

Using *I am Moving, I am Learning* to Increase Quality Instruction in Head Start Classrooms

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Published online: 15 March 2017
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Abstract Quality teacher-child interactions are characteristic of effective classrooms resulting in benefits for all children, but may be particularly important for children from low-income families. The purpose of this study was to explore the perception of Illinois Head Start teachers related to how *I am Moving, I am Learning* (IMIL) could improve the quality of their instruction as measured by the Classroom assessment scoring system (CLASS[®]), an observation instrument used to assess the quality of teacher-child interactions across three broad domains and their supporting dimensions. While the study found that early childhood professionals perceive IMIL as a meaningful resource, additional research is needed to substantiate the preliminary findings as well as to guide training initiatives that would help Head Start professionals to make the connection between IMIL and the CLASS[®].

Keywords Head start · CLASS[®] · Early childhood · School readiness · Assessment · IMIL

Introduction

Head Start is the largest federally funded early childhood program in the United States. Launched in 1964, Head Start has proven to be a valuable resource in helping families prepare children for school and lifetime success. Using

a holistic approach, its purpose is to serve children ages 3–5 from diverse and disadvantaged families (Whitaker et al. 2009). Initially the priority focus areas were math and reading, but over time the emphasis has expanded to include physical activity and other domains (Puma et al. 2010; Vidoni and Ignico 2011). As of 2000, there were over 2000 Head Start programs in the United States serving nearly one million children and their families (Hughes et al. 2010).

Of all childcare settings, Head Start specifically has shown modest gains in child learning and development (Pianta et al. 2009). To monitor program quality and performance (particularly in the area of school readiness), Head Start has adopted Teachstone's Classroom Assessment Scoring System (CLASS[®]). The CLASS[®] is an observation instrument used to assess the quality of teacher-child interactions in preschool settings utilizing three broad domains (emotional support, classroom organization, and instructional support) and their supporting dimensions (La Paro et al. 2004). The ten specific dimensions within the domains are based on developmental theory and research that postulates that adult-child interaction is a primary way to support development and learning. The domains collectively assess the extent to which teachers are supporting children's social and academic development. Descriptions of the CLASS[®] domains and their respective dimensions are available at <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/using-the-class.pdf>.

Early childhood studies using the CLASS[®] as a measure found that children in classrooms with more effective emotional support, classroom organization, and instructional support experience stronger social and emotional development, stronger self-regulation, and stronger early academic development in math, language, and literacy (U.S. Department of Health and Human Services [USDHHS] 2013).

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Curby et al. (2009) observed 692 teachers and their interactions with 2028 pre-kindergarten children for one year across six states and found that children in classrooms with the highest levels of concept development experienced the greatest academic gains and that children from classrooms with the highest emotional support were rated by their Kindergarten teachers as the highest in social competence. Furthermore, a study involving 240 randomly selected pre-kindergarten programs in California, Georgia, Illinois, Kentucky, New York, and Ohio sought to find out if specific dimensions of preschool quality had lasting effects once the child moved on to Kindergarten. Data were collected through the direct assessment of children's language, preliteracy and math skills, in addition to extensive classroom observations. The study found that gains in academic achievement related to teacher-child interactions on the CLASS[®] measures held throughout the child's Kindergarten year (Burchinal et al. 2008).

Regarding school readiness, the CLASS[®] is used to inform the Head Start National Center on Early Childhood Development, Teaching, and Learning's Framework for Everyday Practice: Supporting School Readiness for All Children (USDHHS 2013). In this framework, engaging interactions and environments build the foundation for the pillars of research-based curricula, teaching practice, and ongoing child assessment, which supports the roof of highly individualized teaching and learning (USDHHS 2013). Within Head Start, the CLASS[®] is used for monitoring, program planning, evaluation, and the assessment of individual classrooms (USDHHS 2012). However, it is important to note that the CLASS[®] focuses on the quality of classroom interaction processes, not content such as curriculum (USDHHS 2013). These process-oriented qualities include the social, emotional, physical, and instructional elements of interaction with children in their classroom environment (Pianta et al. 2005).

Trained and certified observers who attend a 2-day training must pass a reliability test as well as be active participants in ongoing refresher courses, webinars, and technical assistance (USDHHS 2011) score the CLASS[®]. The observers use a specific protocol to rate each dimension on a 7-point scale with ranges of 1–2 (low), 3–5 (middle), and 6–7 (high) (USDHHS 2011; USDHHS 2013). For monitoring purposes specific to triennial reviews, a sample of classrooms is observed for two 20-min periods. Reviewers independently observe and score classrooms using the CLASS[®], then electronically submit scores that are later averaged to calculate the grantee-level dimension scores that are used to calculate the grantee-level domain scores (USDHHS 2011).

