ETC 693 Master Project

Communication in a Diverse Classroom: An Annotated Bibliographic Review

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Abstract

Students have social and personal needs to fulfill and communicate these needs in different ways. This annotated bibliographic review examined communication studies to provide educators of diverse classrooms with ideas to build an environment that contributes to student well-being. Participants in the studies ranged in age, ability, and cultural background. A bibliographic matrix included findings that showed positive correlations between the instructional environment and higher levels of student motivation, engagement, learning, and conduct. Differences in perspectives of traditional values within Western settings and the importance of intervention strategies to improve social and language communication skills were noted. The researcher concluded that effective communication practices, cultural awareness, and communication skills promote the fulfillment of students’ needs.
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**Introduction**

Conflicts and behavior issues often arise in schools, because, at some point, there has been a break-down in communication between parties. Students and teachers in this contemporary age communicate differently with each other than they did in past decades. Emerging research in classroom management models is causing a shift away from the traditional teacher led system in favor of a model that empowers students and gives them autonomy over their own learning. There are additional factors that contribute to classroom communication behaviors that include culture and learning abilities. Observations of students and their academic performance and engagement indicate that there may be something to be gained from understanding individual communication styles and communication in a group context.

**Problem**

Classroom diversity extends beyond learning ability, technology, ethnicity, and culture. Each student has social and personal needs to fulfill and communicates these needs in different ways. The diverse classroom is a community of students with different backgrounds and experiences as the result of a number of factors that contribute to their development. A diverse classroom includes a range of personalities to which the teacher needs to be responsive and mindful. For example, students who perceive adversity from a peer or adult either “shut down” and withdraw, or become argumentative and confrontational. A gifted child excels in his academics, but lacks the ability to cope when at odds with his peers and his own feelings. Students bully or are bullied by school mates or family members. Students tend to be quiet and go unnoticed, or seem distractible or unfocused; even finding inequities when the classmate on a behavior plan is perceived as having special privileges. At one extreme, many of the students
display volatile behavior out of frustration or anger. At another extreme, some students are quiet and withdrawn and often do not attract attention.

**Rationale**

Studying the communication styles of students within the context of the instructional environment, culture, and their abilities will aid an educator in meeting the needs of the students in the classroom. Communication varies person to person, culture to culture, medium to medium. In the context of culture, cultural diversity in schools mean that students and their families value education and learning in different ways. The implications in Collier and Powell’s (1990) research in ethnicity and instructional communication in the classroom suggest that students from different ethnic groups perceive and respond to different stimuli in the classroom. It is also important to understand the role of culture in the communication process. Powell and Harville (1990) acknowledge that the expectations and exhibition of communication behavior of individuals from different cultural backgrounds vary. In the context of behavioral and developmental challenges, communication is especially compromised for students who are diagnosed with autism spectrum disorder (ASD) or other learning disabilities since they are often unable to process and retain language in the same manner as their classmates (Green, 1990).

**Review of Literature**

Communication is a subject that appears in a variety of contexts and with several definitions. It is important to clarify what is meant by communication in order to understand what it means to communicate within an education setting. The first section of the review of literature will provide a definition for communication as it relates to a verbal and non-verbal system with humans as the primary interactant in the system, and communication theory in the classroom environment. The second section will focus on the role that the communication style
of the instructor plays in student engagement in the classroom. The following sections will focus on two specific factors: Communication and culture, and behavioral and developmental communication. The literature taken together will serve to cover most characteristics of a diverse classroom environment in which students of varying abilities, development, and cultures are present.

Theories and Definitions of Communication

The diversity of the literature on communication systems examines the possible origins of language, components that are necessary to establish an effective communication system, and how communication relates to the past, present, and future of humans (Fay, Arbib, & Garrod, 2013; Frazier, 1997; Lang, 2014). First, understanding what is defined as communication and who participates in communication will provide a context in which to explore effective communication within the classroom environment. Second, understanding the efforts of researchers in the development of stronger educational practices through theory will establish background in this field of research.

Verbal and non-verbal communication systems.

Sign-sentence theory, as presented by Frazier (1997), is a translating and decoding method for nonverbal communication and analyzes the origin of communication of language by studying the nonverbal interactions of children. Communication in this context is defined as the exchange of messages between two or more interactants in an attempt to accomplish goals through the use of sentences, in which the context of the communication format is a set of behaviors (Frazier, 1997). It is important to distinguish between behavior that is communicative and behavior that is merely behavior, with behavior defined as “any actions or reactions performed by an organism” (Frazier, 1997, p. 50).
Fay, Arbib, and Garrod (2013) examined how the use of signs and gestures are utilized in a communication system in the absence of conventional language. There are three basic types of signs that humans use in communication: icons, indices, and symbols (Fay et al., 2013). Motivated signs include icons and indices; perceptual resemblance and natural association respectively (Fay et al., 2013). Symbols, however, are arbitrary and are the refinement and simplification of a sign into a reproducible form (Fay et al., 2013). Findings from Fay, Arbib, and Garrod’s (2013) study support the natural inclination of humans to use motivated signs and gesture to communicate in “that (modern) people of all cultures gesture while they speak is testament to the naturalness and continued use of gesture” (p. 1365). Motivated forms for bootstrapping communication is especially present in home-sign systems in which gesture-based systems are developed by deaf children raised by non-signing parents in the absence of an acquired language and lack of exposure to a conventional sign language (Fay et al., 2013). This theory provides an explanation for the development of writing systems and reinforces the importance of gesture as a part of the development of language because of its ability to produce motivated signs.

In the contemporary climate, humans have developed a relationship with information technology that includes the technology in the communication system or as the medium in which communication between two or more people occur. Dynamic Human-Centered Communication System Theory (DHCCST) is based on a system consisting of at least one human within a defined location who interacts over time with either another human in a location or a medium (Lang, 2014). Humans are the drivers of the system because, despite differences, humans “share basic biological, motivational, cognitive, neurological, neurochemical, physiological” attributes that have not changed over time (Lang, 2014, p. 60). While Frazier (1997) and Fay, Arbib, and
Garrod (2013) examined nonverbal communication patterns, Lang (2014) presented DHCCST for the purpose of establishing a generalizable theory about human communication that encompasses the past, present, and future, and all cultures and societies. Lang (2013) argues that “different general theories will explain different functions of communication,” but a “generalizable explanatory theory about human communication must be able to predict the future and explain the past” (p. 60).

