus of actual coaching."

Reasons for coaches' positive opinions included increased comfort with the technology, teachers' greater understanding of the software, and higher levels of teacher buy-in. All teachers indicated satisfaction with online coaching or with the coaching program as a whole. As one teacher said, "The online TORSH coaching is easy for me now... I am happy with using both methods because whenever I have a question or need suggestions, I can email my coach and get an answer quickly. I am very happy to receive coaching both ways." Many teachers spoke of the hybrid condition as providing the best of both worlds. One teacher commented that while she liked the personal feedback from the videos, she appreciated in-person visits, because "[my coach] can motivate me more when she sees me."

Coaches cited multiple benefits of using TORSH, both for Child360 as an organization and for their own coaching work. Teachers also perceived benefits, specifically identifying opportunities for reflection of instructional practice. Finding meaning and purpose in a job or task is important for sustained motivation. Coaches perceived that online coaching was valuable for the purposes of extending Child360's reach to provide services to more sites, and for increasing the quality of coaching within the organization. Throughout the year, coaches made explicit references to extending their reach to providers outside of Los Angeles County, noting that online technology was a great way to provide high-quality coaching to providers from anywhere in the world. As one online coach commented, "That is a meaningful purpose." Coaches reported that the benefits of TORSH included allowing them to be more intentional with their coaching, giving them more time to prepare for working with their teachers, and providing more flexibility in scheduling their time for activities such as viewing videos. Coaches also reported that TORSH was a great learning and professional development opportunity, because it enhanced their coaching skillset. TORSH increased their ability to reflect on instructional practices, their knowledge of effective instructional practices, and their skill at building relationships. High-quality debriefing was also noted as a benefit of TORSH, because coaches could pause video and reflect on the content.

Teachers also cited multiple benefits of online coaching. The most frequently shared benefit was the ability it provided teachers to reflect on their own instructional practices through the viewing of their classroom videos. One teacher called it an "eye-opener" and said that seeing the video was a humbling experience for her, but one that also made her more aware of what she was doing in the classroom. Multiple teachers also cited other benefits including written, specific feedback from their coaches on their videos; the flexibility to review videos and coach comments at a convenient time; and the fact that online coaching eliminated the need to set aside a large block of time for an

in-person visit. One teacher reported a novel use for the classroom videos: she shared her classroom videos with the parents of children in her classroom, so they could see the activities their children engaged in throughout the day.

In Year One, challenges for teachers were primarily related to technology, and challenges for coaches were mainly related to lack of teacher participation. Teachers offered suggestions for improvement that included additional iPad training and variations in visit durations and frequencies. New programs often face challenges, but it is important to detail these challenges so future participants will experience a smoother onboarding of the program. Challenges that emerged for teachers were linked to technical issues such as low-speed site internet connections, which decreased their ability to upload videos successfully. Some teachers were initially challenged by the video process, as capturing the entire room in the video could lead to pauses and the need to reposition the camera.

Some coaches noted being challenged by the initial learning curve and the efforts involved with using new technology, both for themselves and for teachers. Teacher buy-in was also cited by coaches as a challenge; some teachers who were uncomfortable with new technology, were non-responsive, or felt that they did not "choose" to receive online coaching. One online coach reported, "TORSH is definitely useful when providers are invested and want to take time to participate with it. TORSH has so many features such as instant message, video chat and online forms providers can use all at the touch of a button, it just makes it a huge challenge when providers are not comfortable with computers." The reliability and frequency of video uploading by teachers emerged as a challenge for coaches, as it often created time crunches for coaches in working through the coaching model. Several teachers offered suggestions for improving the online coaching program, such as additional training on the use of the iPad, and availability of online workshops. Teachers also suggested more and/or longer in-person visits from coaches.

In general, online coaches and teachers experienced positive relationships with one another. Because a cornerstone of Child360's coaching model is a strong teacher-coach relationship, it is important to determine the capacity of online environments to create strong relationships. Positive relationships are important for maintaining communication throughout the coaching process. For the online condition, positive relationships were evident in frequent coach-teacher communication, video conferencing, and phone calls. Coaches were able to develop a stronger rapport when communication was consistent, and when they were able to speak with teachers on a regular basis. Hybrid coaches shared that opportunities to meet with their teachers in person also helped encourage positive online interactions. Coaches and teachers in both conditions reported that the introduction of video conferencing, which was not an available feature on TORSH until late 2017, was tremendously helpful for developing positive relationships. One hybrid coach reported:

"The video conferencing process really showed me that relationships could be built just like face-to-face! I look forward to using it more consistently."

All teachers reported having positive relationships with their coaches. In particular, many teachers reported that they appreciated the accessibility of their coaches. For example, one teacher appreciated that her coach took the time to have a long phone conversation with her on a weekend. Another teacher shared that she had many different methods of communicating with her coach—via text, phone, and email—and for this reason, her initial worries about participating in the online coaching program had subsided. Generally, teachers found their coaches to be responsive and felt they provided good feedback. Several teachers also reported that their coaches were encouraging, supportive, and flexible.

#### Findings: Coach Time Allocation and Activities

To determine whether online coaching could offer comparable support to traditional or hybrid coaching, but with additional efficiencies, we compared the amounts of time spent on various coaching activities across the online, hybrid, and traditional conditions. These activities were grouped into three major categories: administrative tasks, including meeting preparation, scheduling, check-ins, data entry, and data collection; driving time; and actual coaching activities, such as visits (physical or video), feedback, writing comments, and debriefing. We collected these data during the first year of the study through time tracking software, but found that much of the data was inconsistent and inaccurate. By the second year, reliability and accuracy of these data were greatly improved. Table 1 presents the average number of hours spent per classroom over a nine-month period, based on data gathered between September 2018 and June 2019.

Table 1. Hours Spent Per Classroom, by Activity and Coaching Condition, for Nine Months

	_	C	oaching Condit	tion
	Activities	Online	Hybrid*	Traditional
Administrative Tasks	Meeting preparations, meeting scheduling, check-ins, data entry, resource collection	27.8	25.3	22.5
Driving	Hours driving	2.7	5.4	6.7
Coaching Time	Physical visits, video conferences, comments, video viewing, debrief time	9.3	11.7	9.2

<sup>\*</sup>Hybrid coaching combined both online and traditional face-to-face coaching activities. See Appendix B for details.

Overall, coaching practices across the online, hybrid, and traditional coaching conditions followed the core model components of observation, review, debrief, and feedback. The online and hybrid coaching conditions also included the processes involved with the use of video recordings and the TORSH application. Scheduling of activities varied by coaching condition as well. Aside from the major differences, such as physically visiting classrooms and conducting face-to-face interactions with providers, other activities such as deciding when to view videos and when to send feedback appeared to be dependent on coach preference. For example, many online coaches chose to view videos on the date when they were received, while some hybrid coaches elected to view videos according to the order of upcoming site visits.

On average, online coaches spent the most time on administrative tasks. Administrative tasks are an essential component of the coaching process, but should be completed as efficiently as possible so as not to detract from actual coaching with teachers. Administrative tasks were defined as email and/or phone communications (to set up meetings, conduct check-ins, and share resources), CLASS testing, time-tracking data entry, and resource collection. In Year Two, online coaches spent, on average, 27.8 hours on administrative tasks per classroom for the academic year. Traditional coaches spent the least amount of time per classroom, at 22.5 hours.

These differences in administrative time were relatively consistent for both years of the study. Online coaches reported several technical issues and inconsistencies with teachers' video submissions early on in Year Two, which resulted in fewer submissions than expected. This resulted in online coaches spending additional time to send e-mail reminders to their teachers to upload videos for review. Some of these technical issues were seen in the second year as well, due to the addition of new teachers and classrooms to the study. Online coaches also spent more time collecting and sharing resources specific to their teachers' needs; since they had little in-person contact, they wanted to provide teachers with as much individual attention as possible, even when they had no video to review. Traditional coaches did not have technical challenges to address or video submissions to review, thereby reducing the need to spend as much time on the same administrative tasks as online or hybrid coaches.

