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**INSTRUCTIONAL CONVERSATION IN PRESCHOOL SETTINGS**

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### Abstract

Instructional Conversation refers to dialogic interaction between teachers and students in which prior knowledge is integrated with new material to help learners build understanding. While there is increasing evidence that IC produces gains in student achievement, most studies have involved K-12 instruction. This study investigated the efficacy of professional development for 13 early childhood educators and explored whether the criteria used to measure IC implementation were congruent with developmental expectations of young children. Results suggested that teachers had a good understanding of IC and agreed with most criteria that measured its enactment. However, they felt criteria needed to be revised to include nonverbal communication, as young children often combine gestures with speech to convey the fullness of their thoughts.

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## Chapter 1. Introduction

### *Social Change through Classrooms*

The issue of education has often generated two opposing ideologies. On the one hand, it is perceived as having little effect on alleviating structural social inequalities (Bourdieu & Passeron, 1977; Coleman, 1988). On another, it is viewed as a vehicle of social change through which individuals are given the equal opportunity to maximize their potential and liberate themselves from destinies determined by their social class origins (Tharp, Estrada, Dalton, & Yamauchi, 2000).

It is within the context of the latter view that Tharp and his colleagues (2000) argued that educational reform towards greater fairness, inclusion, harmony and achievement of excellence must occur at the level of instructional activity. While educational reform can happen on the structural and policy level, the authors proposed that classrooms are the common pathways through which the implications of these macro-level changes are felt. The vision of a transformed classroom that is fair, inclusive, excellent, and harmonious inspired the creation of the Five Standards for Effective Pedagogy.

The Five Standards for Effective Pedagogy are a consensus of research findings drawn from diverse populations, disciplines, and grade levels by researchers affiliated with the Center for Research on Education, Diversity & Excellence (CREDE) (Tharp et al., 2000). These researchers propose that when these standards are met, excellence, fairness, inclusion and harmony will simultaneously be achieved. The first standard is Joint Productive Activity, which states the importance of facilitating learning through teachers and students working together on a common product, towards an instructional

goal. The second is Language and Literacy Development, which refers to developing language and literacy of instruction across the curriculum. The third standard is contextualization of curricular instructions in the interests, experiences and skills of the students' families and communities. The fourth is Complex Thinking which refers to challenging students toward cognitive complexity. The last standard is to engage students in dialogues through the use of Instructional Conversation. Tharp and his colleagues noted that the Five Standards present a coherent view of education through their interrelatedness. They stated, "Instructional Conversation is the best method for development of the language of instruction, which occurs best when contextualized in experience, ideally created in joint productive activity, which becomes the setting for the Instructional Conversation" (p.34).

My research topic focused on Instructional Conversation as used in preschool settings and explored whether the criteria used to measure its implementation were congruent with developmental expectations of young children. In consideration of how the Five Standards are essentially integrated, this introduction serves to place Instructional Conversation (IC) as part of the whole framework, and in relation to the goals of educational reform that these Standards are set to achieve. Following this section, I will discuss the theoretical basis for the Five Standards, after which, I will discuss the literature on IC in greater detail. I will then justify the significance of my study by referring to the gaps in current literature on IC in preschool settings. The data collection processes, results and discussion sections will then follow.



### *Theoretical Basis for the Five Standards*

Vygotsky's sociocultural theory provides the overarching framework by which a range of social science theories that have informed the work of the CREDE researchers are integrated (Tharp et al., 2000.) This theory allows the Five Standards to be articulated through a common language and form the basis of analyses for pedagogical and classroom organizational phenomena.

As Tharp et al. noted (2000), sociocultural theory essentially focuses on "the development of capacities, individuals, institutions, communities and cultures" (p. 9). In this theory, knowledge is perceived to be constructed, i.e., cognitive structures that shape our knowledge of the world evolve through interaction between human beings and their environment (Vygotsky, 1978). This is in contrast with views that knowledge is a preformed entity that exists objectively in our environment and learning takes the form of transference of knowledge by authority from external environmental domains to internal mental ones.

The construction of knowledge through activity and interaction with environment takes a specific form in the Vygotskian perspective. Vygotsky (1978) suggested that all higher psychological functioning has its origins in the social realm. "Internalization," which he defined as the "internal reconstruction of an external operation" (p.56) is possible through sign use and social interaction. The overall developmental perspective posited in this theory begins with external social processes and ends with the internalization of what was formerly social (Wertsch & Stone, 1985).

Vygotsky (1978) stated that the use of signs becomes a tool with which children master their surroundings. For example, he noted that labeling is a major function of

speech used by young children to single out elements in their environment. By doing this, signs and words give children their first means of engaging with the social world. Speech, in fact, becomes a tool with which children use to solve problems. While speech allows children to participate in their world as social beings, social interaction in turn allows them to learn the proper use of signs. Wells and Haneda (2005) noted that the use of words in social interaction clarifies, modifies, or elaborates word meanings embodied in the community norms and helps individuals form socially agreed linguistic categories.

Language, a cultural system of signs and symbols, becomes a way by which culture bears its influence on individuals. Children begin to see the world not just through their senses, but through mediated activity involving sign use, allowing them to understand their world through speech (Vygotsky, 1978). Hence, according to Vygotsky, speech is not just an externally oriented tool that allows human influence to exert itself on its environment, but is also internally oriented in that it changes the psychological operations of children. Vygotsky thus believed that speech, as it is increasingly used as children develop, becomes an essential part of their cognitive development.

Additionally, Vygotsky (1978) also suggested a specific mechanism by which the value of social interaction is expressed through individuals assisting one another in learning. This is his concept of Zone of Proximal Development (ZPD). ZPD is a conceptual space in which students navigate their learning through the assistance of a supporting context. This zone signifies the distance between students' existing knowledge or problems that can be solved by them independently and a higher level of competence that students can accomplish by collaborating with people or artifacts. The boundaries of the zone shift as the learner becomes increasingly independent with each

progressive level of comprehension (Brown, Ash, Rutherford, Nakagawa, Gordon, & Campione, 1993). The learning relationship is described as scaffolding because the structure provided for student's learning loosens or modifies to increase its demand on the learner's performance when the learner gains higher levels of competence. Over time, learners will become increasingly competent and will eventually be able to complete their tasks independently (Oakes & Lipton, 1999).

To reiterate, the concept of internalization, i.e., the transformation of interpersonal processes to psychological ones, underlies the notion of learning. This internalization occurs through use of signs through social interaction. Language, a cultural system of signs and symbols gives children their first means of interacting with their world and in turn, social interaction allows children to master sign operations effectively. Language and cognitive development are not separate processes but instead, they interweave in a dialectical fashion. Additionally, achieving higher levels of competence in language and cognition is possible for an individual child through assistance from another individual with higher competence.

### *Instructional Conversation*

The above explication of the sociocultural theory clarifies the way in which it has come to be expressed in the Five Standards. Teaching is assisting learners in achieving a higher level of competence. Joint Productive Activity creates conditions in which assistance can occur readily. It also creates intersubjectivity between people, allowing an interpretive net of shared meanings to be woven between culturally diverse learners, by contextualizing instructional activity in interests, experiences and skills that they bring with them to classrooms (Tharp et al., 2000). Most important to my research topic is the

theoretical implication for instructional conversation and existing literature that discusses this concept.

According to Tharp and Gallimore (1988), Instructional Conversation is the dialogic interaction between teachers and learners in which prior knowledge and experiences are integrated with new material to help learners build higher understanding. The elements of IC were described by Saunders, Goldenberg, and Hamann (1992) in the following passage:

Briefly, a good instructional conversation appears, on the surface, as an excellent discussion conducted by a teacher (or someone relatively more knowledgeable or skilled) and a group of students (or individuals relatively less knowledgeable or skilled). The discussion is interesting and engaging. It is about some idea or some concept that appears to matter to the participants. It has coherent focus which, while it might shift as the discussion evolves, remains discernible throughout. There is a high level of participation without undue domination by any one individual, particularly the teachers. Students engage in extended discussion with the teacher and among themselves, exploring ideas and thoughts in depth. At the end of an IC, students (and, ideally the teacher) have reached a new level of understanding about whatever topics were under discussion. (p.4)

Tharp and Yamauchi (1994) noted that IC can be understood in part by contrast to “recitation script,” which refers to teachers assigning a text to students, and assessing their knowledge by using questions designed to elicit predictable answers. IC, on the other hand, enables teachers to (a) assist learners in elaborating concepts; (b) embed

instruction in the sociocultural contexts of individual learners; (c) be more responsive to varied individual competence; (d) assess and assist learning, and (e) encourage high-level cognition (Hilberg, Doherty, Epaloose, & Tharp, 2004).

There has been increasing empirical support of the effectiveness of Five Standards with findings from correlational, quasi-experimental, and true experimental designs in the recent years (Doherty, Hilberg, Pinal, & Tharp, 2003). Findings showed improved performance not just in outcomes narrowly defined by achievement scores, but in a range of affective, behavioral, and cognitive indicators of student performance (Estrada, 2005; Hilberg, Tharp, & DeGeest, 2000; Padron & Waxman, 1999).

With particular reference to IC, Saunders and Goldenberg (2006) found that students with different levels of English proficiency who were taught by teachers using Instructional Conversation showed better understanding of a story theme than students who were taught using direct instruction. Additionally, Saunders and Goldenberg (1999) found that when both IC and contextualization were used together, students demonstrated significantly better reading comprehension and thematic understanding than students taught using IC or contextualization independently.

The greater understanding of themes and more memorable learning encounters appeared to be echoed in a study by Wells and Haneda (2005). These authors demonstrated through four case studies how IC was used across a variety of grade level, curriculum settings and in different modes of instructions (speech, writing, or computer-mediated communication). IC was found to be an important means by which experiences and observations of instructional activities were collaboratively explored through discussions, clarifications, elaboration and making connections with prior knowledge.

The authors noted the significance of having an improvable product that provided the focus of joint activity and suggested that IC served the basis for the learners' intellectual development and identity formation.

The potential in IC to contextualize experiences of the learning community gives it a fluid and dynamic characteristic such that its implementation may vary across different classrooms and schools. It has been demonstrated that as forms of discourse vary across cultures, IC can morph into forms that align well with the culture of the targeted classroom (Tharp & Yamauchi, 1994; Yamauchi & Tharp, 1995). Namely, the authors found that effective IC for Native Americans was influenced by four basic psychocultural factors. Different cultures possess different conventions of conversations and the amount of "wait time," for example, was a sociolinguistic factor that affected the quality of conversations between Native American children and their teachers. Other factors included variations in types of cognitive competencies that were culturally valued; the differences in motivation towards school achievement; and the ways classrooms and schools organized internally (Tharp & Yamauchi, 1994).

