PEERS

Preschool
Educational
Environment
Rating
System

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The Preschool Educational Environment Rating System (PEERS)

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The Preschool Educational Environment Rating System (PEERS) is a measure designed to examine the quality of instruction in preschool settings. Unlike other rating scales, it not only measures the environment, it also examines both how teachers construct their classroom for instruction and the quality of the enactment of instruction. Designed on behalf of the Albert Shanker Institute for a collaboration with the Saint Louis Public School System (SLPSS), the PEERS is an evidence-based measure that can be used as an observational tool by administrators to more fully understand and assess the environments and instruction they provide to their students, with the ultimate goal of improving children's academic outcomes.

Background

The creation of the PEERS occurred in several stages. After consultation with the Shanker Institute and Saint Louis representatives regarding the needs and goals of the district, Dr. Susan B. Neuman and her team at the University of Michigan carefully reviewed and cross-listed items from multiple preexisting preschool classroom assessment tools. These included Project Construct, the Early Childhood Environment Rating Scale (ECERS) (Harms, Clifford, & Cryer, 2005), the Early Language and Literacy Classroom Observation (ELLCO) (Smith, Dickinson, Sangeorge, & Anastasopoulos, 2002), and the Child/Home Environmental Language and Literacy Observation (CHELLO) (Neuman, Koh, & Dwyer, 2008). Using these sources as a baseline, items were evaluated for the extent to which they were supported by recent rigorous research, as well as their relevance to a large city school district, which was rapidly increasing the number of seats in preschools. The team compiled, edited, and organized items into nine sub-sections (themselves arranged into two larger sections) for ease of use. All measures were rated on 5-point scales with rubric descriptions anchored at odd numbers; a classroom deemed "deficient" in evidence for a particular construct was given a score of 1, while 'basic" classrooms received a 2 or 3, and "excellent" ones scored a 4 or 5. Using the relevant spaces on each observational sub-section, an average score was t calculated by adding items and dividing by the number of items for that sub-section. Next, pilot testing of the PEERS was conducted. Trained researchers provided feedback on the accuracy, clarity, inclusiveness, and usability of the measure. The PEERS was then edited and retested to ensure that all issues had been addressed. Finally, scores were examined for test-retest and inter-rater reliability.

Description of the Measure

The PEERS is a high quality, evidence-based measure of preschool quality. It is informed by several theoretical perspectives, primarily that of ecological psychology (Day, 1983; Gump, 1989). This perspective suggests that the organization and complexity of

the environment plays a central role in a child's learning and development. The PEERS is also grounded in the assumptions of attachment theory and sociocultural theory. The former emphasizes the importance of inter-personal relationships to the development of children's social, emotional, and cognitive abilities (Bowlby, 2008). The latter stresses the importance of interactions between developing children and their cultural surroundings. In particular, sociocultural theory highlights the importance of adult guidance as children work to master skills they cannot yet understand on their own, but can learn with support and guidance (Vygotsky, 1978).

In line with these theoretical perspectives, the PEERS is designed to gather information about two essential aspects of the preschool classroom: the environment in which children are learning, and the instruction they receive. Within these broad categories, nine sub-categories are housed. The items included in the PEERS are based firmly in recent rigorous research, and measure factors that have been strongly linked to the development of core skills (especially literacy) and/or later academic performance, as detailed below.

PEERS Categories

The PEERS begins with an observation record, which allows for the collection of basic information required for data review and analysis. This includes classroom information (teacher, school, district, number of adults and children in the room, etc.) and information about the observation (observer name, date, time, etc.) It also includes space for the observer to add comments or notes. Following the observation record, the PEERS contains items organized into two large sections: the environment and instruction.

Environment

In line with the assumptions of ecological psychology, a large body of research indicates the powerful impact of the environment on a child's learning and development. In particular, it has been found that both patterns of activity and engagement are influenced by access to materials, as well as the organization and complexity of the setting.