**Traditional and hybrid coaches spent the most time driving.** As expected, online coaches logged considerably less time driving across both years than traditional and hybrid coaches. Hybrid and traditional coaches drove for two to three times as many hours as online coaches, even after controlling for variations in caseload counts. Online coaches were required to drive to their participating classrooms to deliver and set up the iPads in Year One, which resulted in some recorded drive time. Dropping off and picking up forms and resources may have also contributed to the drive time for the online condition.

On average, hybrid coaches spent the most time coaching each of their classrooms. At the heart of any coaching model is the time spent between coaches and teachers as they engage in activities geared toward improving instructional practice and the quality of the early childhood environment. Data collected from time-tracking software, where coaches recorded the hours they spent on various coaching activities, were combined as a measure

<sup>&</sup>lt;sup>1</sup> See Appendix J for a more comprehensive description of the TORSH application and processes involved in its use.

of "coaching time". This included time spent physically visiting classrooms, video viewing and commenting (for online and hybrid coaching), and debriefing in various formats (such as in person, by phone, through video conference, or via email). Activities also included technical support of providers with the TORSH platform, as well as activities completed during all "roadmap" visits (initial visit, data collection visit, and Quality Improvement Plan development). Overall, the hybrid condition spent the most time coaching each of their classrooms, followed by online and traditional conditions, respectively. These findings were consistent with results from Year One, which showed that while online coaches had a greater number (or frequency) of coaching sessions, hybrid coaches logged the most time on "coaching time" activities, suggesting that the fewer sessions of hybrid coaches were notably longer, on average.

Coaches in the hybrid condition reported that on multiple occasions during the program years, teachers in their caseload varied in their video submissions. Some teachers sent multiple videos in the week leading up to their scheduled in-person visit. Others sent videos that were longer than required. Hybrid coaches believed that one reason for these variations included the pressure that some teachers felt about having to explain in person why their videos had not been submitted on time, prior to their face-to-face visit. The coaches explained that these teachers expressed embarrassment and were very apologetic. Therefore, multiple and/or longer videos were submitted by some teachers to avoid this situation. The overall result was that hybrid coaches spent more time reviewing videos and adding comments in order to be prepared for their regularly scheduled teacher visits.

## **Findings: Financial Costs**

Cost-effectiveness of the online coaching model was a key focus in Year Two of the study. Findings addressed the feasibility of expanding access to coaching, especially for geographically hard-to-reach programs, and the possibility of providing more affordable coaching to providers. Financial data were collected to assess the cost of implementation. To calculate the cost associated with each coaching condition as implemented in Year Two, each hour spent on coaching activities (administrative, classroom visits, debrief time, or driving) was converted to an hourly rate based on each individual coach. Hours spent by coaches at meetings, professional development time, and other non-classroom-specific hours were not counted toward the overall cost for the year.

The following cost analysis used an adjusted caseload of 20 classrooms for each of the three coaching conditions. This adjustment allowed us to compare costs across conditions, using similarly sized caseloads, for Year Two. We chose 20 classrooms as the fixed caseload because this number was comparable to coaches' actual caseload counts for two of the three conditions (online and hybrid). The following findings are based on data collected from September 2018 to June 2019. Only hours that directly related to coaching of classrooms were accounted for and compiled to create an overall cost for each condition. The areas we focused on were 1) coaching time, 2) driving time, including mileage and coaches' salary per hour, and 3) a combination of coaching, driving, and administrative tasks (see Table 2).

Online coaching cost 22% less overall than traditional, face-to-face coaching. In the traditional coaching condition, coaches spent the most hours coaching, driving, and completing administrative tasks. Combined, this created a higher cost per classroom for the academic school year, relative to the hybrid and online conditions, which were less expensive at about 80% of the cost of traditional coaching. The longer in-person visits for the traditional coaching condition may have several explanations. For one, in-person visits are more nuanced than an online experience. Teachers may need extra time to settle the children down, or adjust their schedules in real time to accommodate the visiting coach.

Driving expenses for the online condition were 20% lower than the traditional condition, while driving expenses for the hybrid condition were only 5% lower than the traditional condition. Traditional coaches drove significantly more than the online coaches, and slightly more than the hybrid coaches. Therefore, the driving costs incurred were lower for the online and hybrid coaching conditions. Coaches in the online condition were required to drive to sites only one time to drop off equipment at the beginning of the year, while coaches in the traditional condition attended sites about once every one or two months, and the hybrid condition attended every other month.

Table 2. Relative Costs of Online and Hybrid Coaching, Per Classroom, for Nine Months (Compared to Traditional Coaching)

		Coaching Condition	
	Type of Cost	Online	Hybrid*
Coaching	Time engaging teachers (in-class or virtual face-to-face)	<b>↓ 20</b> %	↓ 5%
Driving	Mileage and salary	↓ 68%	<b>↓ 38</b> %
All-In	All of the above, plus administrative time, TORSH accounts, minimal equipment costs	<b>↓ 22</b> %	<b>↓ 21</b> %

<sup>\*</sup>Hybrid coaching combined both online and traditional face-to-face coaching activities. See Appendix B for details.

Online coaching resulted in a 20% lower cost associated with coaching time and activities, as compared to traditional coaching. Coaching time was defined as time spent on coaching activities, namely, visiting classrooms, video viewing and commenting, and debriefing with teachers. Per classroom, online coaching was the least expensive condition, while traditional coaching was the most expensive. Online coaching allowed for more direct, intentional coaching activities. This resulted in efficient coaching between the teacher and coach. Without the need to drive, online coaches could spend more time gathering resources, reviewing videos, and conducting debriefs with their teachers. Online coaches and their teachers became more efficient in their debrief sessions, in the structure of their feedback, and in scheduling. The time saved by minimal driving was a major factor in the lower cost of the condition.

### Findings: Technical Support Time and Activities

As would be expected with the roll-out of new technology in the first year of the study, technical challenges emerged for teachers in the hybrid and online coaching conditions. During the first year, many coaches attempted to solve these issues using available resources, such as TORSH help forums and internet searches. If technical issues could not be resolved by coaches, supervisors, or research staff, then a researcher would contact a TORSH Account Services Manager to relay the problem. By the end of Year One, the majority of teachers regarded the iPad, which they used to video record and code their entries, positively, although 80% reported that they experienced at least one technical issue during the year. For many of these teachers, however, issues were quickly resolved, and teachers reported satisfaction with the technology at their site and the accessibility of TORSH.

In the second year of the study, technical support ranged from assisting with password retrieval, to troubleshooting Wi-Fi connectivity issues, to video conferencing challenges. In sum, Child360 research staff spent 21.5 hours this year addressing technical questions with the teachers and administrators involved in the study. In certain instances where issues could not be solved by researchers, TORSH support staff were contacted and asked to resolve the issue. The most common technical issue was related to video conferencing. TORSH released their video conferencing feature in November 2018, and experienced technical issues with its roll-out. Because of this, researchers received a higher-than-usual number of requests to assist with this feature. The second year of the study also saw a large drop-off in requests for Wi-Fi connectivity and account-related issues, which were the most common issues reported in the first year. The decrease in requests was expected, given the coaches' and users' experience with the software.

## Findings: "High-End User" Coaching Experience

During Year Two, we hoped to gain a more in-depth understanding of the online coaching experience and the potential outcomes, particularly for those providers who were fully engaged in the online experience. For the purpose of this study, "high-end users" were defined as teachers assigned to the online-only and hybrid coaching conditions who were highly responsive to their coach, actively participated in the program activities, and were generally regarded by their coaches as high-quality educators. Using these criteria, we selected four high-end users (two providers each from the online-only and hybrid coaching programs).