Another reason for placing humans as the center of the communication system is that humans are embedded into the world. Lang (2013) explains Gibson’s (1970/1977) ecological perception theory, in which the world is made of substances, surfaces, objects, and animals that are all used and perceived by humans. Lang (2013) also refers to Reeves and Nass’s (1996) media equation perspective in which people respond naturally and automatically to media as if they were people.

**Communication theory in education.**

Theories that apply directly to the context of education include the theory of learner empowerment and Choice theory. Choice theory, formerly known as control theory, is a classroom management model that was developed by William Glasser. Learner empowerment, as defined by Thomas and Velthouse (1990) is the culmination of meaningfulness, competence, impact, and choice (Jason, 2002). Learner empowerment correlates to positive experiences and outcomes for students, though it is expected that teachers are responsible for cultivating learner empowerment in students through communicative behaviors within a supportive and structured system (Jason, 2002). Both Choice theory and learner empowerment address the issue of student retention by means of fulfilling internalized needs. In learner empowerment meaningfulness is the production of meaningful and relevant tasks, competence is a student’s sense of adequacy,
impact is a student’s perception that the task is significant, and choice gives the student a sense of control (Jason, 2002). This is comparable to Glasser’s (1986) Choice theory, which advocates the fulfillment of human needs of survival, love, power, freedom, and fun (Jason, 2002). These needs represent internal motivation; all of our behavior is our constant attempt to satisfy these needs (Glasser, 1986). According to Glasser (1986), even disruptive, undesirable, and self-destructive behaviors are the student’s attempt at satisfying one or more of these needs when they are not being met in the classroom or anywhere else.

Choice theory and learner empowerment are designed to separate from the traditional stimulus-response model that has been the dominant educational model. Walton (2014) presents critical commentary on McCroskey, Valenic, and Richmond’s (2004) general model of instructional communication, which is a classroom communication model that follows this rigid ideology of the linear, teacher-led paradigm with students as the receivers. McCrosky et al., (2004) identify teachers, students, instructional outcomes, teachers’ verbal and non-verbal communication behaviors, students’ perceptions of the teacher, and the instructional environment as six components to their instructional communication model (Walton, 2014). However, Walton (2014) states that this model rests on an oversimplified, mechanistic conception of human communication, removed from context. According to the GMIC, successful communication is measured by the fidelity between messages conveyed and messages received (Walton, 2014). Walton (2014) argues that “knowledge and meaning are not things-in-themselves, but dynamic, context-specific social accomplishments that arise from various social and communicative relationships” (p. 119).

**Instructional Communication**
Teachers’ attitude and communication is instrumental in student success. Potter and Emanuel (1990) conducted research to determine if there is correlation between students’ preference for teacher communication styles and academic achievement and learning. The authors cite Norton’s (1977) definition of communicator style as “the way one verbally and paraverbally interacts to signal how literal meaning should be taken, interpreted, filtered, and understood” (Potter & Emanuel, 1990, p. 235). Potter and Emanuel (1990) also cite studies by Anderson, Norton & Nussbaum (1981) and Nussbaum & Scott (1979) that “report finding a strong relationship between communicator style and learning of an affective or behavioral nature but not learning of a cognitive nature” (p. 236). The authors suggested that there are variables to consider, such as demographic, learning styles, attitudes, goals, and behavior; however, in order to understand student satisfactions with individual teachers it is important to know about students’ general preferences for all teachers (Potter & Emanuel, 1990).

Martinez (2004) examined the communication of respect as part of the classroom communicative process. The author found that students perceived respect through verbal and non-verbal communication. Three issues that Martinez (2004) addressed in the literature review included respect defined as behaviors, respect as a classroom variable, and the nature of the students’ perceptions. Friedman (1994) discussed that students behave respectfully and disrespectfully based on their internal feelings (Martinez, 2004). Friedman (1995) also found that once students recognize disrespectful behaviors that irritated the teacher, they were likely to repeat the behaviors (Martinez, 2004). In regards to respect as a classroom variable, Martinez (2004) argued that respect is a process/product communicative component in which self-esteem, self-concept, and motivation impact student learning and respect for others.
Koutselini’s (2009) intervention study explores teacher misconceptions and understanding of cooperative learning as an instructional strategy. The author attempts to support the study by describing the impact of cooperative learning on student development, indicating that cooperation typically results in higher achievement, supportive and committed relationships, greater social competence, and higher self-esteem (Koutselini, 2009). The author also argues that cooperative learning is necessary because it broadens students’ range of experience, it is representative of the work place of the future, and it provides a variety of ways to foster communication skills, higher level thinking skills, and social skills (Koutselini, 2009).

Communication and Culture

Another factor to consider in the study of communication in the classroom is cultural awareness and how communication styles differ across cultural backgrounds. Collier and Powell’s (1990) study examined the relationship between teacher immediacy and ethnicity in the classroom system. Immediacy is signaled through eye contact, smiling, physical proximity, touch, relaxed posture, and vocal expressiveness (Collier & Powell, 1990). The authors comment that culture can be approached as a background, predictor variable or variables, or viewed as an emergent, contextual process (Collier & Powell, 1990). Collier & Powell’s (1990) study relates ethnic background to the emergent culture of the classroom system, which is defined here as “a system of shared symbols, norms and meanings in a particular context” (p. 335). The authors found that immediacy followed different patterns among different ethnic backgrounds. Among the four ethnic groups, it was determined that Anglo-American students found that immediacy was important and has the greatest impact on teaching effectiveness; Latino students found immediacy important at the beginning of the course in the development of the classroom climate; African-American students built trust over time and viewed a good teacher as expressive,
immediate, and a role model; and Asian-American students viewed a good teacher as motivational, clear, and supportive, as well as a role model (Collier & Powell, 1990).