Within the environment section of the measure, items are grouped into the following five sub-sections: classroom organization and environment; planning and documentation; lesson plans; materials and displays; and books and computers. Each of these sub-sections contains measures that highlight recent research in that area. For example, a body of studies suggests the importance of classroom organization, the first aspect of classroom quality measured in the environment portion of the PEERS. Research has long indicated that the arrangement and organization of physical spaces influence human behavior (Greenman, 1988; Mcgrew, 1970; Phyfe-Perkins, 1980). Studies on the design of early childhood classrooms also indicate the importance of a safe and child-centered environment to the development of competency (Trancik & Evans, 1995), as well as the importance of offering both large and small-group instruction (e.g., Foorman & Torgesen, 2001; Montie, Claxton, & Lockhart, 2007; Morrow & Smith, 1990).

The next sub-section of the PEERS asks assessors to observe aspects of classroom planning and documentation. Items in this sub-section highlight the importance of offering a wide variety of learning activities in preschools. For instance, child-directed and child-initiated activities are have been found to be crucial to learning (Marcon, 1999), particularly when it comes to language development (Montie et al., 2007). Additionally, the benefits of deep, ongoing, teacher-led investigations are also captured in this section of the PEERS. Finally, when considering classroom planning and documentation, it is important to assess the extent to which

portfolios and similar assessments are used to monitor children's progress; research suggests that such methods are beneficial to tracking and fostering children's learning (Gronlund & Engel, 2001; Lynch & A., 2001; Mills, 1994).

The third sub-section of the PEERS gathers information about lesson plans, examining in more detail the types of instructional activities presented to preschoolers. Items align with research about activities that promote young children's learning, including shared book reading (Crain-Thoreson & Dale, 1999; Mol, Bus, & de Jong, 2009) and opportunities to engage with emergent writing, which has been shown to predict later reading and writing ability (Moody, Justice, & Cabell, 2010; Whitehurst & Lonigan, 2003). Additional items in this sub-section are designed to capture the extent to which other subject areas that are important for future success are integrated into the daily plan and aligned with both the curriculum and broader learning goals. These include math (Cross, Woods, & Schweingruber, 2009; National Mathematics Advisory Panel, 2008; Sarama & Clements, 2009; Sarama, Lange, Clements, & Wolfe, 2012), science (Chaille & Britain, 1997; Gallas, 1995; Zimmerman, 2000), music (Campbell & Scott-Kassner, 2013; Črnčec, Wilson, & Prior, 2006; Strait, Parbery-Clark, O'Connell, & Kraus, 2013), art (E. P. Cohen & Gainer, 1995; Thompson, 1995), and movement (Campbell & Scott-Kassner, 2013; Lorenzo-Lasa, Ideishi, & Ideishi, 2007).

The sub-section of the PEERS designed to capture the materials and displays also includes items that highlight recent research. For example, research indicates that children in preschools with a greater number and variety of accessible materials have been found to have higher cognitive scores (Montie et al., 2007). This may be in part explained by studies indicating that children in classrooms that include a wide variety of accessible tools, books, and materials both read more (Neuman & Roskos, 1992) and increase their literacy abilities (Neuman & Roskos, 1990). It is generally understood that children are more likely to constructively use materials that are readily accessible to them and organized into conceptually related groups, promoting development across learning domains. A body of research indicates that well-organized settings foster development and learning, supporting this understanding (D. K. Cohen, Raudenbush, & Ball, 2003; Tharp & Gallimore, 1989; Wachs, 1987). Another key item in this sub-section measures the extent to which environmental print exists throughout the classroom (e.g., objects labeled at eye level, print included for both functional and play purposes). A body of research supports this item. Indeed, environmental print has repeatedly been found to promote literacy activities (Morrow & Smith, 1990; Neuman, Celano, Greco, & Shue, 2001; Prior & Gerard, 2004; Wolfersberger, Reutzel, Sudweeks, & Fawson, 2004), particularly when adults actively engage children with print in the classroom (Neuman & Roskos, 1993).

The fifth and final sub-section in the environment portion of the PEERS focuses on the books and computers in the classroom. The observer is asked to evaluate the book area of the classroom, paying particular attention to the quality and variety of the books, and whether they are housed in a distinct area. These environmental features of book reading have been found to impact children's literacy development above and beyond shared book-reading practices. Accessibility of books in an inviting book corner leads children both to read together and explore books independently, promoting the development of literacy knowledge (Morrow, 2002; Neuman et al., 2001; Owocki, 2005; Schickedanz, 1999) . Evidence also exists of differential impacts on children's development based on differences in accessibility to books (Neuman, 1999; Neuman & Roskos, 1997). Similarly, the PEERS measures the use of computers and related technologies to support learning across areas, including science and math (e.g., Nir-Gal & Klein, 2004; Vernadakis, Avgerinos, Tsitskari, & Zachopoulou, 2005).