We studied the beliefs and attitudes of high-end users toward new programs and technology to investigate their relationship to positive outcomes. We used a case study approach for this portion of the study, conducting in-depth interviews and direct observations. Interview questions focused on personal beliefs about technology, beliefs about technology in early childhood education, and teachers' motivation to participate. Questions about their use of the six-week coaching cycle² were also included. An observation of a teacher in the online condition was conducted before, during, and after a scheduled recording session to learn more about her application of the program. The observer recorded how the classroom was set up, how the children reacted to the recording session, and how the teacher submitted videos to her coach. The observation was conducted in-person at the site of a selected online-only teacher. The researcher sat and observed the teacher throughout the morning to understand her process while she recorded and sent videos.

Qualitative data from teachers' interviews and the in-person observation were compiled and analyzed by creating a thematic coding system to identify patterns of attitudes and behaviors between and within conditions. The findings below address the evaluation questions related to the high-end user experience, and outline some of the similarities and differences between online and hybrid users.

High-end users viewed technology as a major benefit. Comfort with technology can be a contributing factor to the success of implementing any online program. Both online and hybrid high-end users viewed technology as a major benefit. High-end users described how technology had improved their lives by connecting them with friends and colleagues in a meaningful way. One participant described technology as a way to stay in contact with colleagues, without the need to drive or leave the house. One hybrid participant shared how easy it was to text her coach to set up a time to debrief, without calling or visiting in person first. In general, participants expressed a positive relationship with technology. Most believed that technology was a tool to simplify their lives, not a burden. High-end users discussed the ways in which they used technology to communicate with parents, colleagues, and friends. One user stated, "...because I can just text her if I have a question. We can video chat and do all kinds of communication."

High-end users were both proficient and comfortable with technology. Higher levels of independence as a personal characteristic have been shown to increase self-efficacy with online technologies (Kauffman, 2015). Participants from both online and hybrid programs discussed the ways in which they used technology inside and outside of their classrooms. Participants reported being technologically literate and capable of using technology to accomplish tasks (e.g., paying bills, updating devices). High-end users were comfortable using technology, and had no problems maneuvering within a technological landscape. Comfort with technology was an important factor in adherence to the program. As one participant stated:

"I am pretty comfortable with technology. I can figure it out and find my way. I am not scared of using it, I am pretty open."

High-end users believed technology was highly beneficial for young children. High-end users agreed that technology was a benefit to young children, if used properly. High-end users discussed the use of smart boards, iPads, and other devices to encourage their students to engage in classroom activities. They viewed recording in the classroom as a way to capture high levels of detail in their work and to reflect on how they went about solving problems or adjusting instruction. Users also believed technology should be gradually introduced into the classroom, specifically for children in Pre-K. Bombarding young children with technology was seen as detrimental to their development. Instead, slow and gradual exposure with rich discussion was perceived as the most effective use of technology in the classroom. One online high-end user shared that she taught her students not to always believe

<sup>&</sup>lt;sup>2</sup> See Appendix B for a complete description of the Six-Week Coaching Cycle.

what they saw on the internet, but instead to share what they saw with an adult. By doing so, they would learn to understand how pictures could be altered or changed. She described a time when one student shared a picture of a shark flying in the sky, and then the teacher asked the children to talk about whether or not they believed it was real. They discussed the fact that sharks could not fly, and agreed that the picture must have been altered for fun. She explained that these moments highlighted the point that technology can be problematic but also provides opportunities for learning. Overall, high-end users understood that the children they served were growing up with technology, and they felt it was important to embrace technology rather than to shy away. As another participant stated, "I wish we had more technology for the kids. If we had more computers, we could help the kids a lot more based on their needs. They connect more with computers."

**High-end users used technology to improve their skills as educators.** The use of technology was viewed as essential to the high-end users' development as educators. Participants discussed the way online coaching developed their skills as teachers. One high-end user shared her goal for video technology by saying:

"It is a great resource.... I have been learning little by little. TORSH was the last thing that I learned, I really enjoyed it a lot. Now I am beginning to do video workshops and conferences, which is my next goal."

Another high-end user reported that she used applications to communicate with parents and share what the students were working on in a given week. By doing so, she improved her family engagement and outreach. She reported that there were many resources available online to use in the classroom, and that she frequently sought them out to try for herself.

High-end users differed in their experiences and awareness of the six-week coaching cycle. The six-week coaching cycle was designed to add consistency across the coaches and teachers, by creating a standard practice of submitting videos strategically. In the design of the cycle, teachers were expected to submit a video, receive feedback, and incorporate that feedback into the second video (to complete the cycle). The purpose of the second video was for coaches to assess improvement based on teacher goals. Therefore, adherence to the six-week cycle would, in theory, produce desired outcomes (i.e., goal completion).

High-end users experienced differences in their interpretation and awareness of the six-week coaching cycle, although all understood and engaged in the various components. For example, one online participant reported that she was able to quickly incorporate the feedback from her first video to be used for video number two. She noted how quickly the feedback came in, and that the suggestions were simple to follow. She then incorporated the feedback into her next video to close the loop on the cycle. Completing the cycle, however, could be a challenge when there were other issues to contend with (e.g., classroom behavior, substitute teacher, iPad connection). Another online high-end user was entirely unaware of the cycle or its purpose, but described participating in activities related to sending and receiving comments from the assigned coach. For some high-end online users, the cycle was perceived as overwhelming. The process was described as having to get too much done in such a short amount of time. This appeared to be a particular challenge for the online users, due to the lack of face-to-face time with their coach. Online-only users focused their attention mostly on feedback and recording, and did not take time to specifically address the six-week cycle with their coach via e-mail or video conference. Communication between online coach and participant focused mainly on goals, strategies, and other areas of improvement, rather than sixweek cycle adherence. Time constraints prevented the online high-end users from fully adopting the six-week coaching cycle, thus making it a challenge for them to comply. They explained, for example, that they were not able to complete a second video given the time frame.

Hybrid high-end users described the six-week coaching cycle as "convenient" and simple to adhere to. The high-end hybrid users seemed better able to articulate their use of the six-week cycle, from sending the first video to receiving feedback and applying it to the second. However, hybrid users also noted that having their coach visit the site to discuss the video was a benefit. Hybrid users felt motivated to complete the second video, knowing that their coach was coming to review it in person.

Lack of experience with the cycle did not necessarily create negative effects. High-end users in both conditions reported similar satisfaction with the program, and their coaches reported similar high-end relationships and communication practices. It was unclear whether experience with the cycle added discernible benefits for the hybrid participants.

High-end users were motivated by opportunities for personal growth and development. Authentic online experiences are important for engagement and motivation (Herrington, Oliver, & Reeves, 2003). High-end users shared a similar degree of intrinsic motivation to develop their own skills as educators. They all mentioned that personal growth and development motivated them to take on new projects. When at times the program felt overwhelming, participants reminded themselves that coaches were there to help them grow. Participants had a desire to receive feedback, whether the feedback was positive or discussed areas for improvement. All high-end users were notably excited about the opportunity to invest their time in this new program, which was reflected in the effort they put forth. One online participant stated:

"How can I improve my own technique? I was really excited about the process. I know at other places I wouldn't get any feedback, I get so much here. We just keep learning and gaining more experience. I am getting much better at my job so it helps a lot, it is much more enjoyable."

Users enjoyed the learning process and took it upon themselves to develop new skills. As another participant explained, "I didn't know how to turn on a computer, now I know how to do everything. I had to learn as I go...I took an online class and learned how to navigate the class." Participants took ownership of their learning by taking classes or using YouTube to understand a new piece of technology. High-end users also had fewer technology-related issues, likely due to their own ability to tackle new challenges.

An observed high-end user effectively managed children's behaviors, operated equipment seamlessly, and followed consistent routines in her classrooms before, during, and after video recording times. The observed highend user communicated clear expectations to her students and assistant teachers. She organized her classroom specifically for recording and began by explaining to the group that the iPad was about to come out. During the observation, the high-end user explained the purpose of the iPad, what was to be expected of the students, and the length of the video. Assistant teachers were tasked with keeping the students focused on the lesson, and to redirect behavior that was not on task. The children did not respond to the iPad and did not appear to be fazed by the recording. The classroom functioned normally while recording was in progress.