Immediacy is also characterized as “the behaviors which reduce physical and psychological distance between interactants” (Powell & Harville, 1990, p. 369). The authors cite Collier and Powell’s (1990) research on the predictors of teaching effectiveness for students from diverse ethnic backgrounds, finding that Asian students responded negatively to close physical proximity (Powell & Harville, 1990). Additionally, Collier (1988) found that Asian students felt that too much openness was an ineffective communication behavior, while Latinos felt that an effective advisor should show concern prior to the task (Powell & Harville, 1990). In comparison, Mehrabian (1981) characterizes immediacy as approaching that which is preferred and positive while avoiding that which is disliked; verbal and non-verbal behaviors that signal this approach include eye contact, reduced distance, touch, smiling, humor, and the use of inclusive language (Powell & Harville, 1990). Teacher clarity, or the fidelity of instructional messages, was an important factor in Powell & Harville’s (1990) study, as well. Behaviors that are linked to teacher clarity include encouraging questions, checking understanding, and relating new material to previously presented material; whereas behaviors that detract from clarity include ambiguity, vagueness, bluffing, insufficient examples, and uncertainty (Powell & Harville, 1990).

Pedagogic discourse is a classroom interaction between teachers and students that help students to create their own meaning through their schooling (Park, 2008). Student identities emerge in the practice of discourse. The power dynamics between teachers and students are bilaterally constructed with negotiation, challenge, and resistance (Park, 2008). In the context of language across cultures, the heterogeneous societies that second language learners are
embedded within yield unequal power relationships between genders, race, classes, and ethnic

groups (Park, 2008).

**Behavioral and Developmental Communication**

Communication theories previously visited in the literature review explained non-verbal
behaviors as a communication format that utilizes certain behaviors to transmit a specific
message. Conducting research in communication theory and strategy for people diagnosed with
disabilities may serve to aid in the inclusion of students with disabilities that may hinder

linguistic communication or transmission of meaning.

Brown and Elder (2014) define autism spectrum disorder as “a developmental disorder of
the brain characterized by impairments in social interaction, communication, and repetitive
patterns of behavior” (p. 219). They compared the characteristics of typical child language
development and that of those diagnosed with ASD by describing the phases of communication
development for both groups. According to Brown and Elder (2014), the three phases of

communication are as follows:

“Intentional communication is the use of gestures or vocalizations to get attention or
attempt to meet a need or want. Symbolic communication is the use of early language to
interact with others, gain attention, and meet needs. Linguistic communication is the final
and most sophisticated phase. This is the ability to engage in full discourse with another
using many different forms of communication” (p. 219).

Unlike typically developing infants, infants who are later diagnosed with ASD do not babble as
much, seem to be less aware of language, are thought to have hearing impairment, and tend to
use gestures less often and in less meaningful forms (Brown & Elder, 2014). These infants also
tend to prefer to look at objects over people and fixate on one object rather than gaze at multiple
objects (Brown & Elder, 2014). Children with ASD may inaccurately attribute intentions to symbols or behaviors and they will be less likely to participate in symbolic play (Brown & Elder, 2014). Children diagnosed with ASD lack the understanding of subtleties of language found in indirect vocabulary and non-verbal language; this inability to communicate effectively can cause frustration and contribute to the behavioral outburst that most children experience (Brown & Elder, 2014).

Green (1990) revisited communication divergence from a previous literature review (Green, 1989). Communication deviance is a concept developed by Wynne and Singer (1978) which relates to the interpersonal communication of families and how it affects the processing and retention of information in children (Green, 1990). Green (1990) hypothesized that inconsistent, or deviant, communication practices maintained or amplified the information-processing deficits of children with learning disabilities. Wynne and Singer (1996) identified types of speech that contributed to communication deviance as failing to commit to a definite idea, ambiguous referent, unusual use of sentence structure or words, irrelevant or tangential subjects that disrupt the topic of discussion, and contradictory or arbitrary sequences (Green, 1990). Green (1990) reasons that because of the ambiguous nature of reality and that language is often imprecise, there is the chance for meaning to be blurred and misdirected from time to time in any family; though temporary deviances have minimal long-range effects. However, a family environment in which amorphous and fragmented styles of communication exist constantly may create a persistent state of cognitive confusion and disorientation in children (Green, 1990).

**Conclusion**

In order to understand what is meant by communication in this case, it must be given an explanation. The landscape of communication has been drastically altered by emerging
classroom technologies, growing cultural diversity, and new communication pedagogy research. The increasingly diverse populations within schools present a challenge culturally, developmentally, and socially. The information reviewed will aid in navigating the research.

**Research Question**

To what extent will studying and understanding the communication styles of students’ culture and abilities promote student well-being?

**Purpose**

The purpose of this annotated bibliographic review is to provide educators of diverse classrooms with ideas to build an environment that contributes to student well-being by establishing effective communication methods while taking into account unique personalities and styles.

**Method**

**Search Tools**

Peer reviewed articles from scholarly journals were searched through the City University of Seattle library website and extracted from Education Research Complete (EBSCO) and Proquest. Key words used in the search included *communication, instructional communication, instructional communication theory, verbal and non-verbal communication, organizational communication, communication and disabilities, and cultural communication.*

**Filtering**

Initial search results for the keywords combined yielded approximately 201,800 results. The search was narrowed to approximately 2,800 results using advanced search options to focus on full text and scholarly journals published in English. Articles were selected first by examining the titles for general relevance. Titles needed to contain words and phrases such as
communication, education, theory, teacher/student, and classroom. The abstract or introduction was scanned for general relevance in respect to the research question, paying particular attention to the purpose of the study and details given that alluded to the findings and discussion.

Accepted articles were downloaded into a PDF format and the citation information was copied into a word document. Files were named according to article title. A pool of 53 articles was collected and further evaluated. At this stage, the articles were skimmed from beginning to end. Articles that matched the inclusion criteria were retained for closer reading. Articles were then organized into folders labeled with the corresponding literature subheading and renamed with author(s) and date of publication.