Another study by Yamauchi, Taum, and Wyatt (2006) focused on teachers' use and understanding of IC in high school classrooms. The authors found that although teachers appeared to show increasingly accurate understanding of IC across the three years of participation in a study group, their use of IC in the classrooms did not parallel their increase in understanding. Teachers reported numerous challenges in implementing IC in their classroom, including, students' reticence in participating, which may have partially been due to a home culture that did not encourage dialogues and personalities (some students who were shy). The implementation of IC also demanded of its users a

high level of skills, as it required teachers to find a medium between what they perceived to be a delicate balance between maintaining an instructional goal and generating dialogic interactions which brought about a sense of loss of control (Yamauchi et al.).

### *Instructional Conversation in Preschool Settings*

The above discussion of existing literature on IC shows that while a range of studies have been conducted through a variety of research methods, targeting different subject areas, grade levels and populations (teachers as well as students), most of this research has involved studies of K-12 instruction.

IC heavily emphasizes the use of conversation and active participation from both teachers and students. The Standards Performance Continuum (SPC) (see Appendix A), a performance-based measure of the Five Standards (Hilberg et al., 2004) specifically states that, to achieve the highest level of enactment for IC, each teacher needs to design, enact, and assist in ICs. They need to have clear academic goals, listen carefully to assess and assist student understanding and question students on their views, judgments or rationales. They also need to include all students in the IC and ensure that student talk occurs at higher rates than teacher talk. Finally, the teacher must skillfully integrate IC with other standards.

Some difficulties related to implementing IC in the K-12 settings have been noted by Yamauchi et al. (2006) as previously discussed. In preschool settings, IC's emphasis on conversations and its implementation amongst young children who are in the early phases of language acquisition present an interesting field for research.

*Young children do not communicate through speech alone.* A review of early childhood literature concerning speech, conversations and social interaction shows that

the anticipated difficulties of implementing IC in preschool settings seem to lie in observations that while preschool children exhibit high degrees of social behavior, they do not always communicate through social speech. Clark (2003) stated that language is not the only form of communication and does not exist autonomously. It is, instead, often embedded in or supplemented by nonlinguistic options such as gestures, gaze, stance, facial expression and voice quality. In fact, Clark stated that in early language learning, young children often rely first on such nonlinguistic options in their initial understanding and early use of language. For example, they might first infer from an adult's gaze or stance the locus of attention, and derive affect by observing the adult's voice quality and gesture, before understanding that word singles out referents. She suggested that the pervasive use of representational gestures among young children is due to the overly heavy demand of remembering a symbolic representational system in the form of words. Ozcaliskan and Goldin-Meadow (2005) agreed that young children do not convey their thoughts solely through speech because words put greater stress on memory than physical gestures. In addition, these authors suggested that young children rely on non-linguistic options for communication because gestures require less fine motor control than producing phonologically correct sounds by using the mouth and tongue.

*Significance of non-linguistic communication in early childhood to convey complex meanings.* Ozcaliskan and Goldin-Meadow (2005) suggested that while young children are not able to convey the fullness of their thoughts through speech alone, they are able to combine gestures with speech to convey more complex meanings. This observation is reinforced by a study by Krantz, George, and Hursh (1983) that described the conversational function of gaze and mutual gaze in preschoolers' free-play



conversation. The authors found that gaze-related utterances were longer and more likely to elicit appropriate responses from listeners. In fact, Ozcaliskan and Goldin-Meadow argued that gestures play a role in early language-learning as combining gesture and speech is a technique that young children commonly use to convey information in sentence-like forms, even before they are capable of producing sentences.

Clark (2003) stated that infants follow a clearly defined path in using communicative gestures. At seven to eight months of age, they begin to engage in exchanges of giving and taking of play objects. At around nine months, they engage in open-handed reaching, sometimes along with opening and closing of the hand. Between ten and fourteen months, they show an increasing tendency to vocalize along with their better-defined gestures. In their study of Italian children, Iverson, Capirci, and Caselli (1994) discovered that the reliance on gestures along with early word use was pervasive and extended into the early months of the second year. Acredolo and Goodwyn (1988), in their research on American children, observed that symbolic gestures used early in the second year were later replaced by words. Clark concluded that children seem to develop a special appreciation of words in their symbolic communication by age two, and that this may be a factor leading to their rapid acquisition of words at that age.

Goldin-Meadow (2000) noted that while speaking is a deliberate way of conveying a thought, ostensive behaviors, including gestures also possess communicative intent. Clark (2003) observed that the infants were capable of expressing non-arbitrary and metonymic relations between their gestures and with meanings of phenomena being represented. It follows from these observations that nonlinguistic features of communication, including gestures, appear to be highly symbolic and meaningful. The

use of symbols in the form of words is typically used in IC to assess what learners do or do not know. In a similar fashion, Goldin-Meadow argued that the symbolic use of gestures, especially by young children who are not developmentally capable of verbally expressing themselves, might reveal their Zone of Proximal Development. She indicated that there is more happening in a conversation than what is heard, and that the attention, understanding, and use of gestures may have an impact on teaching and learning.

Since IC emphasizes active verbal participation from learners, nonlinguistic options in communication have not been considered as indicators of implementation of IC in classrooms. It appears at the outset that the SPC criteria for the highest level of enactment of IC must be challenging, if not impossible to meet for this developmental age. Does this mean that instructional conversation cannot be fully implemented in early childhood classrooms?

Although there was formerly a CREDE preschool demonstration site in Hawai'i, this setting included only one teacher and did not involve systematic professional development. This study examined the application of IC in preschool settings with multiple teachers. The study also investigated the efficacy of professional development designed to promote IC and the other CREDE Standards among preschool teachers and examined whether criteria used to rate teachers' use of IC should be changed to reflect application with younger children. Specifically, my research questions were "To what extent do preschool teachers who receive professional development on the Five Standards understand and use IC in their classrooms?" and "According to these teachers, and observational data from the field, how can criteria for IC be better adapted to fit the developmental expectations of preschoolers?"

## Chapter 2. Method

The purpose of this study was to extend and elaborate the concept of IC in settings that have not been previously explored, i.e., preschool settings. While I began this study with the sociocultural theory in mind, using a preconceived concept that was IC, I was aware that this particular way of understanding instructional activities was based on my particular training and experiences, which might be quite different from those of preschool teachers. I explored the dimensions and properties of IC through analyses of data gathered through observations of teacher and students' classroom interactions, as well as through focus group interviews. I was primarily interested in how the teachers perceived IC in the context of their classrooms. I began by comparing units of data within sources, and across different sources. I also compared data with theories that might or might not have aligned with my data. In this way, I hoped to extend and elaborate on the concept of IC by using the grounded theory method (Strauss & Corbin, 1998).

### *Setting*

Data were collected at the University of Hawai'i Mānoa Children's Center (UHMCC). The UHMCC is a university-based preschool for children ages 2-5, open to children of students, faculty, and staff. There were approximately 100 children at the school, 13 full-time teachers, 2 administrators, approximately 30 student assistants, and approximately 15 volunteers. UHMCC staff recently established a partnership with CREDE to develop the school as a demonstration site. This study was part of a larger one designed to assess the effects of professional development on UHMCC teachers' understanding and use of the Five Standards. This preschool occupies an expansive site

on the UHM campus. It is a single-storey building in the style of an old plantation house, surrounded by large yards.

### *Participants*

Participants included the 13 UHMCC teachers, 2 administrators, approximately 100 students (ages 2-5), approximately 30 student assistants, and approximately 15 volunteers. The participants in this study reflect the diversity of the setting in which the research took place. Hawai'i is one of the few states in the U.S. in which Caucasians are not majority and it has a large population of people who identify themselves as having mixed ancestry. Additionally, UHM draws students and faculty from all over the world, especially from the Pacific Rim. Consequently, staff and families at the Children's Center were characterized by the diversity of the cultural and linguistic backgrounds they were from, and the Children Center prides itself for providing a setting where visitors can observe a program with international representation.

Apart from the multicultural profile of the staff and families, it must be noted too that all teachers at the Children's Center meet or exceed state licensing standards for teachers of young children. Teaching teams in each classroom consisted of a demonstration or lead teacher and an associate teacher. Demonstration teachers at UHMCC had at least a bachelor's degree in early childhood education, elementary education or child development/family resources. These teachers also had 24 credit hours in early childhood education and other courses directly related to working with young children. Lead and associate Teachers had at least a bachelor's degree in early childhood education or a related field that included 12 credit hours in early childhood education and other courses directly related to working with young children. Both the director and

educational coordinator had master's degrees in early childhood education. The high qualifications of the staff at UHMCC were also related to their having higher salaries as compared to other early childhood educators in Hawai'i.

All adult participants were asked to sign an informed consent form prior to participation (see Appendix B). Parents or guardians of children and underage college student participants were also requested to sign a consent form prior to their children's participation in the study (see Appendix C). Participants were informed that participation was voluntary, and that they could stop involvement at any time.

#### *Data Sources*

*Participant observations.* My study focused on the first (2006-2007) of the two academic years during which the UHMCC teachers received professional development on the Five Standards for Effective Pedagogy. Each year, the professional development consisted of approximately 2 half-day workshops during school inter-sessions and approximately 10 follow-up sessions throughout the school year. The workshops were facilitated by Dr. Lois Yamauchi, a CREDE researcher who was the principal investigator of the larger project. The follow-up sessions were approximately 60-90 minutes long and occurred during regularly scheduled staff meeting times and were facilitated by the school's assistant director. I was the videographer for the professional development workshops, and took notes of parts of the discussions that provided clarifying details, insights, or other information salient to my study.

*Focus group discussions.* I also conducted focus group interviews with groups of approximately four teachers, two times for each group in the spring 2007 semester. The focus of these interviews was to explore how teachers felt about their participation in the

professional development and their understanding and use of IC in their respective classrooms (see Appendix D for the questions). I used the attached interview guide for the first set of focus group interviews. The second set of focus group interviews was less structured. These interviews focused more on verifying the accuracy of my interpretations of some themes that emerged from the first round of interviews and explored further details with particular concepts. Interviews were 60-90 minutes long and were recorded. The recordings of the focus group interviews were transcribed.