Once the classroom recording was complete, the high-end user immediately sent the video to her coach, without reviewing the footage first. She explained that this was an important step because she wanted the footage to be authentic, and not staged. The high-end user also added a brief description to the video, so it was easier for her coach to organize the videos received. Usually, around lunch time, the high-end user reviewed the video herself and began to reflect on her practice and ways she might improve. She explained that this helped to better prepare herself for conversations with the coach around quality improvement.

#### **Discussion**

This two-year study was designed to explore the viability and cost-effectiveness of online coaching via TORSH for expanding the delivery of high-quality coaching services. The implementation of TORSH addressed four organizational goals: (1) to expand access to coaching supports, including access for geographically hard-to-reach programs; (2) to provide more affordable coaching for providers; (3) to increase coaching dosage for Child360's network of providers; and (4) to provide teachers with a high-quality coaching experience that would retain the core coaching principles used in Child360's in-person coaching model. Each of these goals is discussed below with corresponding study findings.

Expanding Access to Coaching Supports. Online coaching offers the considerable advantage of allowing teachers and coaches to collaborate regardless of the physical distance between them. Unfettered by the constraints of having to meet in person, Child360 coaches could potentially serve a much wider pool of providers. However, online coaching may make it more difficult for a teacher and coach to form a meaningful and productive relationship, and this relationship is a central element of Child360's coaching model. This study explored whether teachers and coaches could successfully create relationships online in which both parties felt comfortable and could work together productively, which would be particularly important for expanding services to hard-to-reach providers (e.g., rural providers for whom in-person visits may not be possible). The findings showed that all teachers in the online coaching condition reported positive relationships with their coaches. These teachers found their coaches to be responsive and willing to communicate using a variety of methods (e.g., text, phone call, email). Furthermore, video conferencing was perceived as tremendously helpful for building positive relationships. These findings suggest that, through consistent communication efforts and use of multiple modalities, online coaching could successfully expand Child360's coaching services without sacrificing central elements of the coaching model.

Providing More Affordable Coaching Supports. Online coaching may prove to be more affordable for providers than face-to-face coaching, because it saves travel expenses and requires less time and energy from both coaches and teachers. In Child360's pilot study, travel time for traditional coaching was considerable; travel for in-person visits averaged 275 miles of travel per month (Barrett, 2017). In addition to reducing travel-related costs, online coaching may reduce staff costs, if coaches can support additional teachers in the time that they might save on travel. However, the ability of online coaching to reduce overall costs depends on several factors, including the costs of technology and the number of in-person visits required to ensure that teachers and coaches are able to work together successfully. It is possible that occasional visits may be required in addition to online coaching to ensure that the relationship is productive. In this study, we compared costs and feasibility across the three coaching conditions. Online-only coaching, when adjusted for caseload, was found to be the most cost-effective approach. The main area of cost savings was related to drive time. Hybrid and traditional coaches spent a significant amount of time driving to their sites, whereas online coaches needed only a small amount of drive time. If sites participating in online coaching already had access to an iPad or other tablet, this total would be reduced even further. Administrative time and actual coaching time were similar across all conditions, with online coaches spending the most time on administrative tasks. New teachers to the study added administrative time for the online condition, and required more time for onboarding of their new sites, including the time coaches spent to send reminders and gather extra resources. This added time on administrative tasks was offset by the time they saved driving.

Increasing Coaching Dosage for Child360's Providers. For coaches, time and energy saved on travel could potentially be redirected to providing additional coaching supports. In the pilot study, coaches reported that online coaching enabled them to accomplish more in a shorter period of time, and they also had more energy to review their teachers' videos because they were freed from time spent driving long distances and maneuvering through a busy classroom. This study sought to explore the effects of increased dosage by adding five additional classrooms to the caseload of one coach. Due to attrition over the course of the study, however, the effects associated with increased dosage could not be fully examined. Nevertheless, findings related to savings in travel time suggest that this should be an area for future study.

**Providing High-Quality Coaching.** The format of online coaching, with its use of teacher-recorded classroom videos for which coaches then provide written, time-synced comments, also has the potential to improve some aspects of the current coaching model. Child360 coaches frequently encounter challenges that can make it difficult to deliver quality coaching in the classroom; these challenges are most related to time and availability. For example, finding time during a classroom visit to debrief with a teacher is a common challenge. Coaches in the pilot study reported

that online coaching allowed them to be more thoughtful and intentional with their coaching. Because they could pause and rewind a classroom video, they were able to think carefully about a classroom interaction and avoid an immediate, in-the-moment reaction. They were also able to time-sync their comments with specific moments in the video, so teachers could see for themselves precisely what led to the coach's feedback.

In this study, we explored the strengths and weaknesses of the online coaching program in the first year, as experienced by coaches and teachers, and explored the experiences of "high-end" users of online coaching in the second year, to determine whether online coaching could provide a high-quality coaching experience that would retain Child360's core coaching principles. As noted, online coaches and teachers built positive relationships. Furthermore, coaches reported having more time to prepare for working with their teachers, and more flexibility in scheduling activities such as viewing videos and providing meaningful feedback. Higher-quality debriefing was also reported, due to the coaches' ability to pause video and reflect on the content. Teachers reported that online coaching allowed for more opportunities to reflect on their own instructional practices through the viewing of their classroom videos. Also cited were the benefits of written, specific coach feedback on their videos; the flexibility to review videos and coach comments at a convenient time; and the fact that online coaching eliminated the need to set aside a large block of time for an in-person visit.

Challenges to the online coaching experience were largely due to early technological issues and teachers' timeliness in submitting videos. These challenges were most evident during the first year of the study. Notable improvements had been made by the second year, as coaches and their supervisors took proactive steps to motivate teachers to upload their videos more reliably. These steps included additional training and the implementation of a data log that gave teachers, directors, and coaches a shared knowledge of submission timelines.

High-end users in both the online and hybrid conditions shared the belief that technology was an essential component of a high-quality ECE experience. Their views on technology, with regard to their personal development, were evident through their consistency with the program. Frequent personal use of technology and high levels of comfort with technology were common among all high-end participants, which likely contributed to their effective use of the platform and process. High-end users saw the new technology as a benefit and treated it as such over the course of the year. Personal satisfaction from learning new skills was also shared among the high-end users. They enjoyed the process of completing a new challenge, and kept themselves on track by practicing with the tool. High-end users even mentored other teachers that had fewer technological skills, as a way to demonstrate leadership. Knowledge and understanding of the complete six-week coaching cycle was the only notable challenge for these participants, and the cycle appeared to be largely underutilized by both the online and hybrid users. While some users were more aware of the full cycle than others, and attempted to use the cycle properly, it was rarely used as prescribed.

In summary, the findings from this study show that Child360's online coaching model is viable, cost-effective, and capable of achieving the organization's goals. Despite limitations that arose during the study, such as participant attrition, the findings encourage continued implementation with systematic study and improvements. Future studies might include a more outcomes-based evaluation of the online coaching model, incorporating such outcomes as CLASS scores, achievement of goals from teachers' Quality Improvement Plans, or changes in teacher attitudes and/or practices.

#### Recommendations

The following recommendations are intended for consideration by Child360 in its continued efforts toward quality program improvement, as well as by external programs, sites, and providers interested in implementing an online coaching program.

**Encourage relationship-building practices early and often throughout the program's implementation.** As relationship-building is a core component of the coaching model, it is essential that this happens as early as possible in the program. An important aspect of relationship-building, as the study findings show, is having positive perceptions of and investment in the program. The findings show that providing additional support to teachers early on, especially to those teachers who were less comfortable with an online platform, increased both positive perceptions and relationship-building. Both coaches and teachers also indicated that video conferencing was a

powerful tool for encouraging relationship-building. Introducing video conferencing early in the coaching process, and as often as possible, will encourage positive coach-teacher relationships. Consistent and frequent communication also encouraged relationship-building, as online coaches believed that the relationships they built were strongest when they communicated frequently with their teachers, both on a personal and professional level.