**Inclusion Criteria**

Criteria for the inclusion of research articles into the literature review first required that the articles were from scholarly journals and published in English. Perceived bias in any part of the article disqualified that article. In order for an article to be considered, it was crucial that there be notable relevance to the research question, as well as to an instructional context or to an ethnically or developmentally cultural context. Articles that were used for data collection followed the same filtering procedure as the articles collected for the literature review with two exceptions: (1) articles were to be published no earlier than January 1, 2010 and (2) articles were to be empirical studies with participants and an intervention or assessment. A total of 43 articles were collected. These met the inclusion criteria in that the articles were published in English in scholarly journals, related to the research and one of the contexts, and were published after 2010. The final criterion that required the articles to be empirical studies with participants and an intervention reduced the number of articles for analysis to 15.

**Matrix Components**
Data analysis occurred as follows:

- A data matrix was established for each of three variables: instructional communication, communication and culture, and behavioral and development communication.
- Each data source was organized into six components: dilemma; purpose; context; measures, interventions, and assessments; key findings, and discussion.
- The discussion component was further broken into subcategories: conclusions, limitations, and recommendations.
- Context specified the number of participants; the gender and age or age range of participants; and, when applicable, the ethnicity of the participants. Setting location and study design were included when applicable (see Figure 1).

![Table](image)

**Figure 1.** Components of a data matrix

In the analysis of the data, the researcher used a coding method to compare data sources.

Dilemma and purpose were coded together. Key findings and conclusions from the discussion category were also coded together. Last, limitations and recommendations were coded together.

In all, the data were synthesized into five variables for comparison and reporting: dilemma and
purpose; context; measures, interventions, and assessments; key findings and conclusions; and limitations and recommendations.

**Results**

In regards to the research question, to what extent will studying the communication styles of students’ culture and abilities promote student well-being, these are the findings.

**Instructional Communication**

Of the four data sources analyzed for this variable (Arguedas, Daradoumis & Xhafa; Berthold & Renkl; Brackett; Helmer & Holt), all four authors shared learning outcomes as an area of concern. Additional concerns included engagement, motivation, self-regulation, classroom climate, and campus climate. Participants in each study varied in sample size, age range, and ethnicity. Participants in two of the studies were of late secondary school age, participants in one study included a large number of elementary students and teachers across several schools, and participants in the last study included only female elementary school teachers. Interventions and data collection tools varied across the studies. Participants in two of the studies performed in learning tasks as part of the study intervention, while the other two studies implemented observation and survey measures. The findings and conclusions of the four studies reported positive effects on learning outcomes. Higher levels of motivation, engagement, self-regulation, and conduct were also reported. One study found a double-edged prompt effect in which a positive effect in conceptual knowledge negatively affected procedural knowledge.

**Communication and Culture**

Themes that emerged within this variable include perspectives, competence, compatibility, and socialization. The common purpose of these studies was to enhance cultural competence and to understand the differences found between Western and non-Western contexts
in communication. Sample sizes varied drastically, ranging from 5 – 821 participants. Each study included at least one Western context in the sampling. The interventions implemented varied according to sample size and purpose. The sample of five participants was assigned a task that followed the ABC’s model. The interventions implemented in the remaining studies included interview, observation, survey, and questionnaire. Results that emerged from the studies found that participants from non-Western backgrounds showed an adherence to traditional, Collectivistic values. These participants showed an ability to cope and adapt to the Western styles of communication. There were notable differences in perspectives across cultures pertaining to immediacy practices, assumptions, and expectations.

**Behavioral and Developmental Communication**

The common problem within this context is in the determination of effective practices and interventions to improve social communication skills and instructional interaction. The main focus is in meeting the needs of children diagnosed with disabilities. Participant samples in this context are generally small in size; one study is a single-subject design whereas the largest sample consists of 17 general education teachers. Two of the studies focused on intervention strategies that target social and language communication skills development. The third study examines the perspectives of general education teachers who have students with disabilities and how instructional time is dedicated to interaction with these students. Methods varied from study to study. The single-subject study targeted skills and established objectives in a three-phase intervention plan. Another intervention implemented the teaching of social and language communication skills through dramatic play. A mixed methods design that included observation and interview was implemented to study teacher perspectives and distribution of interaction time. Gains and improvements in social and language communication skills were noted for the
participants in the intervention studies. The mixed methods study found that whole-class interactions occurred with general educators at 98.7%, followed by small group at 48.1% and one-on-one at 32.4%. Paraprofessionals were found to be responsible for 57.8% of one-on-one interactions with students with disabilities and special educators even less at 9.8% of one-on-one interactions.

**Discussion**

The purpose of this annotated bibliographic review is to examine selected communication studies to provide educators of diverse classrooms with ideas of how to build an environment that contributes to student well-being. During the review of these studies, several key findings emerged.

**Key Findings**

First, there is a positive correlation between emotionally supportive classroom culture and learning outcomes, motivation, engagement, and conduct. Affective feedback and awareness of emotion during learning tasks improve student motivation and self-regulation. Principals and teachers who practice effective communication promote a positive campus climate and contribute to positive student learning.

Second, perspectives appear to vary according to cultural context. Many non-Western cultures adhere to values that contribute to the harmony of the community. This includes the suppression of behaviors that might interrupt social relationships, such as asking questions, challenging views, and speaking up. However, these groups were shown to adapt behaviors to match the Western style of communication. Certain aspects of non-verbal immediacy are also perceived differently across cultures. Non-Western contexts appear to view non-verbal immediacy behaviors that involve the body, such as proximity, posture, body orientation, and
touch, as less important. Findings for communication behaviors between teachers and parents from different cultural backgrounds showed that there are assumptions about communication and mismatched expectations that hinder effective home-school communication.

Third, students diagnosed with disabilities have needs that vary depending on the nature of the disability. A common problem found in these studies is the inhibition of social and language communication skills that require intervention therapy. Positive effects were reported in both studies as a result of the implementation of interventions that established target skills. The authors did caution that not all children respond to the intervention similarly. Findings showed that general educators dedicated the largest portion of instructional time to whole class instruction while paraprofessionals were delegated with the largest portion of one-on-one time with students with disabilities. General education teachers’ small group and one-on-one interactions were often directed at students with disabilities, though usually for the purpose of redirection. Teachers reported that they were aware of this and explained that adaptations were made to instruction.