*Videotaped instruction.* To evaluate whether teachers were using IC in their instruction, they were videotaped prior to receiving professional development and 2-3 times each semester. The teachers wore a wireless microphone and videotaping focused on their interactions with students. Videotaping sessions lasted for the duration of an instructional period (approximately 90 minutes). In the first semester, the educational coordinator and teachers discussed to decide on the order by which the teachers were taped. In the spring semester, the order of which teachers were to be videotaped was randomly selected and teachers were notified that they would be videotaped on the morning of the taping. A student undergraduate researcher was the videographer during the first semester. For the second semester, I videotaped the teachers. When I was the videographer, I took field notes in between and after the videotaping sessions, when observations and experiences relating to this study occurred.

### *Data Analysis*

*Transcripts.* I analyzed the transcripts of the workshops and focus group sessions to explore teachers' understanding of IC and their perceptions of how it was implemented. I examined the data for similarities and differences that guided the

categorization of conceptually similar data. I further analyzed categories derived from open coding as described by Strauss and Corbin (1998) for relationships with subcategories. The net of interwoven relationships between concepts, built from ground up, formed the basis of my analysis.

*Videotaped instruction.* Four trained raters with expertise in early childhood education coded the videotapes for use of IC. Two raters coded each tape independently and then met to come to consensus regarding any discrepancies. To further ensure reliability, the raters changed partners after coding for one month (approximately after every 12 tapes). The raters were coding the tapes for use of all of CREDE Standards, as part of the larger study.

Although videotapes of 13 teachers were rated, one teacher joined the UHMCC only in Spring 2007, and thus, only had three rating scores. Additionally, this teacher was a “floater” and taught preschoolers of all age groups. It was thus decided that the scores for this new teacher were not used in the analysis of IC scores.

As previously noted, one of the goals of this study was to explore how the SPC criteria for IC could be better adapted to fit the developmental expectations of young children. During the year, teachers collaborated with Dr. Yamauchi, the principal investigator. Through a series of professional development sessions in the fall 2007 that focused on how the SPC might be revised, the group created the CREDE ECE-7 (see Appendix E). The coders used the CREDE ECE-7 to rate the videotapes for the teachers’ use of IC.

Scores on the SPC and CREDE ECE-7 range from 0-4 (0, Not present; 1, Emerging; 2, Developing; 3, Enacting; and 4, Integrating). In previous studies using the

SPC, percent agreement between two coders was 96-100%, including perfect matches and scores that were different by one point (Hilberg et al, 2004; Yamauchi et al., 2006). For each teacher, mean scores for all teachers, and those for teachers of each age group were analyzed across the six videotaping sessions to determine change over the academic year. Percent agreement between the raters was also assessed. Additionally, I analyzed the videotaped instructional sessions for examples of IC implementation.

*Field notes.* Lastly, I read and analyzed notes that I took during and after the professional development sessions and the instructional videotaping sessions. Notes pertaining to teachers' understanding of IC and their implementation of them were compared with statements made during the focus group interviews so that different sources of data were triangulated.

#### *My Relationship to the Topic and Participants Being Studied*

I do not have any teaching experience and am new to the field of education. My work and educational experiences have largely been in the field of social work, having been a researcher and clinical social worker in areas concerning children with incarcerated parents and children with illnesses in the newborn special care nursery. I shared my background with the UHMCC teachers in a professional development session. I was aware that I was carrying into the field mainly theoretical concepts. To set aside certain theoretical presuppositions in order to allow data from the field to guide the generation of new theories required my constant effort.

In addition, the teachers' awareness of my role as an observer of their interactions with the children, especially when the video recorded data would be analyzed to determine the extent of their implementation of the IC, at times created a certain amount



of pressure for socially desirable behaviors in classroom that normally would not occur. The teachers admitted that they initially felt a need to organize activities that reflected a great amount of conversation. This was in addition to the inevitable discomfort of being on camera throughout the whole instructional period. However, the teachers indicated that as it became clearer to them with time that the SPC criteria for IC were being reviewed based on their feedback, and that they felt less pressure to enact elements of SPC that they felt were not developmentally appropriate. Hence, with time, the teachers felt more at ease about the research project.

As the semester progressed, my relationships with the teachers and administrative staff also changed from one of professional acquaintance to that of friendship. The UHMCC staff saw themselves as the “Big House” constituted by a community of learners with strong relationships, and this “big family” came to include me as one of its members. Being increasingly an “insider” helped in making me as unobtrusive as I could be as someone behind the camera, as teachers indicated they were not as conscious about the camera halfway through the semester. On the other hand, I was aware that being increasingly familiar with the environment might have led to me making certain assumptions about words and concepts that teachers used. Hence, I was careful to seek clarifications and verified my interpretations of the data that they have shared with me.

### Chapter 3. Results

#### *To What Extent Do Preschool Teachers Who Received Professional Development on the Five Standards Understand and Use IC in Their Classrooms?*

To answer this question, I explored the teachers' understanding of IC by analyzing how they have described IC and the ways they have implemented IC in their classrooms.

#### *Participating in a New Discourse about IC and Its Professional Implications*

A few teachers stated that teaching through dialogue, in a way, was something already present in their pedagogical repertoire. However, many noted that they had neither the vocabularies to describe what they felt was an intuitively good teaching practice nor a systematic way of thinking and reflecting about the pedagogical value of conversations. For example, Angie, a teacher of the 2-year-olds stated:

I think a lot of it [IC], we already did, but then to ask us to put it in technical terms and stuff, that's really intimidating for us. We do it, and we know we do it. We're at the point of we need to verbalize how, and the universal way for everyone in the professional field to understand and stuff. (Focus Group Interview, 2/8/07)

As can be seen from the above quote, many teachers spoke about how the ability to name, or put to words the experiences and beliefs that they possessed allowed for the creation of intersubjectivity between the teachers, and everyone else in the professional field.

Rebecca, a teacher of the 4-years-olds, indicated that by using a consistent language that described IC, there was a new potential to use this codified set of knowledge about IC as a tool for teachers to become more self regulatory about their teaching.

What is new, is that it's never been defined, and it's never been put into a way for teachers to evaluate themselves. There's lots of things to evaluate kids, or their environment, but not of us, and so this is a very concrete way of looking at how you speak to kids, and what the content is, and how effective it is, because I think that [in] good teaching you do that anyway. (Focus Group Interview, 2/9/07)

### *Teachers' Understanding of IC*

*IC is a dialogic interaction characterized by reciprocity.* The teachers agreed that IC is crucially a two-way interaction between teacher and students involving both verbal dialogue and purposeful nonverbal communication. All the teachers in their description of IC identified reciprocity as the main characteristic of IC. Rebecca, in the following quotation, clearly described the understated demands of conducting purposeful dialogic interactions with students, although it often appears to be spontaneous.

A lot of it is the interaction between child and teacher . . . and also that back and forth that Katherine was saying . . . . But particularly with the IC, because it is so intimate, that it really is more like a dance . . . . So if one person does one movement, and the other person sees it and responds to it appropriately . . . . You have to have all these different moves in your pocket in order to respond to the child and make the best step. And if you don't, you miss an opportunity. And so, I think it's very complicated and it's more complicated than it can be read across in a book . . . . When it's done effectively there's a lot more brainpower on the teacher's part. (Focus Group Interview, 2/9/07)

Some teachers found that IC was particularly valuable in preschool settings because to their young students, every aspect of the world presented learning

opportunities for them. Many of these teachers conceived control in their classrooms as positive engagement with the children, and felt that expectations of an orderly classroom in which every child was behaving in similar ways were not appropriate with this age group. As seen in the above quote, it appeared that the teachers' concerns when implementing IC were with keeping up with, and identifying in time, the learning opportunities as they surfaced through rapidly evolving instructional situations. According to the teachers, IC allowed attention to the children's perceptions which, at many times, directed the teachers to focus on what otherwise would have been overlooked as a learning opportunity. This, in turn, helped them create positive engagement with their students.

As part of the exercise of defining and describing IC, the teachers also defined the concept by contrast to what it was not. Many teachers distinguished IC from the more formal approach of direct instruction. Below, Denise described an event during which she was bitten by a child, and her efforts to help the child learn that biting was not a socially appropriate behavior. She contrasted the use of IC with a direct instruction approach.

[After the biting incident] we were able to talk with the child, and "Oh . . . what happened?" And you know, "What should we do?" She [the child] told me, "I was scared, cause we were playing monster," she said, "and I was scared." And so that's why she bit me. And you know, so I said "Okay, well, what should we do, what else could we do, if we get scared?" And I feel that that is Instructional Conversation, because it's sort of talking with the kids on what they know, and you know, kind of leading in that way, as opposed to saying "no, don't bite, and ending it there." (Focus Group Interview, 2/8/07)

A recurring point that all the teachers made was that the two-way communication between teachers and students included both verbal dialogues, as well as nonlinguistic communication. This is a point that will be elaborated in the later sections.

*IC is a tool for assessing and assisting learning.* Many teachers also perceived IC to be a useful tool with which they could assess students' interests, goals, understanding. This helped them plan for the next learning step. For example, Katherine stated:

As you're doing Instructional Conversation, as you're talking to the children, you can see by their responses or lack of responses, nonverbal or verbal, you can see what stage they are, in their development, and so that you can then use that as an aim for your goals, to make goals for the children . . . each child. That can help you plan for future lessons and activities, and . . . things like that for the children. And it's a way of getting to know them, because a lot of the times their interests come out, you know, as if you're talking about something, they'll start getting excited if you hit a topic of interest with them. And then you can, as a teacher, you can find out more resources about that, to help them, where they are, do more Instructional Conversations, how to lead it with the children. So basically, it's just how to get to know, or, it's a tool to getting to know the children, on a more of a personal basis, rather than a teacher-student "I'm gonna teach you this, and you have to listen." (Focus Group Interview, 5/17/07)

Teachers noted on several occasions how IC lent itself as an invaluable tool to assess the interests of the culturally and linguistically diverse classrooms they taught. UHMCC is a preschool that admits children of students, faculty and staff of UHM that come from all parts of the world, especially countries in the Pacific Rim. Understanding

the interests and potential of each child through dialogic interactions, allowed the teachers to build in activities and include concepts that were familiar to the children from diverse cultural backgrounds. The potential of using IC to assess individual interests and assisting individual performance allowed its use to be inclusive of children from culturally and linguistically diverse backgrounds.

