Research suggests that teachers with increased education and experience are better able to support learners; the challenge is to find the time for ongoing professional development within teachers’ busy schedules. We know from the literature that one-time professional development trainings, also known as one-shot workshops, are ineffective for creating sustained changes in practice, however, this remains the predominant method of continuing professional development (Garet, Porter, Desimone, Birman, & Yoon, 2001). Coaching as professional development has been shown as effective, but it is both labor-intensive and expensive (Early, Maxwell, Ponder, & Pan, 2017). A more recent alternative is ongoing video-based professional development (Durand, Hopf, & Nunnenmacher, 2015). In addition to using video to deliver professional development, video has also been used for self-reflection. Self-reflection is important for the development of new behaviors (Brownell, Ross, Colon, & McCallum, 2005) and the purpose of this study was to use video self-reflection to determine if it would impact the quality of interactions in the early childhood classroom.

**Keywords:** professional development, video self-reflection, productive reflection

### THE STUDY

The study was conducted at a campus-based childcare center in the Southern region of the United States that serves children from birth through Pre-K. The program was accredited by the National Association for the Education of Young Children (NAEYC, 2018), adhered to criteria set forth in the *Infant/Toddler Environmental Rating Scale* (ITERS, 2006) and followed a Reggio Emilia-inspired philosophy in the education and development of young children.

Research suggests that teachers are better able to be self-reflective when provided with a framework. We used the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2005), which looks at the quality of interactions between teacher and children. Three early childhood teachers were selected for this study based on their initial CLASS Toddler scores. Teachers received a brief 2-hour overview of the CLASS tool prior to the study.

Teachers were recorded weekly for a period of 15-minutes at random times throughout the day during breakfast, whole group, centers, or music and movement. Teachers were asked to watch...
and score their video using the CLASS Toddler tool. During the initial phase of the study, we also had a CLASS-reliable coach score the teacher’s video to determine her reliability in scoring the tool, but did not share the coach’s scores. During the second phase of the study, the teacher still scored her own video, but we also had the coach create a voice-over video using Screencast-O-Matic ©. Screencast-O-Matic allows audio from the coach to be superimposed on the video, which was then shared with the teacher. The feedback allowed the teacher to see and hear what was happening in the room at the time of the video while also hearing the coaches’ comments related to her performance on the CLASS tool. This allowed each teacher to compare the coaches’ feedback to her self-assessment, and to also see where she might make changes in her classroom. During both study phases, the coach also scored the videos to determine the teacher’s reliability in self-scoring.

KEY FINDINGS

The focus of this study was to determine if teachers using video self-reflection would be able to self-score using the CLASS tool reliably, and increase their CLASS scores. Teachers were video recorded at random to garner an accurate portrayal of the classroom as experienced by the child. Throughout the study, the teachers made comments on the unscheduled nature of the observations. One teacher expressed her preference for non-scheduled visits stating that although she “… was not expecting to [be videotaped] today [and she was] glad … because [the researcher was] able to see what I do every day.” Another teacher expressed a similar sentiment, remarking that, “It was not that bad. Sometimes I did roll my eyes when [the researcher] came in with the camera; but it was worth it. It was better not knowing when [she was] coming as I was not stressed all week knowing that I was going to be observed on a certain day.”, while another stated, “…when we know we are going to be observed we worry all week about what we are going to do.”

We found positive professional growth and collaboration among the participating teachers. During the initial video recordings, the researcher overheard one of the three teachers talking with her instructional support director expressing her “enjoy[ment] in watching each other’s [videos] and talking about the videos.” Previous research has identified the value of professional learning communities in helping teachers examine their practices (Cherrington & Loveridge, 2014). In this study, the teachers created their own community of support by viewing each other’s video observations and discussing their practice and interactions with the CLASS Toddler tool.

By the end of the study, all the teachers reliably assessed their performance through video self-reflection and were able to be reflective about their teaching. The teachers’ scores did not decrease; they were able to process, understand and view perspectives that were used to improve their teaching practices. Of the three teachers, one teacher was not reliable by the end of the initial phase, but became reliable during the video voice-over coaching phase. Through the video voice-over, the coach was able to provide more specific information on which teaching practices to use and give feedback in which routines and activities worked well within the classroom. This type of feedback aligns with adult learning theory, which recognizes that learning is intertwined and adult development occurs across multiple dimensions with learning experiences (Knowles, Holton & Swanson, 2005).