During Head Start funding allocation, the following areas are evaluated to determine if a program is providing high-quality services, meeting the program and financial

management requirements and standards related to annual budget and fiscal management data, program reviews, annual audits, classroom quality, and program information reports (USDHHS 2011). Grantees would be evaluated as failing to provide high quality and comprehensive services if they are identified as deficient on one or more of the areas above. The CLASS[®] evaluates the *quality classroom* component. Low scores would include below a two in instructional support, below a four in emotional support, and below a three in classroom organization. Programs that scores in the bottom 10% in any domain are required to compete for continued funding unless that score is equal to or exceeds the exceptional level of quality threshold that is a score of 6 or higher (USDHHS 2011). Given the high-stakes nature of program evaluation and funding continuation/competitiveness, it is important that program providers not only understand the criteria for evaluation, but also have access to professional development, training, and resources that promote and support all aspects of high-quality services.

I Am Moving, I Am Learning

Combining best practice guidelines and policies as outlined by the National Center for Education in Maternal and Child Health, American Academy of Pediatrics, National Association for Sport and Physical Education, Institute of Medicine, and Centers for Disease Control and Prevention, I am Moving, I am Learning (IMIL) is a research-based approach to preventing childhood obesity, designed to infuse quality physical activity and healthy food choices into preexisting preschool curriculum and routines. IMIL was developed in alignment with Head Start Program Performance Standards and is currently housed in the new Head Start National Center on Early Childhood Health and Wellness. The goals of IMIL are to (a) increase moderate to vigorous physical activity to meet national guidelines, (b) improve daily healthy food choices, and (c) improve the quality of structured physical activity. IMIL is a tool that can be used to enhance pre-existing curricula. One of the key features is the train-the-trainer model, where those attending the interactive training return to train their respective team members. IMIL is customizable and allows programs to pick and choose which components that they would like to choose. These components range from website, music, and the use of a green character by the name of Choosy (Choose Healthy Options Often and Start Young). In addition to offering programs flexibility, based on student need, IMIL is also cost-effective as it can be implemented with little to no cost.

Over the course of 2 years (2004–2005), IMIL was piloted at ten sites in Virginia and seven sites in West Virginia. All teachers received training prior to

implementation and a variety of strategies for staff, families, and the community were employed including volunteering, food tasting events, pedometers and other incentives, a step tracking program for parents and staff, and the creation of walking trails. Child outcomes at the end of the 2 year period were increased MVPA, sedentary children had become active, improvements in BMI, and the use of music resulted in more movement. Some family outcomes were: more dads became involved physical activity (PA) and nutrition topics at meetings were well-received, and PA/nutrition became themes in daily conversations between staff and parents. In addition, there was more encouragement to eat healthy and be active, and families only brought in healthy treats for special celebrations. Structured outdoor play in daily lesson plans, MVPA in transitions, revised policies to reflect healthy behaviors, teachers engaging in MVPA with children, and PA/nutrition training were all positive outcomes for staff. In terms of the community, preschool partners were trained on IMIL, wellness groups were formed with community partners, and the partners also funded strategies for more MVPA (ACF 2010). Furthermore, the Early Assessment of Programs and Policies to Prevent Childhood Obesity, a 2-year project collaborative effort by the CDC and Robert Wood Johnson Foundation used an expert panel to assess the quality of programs. Although, IMIL was found to be clearly conceptualized, strong, research-based, theoretically-sound, well-designed, well-received and capable of exerting a positive influence on youth around the country due to the reach of Head Start, it was suggested that further rigorous evaluation was necessary (USDHHS 2009). Additional information about IMIL can be found at: http://www.choosykids.com/index.php?p=our_role_in_i_am_moving.

IMIL is used across the nation in early childhood settings, including Head Start, but limited research has been done to determine its effectiveness and impact. Recent research found that a high volume of classrooms in the state of Illinois have been exposed to and have adopted IMIL strategies with few barriers (Allar 2015). The study suggested that early childhood classroom teachers in Illinois found IMIL to be helpful in improving their classroom environment, collaborating with community partners, and helping parents enhance their family's physical activity and nutritional habits (Allar 2015). Additional research is needed to explore how teachers and early childhood professionals perceive IMIL as a tool to help them meet or achieve the national requirements imposed by Head Start, such as those embedded within the CLASS[®]. Although designed in conjunction with Head Start, to date, little is known about the effectiveness of IMIL in helping early childhood professionals improve quality instruction based on CLASS[®] measures. Therefore, the purpose of this study was to explore and

describe the perception of Illinois Head Start teachers related to how IMIL contributes to their achievement on the CLASS[®] dimensions.