The use of contextualization in instructional sessions was a common sight while I was conducting my fieldwork at the UHMCC. For example, the teachers led cooking sessions with small groups of three-years-olds that made foods from various cultural groups, including quesadillas (Videotaped Session, 4/4/07), and “gao,” a glutinous rice cake eaten during the Chinese New Year (Videotaped Session, 4/2/07). The activities were often engaging as they tapped upon the children’s diverse cultural knowledge and opportunities for talk were often created during activities. By creating a joint productive activity through which children could learn to use new words related to their cooking sessions meaningfully, the goals of language and literacy development were often successfully achieved through these purposive conversations.

*IC as a tool for helping learners build higher understanding.* While it has been previously discussed that teachers defined IC by contrasting it to direct instruction, a number of the teachers also described IC by contrasting it with regular conversations. Many teachers indicated that IC was not just conversations about anything but learning objectives were often on their minds when engaged in dialogic interactions with the children. IC was described as an intensive engagement of teachers with students, with constant assessing of children’s prior knowledge and interest, and assisting them towards

reaching higher learning goals. This sentiment was aptly expressed by Rebecca, who stated that:

(IC is) not just knowing facts and things about a topic, but it's being able to read the child, being able to individualize the message to that particular child . . . and then also knowing how to propel the child one step farther, is part of IC. Because you cannot just be like this, because it's no longer instructional, right? So you kind of have to have like learn . . . . You have to be able to lead them to the next level. (Focus Group Interview, 2/9/07)

The intense effort that went into constant assessing, assisting and challenging of students was described by Sandy, a teacher of the three-years-old children. She indicated that the teachers were not passive "yard monitors" who made sure that nobody was "getting hurt, or in an argument, or fight" (Focus Group Interview, 5/11/07). Instead, she described the teachers as ones who were engaged in joint activity with the children in almost everything. Many of these preschool teachers felt that in early childhood, learning opportunities lie in every activity as the children were just starting to learn about their world. Sandy indicated that if teachers did not take advantage of seemingly mundane moments such as the break times, then they might miss the opportunity to challenge the preschoolers to reach higher learning goals.

Some teachers felt that the preschoolers were not ready to articulate their judgments and rationales behind their actions. However, there were a few examples of teachers who questioned their preschoolers' views during joint activities, showing that this was possible. For example, Angie brought a group of 2-years-olds out for a hike to gather artifacts that they either knew or imagined could be found on mountains

(Videotaped Session, 4/14/07). The instructional content in this activity was contextualized in most of the children's previous experiences with hiking, as mountains are pervasive in Hawaii. After pointing out some of the mountain ranges to the children, Angie proceeded with the children to gather rocks, flowers, and leaves under a plumeria tree. Following this, Angie assisted the children in categorizing the artifacts according to perceived similarities and differences, helping the children verbalize simple words like "flowers" and "leaves." As they were doing this, she observed that a child was putting flowers and leaves in the same pile, and proceeded to question his rationale for doing so. In response, the child replied that he was putting them together because of they were all "brown." Angie accepted the reasoning of the child and helped him add a few more brown artifacts into his pile.

It follows from this section that the teachers appeared to have understood the major elements of IC. For the most part, teachers understood that ICs were conducted with learning objectives in mind; that IC was a tool for assessing and assisting children's understanding. Although some teachers felt that preschoolers were too young to be questioned on their views, judgments, or rationales, there were examples on the videotaped sessions that this was possible and was sometimes carried out by the teachers.

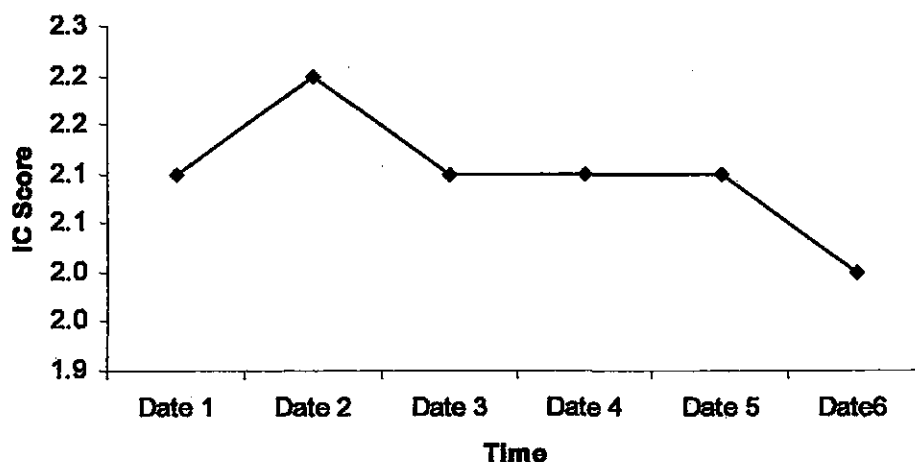
#### *CREDE ECE-7 Ratings*

Percent agreement between two coders was 96.9% for this study. This included perfect matches and scores that were different by one point. Figure 1 presents the mean ECE-7 IC ratings of all teachers across time while Figure 2 shows the grouped mean ratings of teachers of the 2-year-olds, 3-year-olds, and 4-year-olds. Figure 1 shows that the average IC scores of the teachers have not changed much over the year, with scores



ranging from 2.0 to 2.2. Average scores of 2.0 and above show that IC was enacted at the developing level, i.e., teachers incorporated activities that demonstrated a partial enactment of IC. While the scores remained rather constant through the year, there was a slight increase during the second videotaping, and slight general decline from the third videotaping and onwards.

*Figure 1. Mean Instructional Conversation scores of all teachers across time.*

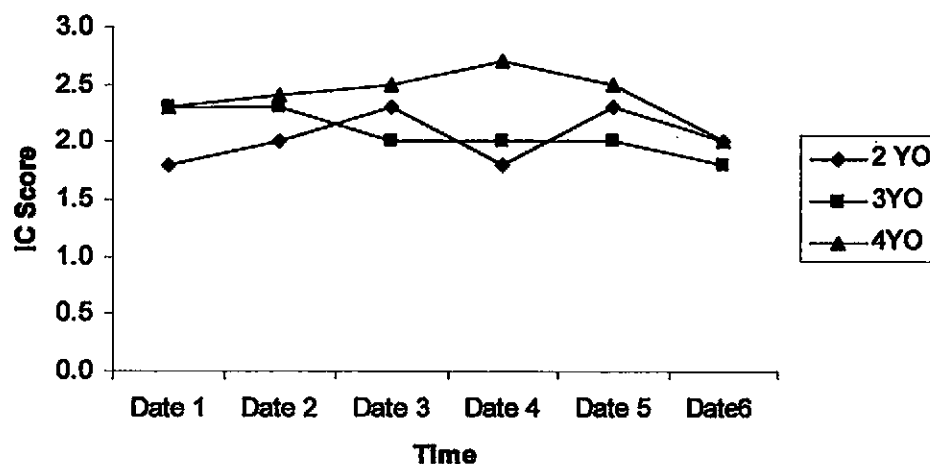


Some teachers indicated during the interviews that during first discussions about the Five Standards that occurred early in the year, they felt greatly challenged to fit their teaching practices to the SPC, even though they did not always feel that the tool was developmentally appropriate. Although professional development had not formally occurred early in the academic year, teachers were then shown a video demonstration of IC. In time, teachers appreciated that “it (the tool) didn’t need to be like that” (Focus Group Interview, 5/11/07) and welcomed the opportunities during the professional development sessions to dialogue about the SPC and understood that they could provide input that could help adapt the criteria to fit the developmental expectations of the preschoolers. The different perceptions of the rubric, first as a benchmark to be reached,

and then, a set of criteria that needs to be improved, may have contributed to the initial increase and the general decline of the rating scores.

Figure 2 shows that teachers of the 4-years-olds generally had the highest scores on IC compared to teachers of children who were younger. Data in this figure aligned with the interview data that teachers of younger children generally had a harder time enacting IC as described in the rubric than teachers of the older preschoolers.

*Figure 2. Mean Instructional Conversation scores of teachers for each age group across time.*



### *How Can Criteria for IC be Better Adapted to Fit the Developmental Expectations of Preschoolers?*

Many teachers, especially those teaching the 2-years-olds indicated that despite their increasing understanding of IC and concerted enactment in the classrooms, the scoring criteria of the SPC did not accurately reflect the quality of the interactions that was present. Consequently, they felt that changes to the SPC criteria needed to be made to better reflect the kind of IC that was taking place in preschool settings. The three main areas of change that these teachers focused on were the inclusion of nonverbal forms of

communication, clarification of the nature of goals during IC, and inclusion of relationship-building.

*IC includes both verbal and nonverbal interactions.* All the teachers appeared to understand that joint productive activities with contextualized instructional content provided good conversational settings that created opportunities for language acquisition. However, many teachers indicated that much of the “conversations” in their classrooms did not look like verbal exchanges between teachers and students. For example, Wanda, a teacher of the 2-years-old children stated:

Instructional conversation with a 2-year-old, what does that look like? And when you're talking about toddlers, it may not even be an exchange of conversation. And in fact, it feels more comfortable, when you're looking at, okay, a whole group of kids, of children at two, that the adult needs to do more talking, more modeling of language and communication skills, and simple things like the child's proximity to the speaker, their eye contact, their body facing yours. They [the children] could just be observing, [or] they could be responding nonverbally. So, it's a different picture than some of the things that I've read, even exchange of conversation back and forth. With toddlers it's just a different picture. (Focus Group Interview, 2/8/07)

To many of these teachers, many of the non-linguistic options that children used, either on their own, or in combination with words, were meaningful and highly symbolic. Their gaze, facial expressions, gestures often communicated something. According to the teachers, the use of nonverbal means to express the full extent of thoughts and motions was especially pervasive among children who were early in their two years of age. For

example, a child might have the experience of being sad, or angry, but did not yet know how to express that verbally. Teachers indicated that much of their efforts focused on helping children put a name to concepts. Denise's quote below reflected what many other teachers were also saying:

We're kind of looking at the crying, the mood, we know we need to move them towards being able to communicate with words. And that's another thing that we will say if we hear them doing the screaming or the crying. "Use your words and tell me what's happening." And just in creating a dialogue of open-ended questions, and getting them to, trying to, it encourages them to pull out that language. (Focus Group Interview, 2/8/07)

That comprehension precedes production was especially true in the case of second language learners. Many children who were English Language Learners were clearly much better in understanding than in speaking. These children followed instructions, joined routines and responded appropriately. However, as the teachers often noticed, they were typically the quietest of the group. It was for this group of children that teachers found attention to nonverbal communication especially important. In the following example, Anne, who taught in a classroom for the 2-years-old described how instructional conversation was implemented with a Mandarin-speaking child (Focus Group Interview, 2/8/07). However, conversation in this case included Anne's attention to the nonverbal signals that the child was communicating. And importantly, Anne was able to respond to the child in ways that led to the child learning new words.