Establish and communicate clear, consistent, and structured expectations for online coaching activities, such as timelines for teachers' submission of videos. Video recording of classroom activities and instruction, and submission of these videos, are essential components of the online and hybrid coaching processes. Timeliness of video submission was found to be inconsistent for some teachers in these two coaching conditions. It may have been the case that initially, the expectations and timelines for submission were not clearly or consistently communicated to teachers. When video submissions were past due, it became difficult for coaches to view all of their videos and provide prompt feedback, so in future implementations it will be important for teachers to adhere strictly to deadlines once they have demonstrated the ability to upload and share videos. Although coaches reported that flexibility was a major benefit of the online coaching program, it was believed that more structure for teachers and clearer communication of expectations would maximize the program's potential. Digital forms may be developed to help teachers and coaches record due dates and expectations. In addition, it may be beneficial for directors and supervisors to also be included in communications about due dates and expectations, to help ensure submission of videos in a timely fashion.

Address teachers' beliefs and attitudes toward the role of technology in early childhood education. Attitudes toward technology in early childhood education played an important role in program adherence and motivation in the online coaching condition, as shown by the findings of the high-end user experience. High-end users had positive attitudes toward the role that technology plays in early learning environments. These positive attitudes contributed to their motivation and full engagement in the online coaching program. To address this issue with future participants, it would be beneficial to develop a technology awareness survey to learn more about teachers' views on technology. If a teacher reports negative attitudes toward technology, additional support or resources may be utilized to promote buy-in and adherence to the program. Conversely, teachers that reported positive views of technology might require lower levels of support.

Identify, address, and monitor technical challenges and issues on an ongoing basis to ensure smooth implementation of online coaching. Early implementation was challenging for teachers in both the hybrid and online coaching conditions, as teachers were not prepared for the technical challenges that arose. Such challenges included internet connectivity, device updates, and incomplete knowledge of TORSH, which hindered some teachers' ability to effectively utilize the program. Identifying these issues as well as providing training early on in the program could mitigate some of the implementation challenges that were faced, and could help ensure that teachers have the knowledge necessary to be successful. Challenges and issues may also be addressed through making resources (e.g., webinars, recordings, and troubleshooting guides) available for teachers to access throughout their use of the program. Ongoing monitoring of the technical components will also help prevent future challenges and issues.

Standardize tracking systems and encourage periodic tracking of data. As with any program for which supervision and evaluation are ongoing components of the continuous improvement process, having reliable data is essential. Near the end of the first year of this study, it was found that unfortunately, data entry was not standardized, making data analysis extremely difficult. Inconsistent data entry complicated the researchers' efforts to track the coaching dosage and activity types that teachers experienced. This problem could be avoided with careful and consistent quality checking of data as it is entered. To mitigate the effects of incomplete or inconsistent data, care should be taken to develop standard tracking systems and appropriate training for their use, so that coaches may record information as completely and consistently as possible. In addition, a system for periodic tracking at a supervisor level should be in place to address and prevent issues with entry and reporting.

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## Appendix A. Methodology

## Sampling

The study was designed to enable a comparison between face-to-face and online coaching conditions, from the perspective of coaches and teachers. Four treatment conditions were created: (1) a face-to-face condition that followed the traditional Child360 coaching model, in which coaches and teachers met in person monthly; (2) a hybrid condition, in which teachers and coaches alternated between in-person and online coaching visits, with an in-person visit occurring one month, followed by an online visit the next month; (3) an online condition in which coaches met with their teachers once during a welcome visit, but all subsequent visits were conducted online; and (4) an online condition identical to the third condition, but with a caseload of 40. Two coaches were randomly assigned to each of the treatment conditions. The provider sample of 144 sites was randomly assigned to each condition, subject to a few constraints such as teacher language preference.

Provider turnover and attrition led to changes in the sample across the two-year period. By the end of the second year, a significant amount of turnover took place, which resulted in altered caseloads for all six coaches. Reasons for the changes varied, with some providers dropping out of the study and some leaving the network. Table A-1 shows the resulting samples for each year of the study. The initial distribution of two coaches per condition (a total of six coaches) remained the same over the study period.

Table A-1. Variations in Sample Sizes and Caseloads over Study Period

	Condition	Initial Sample	End of Year 1	End of Year 2
_	Coop to food	25 man aaaah	39 for Coach 1	35 for Coach 1
	Face-to-face	35 per coach	35 for Coach 2	33 for Coach 2
	11.4.24		38 for Coach 1	21 for Coach 1
Classrooms	Hybrid	35 per coach	37 for Coach 2	22 for Coach 2
	Ouline	35 for Coach 1	34 for Coach 1	22 for Coach 1
	Online	40 for Coach 2	41 for Coach 2	21 for Coach 2
	Face-to-face	15 per coach	18 per coach	26 per coach
			15 for Coach 1	
Centers	Hybrid	17 per coach	17 per coach	16 for Coach 2
	0.1:	7 for Coach 1	7 for Coach 1	14 for Coach 1
	Online	11 for Coach 2	11 for Coach 2	11 for Coach 2
	5 t- f	20	47	9 for Coach 1
	Face-to-face	20 per coach	17 per coach	7 for Coach 2
All-In	Hybrid	23 per coach	22 per coach	6 per coach
		11 for Coach 1	10 for Coach 1	8 for Coach 1
	Online	12 for Coach 2	11 for Coach 2	10 for Coach 2

For the case study of "high-end users" in Year Two of the study, four teachers were purposively sampled based on recommendations from their assigned hybrid or online coaches. Each coach nominated one teacher to be studied. Criteria for the label "high-end user" were frequency of communication, timely video submission, responsiveness, and overall adherence to the program.

#### **Materials and Data Collection Methods**

At the start of the study, providers received a number of materials to distribute to their teachers and parents. For parents, we provided a letter in both English and Spanish explaining that videotaping would be taking place in the classroom. Parents received opt-out forms in both English and Spanish for those who did not want their children videotaped. Teachers received a copy of the iPad lending agreement that was to be signed. Hybrid and online sites received an outline that described their coaching condition. Coaches received written materials regarding the implementation of the hybrid and online coaching models as well as a How-To Guide for TORSH in English and Spanish, developed by Child360's R&E team. This guide helped teachers get started using TORSH, and explained how teachers could upload, label, and share videos with their coach. A YouTube video was developed to demonstrate the uploading and sharing of videos. The video contained Spanish subtitles.

Across the two years of the study, we used several methods to collect data. Table A-2 presents a summary of the methods, the purpose of each, and the timeline for all data collection efforts.

**Table A-2. Data Collection Summary** 

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#### **Data Analysis**

All qualitative data from interviews and observations were analyzed using ATLAS.ti software. Interviews were either held at the Child360 office or were conducted by phone. Interviews were recorded with detailed note-taking and transcribed for analysis by Child360 researchers. All qualitative data (interview transcripts and field notes) were coded for emergent themes and then organized by constructs to form general statements about the experiences of coaches and teachers. All quantitative data, related to time spent on various activities, frequencies of responses, and financial data, were stored and analyzed using Excel. Descriptive analyses were used to calculate averages and make comparisons across groups.

#### **Planned Outcome Measures**

CLASS assessments from 80 randomly selected classrooms, to be conducted at two time points, were initially written into the study as an outcome measure of teacher-child interaction quality. Child360's Quality Department assessors planned to conduct 160 CLASS assessments from the selected classrooms at the study sites. Each coaching condition would have received an equal number of assessments prior to the commencement of coaching, followed by subsequent assessments at the end of the program year. The goal was to investigate changes in CLASS scores as an outcome of the three different coaching conditions. However, due to scheduling constraints and a limited number of trained assessors, we were unable to complete these assessments.

## **Appendix B. Traditional, Online, and Hybrid Coaching Cycles**

Every four to six weeks, the online coach and teacher were intended to complete one coaching cycle. The cycle was meant to conclude with a debriefing phone call. Table B-1 describes how each action was aligned with the Child360 Action Plan Coaching Cycle.