Method

Participants and Setting

Participants included Head Start classroom teachers and program staff in the state of Illinois who contributed to various components of the research process, including a statewide survey and program staff focus groups. Fifty-two classroom teachers ($n=52$) participated in the survey representing 12 Head Start agencies in the state of Illinois (see Table 1). The participants in the program staff focus groups included 33 teachers/teacher aides, one education manager, one health/nutrition manager, and two family service workers ($n=37$).

Table 1 Demographic information for classroom teacher survey respondents

Demographic category	Percentage (%)
Age	
No response	2
18–24	2
25–34	2
35–44	36
45–54	38
55–64	14
65–74	6
Gender	
No response	4
Female	94
Male	2
Years working in childcare	
0–10	11
11–19	43
20–29	26
30–39	17
40–49	4
Race	
No response	4
White/Caucasian	91
Black/African-American	6
Hispanic/Latino	2
Native American/American Indian	0
Asian or Pacific Islander	0

Data Collection Instruments and Procedures

Both instruments were pre-tested and pilot tested. As the target population was Head Start centers in Illinois, the pilot population was Head Start centers in West Virginia, Maryland, Delaware, Pennsylvania, South Carolina, and Virginia. These states were chosen because they were part of the initial pilot and beginning years of IMIL. The surveys were sent to administrative staff via e-mail the online survey was revised based upon the feedback of twenty-nine teachers. The survey included a description of CLASS® and respondents were tasked to check any of the CLASS® dimensions that they felt IMIL addressed and to provide an example in the box below.

Focus group interviews were used to gather qualitative data related to teachers' perception of how IMIL could improve classroom instruction. Focus groups were selected due to their potential to encourage participants to express a variety of viewpoints in a safe atmosphere through group interaction (Krueger and Casey 2009). A semi-structured focus group interview guide was developed based on the three CLASS® domains and pilot tested at four different centers in West Virginia with nine teachers who use IMIL prior to data collection. Revisions were made based upon pilot test feedback. For the focus groups, participants were given a copy of the CLASS® domains and dimensions and asked the open-ended question, "In what ways, if any, has IMIL helped with....".

This study was approved by the West Virginia University Institutional Review Board. Data were collected from May 2014–October 2014. The surveys were made available using the Qualtrics® online platform. Respondents were also invited to complete a paper version as an alternative if preferred. Classroom teachers in Illinois who used IMIL in their instruction were previously identified by administrative staff. Members of the research team contacted administrative staff via e-mail, reminder e-mails, postcards, and phone calls to forward the survey to all teachers they had identified as using IMIL in their classrooms. All teachers who participated in the survey were entered in a drawing to win one of three \$25 Lakeshore Learning gift cards.

Four audio-recorded focus groups were conducted by the lead researcher at the program headquarters. The education manager in the preselected program was the point of contact for the program staff focus groups and recruited teachers, teacher aides, and family service workers to represent all classrooms (n = 18) in eight buildings within the program. This particular program was selected as part of a larger research project. Food was provided for all participants during focus group interview sessions and the program was given a \$250 Choosy Kids® gift certificate. The focus group audio files were saved digitally and transcribed verbatim by a professional transcriber. Each focus

group was transcribed independently and saved as an individual file. All data were kept confidential and saved in a password-protected format.

Data Analysis

A two-phase qualitative data analysis process was used to examine teachers' perspectives on IMIL and its contribution to the quality of their instruction, as measured by CLASS®. During phase one, the teacher questionnaire responses and focus group transcripts were analyzed by deductive content analysis (Marshall and Rossman 1995). Researchers independently coded the data using the nine previously operationalized dimensions of the CLASS®; constant comparison method (Glaser and Strauss 1967) was used to ensure that the coding was consistent. To verify the consistency of coding, a sample of initial codebooks were reviewed in debriefing sessions and inter-coder agreement was achieved. During phase two, the researchers examined the data within the nine CLASS® dimensions for patterns and emergent subthemes. Researchers used open-coding to identify recurring patterns and grouped similar codes together based upon interpretation and meaning of the data. Investigator triangulation was used throughout the analysis to increase trustworthiness of the data (Patton 2002). Multiple researchers analyzed the same data to compare and confirm subthemes and findings across both phases of analyses.

Results

The purpose of this exploratory study was to describe the perception of Illinois Head Start teachers related to how IMIL contributes to their achievement on the CLASS®. Findings from the qualitative analysis provide evidence that the teachers and staff implementing IMIL perceive it to support all three domains and nine of the ten dimensions outlined in the CLASS®. Results are organized below within the three CLASS® domains including, *Emotional Support*, *Classroom Organization*, and *Instructional Support*.

Emotional Support

The Emotional Support domain of the CLASS® relates to the emotional tone that a child experiences within the classroom. Based on the data, teachers and program staff reported various aspects of IMIL as helpful in facilitating an emotionally supportive environment. Three of the four Emotional Support dimensions emerged from the data; the dimension not evident in the data was negative climate. Supporting evidence is provided below.