It is important to note that some research suggests there may be dangers associated with not having an external perspective as one could “fail to lead to an improvement in pedagogical practice and process quality” (Durand, et al., 2015, p. 38). The video voice-over coaching provided
teachers with an external perspective. Teachers were instructed to watch the video voice-over and email any questions or comments to the researcher for further discussion.

The video voice-over feedback led to an increase in performance along with positive comments from the teachers, including the flexibility of watching the videos repeatedly and at their convenience. One teacher expressed, “I am learning more and want to continue to learn more. I see what I could have done here or there.” She also mentioned, “I score myself a 3 because I see where I need to improve... [on] scaffolding and ... more small group activities.” These comments support the notion that the video feedback helped teachers to reflect on their practice and recognize where they needed to make improvements.

Consistent with previous literature, evidence from the present study validated that when teachers are given explicit instructions their skills increased (Fukkink & Tavecchio, 2010). Additionally, teacher attitudes toward behavior change appeared to have been impacted. Across the study, teachers became more comfortable with the process, “These videos have helped me feel more comfortable when people come in to observe as I would always be nervous before.” and were more receptive to making changes in their behavior based on feedback from the researcher “…helps to see what we have done...” or “…I could have done that...I didn’t think of that.”

Anecdotally, one teachers commented, “I have really enjoyed this [video process] because I know what CLASS is about and have enjoyed the [video voice-over] feedback.” The teachers in this study commented they were uncomfortable being videoed and seeing how they looked on camera, but the benefits they received outweighed their discomfort, which is similar to previous research (Lamkin, 2015).

**SUMMARY & RECOMMENDATIONS**

Consistent with previous research, results of this study suggest that teachers benefited from reflection when given a framework for reflection (Durand, Hopf, & Nunnenmacher, 2015). Programs striving to meet the demands of developing a well-trained staff on a limited budget might consider using video recording and reflection as part of their overall professional development plan. In this study, teachers became increasingly aware of the CLASS Toddler framework through the viewing of their videos at their leisure. To complete video recording without assistance, a tripod or Swivl © is needed, which could be bought with technology funds or through a grant. Either device can be used with a smartphone or tablet device to allow for easy videoing of oneself. A tripod is stationary and would need to set up in a corner that has a nice view of the entire space to be videoed. A Swivl is a docking station for a table device or smartphone that can track movement and sound. Once the device is docked on the Swivl, you link all the devices, and begin recording.

After completing the video, teachers can view themselves on the device or upload to a storage system. Then teachers can view at their convenience which can be on a break or in the luxury of one’s own home. For effective and productive viewing of one’s self, a framework is necessary (e.g., ECERS, ITERS, CLASS). Programs focusing on professional development should plan to review the framework so teachers can become more familiar with the tool prior to using video. In this study after reviewing the tool initially with teachers, we scored practice videos using the tool, which allows for discussion and clarification of the items on the tool.

In our initial phase of the study, we allowed teachers to first score themselves without feedback, which may have increased their comfort level with the process. Teachers should consider selecting a variety of different activities across the day to video in order to reflect on multiple
activities; there can be learning from successes experienced during these activities that can be replicated in other activities. Depending on individual preference, teachers may choose to begin videoing an activity that is going very well, in order to practice using the framework and making this activity even better. Conversely, teachers may choose to initially target a problematic time of day to help identify strategies for improvement. Either strategy can be beneficial. The first time viewing yourself on video can be challenging, however consider taking detailed notes as if writing a script. This will allow for reflection of the teaching practice and interactions with the children as it relates to the framework. The more teachers observe their own practice through video self-reflection using a framework, the more familiar they will become with the framework’s criteria. Within this study, teachers using this process both increased their reliability in scoring the CLASS tool and increased their personal scores using the CLASS framework. Equally beneficial, is they become more comfortable with self-reflection based on the objective feedback and formative coaching which could be observed and considered at a time and place of their own choosing.

REFERENCES