Hannah was a 2-years-old child who came from a Mandarin speaking family. While described as "chatterbox" when she spoke in Mandarin with her parents, she

remained largely silent in classrooms, and often refused to be touched by her teachers. With close observation over a period time, Anne noticed that whenever Hannah was upset, music would calm her down, and that music “was her language.” Anne increasingly drew Hannah’s attention to music, encouraging her to touch the tape recorder and pick the music they would play. Through reading of Hannah’s facial expressions that conveyed interest in music, drawing her to communicate by jointly fiddling with the CD player, Anne proceeded to introduce words such as “music” or “read” with this child. At the end of the semester, Hannah began to call Anne by name and hugged her teachers. She also mastered two English words “read” and “music.” She used these words along with gestures to communicate with her teachers what she wanted, i.e., by dropping books onto Anne’s lap along with a single repeated word “read” to communicate that she wanted to be read to, or pointing to the CD player and repeating the word “music.”

It appeared from what many teachers were saying, that children conveyed more complex meanings through a combination of verbal and nonverbal strategies than what they could otherwise express with words alone. In return, these teachers were sensitive to the nonverbal behaviors of the preschoolers, as they seemed essential to the dialogic interaction. The extent of the children’s participation, their meanings, and intentions were often expressed through nonverbal communication. By picking up nonverbal behaviors of the children, reading them in relation to the contexts and sometimes in combination with the words the children were using, these teachers are often able to better assess and assist the children in achieving higher learning goals.

It must be noted that although language and literacy seemed such an important part of the curriculum during instructional sessions, the amount of talk might not have

reflected the great amount of work that went into supporting language development. As discussed above, teachers often engaged in helping children place labels or names to concepts. Labeling a phenomenon, and subsequently using these labels meaningfully, allowed children to establish intersubjectivity with their peers and teachers, and allowed them to achieve their social goals. Labeling, on the other hand, allowed children to conceptually place their observations in groups on the basis of their shared features, distinguish one group of phenomenon from another and formulate mental representations of their worlds. These processes were crucial to language development in early childhood.

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In addition, teachers spoke about their efforts in assisting children on how to become participants in conversation by guiding them along social conventions of turn-taking. This included teaching the children how to contribute to social interactions, take turns, call for attention in appropriate ways, and acknowledge contributions from other children. Wanda described such efforts in the following quotation:

[During a bread-making session] They'll use their body, and they'll reach over and they'll grab it [the sifter] and [their meaning is] "it's my turn." And you know, like they [the others] won't say, or they'll be watching with their eyes, and they'll know. And if I say . . . . "Okay, after Kian, it's Mia's turn." And then Mia's looking at me . . . so she knows. And she's actually verbal, but her temperament is just sort of shy. And so she'll just look at me, and then she'll know when it's her turn. (Focus Group Interview, 2/8/07)

All the processes of language acquisition described above very often took place without words. Rather, they were only possible when teachers paid attention to non-

linguistic, as well as verbal expressions from the children. Hence, many teachers agreed that the SPC criteria that student talk should occur at higher rates than teacher talk was not developmentally appropriate, and failed to acknowledge the significance of non-linguistic expressions for learning in young children. The teachers thus suggested that instead of the amount of student talk, the extent of reciprocity in the communication should be measured. In order to capture this, the teachers suggested that the ratio of teacher-student turn-taking should be measured, the ideal ratio being 50 to 50.

Additionally, the teachers felt that the SPC criteria that all students should be included in the IC required clarifications, as some of the preschoolers could participate by being quietly engaged. The teachers felt that meaningful nonverbal responses of being engaged should be accounted for when the rubric was used.

*Nature of goals during IC.* The teachers indicated that goals of their ICs were not solely “academic,” as suggested by the SPC. Some teachers felt that the goals they had in mind were better described as developmental goals. Teachers listed the goals they had in their classrooms. These included social development goals, such as how to live with and cooperate with other children; goals of self-reliance, such as getting to the bathrooms by themselves and in time; and cognitive goals such as learning to be problem-solvers and thinkers. The term “academic goals” projected for the teachers mental images of content standards to be met, within a certain timeline, whereas many teachers painted a picture of evolving and fluid goals. However, Shirley indicated, like many other teachers, that there were always goals attached to the ICs they conduct:

I don't think we have like clear academic goals . . . . I think because we have a background in early childhood education, we know there's different areas, right?

And we know that there's like a continuum, so I think, I mean, it's different wording, verbiage here, but I think knowing . . . where we want them to go . . . is kind of similar to that. We know where we want them to go . . . . There's these things that we are looking for, and try and help them move along, so I think we have that, right? But we don't call them academic goals." (Focus Group Interview, 2/9/07)

These goals, as Shirley described, were broader than academic goals. In addition to what Shirley stated, many other teachers and administrative staff indicated that instructional goals were seldom pre-planned. Instead, they spontaneously emerged through activities, and the teachers responded by grabbing the learning opportunities and assisting the children in achieving a higher learning goal. Moreover, a recurring point that these teachers made was that although learning objectives were always on their mind, the goals they had in mind were highly individualized and based on each child's zone of proximal development. To further Rebecca's analogy of IC as a dance described earlier, the teachers often had in their minds a "reserve" of learning goals, similar to a repertoire of dance moves. When learning opportunities presented themselves, these teachers would select particular goals relevant to the evolving situations, in a way that most meaningfully drove a learning point for the children.

For example, Angie brought a group of 2-years-olds on a buggy ride through the UHM campus to the art museum (Focus Group Interview, 2/8/07). The children previously learned words that helped them verbalized feelings such as "scared," "happy," and "funny." The trip to the campus museum was not particularly designed to elicit a recall of these words, but created to expose the children to a natural context in which



learning opportunities could emerge and be mined spontaneously. The children were described as quiet when viewing the installation art composed of TV screens accompanied by white noise in a dark room. According to Angie, some children were engaged while others looked out the window. When they came out of the museum, Angie asked the children what they felt. Randy expressed that he was “scared,” and Jeanne indicated that it was “funny.” As Angie questioned the reasons behind their feelings, the children concluded that Randy was scared because he was looking at the art and the room was dark, while Jeanne thought it was funny because she was focusing on how everyone looked scared in the room. While this was an unplanned goal for the preschoolers, Angie made use of this learning opportunity to assist the children in realizing that different feelings emerged from different perspectives.

Further, the teachers found that the term “academic goals” was limiting to preschool settings because the phrase denoted subjects with clear boundaries that the children needed to learn. For these teachers, the world for the preschoolers is intrinsically connected, with no boundaries between science, math, and language arts. To Yolanda, a new teacher at the UHMCC, learning about the caterpillar life cycle, by hunting for caterpillars among the crown flower trees and making a caterpillar book were all at once a science, math and language development endeavor (Videotaped Session, 1/29/07). In fact, in these activities, goals for the preschoolers were also character, social and motor skills development.

Finally, teachers found that while the SPC rating took place within set hours, some sequences of conversations, assessment and assistance that occurred in the classrooms took place over long periods of time. For example, goals were often set for

the long-term, with a timeline for accomplishment that resisted strict definition. This was because progress was as erratic as the daily growth and development of the children. In fact, whether children had successfully learned a concept, a word or a skill was sometimes unobservable immediately, but might emerge through their feedback to their parents at home about what was learnt in school.

*IC as a tool for building relationships integral to learning.* The concept of building relationships through IC was particularly pervasive amongst the teachers. The perception of the child as a person with individual interests, personality, and goals, were manifested in the way the teachers spoke about and interacted with students. Many teachers strongly believed that the quality of relationships between teachers and the children had important consequences on children's learning. As this point became increasingly pronounced through our focus group interviews, my questions for the teachers became two-fold. First, how did teachers use IC to develop relationship with the preschoolers? Second, how was relationship integral to the preschooler's learning?

The teachers stated that IC being a reciprocal communication between teachers and students allowed teachers to assess and assist children in their learning in a more individualized manner. Understanding a child better involved more purposive conversations and attention to the children's nonverbal expressions. By understanding each child better, teachers stated they were able to contextualize conversations and instructional goals so that they may be meaningful to the children. Katherine's quote below expressed this common thought among the teachers:

As you're doing Instructional Conversation, as you're talking to the children, you can see by their responses or lack of responses, nonverbal or verbal, . . . what

stage they are in their development . . . . You can then use that as an aim for your goals, to make goals for the children, each child. That can help you plan for future lessons and activities and things like that . . . . It's a way of getting to know them, because a lot of the times their interests come out . . . . And then you can, as a teacher, you can find out more resources about that, to help them, where they are, do more Instructional Conversations . . . . So basically, it's just how to get to know, or, it's a tool to ways to getting to know the children, on a more of a personal basis, rather than a teacher-student I'm gonna teach you this, and you have to listen. (Focus Group Interview, 5/17/07)

Administrators and teachers alike indicated that good, trusting relationships, once established, were integral to the children's learning. Wayne, the director of the preschool, stated how good relationships were conducive for learning:

When you have a relationship with a child, or you have a relationship with an adult, it is much more difficult for that other person to objectify you . . . . So it's not just, hey, teach, you're not just . . . . That's just the teacher, you know. I can objectify them, I can dismiss them . . . you know, I can *not* listen to them. If you have a relationship, then there's something invested there. (Focus Group Interview, 5/17/07)

Wayne elaborated on another dimension of how an environment of trusting relationships could have strong consequences for a child's learning:

If a child feels safe, feels cared about, feels loved, and is in a rich environment, meaning physically and aesthetically rich environment, then there are few impediments to engaging with that environment, and engaging with the people

around them. If the child is scared, if the child doesn't feel cared for, they're not going to engage, and do not feel safe to engage, they put a lot of energy into protecting themselves . . . . "I'm fine" . . . shucking your shoes and jumping right in, as opposed to, "Who's gonna stop me, who's gonna restrict me, who's gonna, you know, say no?" Energy is being put into all those things. (Focus Group Interview, 5/17/07)

The teachers of the 2-years-olds indicated that this was particularly true for their classrooms. For most of the 2-years-olds, the UHMCC was their first experience away from home and their parents. Teachers noted that a lot of time and effort usually went into building trusting relationships with parents and their children, and it was not until the children felt safe in their new environment that teachers could start focusing on learning.