Table B-1. Six-Week Online Coaching Cycle Actions and Components

Week*	Action	Coaching Cycle Component
Week 1	Teacher posts a 20- to 30-minute video with both the goal and the particular strategy being implemented to achieve that goal in the "Description" section of the video.	Established Focus
Week 2	Coach responds to the video by providing time-synced comments related to the established focus of the video.	Collect Data
Week 3	Teacher posts second video after taking into consideration the coach's comments. The video is aligned with the same goal as the first video.	Implement
Week 4	Coach responds to the second video with prompts to get the teacher thinking about progress made.	Evaluate
Week 5-6	Coach and teacher debrief on the phone (30 to 60 minutes) to uncover a new focus for the next four to six weeks, and to provide each other with feedback.	Evaluate

<sup>\*</sup>This cycle represents the baseline for coaching support in six-week increments. The teacher and coach may interact more frequently via TORSH, email, or phone, in order to exchange resources, tools, or ideas.

#### **Description of Coaching Conditions**

**Traditional Coaching:** Coaches followed the traditional Child360 coaching model, in which coaches and teachers met in the teacher's classroom once per month. Coaches following the traditional model conducted in-person visits, debriefed with their teachers during or at the end of the day, and co-created goals with teachers based on their observations and conversations. These goals were recorded in a notebook kept by the coach or at the site, so that coaches and teachers could refer to them during their next visit. Between in-person visits, coaches provided additional support via phone or email, as needed.

**Hybrid Coaching:** Coaches alternated between conducting in-person and online coaching visits, with an in-person visit occurring one month, followed by an online visit the next month. During months containing in-person visits, coaches conducted observations and debrief sessions, and teachers and coaches co-created goals for the next month. These goals were recorded and sent to the coach for reference during the next online visit. During months containing online visits, teachers sent a classroom video through the TORSH platform, coaches provided feedback and responses using TORSH, and coaches and teachers debriefed and co-created goals over the phone or using video conferencing. Between in-person visits, coaches provided additional support via phone or email, as needed.

**Online-Only Coaching:** Coaches and teachers met in person one time, during a welcome visit at the beginning of coaching services. All subsequent visits were conducted online. Teachers sent videos to their coaches once every 4 to 6 weeks, and coaches provided feedback on videos via the TORSH platform. Coaches held video conferences or phone calls with their teachers once per month, to discuss the video and co-create goals for the next month. Between online visits, coaches also sent frequent e-mail reminders, checked in with teachers, and followed up on prior feedback via phone or email.

## **Appendix C. High-End User Interview Protocol**

#### **High-End User Interviews**

Site name:	
Study condition:	
Interviewee (Title and Name):	
Interviewer (Title and Name):	
Other topics discussed:	
Post-interview comments or leads:	

#### **Introductory Protocol**

To facilitate my note-taking, I would like to audio tape our conversation today. Please sign the release form. For your information, only researchers on the project will be privy to the tapes which will be eventually destroyed after they are transcribed. Essentially, this document states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) we do not intend to inflict any harm. Thank you for your agreeing to participate.

We have planned this interview to last no longer than one hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning.

At any time you may skip a question or move on if you wish. Your responses will be compiled and analyzed to be put into a report on the effectiveness of online coaching. The report will be made available to internal and external Child360 audiences. No identifying information will be used for the final report; your name and site information will be excluded. At the conclusion of this interview, I will provide you with my contact information if you wish to follow up with me.

#### Introduction

You have been selected to speak with me today because you have been identified as someone who has a great deal to share about successes in online coaching. Our research project as a whole focuses on the beliefs and motivations of teachers as it relates to online coaching, with particular interest in understanding how certain users view the coaching cycle, and technology in ECE. Our study does not aim to evaluate your techniques or experiences. Rather, we are trying to learn more about the attitudes and behaviors of our high-end online coaching users so we can aim to improve the outcomes of others that may use online coaching in the future.

#### **Begin Interview**

A. Interviewee Backgrou	nd
How long have you been	
	in your current position?
	at this center/FCC?
	in the early education field?

#### **B.** Coaching Cycle

- 1. Can you talk about how you use the 6-week cycle?
  - Probe: Do you find it effective? Why or why not?
- 2. Describe the 6-week cycle in your own words.
- 3. Can you talk about any challenges, if any, you face when completing the second video in the 6-week cycle?
- 4. When you receive feedback from your coach, can you talk about how you incorporate the feedback into your classroom?

## C. Technology in ECE

- 5. What are your beliefs on using technology in an early education setting?
- 6. Do you feel online coaching is an appropriate use of technology for early education? Why or why not?
- 7. Do you believe the use of technology in ECE is beneficial to your development as a teacher? Why or why not?

#### D. Technology Knowledge

- 8. How comfortable do you feel using new technology?
- 9. When you are confronted with a problem with technology, what steps do you take to try and resolve it?
- 10. Talk about your experience using technology, both professionally and personally.

#### E. Motivation

- 11. Talk about what motivates you to take on new programs such as online coaching?
- 12. Can you talk about a process or technique that has made online coaching manageable for you?
- 13. How do you keep yourself motivated to continue using online coaching on a regular basis?

#### F. Other

- 14. Do you have any other comments you would like to make about online coaching in general?
- 15. Do you have any suggestions for improving your experience with online coaching?

# **Appendix D. High-End User Observation Protocol**

## **TORSH High-End User Observation Checklist**

Instructor observed:
Number of children present:
Number of assistant teachers present:
Date:
Time:
Please provide a time stamp for the following events:
iPad is visible to students:
Recording begins:
Recording ends:
iPad is put away (if applicable):
Video is shared with coach (if applicable):
Purpose: The purpose of the observation is to (1) provide details that characterize high-quality technology integration into early education classrooms, and (2) understand the behaviors of a successful online coaching teacher.  For each observed behavior, please provide detailed notes.  1. Please describe how the lead teacher and/or assistant teachers prepare the children for a recording of the classroom. Describe the conversations, timing, and order of operations prior to recording.  2. Please describe how the children respond to the teacher's handling of the iPad (if applicable) as well as how they react once recording begins. Please take note of how the teacher(s) respond to the children if they engage with the iPad, ask questions, or in any other way note that recording has begun.  3. Please describe the behaviors of the teacher as she/he concludes the recording of the session. Observe the conversations, if applicable, the teacher has with the students and take note of the nature of the conversation.  4. Observe when and how the teacher submits her/his video to their coach. Note what time of day, and where the
4. Observe when and how the teacher submits her/his video to their coach. Note what time of day, and where the sharing takes place. Does the teacher wait until the end of the day? Does the teacher submit without reviewing the video first? Take detailed notes on the <u>process of video sharing</u> .
Provide any additional relevant notes:
Post-Observation Checklist:
(1) Observed
(0) Not observed
Lead teacher discussed iPad with children prior to recording.  Children reacted to the iPad.  (If 6 was observed) a Lead teacher was able to redirect children away from iPad back to regular classroom activities  IPad experienced technical issues.  TORSH experienced technical issues.  Lead teacher organized classroom specifically for recording.  Classroom functioned normally while recording was in progress.  Lead teacher provided lesson without interruption specific to iPad.  Lead teacher submitted video to his/her coach.

## **Appendix E. Memorandum of Understanding**

MEMORANDUM OF UNDERSTANDING BETWEEN LOS ANGELES UNIVERSAL PRESCHOOL AND PARTICIPATING PRESCHOOL

This Memorandum of Understanding ("MOU") is between Los Angeles Universal Preschool ("LAUP"), a non-profit public benefit corporation serving Los Angeles County and Participating Preschool ("Participant"), hereinafter collectively referred to as "the Parties";

WHEREAS, LAUP is conducting a pilot study of the feasibility and outcome of online and video-based coaching using TORSH, Inc.'s digital platform ("Study"); and

WHEREAS, Participant would like collaborate and participate with LAUP in the Study

The Parties have agreed as follows:

#### Article 1

The Parties will support cooperation and collaboration in accordance with the provisions of this MOU and the respective laws and regulations of the United States.