Positive Climate

Across both data sets, respondents indicated that IMIL has helped to facilitate and foster positive classroom climates. The IMIL activities that involved dancing, singing, and movement were described by participants as *fun* and *engaging*, and often stimulated shared laughter and excitement in the classroom. The teachers reported that using IMIL music allows them to join in and “get silly” as they dance and sing alongside the children. They indicated these interactions with students convey messages to students that teachers are safe to approach. One participant stated, “It [the music] makes us look human. Ninety percent of the time we’re authoritative, so when we are dancing and acting silly, then we’re really human. So it makes them feel like you know if the teacher can do it, then we can do it” (Teacher focus group 3). Further, participants indicated that IMIL reinforces the importance of being caring and respectful to others by introducing and applying concepts such as selecting partners, cooperation, encouraging others particularly among peers. For example, another teacher noted, “Especially when we have mixed ages from 3, 4, and 5. Like today my little 3-year-old he could not really do the crab walk. He was trying to do the backbend and stuff, but they were all encouraging him” (Teacher focus group 3).

Teacher Sensitivity

Participants indicated that using IMIL has helped them recognize the range of developmental levels of their learners in respect to physical and gross motor skills. Considering many early childhood educators have limited formal training in gross motor skill development, the IMIL resources allow teachers to assess the stages of development for each child and adjust their instruction accordingly. For example, one teacher noted, “IMIL helps us assess them and know what we need to focus on and who can do what” (Teacher focus group 2). This increased awareness allows teachers to plan and modify activities, provide needed support, encourage all children to engage in gross motor play, and really meet the children where they are. Data from the questionnaire further illustrate teachers’ perceptions of IMIL and how it facilitates teacher sensitivity, example statements include “individual children’s need for more help with activity”, “encourages everyone to participate in some way”, “not everyone does things the same way, some friends need more help and patience” and “[IMIL] can be used to individualize instruction, motivation.” The participants also mention how IMIL allows them to respond to student needs by adjusting the methods for delivering and facilitating gross motor activity by using different mediums (e.g., music, songs, etc.). For example, a focus group participant noted, “Yeah, it helps them become more aware

of those things [movement and health] by using different methods, you know, with the songs and movement... so you’re combining the way different kids learn...they’re picking things up in different modes.” (Teacher focus group 2)

Regard for Student Perspective

Throughout the data, participants provided examples of how IMIL helped to create an environment that reinforces student ideas, interests, and perspectives. Teachers reported ways IMIL encourages students to make choices based upon what they like and enjoy and it allows students to assume leadership roles within the classroom. For instance, one focus group teacher reported, “...today they kind of took the lead and they picked their partners. They’re able to lead the songs themselves. Then we did follow the leader around the room. They got to do their own moves.” (Teacher focus group 1) Another example of the teachers indicating how IMIL children’s confidence and decision-making skills includes, “One day a week my kids get Choosy choice and they get to pick the Choosy songs that they want to play”. (Teacher focus group 3) Participants also described IMIL as helping students express themselves, for instance giving children the freedom to “choose how they want to move”, “pick songs or activities”, and “using problem solving skills [by] coming up with different ways to move” (Teacher focus groups 1 and 3). Others describe ways that IMIL allowed for classroom conversations to revolve around healthy eating, physical activity, and wellness activities the children experience outside of school.

Classroom Organization

The Classroom Organization domain relates to how teachers with children and organize the classroom to help children regulate their behavior, maintain interest in the learning activities, and get the most learning out of the day. Based on the data, teachers and program staff reported various aspects of IMIL as influencing the organization of the classroom and learning environment. All three Classroom Organization dimensions emerged and supporting data are provided.

Behavior Management

This dimension focuses on a teacher’s ability to redirect behaviors and respond to inappropriate behaviors before they escalate. One teacher stated,

I think IMIL helps sometimes with redirecting behaviors because a lot of times with the movement you see

some issues where another child is pushing or just extremely too close to the other child. So... explaining that “this is your space” and “watching out for the friend beside them” (Teacher in focus group 4).

Others indicated that IMIL allows them to plan movement into their days, which they believe “helps to get their wiggles out,” (Teacher focus group 3) provides a positive change of pace, and helps children refocus. IMIL was reported by teachers as a way to proactively manage classroom behaviors through the teaching of self-control and self-regulation. One teacher noted that the music and songs help the children learn to follow directions and prompt them to pinpoint positive behaviors such as following the directions provided by the song lyrics or staying within self/personal space during movement activities.