#### Chapter 4. Discussion

The purpose of this study was to investigate the efficacy of professional development designed to promote IC and examine whether criteria used to rate teachers' use of IC should be changed to reflect application with preschool children.

The UHMCC appeared to have distinct a philosophy about learning that was supported by the organization of its physical space and activity settings. It was a child-oriented preschool that valued hands-on experiences and self-discovery for their preschoolers. UHMCC staff also viewed diversity as a resource and was committed to creating meaningful learning experiences by contextualizing them to the backgrounds of the children. The physical setting of the UHMCC was an old plantation house that was surrounding by large yards and sprawling trees. The interior was filled with couches, resting corners, homely lampshades, i.e., furniture and artifacts that marked the spaces as familiar residences rather than sterile institutions. The artifacts and play materials reflected the diverse cultural backgrounds of the children and their families. The large interior space allowed for the Center to be organized into different corners where multiple activities took place, and children had the freedom to select and change activities according to their paces and interests.

The outdoor environment had different play zones that also allowed children to choose from a variety of experiences and to change activities according to their interests. Natural outdoor features in the playground were used creatively to facilitate the preschoolers' "learning by doing," a concept that teachers and administrators seemed to emphasize. The big tree in the yard that formed a large canopy over the playground was both a place for swings where preschoolers learned to coordinate their movements and a

protective cover for dramatic play. The pragmatic and communal elements of learning valued by the school were enhanced by a richly stimulating and aesthetic environment that allowed ample spaces for multiple activities. The physical settings of UHMCC that supported relationship-building interactions that contextualized to the children's past experiences appeared to support the implementation of IC in many ways.

Hilberg and colleagues (2004) indicated that among many uses of the SPC, it can be a guide for professional development. It appeared from the interviews that many teachers have found that, for the most part, the clear articulation of the roles and standards for teaching performance in the rubric was helpful to their own development. Teachers appeared to understand the crucial elements of IC in the interviews, but also suggested changes to the SPC so that it may be more relevant to preschool settings. For elements of the SPC criteria that could be changed to better fit the developmental expectations for young children, teachers, administrators, and Dr. Yamauchi collaborated through a series of discussions to develop the CREDE ECE-7.

*IC Involves Two-Way Communication that Includes Nonverbal Expressions*

By the first series of focus group interviews, teachers appeared to have a good understanding of what IC was. By contrast, the teachers understood that IC was different from direct instruction in which classroom conversations are dominated by teachers, and learning is highly routinized and decontextualized from learners' prior knowledge. Teachers understood that reciprocal interaction between teachers and students was a crucial element in IC. As discussed earlier, Rebecca very appropriately used dance as an analogy to describe the nature of intense and purposeful interaction between teachers and students. This was an interesting parallel to a dance metaphor used by Hart and Risley

(1995) to describe parent-child interaction that takes place during language learning.

According to these authors, the “communicative dance” between parents and children are critical to language development. According to the teachers, the reciprocal dance of words in combination with gestures in preschool setting facilitated the processes of language learning.

According to the UHMCC teachers, the nature of interaction in teacher-student communication must include both verbal and nonverbal forms. The teachers observed that preschoolers, especially those who were early in their two years of age, consistently employed nonverbal strategies to communicate what they could not yet consistently express in words. These observations aligned with the early childhood literature on language acquisition. The literature indicated that reliance on gestures, in combination with words, was pervasive and extended into the early months of the second year (Iverson, Capirci, and Caselli, 1994). Additionally, Vygotsky’s (1978) writing about internalization of formerly external social processes that underlies cognitive changes did not preclude gesture as a form of mediated activity. For example, he wrote that a child’s grasping movement to reach for an object takes the meaning of a true gesture after it becomes a means of establishing relations and its function was understood and appreciated by people who surrounded the child. In this example, the internalization of the cultural meanings of behavior, including nonverbal gestures such as grasping, becomes incorporated into a child’s thought system and changes a child cognitively.

What follows from this is that, apart from reflecting children’s unspoken thoughts, young children’s use of nonverbal communication has significant implications for cognitive change (Goldin-Meadow, 2000). From the interviews, teachers indicated

understanding that the preschoolers' nonverbal behaviors consistently provided them with a rich source of information about unspoken knowledge. This allowed teachers to assess the children's pre-existing knowledge, and their learning potential, i.e., their Zone of Proximal Development. The video coded data showed too, that based on their assessments, teachers took opportunities to react to the children's unspoken thoughts, and provided feedback to their students necessary for learning gains.

With this above discussion, it made sense that, teachers, especially those of the 2-year-olds, described a successful IC to be one in which teacher and students made equal contributions, verbally, as well as nonverbally, to interactions. Many teachers agreed that the SPC criteria that student talk should occur at higher rates than teacher talk was not developmentally appropriate. Teachers also felt that meaningful nonverbal expressions of students' engagement were not fully captured in the SPC's criteria that all students should be included in the IC. Through a series of discussions during the professional development sessions, Dr. Yamauchi and the teachers agreed that instead of focusing on the student and teacher talk ratio in preschool settings, that the emphasis be on achieving a 50-50 ratio of teacher-student turn-taking.

*IC Involves Careful Assessment, Tailored Assistance, Questioning of Learners'*

*Judgments and Rationales*

Through the interviews, teachers described their IC sessions to be spontaneous, sensitive to student productions, and hence unpredictable. On the other hand, teachers were aware that ICs were always purposive interactions aimed at integrating new materials with learners' prior knowledge and helping them reach higher understanding about a subject matter. As such, teachers were very conscious about the critical tasks they



took upon in ICs to elicit students' prior experiences, and helping students bridge their diverse social and cultural experiences with learning activities. This reflected teachers' understanding that in ICs, it was crucial that they carefully listen to assess and assist student understanding. It was this function of IC that teachers found particularly helpful in being inclusive of culturally diverse learners, whose interests and abilities would otherwise not be easily known.

Data showed that despite some teachers believing that preschoolers were generally too young to express their beliefs and rationales behind their behaviors, that young children, even those who were 2-years-old, were quite capable of doing so.

*IC has Clear, Broad-Ranging Goals and is Sensitive to Student Productions*

Tharp and Gallimore (1988) stated that educationally effective activity settings maximize assistance in learners' performance of tasks. According to the authors, IC is not a casual conversation setting, but a self-conscious process in which teachers constantly reflect on ways to assist their students based on careful assessment of students' learning. Additionally, while IC, by its nature, is sensitive to students' productions, learning objectives are ever-present.

The UHMCC teachers, in general, appeared to have a good understanding of these characteristics of IC. Most teachers described their instructional sessions to be full of learning opportunities that they could maximize. Rather than being passive "yard monitors," these teachers distinguished themselves to be full collaborators in joint productive activities and the intense engagement required much "brainpower." To many teachers, being sensitive to the children's contributions in a session and being willing to follow the directions in which a child wishes to move into, made it necessary for them to

be vigilant throughout a session. Teachers mostly found it enjoyable to engage in constant reflective tailoring of their assistance to the learners. The balance between relinquishing control, and ensuring that ICs had an overarching learning purpose did not seem to present as much of a problem to this group of preschool teachers than to the high school teachers studied by Yamauchi et al. (2006). In fact, these teachers' relative comfort with unpredictability allowed them to conceive of instructional goals in a dynamic way. Teachers stated that while an explicit set of instructional objectives was not always pre-planned, a repertoire of objectives existed mentally from which teachers chose as learning opportunities emerged through joint productive activities.

Many teachers requested a change in the term "academic goals" used in the SPC. Teachers indicated that though clear goals were needed in ICs, academic goals did not fully describe the learning objectives valued in their preschool classrooms. Teachers stated that goals were not only academic, but ranged broadly from social development and character building to cognitive goals. After a series of discussions, the SPC was revised and the term "academic" was removed, and the phrase "clear goals" was used in the CREDE ECE-7 instead.

#### *IC Builds Relationships Integral to Learning*

Tharp et al. (2000) stated that Joint Productive Activity (JPA) allows the creation of common motives and facilitates the formation of empathy within group members to the extent that affinities are often developed through JPA. The authors stated that when positive and reciprocal affinities are formed, developmental processes are likely to be enhanced in the process.

Teachers and administrators across the board felt strongly that the use of IC in during joint productive activities to assess and assist individual learners helped them build relationships which were integral to the preschoolers' learning. The ability to understand each child better through IC helped teachers contextualize their conversations to the children's backgrounds, and this helped create a safe learning environment for the preschoolers. According to these teachers and administrators, the quality of relationships was particularly important in the case of young children because for many of the preschoolers, UHMCC was their first experiences away from home. The creation of safe and positive relationships helped remove a prominent barrier to learning for these young children. It was for this reason that teachers highlighted the fact that IC lended itself well to relationship-building and as such, provided important means to assisting children in achieving higher learning goals. This quality of IC was what teachers hoped could be incorporated into the scoring rubric.

As a result of teachers' feedback and collaboration with Dr. Yamauchi, the SPC criteria were revised to create the CREDE ECE-7. This new rubric changed the criteria and language as shown in Table 1.

Table 1. Comparison of SPC and CREDE ECE-7 Criteria for IC

	SPC	CREDE ECE-7
Emerging	The teacher (a) responds to student talk in ways that are comfortable for students, OR (b) uses questioning, listening or rephrasing to elicit student talk, OR (c) converses with students on a nonacademic topic.	With individuals or small groups of students, the teacher (a) responds in ways that are comfortable for students, OR (b) uses questioning, listening or rephrasing <i>to elicit communication.</i>
Developing	The teacher converses with a small group of students on an academic topic AND elicits student talk with questioning, listening, rephrasing, or modeling.	The teacher converses with a small group of students on a topic AND <i>elicits student communication</i> with questioning, listening, rephrasing, or modeling.
Enacting	The teacher: designs and enacts an instructional conversation (IC) with a clear academic goal; listens carefully to assess and assist student understanding; AND questions students on their views, judgments, or rationales. All students are included in the IC, AND student talk occurs at higher rates than teacher talk.	The teacher designs and enacts an instructional conversation (IC) with a <i>clear goal</i> ; listens carefully to assess and assist student understanding; AND questions students on their views, judgments, or rationales. <i>The ratio of teacher-student turn-taking of communication is approx. 50-50</i>

Although teachers understood the major elements of IC, they were enacting activities that demonstrated a partial enactment of this Standard. Specifically, videorecordings of teachers of the 2- and 3-year-olds were rated lower than that of teachers of the 4-year-olds, demonstrating perhaps that the teachers of the younger preschoolers still had difficulties implementing IC. As the ECE-7 was developed to include nonverbal communications by focusing on teacher and student turn-taking ratio, and was also revised to better reflect the nature of goals, the partial enactment of IC might be attributed to other factors. While ECE-7 retained the criteria that teachers should question students on their views, judgments, or rationales, there were conflicting perceptions among teachers as to whether preschoolers were developmentally ready for that. Although some examples of this practice occurred during some videotaped sessions, this may not yet be a pervasive practice amongst the teachers.