#### Article 2

Responsibilities of the Parties.

#### Los Angeles Universal Preschool will:

- Loan iPad to Participant for the duration of the study. The iPad will be used to record and upload video on to digital platform.
- Provide introductory training and ongoing technical assistance for use of the digital platform.
- Provide Participant with "Opt-out Form" to disseminate to parents who do not want their child video-taped during class time.
- Provide Participant with signage to post in the classroom related to the videotaping.
- Analyze results gathered from pre-and post-surveys and focus groups to assess the effectiveness and efficiency of online coaching.

#### Participant will:

- Ensure there is reliable Internet access for uploading videos on to the digital platform.
- Post signage in the classroom related to the videotaping and disseminate the "Opt- out Form."
- Notify LAUP if a parent submits an "Opt-out Form."
- Provide contact information of the staff member participating in the Study.
- Complete a short assessment on effective teacher-child interactions, once at the beginning of the Study and once the Study is concluded.
- Upload six (6) videos of classroom each month in the following settings: 2 meal time, 2 large group, 2 play time. Videos should be at least 10 minutes in length, and videos should be uploaded as soon as they are recorded.
- Participate in traditional, face-to-face coaching once a month with the assigned coach.
- Complete a survey about the online coaching experience.
- Take part in a focus group, which is an optional aspect of the Study.

#### Article 3

The Parties should consult each other before disclosing any information derived from the activities under this MOU.

#### Article 4

Any issues arising from the interpretation or implementation of this MOU will be settled through consultations between the Parties or such other means as they may mutually decide. The Parties do not anticipate the creation of or exchange of intellectual property during the course of this MOU.

#### Article 5

This MOU or any part of it may be amended only by the mutual written consent of the duly authorized representatives of both Parties unless otherwise provided in this MOU.

This MOU shall enter in force upon signature by both Parties and remains in force through June 30, 2016, unless terminated earlier with or without cause by either LAUP or County upon thirty (30) days written notice to the other party.

#### Article 6

No Agency. Both parties acknowledge that they are independent contractors, and nothing contained herein shall be deemed to create an agency, joint venture, franchise or partnership relation between the parties.

#### Article 7

Governing Law. This Agreement shall be construed in accordance with and all disputes hereunder shall be governed by the laws of the State of California.

#### Article 8

LIMITATION ON LIABILITY. TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT WILL EITHER PARTY BE RESPONSIBLE FOR ANY INCIDENTAL DAMAGES, CONSEQUENTIAL DAMAGES, EXEMPLARY DAMAGES OF ANY KIND, LOST GOODWILL, LOST PROFITS, LOST BUSINESS AND/OR ANY INDIRECT ECONOMIC DAMAGES WHATSOEVER REGARDLESS OF WHETHER SUCH DAMAGES ARISE FROM CLAIMS BASED UPON CONTRACT, NEGLIGENCE, TORT (INCLUDING STRICT LIABILITY OR OTHER LEGAL THEORY), A BREACH OF ANY WARRANTY OR TERM OF THIS AGREEMENT, AND REGARDLESS OF WHETHER A PARTY WAS ADVISED OR HAD REASON TO KNOW OF THE POSSIBILITY OF INCURRING SUCH DAMAGES IN ADVANCE.

#### SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the undersigned being duly authorized by the respective Parties, has signed this MOU.

LOS ANGELES UNIVERSAL PRESCHOOL

By:

Name:
Title:
Date:

PARTICIPANT

By:

Name:
Title:

Date:

# **Appendix F. Classroom Notification Form**

#### What is TORSH?

TORSH is a technology-based system designed to connect video observations, data and coaching, to drive effective instruction that improves student learning.

## What is the purpose?

In addition to LAUP's traditional coaching model, TORSH is used as a supplement to collaboratively observe, reflect upon and nurture classroom teaching practices. Observations will be based on the Classroom Assessment Scoring System (CLASS) which focuses on interactions between teachers and students and what the teachers do with the materials at hand.

#### What is my role as a parent?

In order to effectively implement TORSH in the classroom, parent approval will be required for video recording. The information gathered by TORSH will viewed by the teacher and the coach, it will not be made public. The data will be used for teaching purposes and quality improvement.

You, on behalf of your child, can, at any time, opt-out by filling out and submitting the opt-out form that is part of this document.

#### What does it mean to opt-out?

#### For your child:

If you choose to opt-out your child, this means that accommodations will be made to ensure your child will not be captured on film. Your child will still be able to fully participate in their normal activities. If you don't want to opt-out, you don't have to do anything. Just keep these forms in case you have questions later.

## **Appendix G. Parent Opt-Out Form**

#### Opt-Out Information for the TORSH Coaching Study

Dear Parent or Guardian:

Your child's classroom has been selected to take part in a new coaching program from LAUP. We want to make your child's classroom even better.

To make sure that our program works, your child's teacher is required to videotape 10-minute segments of classroom and outdoor activities for a total of about 3 hours sometime between now and the end of the school year. These videotapes will be shared only with one LAUP coach to provide feedback on strategies designed to improve daily interactions with children. Once the videos are complete, they will be securely uploaded to TORSH Talent account. Videos can only be seen by one LAUP coach. The coach will then view, and provide detailed feedback about how to improve the quality of interactions. The information cannot be shared outside of the TORSH Talent platform, and coaches cannot share videos with anyone but their assigned teacher.

#### What does it mean to participate?

Your child will not be asked to do anything extra or different. They will just do what they usually do every day at school. They will not have to take extra tests or do any extra work.

Every 4-6 weeks your child's teacher will videotape normal classroom activities for about 10 minutes. During videotaping, your child may be captured on film.

This information will help improve the quality of instruction at your child's preschool program.

LAUP will not collect any information that can identify your child during this pilot study. Your child's teacher will know your child's name, but we will not. We do not need this information to conduct the pilot study.

You, on behalf of your child, can, at any time, opt out by filling out and submitting the opt-out form that is part of this document.

#### What does it mean to opt-out?

#### For your child:

If you choose to opt-out your child, this means that accommodations will be made to ensure your child will not be captured on film. Your child will still be able to fully participate in their normal activities.

If you have any questions, you can call Drew Barrett at (213) 416-1287, or email him at dbarrett@laup.net

If you don't want to opt out, you don't have to do anything. Just keep these forms in case you have questions later.

If you <u>DO NOT</u> want to allow your child to participate, please fill out this form and return it to your child's teacher.

## **TORSH Coaching Study**

## **Opt-Out Form (Parent/Guardian)**

I have received information about the pilot study. The process is clear to me and my $\boldsymbol{q}$ satisfactorily.	uestions have bee	en answered
[_] As a parent or legal guardian, I do NOT give permission for LAUP to videotape the purposes of the TORSH Talent Pilot Study.	(Name of child	for
PRINT NAME OF PARENT/Legal Guardian:		
SIGNATURE OF PARENT/Legal Guardian:		
DATE:		

LAUP Research and Evaluation 888 South Figueroa St, Suite 800 Los Angeles, CA 90017 (213) 416-1299

## **Appendix H. Computer Usage Terms and Agreements**

These conditions govern the use of ( X ) iPad Air 2 (Equipment) delivered by Los Angeles Universal Preschool (LAUP) to (Agency) to the following provider sites:

#### WHEREAS:

- a. The Agency is participating in a pilot study to determine the feasibility of online and video- based coaching using TORSH, Inc.'s digital platform (Study).
- b. The Agency acknowledges that the Equipment provided by LAUP is a material component in the successful implementation of the Study at Site.