Productivity

The teachers indicated that using IMIL in their classrooms contributed to a positive and productive class environment, particularly in relation to establishing routines and transitions. One teacher described how they perceived the use of IMIL to “help them [the students] focus because they need the movement more often, so doing songs during transitions helps that” (Teacher in focus group 2). Another teacher reinforced the use of the IMIL music and songs to prompt the children throughout the day to begin or change activities—and that the children were able to recognize and appropriately respond when certain songs were used. She indicated, “I go by songs... and when they hear this song, they know this is what we’re going to do next” (Teacher in focus group 4). Others described how IMIL provided an enhanced “sense of control” (Teacher focus group 1) for the children. For example, the children understand what the expectations are when the music is on and “know that they have to stay in their own space and be careful of others” (Teacher in focus group 4). An Education Manager indicated that when she observed a classroom, as soon as the “I’m the Boss” song came on “I saw them partner up... They automatically go back to back with a child, so they’re partnered up... That supports that positive environment and relationships.”

Instructional Learning Formats

Participants reported that IMIL helped to expand the ways in which they engaged learners with health and wellness concepts. Common phrases used by questionnaire respondents to describe how IMIL contributed to their creation of interactive experiences included “active learning”, “integrating into learning centers”, and “modeling”. These examples suggest that the teachers used IMIL to help draw

students into the learning activities and incorporate interesting and engaging learning activities for the students. Several teachers described having an assigned “song selector” in their classroom and “whoever the song selector is, they always seem to choose a Choosy song, and then everybody follows along” (Teacher), yet still allows the children to “move in their own way” (Questionnaire Response). Teachers described that the IMIL resources such as the CDs and music allows them to be “creative” (Teacher focus group 3) and provides opportunities for the children to engage, learn, and even “lead the songs themselves” (Teacher focus group 1). Non-music resources, such as the websites, verbal-physical cues, and nutrition resources, were also described as contributing to the different health and wellness focused learning experiences for children such as food tastings. One teacher described, “I’ve got the My Plate chart that helps you know the different areas of food, so we can use that and put different foods in there, what we might be eating for lunch that day” (Teacher in focus group 4), another described using food tastings within her classroom as a strategy to draw students into the learning process.

Instructional Support

The Instructional Support domain relates to the interactions teachers have with children that promote students’ higher order thinking skills and language development as well as how teachers use feedback to help children learn. Based on the data, teachers and program staff reported IMIL provided substantive content, activities, and ideas that helped them to enhance, expand, and extend learner interaction with physical activity, nutrition, and wellness-related concepts within their classrooms. All three Instructional Support dimensions emerged from the data and supporting evidence are provided below.

Concept Development

The participants reported that the IMIL materials and resources are helpful as they strive to deliver content that promotes higher order thinking. Specifically, the teachers reported that IMIL helps them focus more directly on concepts relative to nutrition, movement, and body awareness. Time spent around the breakfast, lunch, and snack tables was commonly referred to as time when teachers stimulate discussions about healthy foods, decision-making, food choices, and new fruits and vegetables the children may not have encountered. These types of activities help bring nutrition concepts “to life” for students and challenge the children to make connections of concepts from the classroom into the real world. For example, one teacher recalled, “we’ll be sitting at the table and we’re talking about food...” like if we ask “what did you have for dinner last

night?” And then we go and say, “...This is what I had...” And they (the students) are like “Choosy wouldn’t like that” (Teacher focus group 1). Another teacher reported that IMIL “engages children in conversations too. I mean you’re talking about good foods and where to eat, where you get them and where they come from... that encourages the other kids to talk about it... about what they know” (Teacher focus group 4). Interestingly, some teachers described expanding upon these lunch table discussions about foods and have integrated hands-on experiences to help the children explore and experience the concepts in different ways, this example is reflective of this:

Well, we’re constantly talking during lunchtime and breakfast time where food comes from. So you’re building their knowledge there. You’re giving them more information ... like for instance, we’ve had a pineapple. For some reason they think they grow on a tree. So we’ve been about more about it “No, it’s a bush that gets cut in the summer,” We brought in a pineapple just so they could see what it actually looked like before it comes to us. (Teacher focus group 4)

The other area that teachers describe IMIL helping to build and deliver concepts is the children’s knowledge of movement and their bodies. The activities reportedly contribute to the teachers’ discussion about muscles, the heart, brain, and even heart rate. Based on the data, IMIL activities stimulate classroom conversations about the body’s response to movement and allows for concepts to be reinforced through experiences, for instance, “We talk a lot about their hearts beating faster after they’re done dancing and stuff and getting their blood moving. And they all stop and feel their heart now” (Teacher focus group 3). Additionally, teachers reported observing children begin to problem solve different ways to move their bodies based on challenges provided by IMIL, “we were doing above, below, in front, and behind... and around” (Teacher focus group 3) and “[IMIL] allows them to, by using their problem solving skills, they’re always coming up with different ways to move.” (Teacher focus group 3) Students are getting to actually “experience” the vocabulary.