### Limitations

This was a qualitative study of a single university-based preschool. Its focus was to explore the dimensions and properties of IC in preschool settings through investigating the extent of its implementation. The data from a selected group of teachers and administrators allowed the elaboration of the concept of IC in this preschool setting, which in turn paved the way for suggestions for change in the SPC scoring rubric. The focus was on the richness of the data and on building units of data within sources, and across sources to create a theory about IC in preschool settings. The results of this study were limited to a small and specific sample, and may not generalize to other preschool settings. Another limitation was that the teachers may have answered in socially desirable ways during the interviews. In addition, although teachers were randomly chosen for videotaping in the second half of the year, the presence of the camera may have influenced them to act in ways that did not reflect typical instruction.

### Future Directions

Future research that utilizes a larger sample of teachers from various preschools may help us understand if findings were specific to the UHMCC or can be generalized to all early childhood settings. Also, it appeared from this study that the IC scores among the preschool teachers had a very small range, 2.0 to 2.2. The ECE-7 rubric, although already revised, still seemed to be limited in capturing the full variation of levels of IC enactment. Further studies that contribute to increasing the discriminating power of the rubric should be conducted.

This study also seemed to show that teachers of the 2- and 3-year-olds still had more difficulties implementing IC than teachers of the 4-year-olds. Studies that shed light on elements of the revised ECE-7 that still posed difficulties to teachers of the younger preschoolers can help facilitate better implementation of IC among the 2- and 3-year-olds. Additionally, further studies on activity settings that offer thicker descriptions of classroom design that facilitates the organization and implementation of IC among young children will add tremendously to the subject.

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## Appendix A

### Standards Performance Continuum

A Rubric for Observing Classroom Enactments of CREDE's Standards for Effective Pedagogy

	<b>NOT OBSERVED</b>	<b>EMERGING</b>	<b>DEVELOPING</b>	<b>ENACTING</b>	<b>INTEGRATING</b>
<b>General Definition:</b>	<i>The standard is not observed.</i>	<i>One or more elements of the standard are enacted.</i>	<i>The teacher designs and enacts activities that demonstrate a partial enactment of the standard.</i>	<i>The teacher designs, enacts, and assists in activities that demonstrate a complete enactment of the standard.</i>	<i>The teacher designs, enacts, and assists in activities that demonstrate skillful integration of multiple standards simultaneously.</i>
<b>Joint Productive Activity</b>  <i>Teacher and Students Producing Together</i>	Joint Productive Activity is not observed.	Students are seated with a partner or group, AND (a) collaborate or assist one another, OR (b) are instructed in how to work in groups, OR (c) contribute individual work, not requiring collaboration, to a joint product.	The teacher and students collaborate on a joint product in a whole-class setting, OR students collaborate on a joint product in pairs or small groups.	The teacher and a small group of students collaborate on a joint product.	The teacher designs, enacts, and collaborates in joint productive activities that demonstrate skillful integration of multiple standards simultaneously.

<b>Language &amp; Literacy Development</b>  <i>Developing Language and Literacy Across the Curriculum</i>	Language & Literacy Development is not observed.	The teacher (a) explicitly models appropriate language; OR (b) students engage in brief, repetitive, or drill-like reading, writing, or speaking activities; OR (c) students engage in social talk while working.	The teacher provides structured opportunities for academic language development in sustained reading, writing or speaking activities.	The teacher designs and enacts instructional activities that generate language expression and development of content vocabulary, AND assists student language expression and development through questioning, rephrasing, or modeling.	The teacher designs, enacts, and assists in language development activities that demonstrate skillful integration of multiple standards simultaneously.
<b>Contextualization</b>  <i>Making Meaning — Connecting School to Students' Lives</i>	Contextualization is not observed.	The teacher (a) includes some aspect of students' everyday experience in instruction, OR (b) connects classroom activities by theme or builds on the current unit of instruction, OR (c) includes parents or community members in activities or instruction.	The teacher makes incidental connections between students' prior experience/knowledge from home, school, or community and the new activity/information.	The teacher integrates the new activity/information with what students already know from home, school, or community.	The teacher designs, enacts, and assists in contextualized activities that demonstrate skillful integration of multiple standards simultaneously.

<b>Challenging Activities</b>  <i>Teaching Complex Thinking</i>	Challenging Activity is not observed.	The teacher (a) accommodates students' varied ability levels, OR (b) connects student comments to content concepts, OR (c) sets and presents standards for student performance, OR (d) provides students with feedback on their performance.	The teacher designs and enacts activities that connect instructional activities to academic content OR advance student understanding to more complex levels.	The teacher designs and enacts activities that are connected to academic content; assists and uses challenging standards to advance student understanding to more complex levels; AND provides students with feedback on their performance.	The teacher designs, enacts, and assists in challenging activities that demonstrate skillful integration of multiple standards simultaneously.
<b>Instructional Conversation</b>  <i>Teaching Through Conversation</i>	Instructional Conversation is not observed.	The teacher (a) responds to student talk in ways that are comfortable for students, OR (b) uses questioning, listening or rephrasing to elicit student talk, OR (c) converses with students on a nonacademic topic.	The teacher converses with a small group of students on an academic topic AND elicits student talk with questioning, listening, rephrasing, or modeling.	The teacher: designs and enacts an instructional conversation (IC) with a clear academic goal; listens carefully to assess and assist student understanding; AND questions students on their views, judgments, or rationales. All students are included in the IC, AND student talk occurs at higher rates than teacher talk.	The teacher designs, enacts, and assists in instructional conversations that demonstrate skillful integration of multiple standards simultaneously.

## Appendix B

### Teacher Consent Form

#### **The CREDE Demonstration Preschool**

**Lois A. Yamauchi, Ph.D.**

**Dept. Of Ed. Psychology, University of Hawai'i**

**1776 University Avenue Honolulu, HI 96822**

**Phone: (808) 956-4294 Fax: (808) 956-6615**

The purpose of this project is to highlight, develop, and evaluate use of the Five Standards for Effective Pedagogy, principles of effective instruction for culturally and linguistically diverse students. The project involves professional development for teachers at the University of Hawai'i at Mānoa Children's Center (UHMCC), an evaluation of the effects of those efforts in classroom instruction, and the development of UHMCC into a demonstration school of the national Center for Research on Education, Diversity, and Excellence (CREDE).

You will be asked to participate in professional development activities organized around workshops and meetings facilitated by Dr. Yamauchi, CREDE researchers, and the UHMCC staff. The objectives of the professional development are to promote understanding and use of the Five the Standards for Effective Pedagogy. Your participation will involve attending the workshops and meetings and participating in discussions about your use and understanding of the Five Standards. Discussions will also focus on how the Five Standards might be changed to adapt to use with preschoolers. These sessions may be audio taped or videotaped. Project researchers will observe, videotape, and photograph you while you are teaching. Other teacher participants and visitors to the demonstration site will observe your live and videotaped instruction. You will be asked to observe and analyze your own and other teachers' live and videotaped practice.

Your educational practices will be assessed by a teacher observation protocol. The protocol will be used to rate videotaped instruction prior to professional development and throughout the 2006-2007 and 2007-2008 school years. You will be videotaped approximately three times each semester. You will be informed of the videotaping on the morning that it is scheduled. Unless you specify otherwise, your identity, with regard to these assessments, will be kept confidential, as allowable by law. The assessments will only be used for research purposes.

Videotaped and audio taped recordings, observations, and photographs of you and your students will be used to create a videotape of educational practices at the school, to develop a website about the project, and for journal articles, conference presentations, and other publications written about the demonstration site and research. The videotape will be widely distributed nationally to teachers and researchers who are interested in

learning about CREDE and UHMCC. All tapes and digital images will be stored in Dr. Yamauchi's office.

Your participation is voluntary. You may choose to stop participating at any time without prejudice or penalty.

You may benefit from participating in this project by receiving professional development. Although there are no other direct benefits to your participation, the information gathered in this project may improve UHMCC services and help other teachers and researchers understand how to better instruct culturally diverse preschoolers.

*I have read and understand the information above. My questions about project procedures and other matters have been answered to my satisfaction. I know that I can withdraw my participation at any time without consequence.*

*I agree to participate in this project. I understand that by agreeing to participate, I have not given up any legal rights and that the researchers and the institutions they represent are still responsible for upholding all laws that apply.*

---

Signature of Participant

---

Print name

---

Date

*I agree to allow video recordings and audio recordings made of me for the above project to be reproduced on a videotape about UHMCC. I understand that the videotape will be distributed nationally for those who are interested in learning more about CREDE, the Five Standards, and the school.*

---

Signature of Participant

---

Print name

---

Date

(If you do not receive satisfactory answers to your questions or have comments or complaints about your treatment in this study, contact: Committee on Human Studies, University of Hawaii, 2540 Maile Way, Honolulu, Hawaii 96822. Phone: (808) 956-5007.)

cc: participant  
08/08/06

teacher consent form



## Appendix C

### UHMCC Parent/Guardian Consent Form

#### **CREDE Demonstration Preschool**

**Lois A. Yamauchi, Ph.D.**

**Dept. Of Ed. Psychology, University of Hawai'i**

**1776 University Avenue Honolulu, HI 96822**

**Phone: (808) 956-4294 Fax: (808) 956-6615**

The purpose of this project is to highlight, develop, and evaluate use of the Five Standards for Effective Pedagogy, principles of effective instruction for culturally and linguistically diverse students. The project involves professional development for teachers at the University of Hawai'i at Mānoa Children's Center (UHMCC), an evaluation of the effects of those efforts in classroom instruction, and the development of UHMCC into a demonstration school of the national Center for Research on Education, Diversity, and Excellence (CREDE).