## The Agency agrees:

- 1. Site will use the Equipment only for the Study and in accordance with these Terms and Conditions.
- 2. Equipment will be used **only** at Site. Equipment should not be removed from the Site without prior approval from LAUP.
- 3. All reasonable effort shall be taken to ensure that the Equipment is kept in good working condition and substantial repair and not marked or defaced in any manner, fair wear and tear expected, and that the Equipment is not used for any purpose which is unlawful or which might endanger any person or the safety or condition of the equipment.
- 4. Equipment is solely owned by LAUP. No title or rights of ownership of the Equipment pass by virtue of these Terms and Conditions to the Agency or the Site.
- 5. Damage or instances of abnormal operation of the Equipment must be reported to LAUP within 24 hours.
  - a. LAUP will be responsible for regular maintenance and repair of the Equipment and items covered under the manufacturer's warranty.
  - b. To the extent that any loss or damage is occasioned to the Equipment that is not covered by the manufacturer's warranty, Agency will be fully responsible to LAUP for any such loss of or damage to the Equipment provided such loss or damage is caused by negligence or deliberate or malicious act.
- 6. LAUP will deliver the Equipment to Site and be responsible for configuration of the Equipment to each Site's wireless network. LAUP is not responsible for providing a wireless connection at Site.
- 7. LAUP may monitor the use of the Equipment at Site through the Internet as deemed necessary by LAUP. Non-use of the Equipment for a substantial length of time, without explanation, could result in the removal of Equipment from Site.
- 8. LAUP may offer technical assistance for the Equipment during the Agency's participation in the Study at LAUP's discretion.
- 9. If LAUP determines there has been misuse of the Equipment or non-compliance with the Study by Site, LAUP may demand the Equipment be returned to LAUP. LAUP will provide 7 days written notice to the Agency with an explanation for the request. The Agency shall deliver the Equipment in good working order, fair wear and tear expected, by the date requested by LAUP.
- 10. Either party may terminate this Agreement at any time with 30 days written notice. Upon termination, all Equipment must be returned to LAUP as described in section 9 above.

These Terms and Conditions shall be governed and interpreted in accordance with the laws of the State of California, and the United States of America. Violations that break state or federal laws are subject to prosecution.

Agency has read and agreed to the above Terms and Conditions:

# **Appendix I. Teacher Interview Protocol**

## **Teacher Phone Interview Protocol**

Site:
Interviewer:
Date and Time:
Study condition:
Introductory Protocol
I will be asking you a few basic questions to help guide our development of the online coaching platform. For your information, only researchers on the project will be privy to the notes that will be eventually destroyed after they are transcribed. This interview is completely optional, and you may end the interview at any time. Thank you for agreeing to participate. Your responses are completely confidential, and no identifying information will be asked during this interview.
We have planned this interview to last no longer than 10 minutes. During this time, we have several questions that we would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning.
Survey sections used:
1. Enthusiasm 2. Determination
3. Interest
4. Purpose
5. Relationship
6. Preferences
7. Utility
8. Open-ended
<ol> <li>Enthusiasm –</li> <li>a. Describe your feelings about using a brand new technology in your classroom</li> <li>b. What are your thoughts on iPads in the ECE classroom?</li> </ol>
2. Determination – a. Can you describe a time where the software may have not worked? What did you do? b. When a problem arises, what is your first response?
3. Interest –
<ul><li>a. Tell me about your level of interest in this project?</li><li>b. Is this something you believe has value? Or do you feel it takes up too much time?</li></ul>
4. Purpose –
a. What do you feel the purpose of this project is?
b. Describe what you believe the outcome will be of this project?

## 5. Relationship -

- a. Describe your relationship with your online coach.
- b. Can you tell me what it is like interacting in an online setting?
- c. What could improve your relationship with your online coach?
- d. How often do you discuss non-work related topics?

#### 6. Preferences -

- a. Describe which method of coaching you prefer online or in-person? Why?
- b. Can you talk about your level of satisfaction with the online coaching? In-person coaching?

#### 7. Utility -

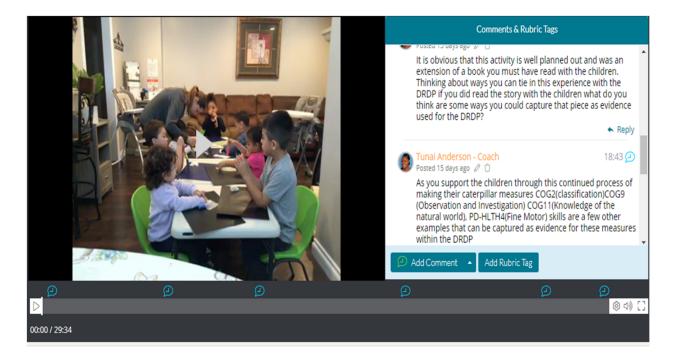
- a. Do you find TORSH useful?
- b. Does online coaching meet the needs that you have as a teacher?
- c. Does TORSH serve its purpose as a tool for developing your skills?

#### 8. Open-ended -

- a. Do you have anything you would like to say about the project thus far?
- b. Do you have any general comments or concerns?
- c. Do you have any recommendations to improve your experience?

## **Appendix J. TORSH Software Usage Overview**

The online coaching software, TORSH, enabled coaches and teachers to engage with each other through direct messaging, within the comment section of videos, and via video conferencing. TORSH's mobile application offered unique capabilities to achieve the goal of providing high-quality coaching to teachers online. Teachers, using Child360-provided iPads, logged on to the TORSH Talent app to record their videos, which were then automatically uploaded to their main account. From there, teachers could view, edit, and send off the video to their assigned coach. This process required a stable internet connection in order for the video to successfully upload and send. Once the coach received the video, the coaching process would begin. Coaches were able to easily view, pause, rewind, fast-forward, and re-watch videos submitted by their teachers. When the coach paused to add a comment, the teacher was notified via e-mail that a new comment had been made. The teacher then was able to view the coaching in real time, and add their own comments back. After the coach was satisfied with the number of comments and instructions for the teacher, the video was ready to be reviewed by the teacher. It was then up to the teacher and coach to schedule a time to debrief and discuss the video and next steps, which could be done within TORSH's video conferencing feature. The activities laid out above demonstrate the steps that constituted "coaching time" via hybrid and online conditions through the TORSH software. Please see below for a snapshot of the TORSH software layout, and visit <a href="https://www.torsh.co/clients/early">https://www.torsh.co/clients/early</a> for more details on TORSH.



# **Appendix K. Monthly Coach Interview Protocol**

## **Monthly Coach Phone Interview Protocol**

Interviewer:
Date and Time:
Study condition:
Introductory Protocol
I will be asking you a few basic questions to help guide our development of the online coaching platform. For your information, only researchers on the project will be privy to the notes which will be eventually destroyed after they are transcribed. This interview is completely optional, and you may end the interview at any time. Thank you for your agreeing to participate. Your responses are completely confidential, and no identifying information will be asked during this interview.
We have planned this interview to last no longer than 10 minutes. During this time, we have several questions that we would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning.
Survey sections used:
1. Determination
2. Interest
3. Purpose
4. Relationship
5. Preferences
6. Utility
7. Open-ended
1. Determination –
<ul><li>a. Can you describe a time where the software may have not worked? What did you do?</li><li>b. When a problem arises, what is your first response?</li></ul>
2. Interest –
<ul><li>a. Tell me about your level of interest in this project?</li><li>b. Is this something you believe has value? Or do you feel it takes up too much time?</li></ul>
3. Purpose –
<ul><li>a. What do you feel the purpose of this project is?</li><li>b. Describe what you believe the outcome will be of this project?</li></ul>
4. Relationship –
<ul><li>a. Describe your relationship with some of your online teachers.</li><li>b. Can you tell me what it is like interacting in an online setting?</li><li>c. What could improve your relationship with your online teacher?</li><li>d. How often do you discuss non-work related topics?</li></ul>

#### 5. Preferences -

- a. Describe which method of coaching you prefer online or in-person? Why?
- b. Can you talk about your level of satisfaction with the online coaching? In-person coaching?

## 6. Utility -

- a. Do you find TORSH useful?
- b. Does online coaching meet the expectations that you have as a coach?
- c. Does TORSH serve its purpose as a tool for developing your skills as a coach?

## 7. Open-ended -

- a. Do you have anything you would like to say about the project thus far?
- b. Do you have any general comments or concerns?
- c. Do you have any recommendations to improve your experience?