Quality of Feedback

Providing feedback to learners relative to quality of performance or questions posed by the children is a very important and sometimes challenging task for teachers. The participants indicated that IMIL contributed to their increased confidence in providing positive skill-related feedback and assessing student motor skills. Questionnaire respondents indicated that the feedback terminology and vocabulary provided in IMIL was “enthusiastic and encouraging” and

contributed to their ability to provide “positive specific praise and instruction” to the children about movement and motor skills. Using the IMIL resources, the teachers reported helping them to provide positive feedback and helped guide their feedback statements to be more specific. For instance, one teacher reported “You can see if they’re just going like this, and you can give them the cue to turn to their side and tell them where to put their belly, you know, how to orient their selves and get them to get the weight shift” (Teacher focus group 3). The resources also helped the teachers to know what to look for when evaluating student motor skills. One teacher reported, “Yeah, it [IMIL] helps us to assess them and kinda know what we need to focus on and who can do what” (Teacher focus group 2) and others highlighted the usefulness of the motor skill checklists as tools to help teachers focus on what specific feedback is needed to enhance motor skill performance.

Language Modeling

As noted previously, the teachers commented on the ways IMIL contributed to the conversations they were able to have with the children about nutrition and physical activity, but it was also noted that the resources provided them opportunities to expand language knowledge, comprehension, and application and particularly with their non-native English speaking children. For example:

For us, we have those dual language learners so a lot of things they’re starting to question at the time and we’re modeling that language and giving them that vocabulary consistently... because even like “move to the side” or “sit down”, in the beginning, they [dual-language learners] have no idea what you’re talking about... [but] it amazing me how much they can understand after the school year (Teacher in focus group 4).

The dialogue with the children reportedly provided opportunities to extend oral vocabulary and reinforce concepts through proactive conversations. Helping children to make connections with language is illustrated in this example:

When we talk while we’re eating or having our meals, and they talk about what they eat at home and they talk to each other and then you know, they’ll talk about the vegetables that they like best or what fruit they are interested in or what they can make with the fruit. You know, if it’s apples then they go “pies, applesauce” (Teacher in focus group 1).

The teachers reported that songs and music help to reinforce their understanding of vocabulary and content. Even the interactions the children have with one another about

the Choosy character have exposed children to lots of vocabulary as evidenced by this teacher's remark:

“Around the table this morning they talked about Choosy and where he was from and why and like delving deeper into “why do you think Choosy is an alien?” “What features does he have?” That kind of thing, I mean it does give you some new vocabulary that some kids may not know. (Teacher in focus group 1).

Discussion

Researchers examining preschool environments have documented features and characteristics observed in effective classroom settings. These include teachers who recognize and respond to learner needs, develop personal relationships, encourage freedom, give encouragement, have clear rules and instruction, provide various learning opportunities, give meaningful feedback, and promote higher order thinking in addition to real world application (Downer et al. 2007). Academic and social gains can be predicted by the quality of interactions between preschool teachers and their learners, even after controlling for child and family characteristics such as language status, race/ethnicity, and special needs (Bronfenbrenner and Morris 1998; Burchinal et al. 2010; Curby et al. 2009; National Institute of Child Health and Human Development [NICHD] 2002; Pianta et al. 2009; U.S. Department of Health and Human Services 2007).

Findings from this study indicate that preschool teachers, staff, and administrators in Illinois perceived the use of IMIL in their classrooms to positively contribute to their teaching effectiveness. Specifically, IMIL was reported to contribute to the achievement of all of the CLASS[®] dimensions with the exception one—negative climate (Emotional Support Domain). Based on these findings it may be advantageous for IMIL to more intentionally incorporate the CLASS[®] into existing staff development and trainings as a mechanism to raise awareness for effective teaching domains and provide ongoing support in Head Start programs since IMIL is developed around Head Start Program Performance Standards. Adherence to program standards, which vary by state and program type, also contribute to children's well-being and development. One study suggested that greater adherence to program standards contributed to increased school readiness outcomes among children as young as 3-years old (NICHD 1999). Furthermore, high quality preschool programs not only adhere to standards, but also provide sufficient support and professional development for teachers and staff (Pianta et al. 2009).

Another study conducted by Zan and Donegan-Ritter (2014) also noted the importance of professional development and focused on improving teacher-child-interactions through the delivery of an eight-month professional development initiative comprised of workshops, self-reflection, and coaching for Head Start teachers and staff. Toward the important end of enhancing teacher-child interactions, a collaboration between the Head Start National Center on Early Childhood Development, Teaching, and Learning and the Head Start and National Center on Early Childhood Health and Wellness would be optimal. The National Center on Early Childhood Development, Teaching, and Learning currently highlights 15-min suites on their website as a professional development resource for teachers, staff, and administrators. Incorporating an IMIL suite emphasizing teacher excellence, may help bridge the gap for teachers to see how IMIL contributes to quality teaching, as measured by the CLASS[®].