**Limitations and Recommendations**

Most of the studies noted limitations that commonly referenced small samples sizes and a cross-sectional design that prevented generalization of results. Limitations to be noted in this bibliographic review include disproportionate sample sizes among the variables. Future research would benefit from larger and more varied sample sizes that examine a more diverse sampling of communication in students diagnosed with disabilities. Another factor to consider in future research is the exploration of the influence of multimedia devices on communication in education.

**Conclusion**
In conclusion, the findings lead the researcher to conclude that establishment of an environment that contributes to student well-being depends on several factors. First, the teacher must actively promote an emotionally supportive classroom climate and practice effective communication. Second, the teacher must be aware of the cultural backgrounds of the students in the class. Perspectives, expectations, and communicative behaviors differ across cultural contexts. Last, students diagnosed with disabilities have significantly unique needs and require different intervention strategies that vary depending on the disability.
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<table>
<thead>
<tr>
<th>Name of Study</th>
<th>Dilemma</th>
<th>Purpose</th>
<th>Context</th>
<th>Measures, Interventions, and Assessments</th>
<th>Key Findings</th>
<th>Discussion</th>
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<tbody>
<tr>
<td>Arguedas, M., Daradoumis, D., &amp; Xhafa, F.</td>
<td>Analyzing how emotion awareness influences students’ motivation, engagement, self-regulation and learning outcomes</td>
<td>To provide a detailed analysis regarding how emotion awareness affects students’ motivation, engagement, self-regulation, and learning outcome combined with cognitive and collaborative learning strategies.</td>
<td>24 fourth-year high school students - 18 female - 6 male</td>
<td>Students took specific tests at the beginning of the activity to become informed of their preferred learning style and their emotional intelligence level. Students were grouped into six groups of four. Three groups were experimental (EG) and were informed for their emotions.</td>
<td>Students in both groups displayed high levels of motivation, strong concentration, and solidarity to their peers when positive emotions existed. CG students experienced boredom and lost motivation in the presence of negative emotions. CG students.</td>
<td>Conclusions: When students are aware of their emotions, they become more conscious of their situation and will adapt their behavior for the benefit of the group. Student learning performance in relation to motivation, engagement, and self-regulation was observed. The teacher intervened to support all students consciously and in a timely manner. Teacher affective feedback was more focused with the EG students.</td>
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<td>2</td>
<td>How to foster active processing of explanations in instructional communication</td>
<td>Though instructional explanation is commonly used, empirical studies show that they often have no positive effects on learning outcomes.</td>
<td>To reduce the occurrence of shallow processing by focusing on instructional support measures to foster an active processing.</td>
<td>80 high school students (grades 10 and 11)</td>
<td>A 2x2-factorial experiment was administered in a computer-based learning environment: (a) interactive color coding (yes vs. no) and (b) prompts to induce focused processing (yes vs. no).</td>
<td>Prompts for focused processing fostered elaborations during the processing of the instructional explanation. Learners who did not receive prompts for focused processing obtained lower scores in self-regulation while EG students achieved better scores in self-regulation. The teacher intervened and supported both groups, though the CG students required more support and affective feedback.</td>
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<td>Classroom emotional climate, teacher affiliation, and student conduct</td>
<td>Students who misbehave are disruptive to their classmates and their teacher,</td>
<td>To examine the link between classroom emotional climate</td>
<td>63 teachers 2,000 students 90 ELA classrooms/44 schools</td>
<td>Observational data were collected and coded using camcorders and mini-DV tapes.</td>
<td>Results showed higher ratings of teacher affiliation were associated with</td>
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Processing performed better with respect to procedural knowledge. These results meet the conditions for double-edged prompt effects: prompts for focused processing produced a positive effect on elaborations and conceptual knowledge and had a negative effect on arithmetic operations and procedural knowledge.

Recommendations: Future studies should examine the different amounts of cognitive resources learners may need in regards to training prior to a learning phase and prompts integrated in the learning environment.

less engaged in lessons, and perform worse in school. Student misbehavior contributes to teacher burnout. (CEC) and student conduct. Evidence shows that a civil classroom emotional climate meets students’ basic needs is linked to greater engagement in learning and fewer disruptive behaviors.

NE United States Urban school district
28% free or reduced lunch

Students
- 12% non-native speakers
- 31% low reading achievement
- 50% female
- 33% Black/African American
- 29% Hispanic, 25% White/Caucasian
- 12% Pacific Islander
- < 2% multiracial or Native/Aboriginal

Consenting teachers recorded three separate ELA lessons over a two-week period. Students completed a survey that rated teacher affiliation. Student conduct data were collected from year-end ELA report cards.

higher ratings of student conduct. Higher student ratings of teacher affiliation were present in higher levels of observed CEC. Classroom organizational climate (COC) was found to have a negative association with student conduct.

<table>
<thead>
<tr>
<th>Limitations:</th>
<th>Factors that teachers use to rate student conduct were unknown. Teachers may also hold bias in their expectations of student conduct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendations:</td>
<td>Future studies may include multiple assessments, additional raters, third-party observers, and qualitative data tools. Future studies may also examine the relationship between teacher management of COC and student conduct.</td>
</tr>
<tr>
<td>4</td>
<td>The Principal’s communication: Shaping campus morale and student learning</td>
</tr>
</tbody>
</table>
## Appendix B

### Communication and Culture

<table>
<thead>
<tr>
<th>Name of Study</th>
<th>Dilemma</th>
<th>Purpose</th>
<th>Context</th>
<th>Measures, Interventions, and Assessments</th>
<th>Key Findings</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Preservice teachers developing cultural competency: “We are more connected than we think”</td>
<td>Preservice teachers are required to learn cultural competence. The ABC’s model is a method to practice cultural competence and reflect on cultures other than one’s own.</td>
<td>To describe ways preservice teachers used the ABC’s model to enhance cultural competency.</td>
<td>5 females Aged in early 20’s 3 identified as “White” females 2 identified as “Biracial” females The design is a qualitative multiple case study</td>
<td>Each participant wrote an autobiography as per the A in the ABC’s model. Each participant received a copy of cultural interview questions available online by San Jose State University that outlined information to include in the autobiography.</td>
<td>Findings revealed that the ABC’s model was effective in helping preservice teachers better understand their own beliefs and values.</td>
<td>Conclusions: The ABC’s model provided opportunities for the participating preservice teachers to talk about their beliefs and values appropriately in interactions with peers, students, and families. Limitations: Not Applicable Recommendations: Future studies should consider longitudinal studies</td>
</tr>
</tbody>
</table>
The next step, B, was to write a biography that depicted someone who represented a cultural group different from their own. In order to do this, they were to interview such a person. Participants then compared (C) their autobiographies with the biographies and engage in cross cultural analysis. Last, participants wrote a cultural self-analysis.