Your child will be observed, videotaped, and photographed at UHMCC. Visitors to and researchers of the demonstration site may observe your child live and on videotape.

Videotapes of your child will be used to evaluate UHMCC teachers' instruction. Researchers will analyze the tapes to determine the extent to which teachers' instruction changes over the 2006-2007 and 2007-2008 school years.

Videotaped and audio taped recordings, observations, and photographs of your child may be used to create a videotape of educational practices at the school, to develop a website about the project, and for journal articles, conference presentations, and other publications written about the demonstration site and research. The videotape will be widely distributed nationally to teachers and researchers who are interested in learning about CREDE and UHMCC. All tapes and digital images will be stored in Dr. Yamauchi's office.

Your child's participation is voluntary. You may choose to stop your child's participation at any time without prejudice or penalty.

There are no direct benefits to your child's participation in this project. However, the information gathered may improve UHMCC services and help other teachers and researchers understand how to better instruct culturally diverse preschoolers.

*I have read and understand the information above. My questions about project procedures and other matters have been answered to my satisfaction. I know that I can withdraw my child's participation at any time without consequence.*

*I consent to the participation of my child, \_\_\_\_\_, in this project. I understand that by agreeing to my child's participation, I have not given up any legal rights and that the researchers and the institutions they represent are still responsible for upholding all laws that apply.*

---

Signature of Parent or Guardian

Print name

Date

*I agree to allow video recordings and audio recordings made of my child for the above project to be reproduced on a videotape about UHMCC. I understand that the videotape will be distributed nationally for those who are interested in learning more about CREDE, the Five Standards, and the school.*

---

Signature of Parent or Guardian

Print name

Date

(If you do not receive satisfactory answers to your questions or have comments or complaints about your treatment in this study, contact: Committee on Human Studies, University of Hawaii, 2540 Maile Way, Honolulu, Hawaii 96822. Phone: (808) 956-5007.)

cc: parent/guardian  
08/08/06

UHMCC parent/guardian consent form

## Appendix D

### Focus Group Interview Guide

1. Describe what Instructional Conversation is to you.
2. Discuss how you have used Instructional Conversation currently in your classrooms  
(Teachers will be presented criteria for IC as described in the Standards Performance Continuum after Question 2.)
3. If there are any, please describe elements of IC that worked well in your classrooms.
4. If there are any, please describe elements of IC that did not work well in your classrooms.

(After Question 4, I will state this:

5. "Even though IC has been described as such in the SPC, I will like you to describe, according to your own experiences in the classrooms..."
  - a) What you feel constitutes a "conversation" with the children that that helps them learn
  - b) How do you identify who is participating in the IC?
  - c) How does an "illegitimate" response from a child look like during IC?
  - d) What does a child do that tells you that they are engaging in an IC?
  - e) What do early childhood educators have to do to promote children participating in an IC?

## Appendix E

### CREDE ECE-7

#### A Rubric for Observing Indicators of the Seven CREDE Standards in Early Childhood Settings

	<b>NOT OBSERVED</b>	<b>EMERGING</b>	<b>DEVELOPING</b>	<b>ENACTING</b>
<b>General Definition:</b>	<i>The standard is not observed.</i>	<i>One or more elements of the standard are enacted.</i>	<i>The teacher designs and enacts activities that demonstrate a partial enactment of the standard.</i>	<i>The teacher designs, enacts, and assists in activities that demonstrate a complete enactment of the standard.</i>
<b>Joint Productive Activity</b> <i>Teacher and Students Producing Together</i>	<i>Joint Productive Activity is not observed.</i>	Students are seated with a partner or group, AND (a) collaborate* or assist one another, OR (b) are instructed in how to work in groups, OR (c) contribute individual work, not requiring collaboration, to a joint product.*	The teacher and students collaborate on a joint product in a whole-class setting, OR students collaborate on a joint product in pairs or small groups, OR the teacher and one student collaborate.	The teacher and a small group of students collaborate on a joint product. Collaboration may mainly be between teacher and students, rather than among student peers.
<b>Language &amp; Literacy Development</b> <i>Developing Language and Literacy Across the Curriculum</i>	<i>Language &amp; Literacy Development is not observed.</i>	(a) The teacher explicitly models appropriate language; OR (b) students engage in brief, repetitive, or drill-like reading, writing, or speaking activities; OR (c) students interact while working.	The teacher provides structured opportunities for communication* and language development.	The teacher designs and enacts instructional activities that <i>generate</i> communication AND <i>assists</i> student communication, language use, or literacy development through questioning, rephrasing, or modeling.

	NOT OBSERVED	EMERGING	DEVELOPING	ENACTING
<b>Contextualization</b>  <i>Making Meaning – Connecting School to Students' Lives</i>	<i>Contextualization</i> is not observed.	The teacher (a) includes some aspect of students' everyday experience in instruction, OR (b) connects classroom activities by theme or builds on the current unit of instruction, OR (c) includes parents or community members in activities or instruction.	The teacher makes incidental* connections between students' prior experience/knowledge from home, school, or community and the new activity/information.	The teacher integrates* the new activity/information with what students already know from home, school, or community.
<b>Complex Thinking</b>  <i>Cognitively Complex Activities</i>	<i>Complex Thinking</i> is not observed.	The teacher (a) accommodates students' varied ability levels, OR (b) connects student comments to content concepts, OR (c) provides students with feedback on their performance.	The teacher designs and enacts activities that connect instructional elements to content concepts OR advance student understanding to more complex levels*.	The teacher designs and enacts challenging activities AND assists* the development of more complex thinking.
<b>Instructional Conversation</b>  <i>Teaching Through Conversation .</i>	<i>Instructional Conversation</i> is not observed.	With individuals or small groups of students, the teacher (a) responds in ways that are comfortable for students, OR (b) uses questioning, listening or rephrasing to elicit communication.	The teacher converses with a small group of students on a topic AND <i>elicits student communication</i> with questioning, listening, rephrasing, or modeling.	The teacher designs and enacts an instructional conversation (IC) with a clear goal*; listens carefully to assess and assist student understanding; AND questions students on their views*, judgments, or rationales. The ratio of teacher-student turn-taking of communication is approx. 50-50

	NOT OBSERVED	EMERGING	DEVELOPING	ENACTING
<b>Modeling</b> <i>Learning Through Observation</i>	<i>Modeling</i> is not observed.	The teacher, or student, models a process but does not provide an opportunity for students to practice.	(a) The teacher or student explicitly models behaviors, thinking processes, or procedures which students then practice OR (b) the teacher or student provides a model of a finished product that students use for inspiration.	(a) The teacher or student explicitly models behaviors, thinking processes, or procedures which students then practice OR (b) The teacher provides a model of a finished product that students use for inspiration AND The teacher assists students while they practice or create their own products.
<b>Student Directed Activity</b> <i>Encourage Student Decision Making</i>	<i>Student Directed Activity</i> is not observed.	Students (a) choose the subject or topic for an assigned task, OR (b) take an active teaching or evaluation role with self or peers.	Students select from among activities generated by the teacher.	Students engage in the generation of learning topics or activities.

### Glossary of Terms

**Goal:** In an Instructional Conversation, the goal is the development of thematic or conceptual understanding.

**Assistance:** Assistance is a two part process in which the teacher first assesses student knowledge and skills, then responsively assists development. Types of assistance may include: (a) Modeling -- Providing a demonstration; (b) Feeding Back -- Providing information about student performance as compared with a standard; (c) Contingency Management -- Providing rewards or punishments contingent on student performance; (d) Questioning -- Providing questions that guide students to advance their understanding; (e) Instructions -- Providing clear verbal directions for performance; (f) Cognitive Structuring -- Providing explanations or rules for proceeding; or (g) Task Structuring -- Providing assistance by segmenting or sequencing portions of the task.

**Complex Thinking Activities - Activities that advance student understanding to more complex levels:** (a) the 'why' is addressed, not merely the 'what' or the 'how to;' (b) the activity requires that students generate knowledge, or *use or elaborate on* information provided (apply, interpret, categorize, order, evaluate, summarize, synthesize, analyze, explore, experiment, determine cause and effect, formulate and solve problems, explore patterns, make conjectures, generalize, justify, make judgments); (c) the teacher connects the content or activity to a broader concept or abstract idea to advance student understanding; or (d) the teacher provides instruction in critical thinking, or problem solving or metacognitive strategies.

**Collaboration:** Joint activity that results in shared ownership, authorship, use, or responsibility for a product. It can also include division of labor for coordinated sub-sections. However, mere turn taking does not constitute division of labor and, to be considered collaboration, an activity must include interaction between participants. Coordinated activities such as morning calendar, round robin reading, choral responses or calisthenics are rated at the Emerging level for JPA.

**Communication:** Communication includes verbal and nonverbal forms such as gaining proximity, facial expression, laughing, touching, giving, pulling or pushing away, showing, reaching, waving, pointing, head shaking or nodding, vocalizing, gazing, speaking or repeating words, using pictures, and listening.

**Instructional Conversation (IC):** ICs are inclusive of all participants whose contributions are connected to, or extend, the comments and ideas of other participants. In contrast, directed-discussions focus less on developing conceptual understanding and more on known-answer questions and skill development. Instructional conversation focuses on broad topics, main ideas, themes or concepts, is responsive to student contributions, includes participation structures that are familiar to students, and includes open-ended questions and sustained dialogue on a single topic.

**Incidental connections:** The teacher (a) makes connections between students' experience or knowledge from home, school, or community and the new activity/information on an ad hoc basis to assist understanding, or (b) prompts students to make connections.

**Integrates the new activity/information with what students already know from home, school, or community:** (a) students' knowledge or experience is integrated with new information, (b) the basis of the activity is personally relevant to students' lives; or (c) students apply school knowledge in an authentic activity.

**Integration:** A single activity integrating three or more standards at the enacting level.

**Product:** Products may be tangible or intangible. Examples of tangible products: worksheet, essay, report, pottery, word-web, a math problem solved on the blackboard, play, skit, game, debate. Intangible products may be found in such activities as 'story time,' introductory lectures, or some ICs (the product is an accurate or elaborated understanding of a concept, procedure, idea), or some PE activities (increased physical fitness is the product, though not joint). The intangible products are an achieved physical, psychological, or social state that integrates a series of actions.

**Students' views (questions students on their views):** In an Instructional Conversation, questioning students on their views is inclusive of students' prior knowledge or experience related to the goal of the conversation.