Early Childhood Education Specialists and the creator of IMIL met to discuss staff development in relation to this idea. This meeting suggested that IMIL may help programs achieve quality instruction in the instructional support domain. This is of particular interest, since quality instruction in this domain has been historically low. While professional preparation for preschool teachers includes 4-year Bachelor's degree programs and specialized training on the implementation of comprehensive curricula that cover various domains, including psychomotor (Pianta et al. 2009), research has indicated that professional dispositions and teacher-child interactions also serve as effective predictors of preschool teacher qualifications, credentials, and/or quality of curriculum integration (LoCasale-Crouch et al. 2007). In this study, preschool teachers without a strong background in physical education were provided with discipline-specific vocabulary, knowledge, and resources to support instruction of health, gross motor skills, and wellness with ease.

Teachers also alluded to how IMIL helped support their social interactions with children and the assessment of various skills. Supportive teacher-student relationships, particularly those that provide children with engaging social interactions, ongoing assessment, and individualized instruction, are significant components of a quality teaching and learning environment (USDHHS 2013). It was also evident how teachers used IMIL as part of their daily routines that the children knew and expected, as well. Supportive teachers demonstrate intentionality in how they incorporate opportunities for social and emotional learning into daily routines, instruction, and classroom interactions (Zinnser et al. 2014). Quality teacher-child interactions have become a strong predictor of social competence and decreased frequency of problem behaviors in preschool settings (Burchinal et al. 2010), as IMIL was reported to also

help children be aware of their bodies and the space around them. While all children, regardless of race or social class, can benefit from preschool education (Pianta et al. 2009) researchers have observed enhanced benefits among children from low-income families, more so than with their affluent peers (Burchinal et al. 2000, 2010), thus IMIL is a viable option for Head Start and other early childhood programs who serve these children and their families.

There were several limitations of this exploratory study. The study was cross-sectional and only included participants within the state of Illinois. Furthermore, the response rate of the survey was low and did not represent all agencies within in the state. This may be due in part to timing of data collection at the start of the school year when the teachers may have had work-related obligations. Another possible reason for the low response rate may have been because administrative staff were asked to forward the survey to all classroom teachers who used IMIL. It is possible that not all administrative staff forwarded the survey along. In the future, it may be helpful to collect the data at another point in the year or send paper-based copies to each program. Also, establishing a relationship with the state Head Start Association is another viable option for increasing response rates. To strengthen the study, it is suggested that data is collected during a less busy time of year and that researchers work with the State Head Start to increase participation rates.

Conclusion

This exploratory study demonstrates that early childhood professionals perceive IMIL as a meaningful resource that is effective in enhancing teacher behaviors as measured by the CLASS®. Quality instruction, related to how teachers interact with their students, impacts the child's academic, social, and emotional development. Student growth across developmental domains influences lifelong success, which is a major goal of programs such as Head Start. Future research should extend beyond the state of Illinois exploring the relation of IMIL to the CLASS® both regionally and nationally. Follow-up should occur in several ways including systematic classroom observations and review of submitted CLASS® ratings to supplement self-report data. Research questions for follow-up include:

1. Do outcomes for the child differ based on geographic location (rural, suburban, urban, etc.)?
2. Do outcomes for the child differ based upon minority status (Hispanic, Asian, African-American, etc.)?
3. Do teacher perceptions of IMIL's impact on CLASS® ratings correlate with their actual CLASS® scores?

Additional research is needed to substantiate these exploratory findings and research questions, as well as training for teachers and administrators to explore/document IMIL strategies and resources that may further enhance the application of IMIL to support early childhood professionals in providing high quality instruction.

Acknowledgements The authors acknowledge the West Virginia University Office of Diversity and Inclusion for the funding that supported this research. The authors thank Dr. Linda Carson, Choosy Kids, LLC, Sue Gaon of Lakeshore Learning, and the teachers and staff who participated in this study.