| Perspectives of teachers and Chinese American students with disabilities about their Intercultural interactions may create communication problems when parents and teachers come | To understand the perspectives of teachers and Chinese American parents with 2 Chinese American mothers (1 second generation, 1 first generation) 2 special education teachers (1 male, 1 female) | A general interview guide was developed to guide informal interviews with each. Both parents advocated for the education of the children. The first generation mother | Conclusions: The findings of the study revealed a two-sided perspective and that the voices are from participants who that examine preservice teachers during student teaching or during first year. The ABC’s study may also be taken to an online study abroad experience. |

| 6 | Perspectives of teachers and Chinese American students with disabilities about their Intercultural interactions may create communication problems when parents and teachers come | To understand the perspectives of teachers and Chinese American parents with 2 Chinese American mothers (1 second generation, 1 first generation) 2 special education teachers (1 male, 1 female) | A general interview guide was developed to guide informal interviews with each. Both parents advocated for the education of the children. The first generation mother | Conclusions: The findings of the study revealed a two-sided perspective and that the voices are from participants who that examine preservice teachers during student teaching or during first year. The ABC’s study may also be taken to an online study abroad experience. |
| home-school communication | from different backgrounds. Educators need to be aware of intercultural communication while working with culturally and linguistically diverse populations. | regard to home-school communication for special education. | 1 mother is deaf and communicates with ASL and written English. 1 mother speaks Mandarin and English. The design of the study is qualitative, employing interviews, observations, and follow-up conversations. | participant. Two to three formal interviews with each participant were conducted, each ranging from 30 to 90 minutes. The researcher conducted two to three observations for each participant. Parents were asked to collect any notes or documents (i.e. IEP goals) to assess the communication process between parents and teachers. | experienced more barriers due to being unfamiliar with the U.S. school system. Challenges to parent-teacher positive communication stemmed from unstated assumptions about communication, communication barriers, and mismatched expectations. | had limited social support. The limited social supports did not prevent the parents from advocating their children’s education; however, teachers’ limited understanding of cultural influences and sociocultural perspectives was a barrier to successful parent-teacher communication. |

**Limitations:**
The researchers were only able to locate 3 potential participants who met the criteria. The small sample size cannot be generalized to all Chinese Americans or to teachers. Immigration status may also influence the interactions and the perspectives of the families. With
<table>
<thead>
<tr>
<th>7</th>
<th>Quiet or questioning? Students’ discussion behavior in student-centered education across cultures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frambach, J.M., Driessen, E.W., Beh, P., &amp; van der Vleuten, C.P.</strong></td>
<td></td>
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<tr>
<td><strong>2014</strong></td>
<td>Values of other cultures may not be compatible with the Western values that are found in the student-centered approach to learning. Cross-cultural differences in processes and outcomes may exist.</td>
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<td>To examine how cross-cultural difference in communication styles are express and shaped in student-centered education, and the impact this may have on the applicability of student-centered methods.</td>
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<td>88 students, tutors and key staff involve in PBL (problem-based learning)</td>
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<tr>
<td></td>
<td>Setting: Medical schools in the Netherlands, Hong Kong, and Arab Middle East</td>
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<td></td>
<td>The design is a comparative, instrumental case study</td>
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<td>Individual in-depth interviews were conducted with the participants lasting an average of one hour each. Questions focused on practices, experiences, perceptions, preferences, and difficulties relating to PBL. Then, a total of 32 PBL discussion sessions were observed. Last, documents about the implementation</td>
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<td></td>
<td>Feelings of uncertainty inhibited students in the Middle East and Hong Kong from speaking up in discussions, though both groups utilized coping strategies to mitigate feelings of anxiety. Tradition affected the Middle Eastern case in which moderate, humble, and devout attitudes were</td>
</tr>
<tr>
<td></td>
<td>Conclusions: Non-Western students do adapt their learning behaviors despite challenges; however, a non-Western cultural and contextual background may inhibit the development of student-centered behaviors and skills.</td>
</tr>
<tr>
<td></td>
<td>Limitations: The study relied on self-reported interview data and a cross-sectional student sample.</td>
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<tr>
<td></td>
<td>Recommendations: Future studies might</td>
</tr>
<tr>
<td></td>
<td>the inclusion of a deaf parent, a third culture was introduced into the study.</td>
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<tr>
<td></td>
<td><strong>Recommendations:</strong> Not Applicable</td>
</tr>
<tr>
<td>Development and validation of a scale for measuring intercultural empathy</td>
<td>The emphatic response includes the capacity to understand and relate to the experience of the other person using observation, verbal information, or other type of information through</td>
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<td>perspective taking. The empathic response can generate sadness, discomfort, or anxiety, and would play a central role in the pro-social attitude of people.</td>
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<tr>
<td>9</td>
<td>Communication styles, cultural values, and counseling effectiveness with Asian Americans Kim, B.K., &amp; Park, Y.S. 2015</td>
</tr>
</tbody>
</table>
## Communication in a Diverse Classroom

**Participants**

- Chinese
- Korean
- Filipino
- Vietnamese
- Japanese

- 27.8% First generation, average 11.39 years in the U.S.
- 56.3% Second generation

Participants were then asked to complete a measure that rated their impressions of the counselors’ communication styles.

The direct style had a higher correlation with communication satisfaction, emphatic understanding, and counselor credibility, and maintaining harmony.

**Recommendations:**

Future research can examine the interaction between face and communication style and how effective communication might differ by context. Practitioners are urged to be flexible in communication with Asian Americans depending on the client’s adherence to cultural values.

<table>
<thead>
<tr>
<th>Study</th>
<th>Title</th>
<th>Author(s)</th>
<th>Year</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger communication in bicultural adolescents</td>
<td>The process of emotion socialization is already complicated for children who are brought up in one cultural context. Emotional socialization may be even more</td>
<td>Novin, S., &amp; Rieffe, C.</td>
<td>2012</td>
<td>To examine bicultural adolescents’ anger communication styles compared to their monocultural peers. Interviews were conducted which consisted of eight vignettes. Each vignette describes a conflict situation with a peer that was expected to provoke anger. Following the interviews, participants were asked to rate their impressions of the counselor’s communication styles. The direct style had a higher correlation with communication satisfaction, emphatic understanding, and counselor credibility, and maintaining harmony. The results revealed that Dutch adolescents were more likely to speak up for themselves than Moroccan adolescents by being explicit about their negative feelings. The bicultural adolescents seem to navigate efficiently between the two cultural contexts. Due to the sample sizes and specific focus on Moroccan-Dutch adolescents, caution should be exercise.</td>
</tr>
</tbody>
</table>
challenging when two cultural contexts may have conflicting ideas about appropriate emotion communication.

The Netherlands (Amsterdam, Den Haag, Rotterdam)
Morocco (Tetouan)

presentation of each vignette, the participants were asked to answer five questions that required a verbal response or a score on a 6-point scale.

feelings or by demanding a solution. Moroccan adolescents reported a more indirect approach by calmly asking for an explanation or mentioning the consequences, and more often expected an explanation than the Dutch adolescents. This anger communication style is more consistent with respectful and responsible behavior emphasized by the Moroccan culture. The bicultural adolescents reported anger communication that fell in

taken with generalization of outcomes. A question that is raised is if cultural models or age is accountable for the variations between the groups. Last, self-report by means hypothetical vignettes may not reflect actual emotional responses.

**Recommendations:**
Not Applicable
Perception of nonverbal immediacy and effective teaching among student teacher: A study across cultural extremes

Özmen, K. S.
2011

<table>
<thead>
<tr>
<th>11</th>
<th>The interaction of teachers and students is shaped by some certain nonverbal elements, and thus a teacher-student relationship cannot be affect-free. Nonverbal immediacy behavior can be improved through training and can generate more positive student attitudes towards instruction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>To analyze the perception and understanding of nonverbal immediacy behavior among student teachers of English Language Teaching programs and making a cross-cultural comparison.</td>
</tr>
<tr>
<td>13</td>
<td>450 student teachers - 287 female - 163 male - Age 21-24 years, average 22.3 years</td>
</tr>
<tr>
<td>14</td>
<td>Japan, Turkey, USA</td>
</tr>
<tr>
<td>15</td>
<td>146 Japanese student teachers from 3 universities - 154 US student teachers from 2 East coast universities - 150 Turkish student teachers from a university in Ankara</td>
</tr>
<tr>
<td>16</td>
<td>The Nonverbal Immediacy Scale (NIS) Self Report, which consisted of 26 items, was administered. Japanese and US students who chose to take part were provided with an internet link to the online version. The Turkish participants were selected randomly and the processes were carried out in person outside of the classroom context.</td>
</tr>
<tr>
<td>17</td>
<td>Findings showed that the correlation between NVI behavior and effective teaching is stronger for the American participants. All three groups agreed that eye contact, gestures, vocal expressiveness, and smiling are important to effective teaching. Physical proximity, body orientation, and posture, though, seem to be the least referred variables. 32.6 % of the American participants</td>
</tr>
<tr>
<td>18</td>
<td>Conclusions: NVI was considered by all participants to be a part of effective teaching, though some cultural differences reveal that perceptions vary across cultures.</td>
</tr>
<tr>
<td>19</td>
<td>Limitations: Not Applicable</td>
</tr>
<tr>
<td>20</td>
<td>Recommendations: Not Applicable</td>
</tr>
</tbody>
</table>
| 12 | Child and family emotional functioning: A cross-national examination of families from China and the United States  
Suveg, C., Raley, J., Morelen, D., Wang, W., Han, R., & Campion, S.  
2014 | Cultural norms influence emotional development directly and indirectly through emotion parenting behaviors. | To build upon existing research by examining family emotional climate and child emotion regulation in families with school age children living in China and the United States. | 55 U.S. children aged 7-13 years (51% male)  
- 78.2% European American  
- 9.1% African American  
- 3.6% Asian American  
- 7.3% Hispanic  
- 1 participant Other | Parents completed a demographic form. A brief screening questionnaire was conducted via phone call for the U.S sample. Vocabulary and matrix reasoning subtests of the Wechsler’s Abbreviated Scale of Intelligence (WASI) was administered to the children from the U.S sample. | Findings showed that Chinese parents and children reported less emotional expression than U.S. parents and children. Individuals living in China typically ascribe to Collectivistic values. These individuals typically value behaviors that facilitate social harmony and suppress behaviors that might interrupt  

Conclusions:  
The findings of the study provide further evidence for the need to examine emotional development processes within context.  

Limitations:  
The study design was cross-sectional and the moderate sample size did not accommodate for examination of child sex as a factor. Time constraints prevented formal assessment of intellectual and psychological
<table>
<thead>
<tr>
<th>Measures included</th>
<th>Datong, China, Shanxi province</th>
<th>social relationships. Children for the U.S. reported greater undercontrolled emotion than Chinese children, but there were no difference for parent-report.</th>
<th>function of the Chinese sample. Finally, the U.S. sample was predominately married couples from relatively high income bracket.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Emotion Management Scales (CEMS), Emotion Regulation Checklist (ERC), Positive and Negative Affect Scales for Children (PANAS-C), and Family Expressiveness Questionnaire (FEQ).</td>
<td>Measures included</td>
<td>Children’s Emotion Management Scales (CEMS), Emotion Regulation Checklist (ERC), Positive and Negative Affect Scales for Children (PANAS-C), and Family Expressiveness Questionnaire (FEQ).</td>
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</table>

**Recommendations:**
It is recommended that future research assess levels of Collectivistic versus Individualistic values in families to explore how these values shape socialization practices and child emotion regulation.
## Appendix C