References

- Allar, I. (2015). *Impact evaluation of I am Moving, I am Learning Using the RE-AIM framework (unpublished doctoral dissertation)*. West Virginia University, Morgantown.
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology Vol 1 Theoretical models of human development* (5th edn., pp. 993–1028). New York: Wiley.
- Burchinal, M., et al. (2008). Predicting child outcomes at the end of kindergarten from the quality of pre-kindergarten teacher–child interactions and instruction. *Applied Development Science, 12*(3), 140–153.
- Burchinal, M., Vandergrift, N., Pianta, R., & Mashburn, A. (2010). Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. *Early Childhood Research Quarterly, 25*(2), 166–176.
- Burchinal, M. R., Peisner-Feinberg, E., Bryant, D. M., & Clifford, R. (2000). Children's social and cognitive development and childcare quality: Testing for differential associations related to poverty, gender, or ethnicity. *Journal of Applied Developmental Sciences, 4*, 149–165.
- Curby, T. W., et al. (2009). The relations of observed pre-K classroom quality profiles to children's achievement and social competence. *Early Education and Development, 20*(2), 346–372.
- Downer, J. T., Rimm-Kaufman, S. E., & Pianta, R. C. (2007). How do classroom conditions and children's risk for school problems contribute to children's behavioral engagement in learning?. *School Psychology Review, 36*(3), 413.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory*. Hawthorne, NY: Aldine Publishing Company.
- Hughes, C. C., Gooze, R. A., Finkelstein, D. M., & Whitaker, R. C. (2010). Barriers to obesity prevention in head start. *Health Affairs, 29*(3), 454–462. doi:10.1377/hlthaff.2009.0499.
- Krueger, R. A., & Casey, A. M. (2009). *Focus groups: A practical guide for applied research*. Thousand Oaks, CA: Sage Publications.
- La Paro, K. M., Pianta, R. C., & Stuhlman, M. (2004). The classroom assessment scoring system: Findings from the prekindergarten year. *The Elementary School Journal, 104*(5), 409–426.
- LoCasale-Crouch, J., et al. (2007). Observed classroom quality profiles in state-funded pre-kindergarten programs and associations with teacher, program, and classroom characteristics. *Early Childhood Research Quarterly, 22*(1), 3–17. doi:10.1016/j.ecresq.2006.05.001.
- Marshall, C., & Rossman, G. B. (1995). *Designing qualitative research*. London: Sage Publications.
- National Center on Early Childhood Development (1999). Child outcomes when child care center classes meet recommended

- standards for quality. *American Journal of Public Health*, 89(7), 1072–1077.
- National Center on Early Childhood Development (2002). Early child care and children's development prior to school entry: Results from the NICHD study of early child care. *American Educational Research Journal*, 39(1), 133–164.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications.
- Pianta, R., et al. (2005). Features of pre-kindergarten programs, classrooms, and teachers: Do they predict observed classroom quality and child-teacher interactions? *Applied Developmental Science*, 9(3), 144–159.
- Pianta, R. C., Barnett, W. S., Burchinal, M., & Thornburg, K. R. (2009). The effects of preschool education what we know, how public policy is or is not aligned with the evidence base, and what we need to know. *Psychological Science in the Public Interest*, 10(2), 49–88.
- Puma, M., et al. (2010). Head Start Impact Study. Final Report. *Administration for Children & Families*. Retrieved from <http://files.eric.ed.gov/fulltext/ED507845.pdf>.
- U.S. Department of Health and Human Service. (2007) *Use of classroom assessment scoring system (CLASS) in head start* (Administration for Children and Families, Office of Head Start). Retrieved from <http://eclkc.ohs.acf.hhs.gov/hslc/hs/sr/class/use-of-class.pdf>.
- U.S. Department of Health and Human Services. (2009) *Report to congress on Head Start efforts to prevent and reduce obesity in children*. Washington, DC: Administration for Children and Families.
- U.S. Department of Health and Human Services. (2011) *Report to congress on the final head start program designation renewal system* (Administration for Children and Families, Office of Head Start). Retrieved from https://eclkc.ohs.acf.hhs.gov/hslc/data/rc/Head_Start_Designation_Renewal_System_Final_Rule.pdf.
- U.S. Department of Health and Human Services. (2012) *Understanding and using CLASS for program improvement* (Administration for Children and Families, Office of Head Start) Retrieved from <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/class-brief.pdf>.
- U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start, Administration for Children and Families (2013). *Improving teacher-child interactions: Using the CLASS in head start preschool programs*. Retrieved from <http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/teaching/docs/using-the-class.pdf>.
- Vidoni, C., & Ignico, A. (2011). Promoting physical activity during early childhood. *Early Child Development & Care*, 181(9), 1261–1269. doi:10.1080/03004430.2010.523786.
- Whitaker, R. C., Gooze, R. A., Hughes, C. C., & Finkelstein, D. M. (2009). A national survey of obesity prevention practices in head start. *Archives of Pediatrics & Adolescent Medicine*, 163(12), 1144–1150. doi:10.1001/archpediatrics.2009.209.
- Zan, B., & Donegan-Ritter, M. (2014). Reflecting, coaching and mentoring to enhance teacher–child interactions in head start classrooms. *Early Childhood Education Journal*, 42(2), 93–104.
- Zinsser, K. M., Shewark, E. A., Denham, S. A., & Curby, T. W. (2014). A mixed-method examination of preschool teacher beliefs about social–emotional learning and relations to observed emotional support. *Infant and Child Development*, 23(5), 471–493.