### Behavioral and Developmental Communication

<table>
<thead>
<tr>
<th>Name of Study</th>
<th>Dilemma</th>
<th>Purpose</th>
<th>Context</th>
<th>Measures, Interventions, and Assessments</th>
<th>Key Findings</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrating language, pragmatics, and social intervention in a single-subject case study of a child with a developmental social communication disorder</td>
<td>Social communication disorder results in functional limitations of effective communication. The needs of children who have an SCD require substantive and long-term intervention.</td>
<td>To examine the therapeutic content of the Social Communication Intervention Programme (SCIP) intervention.</td>
<td>1 male, aged 8 northwestern England</td>
<td>The SCIP intervention plan organized the therapy into three phases. The first phase is the development and consolidation of a set of common skills that support speech-language therapy. Target skills included comprehension monitoring, understanding social context, basic</td>
<td>The participant showed clinically meaningful improvements in language and pragmatic ability. His parents and teachers reported improvements in most aspects of social communication, social skills, and language skills in the classroom.</td>
<td>Conclusions: Considering that the findings showed changes in communication allows the assumption that there is valid inference of clinical change at the level of the case study. However, not all children respond to SCIP intervention similarly. Some children show little change in language function while some children show rapid progress in</td>
</tr>
</tbody>
</table>
| 2015 |  |  | metapragmatic awareness, basic narrative, and introduction to emotions in context. Phase 2 implemented an individualized plan containing components that matched the participant’s communication profile. Intervention objectives were then designed. Objectives included language processing, pragmatics, and social understanding and social interpretation. Phase 3 consolidated what had been learned up until that point and to use personal examples of | language, pragmatic, and social functioning.  
**Limitations:** 
Not Applicable  
**Recommendations:** 
The authors recommend the aggregation of practice-based research into a valid and reliable source of clinical outcomes. Evidence should be improved around the consistency of clinical decision making among practitioners. Last, studies should establish progress against individualized targets for each participant. |
14 An examination of teacher-student interactions in inclusive classrooms: Teacher interviews and classroom observations
Cameron, D.L. 2014

<table>
<thead>
<tr>
<th>17 K – 8 general educators:</th>
<th>87 classroom visits and 52 hours of observation were conducted. Using the ICOS, an individual student is observed for a 10-second observation interval. Teacher interactions with that student are recorded during a 5 second recording interval. These interactions occur as (1) whole class, (2) small group, and (3) 1:1 interactions. Whole-class interactions occurred with general educators at 98.7%, special educators at 1.1%, and paraprofessionals at 0.2%. Small group interactions occurred with general educators at 48.1%, special educators at 25.0%, and paraprofessionals at 26.8%. 1:1 interactions occurred with paraprofessionals at 90.2%, general educators at 9.7%, and special educators at 0.1%.</th>
</tr>
</thead>
</table>

**Conclusions:** Classrooms were generally organized with a large portion of instructional time dedicated to whole-class instruction by general educators, followed by brief period of 1:1 interactions often directed students with disabilities. Teachers were aware of this and described methods of adapting their instruction. Both interview and observational findings suggest that
| Observational data and qualitative interviews with teachers. Observations employed the Inclusive Classroom Observation System (ICOS). | (3) 1:1 with (1) general educator, (2) special educator, or (3) paraprofessional. Interactions occur entirely on educational professionals’ verbalization. The interviews were completed by a convenience sample of 7 teachers to gather information about teachers views regarding their interactions with their students with and without disabilities. | General educators at 32.4%, special educators at 9.8%, and paraprofessionals at 57.8%. | Paraprofessionals are responsible for a large portion of instruction for children with disabilities. |

**Limitations:**
Interviews were limited to general educators. Classroom, student, and teacher characteristics that may have contributed to behaviors were not analyzed.

**Recommendations:**
The views of special educators and paraprofessionals should be considered. Additionally, the content of the interactions should be observed and the perspectives of these interactions should measure
### Social Communication Skills

Social communication skills are important in the social and language development of children and provide clues to indicate either typical development of the existence of a disability.

**Facilitating Commenting and Requesting Skills in 3-Year-Old Children with Disabilities**


<table>
<thead>
<tr>
<th>15</th>
<th>Facilitating commenting and requesting skills in 3-year-old children with disabilities</th>
<th>Social communication skills are important in the social and language development of children and provide clues to indicate either typical development of the existence of a disability.</th>
<th>To evaluate the commenting behaviors and verbal and non-verbal requests of children with disabilities who participated in sociodramatic play.</th>
<th>8 preschool children - Age 3 years - 6 children met criterion after pre-intervention screening</th>
<th>Teachers complete the teacher form of the Child Behavior Checklist and the teacher form of the Social Skills Rating System. Children were assessed on the Preschool Language Scale-4. The intervention took place in the dramatic play center in the classroom. Only one pair of students at a time was allowed to play here. Five dramatic play themes were used to guide the play sessions. Pairs chose a card from the</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rural elementary school - Self-contained classroom</td>
<td>The design of the study was multiple-baseline.</td>
<td>Results from the study found that the social communication intervention was moderately to highly effective in increasing commenting behaviors, non-verbal requests, and requests for verbal and non-verbal behavior. The partnered children both showed gains in language skills. Four participants with extremely delayed language skills initially showed zero rates of talking, but showed improvements by displaying some rate of verbal interaction during the</td>
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</table>

### Conclusions:

Social competence is correlated to both communication and play skills. Early intervention strategies and the embedding of instruction in conversation and play are critical to developing social competence.

### Limitations:

Expectations for use of highly sophisticated language for verbal language were at a lower standard. Measurement challenges were experienced during intervention implementation, preventing collection of follow-up and/or generalization data (typical school day student performance).
planning board and placed the card in an envelope outside of the play center. The interventionist then implemented the intervention. Each them had an accompanying storybook that provided instruction on the intervention’s target behaviors. Rates of non-verbal communication showed improvements from the baseline data through intervention.

Teachers were asked to rate social validity based on intervention targets rather than study outcomes. NAP was used in data analysis, which may have had the effect of inflating effect sizes.

**Recommendations:**
Future research might considered assessing maintenance skills over intervals. Follow-up assessments should include generalization observations of the children in various settings and with other peers during different times of the day.