Instruction

Along with elements of the classroom environment, the instruction provided to children has repeatedly been demonstrated to affect their development and learning across content areas. Within the second half of the PEERS, items are grouped into the following four sub-sections: supervision and management; climate; responsive instruction; and facilitating home support for learning. In line with the assumptions of attachment theory and sociocultural theory, the evidence for most items in this portion of the measure is derived from the interactions and relationships between teachers and their students.

The first sub-section in the instruction portion of the PEERS evaluates the supervision and management of the classroom. Several key items that are known to influence learning are measured through observation of the behaviors and interactions of children and teachers in the classroom, as well as classroom rules and routines. For example, children's internalization of rules and routines, and their peaceful movement through the day are evaluated. Although little research has been done on the topic in preschool classrooms, studies focused on classroom management in the upper elementary grades indicate the importance of a peaceful and well-run classroom (see Carter & Doyle, 2006). Along the same lines, the quality of teacher intervention has been shown to affect children's ability to independently, peacefully, and effectively resolve conflicts with their peers (see Slaby, 1995). When preschoolers can employ social problem-solving skills, more time is left for play and learning.

Next, the PEERS builds on research showing the importance of the classroom climate. For example, the observer is directed to gauge the active listening and empathy of the teacher. Teacher-child interactions rich in these elements foster children's socio-emotional competence. This, in turn, provides a foundation that supports development. More specifically, high-quality interactions with teachers and other caregivers foster children's capacity for intimacy and empathy, self-esteem, impulse control and self-regulation, creativity, language acquisition, and ability to problem-solve (Ostrosky, Gaffney, & Thomas, 2006, p. 183). Research indicates that these developmental gains then translate into academic success. The work of Robert Pianta (e.g., Hamre & Pianta, 2001; R. Pianta, Belsky, Houts, Morrison, & the National Institute of Child Health and Human Development's Early Child Care Research Network, 2007; R. Pianta et al., 2005; R. C. Pianta & Stuhlman, 2004) has been particularly influential, spearheading a body of work in this area. The PEERS also measures the engagement, happiness, trust and respect that children demonstrate as a result of these interactions.

Warm and responsive instruction, also measured by the PEERS, has been found to promote learning as well. For example, Connor and colleagues found that first grade children with more responsive teachers demonstrated stronger vocabulary and decoding skills at the end of the year (Connor, Son, Hindman, & Morrison, 2005; see also Graue, Clements, Reynolds, & Niles, 2004). Intentional efforts to expand children's vocabulary also play an important role in facilitating learning. A body of work indicates that such efforts can increase children's vocabulary knowledge (Hargrave & Sénéchal, 2000; Marulis & Neuman, 2010; Neuman, Newman, & Dwyer, 2011; Robbins & Ehri, 1994). This increased vocabulary ability then aids in early reading ability, which, in turn, bootstraps achievement across school subjects. Key research by Keith Stanovich suggesting a reciprocal relationship between reading and cognitive efficiency may well explain this phenomenon (Stanovich, 1986; West, Stanovich, & Mitchell, 1993).

The final subsection of the PEERS measures the facilitation of home support for learning. Parent involvement in school, while complex (Christenson & Sheridan, 2001; Powell, 1994), has been found to mediate the effects of preschool on long-term school achievement (Reynolds, Mavrogenes, Bezruczko, & Hagemann, 1996). Along these lines, Pianta and Walsh (1996) stress the importance of creating shared meaning between schools and parents, interrupting patterns of failure for at-risk children.

Communication between school and home, for example, via newsletters, can aid in making such connections, not only increasing parental involvement, but also extending classroom learning. For instance, Lonigan and Whitehurst's experimental shared reading intervention suggests that, although classroom reading increases children's oral language skills, effects are largest for those also being read to at home (1998). Therefore, it is important both to include a designated area that keeps parents informed of classroom events and learning goals and to encourage parents' active participation in their children's learning and development.

The PEERS closes with an easy-to-use score form. Scores are calculated for both the environment section (total possible score of 85) and instruction section (total possible score of 55). Finally, a composite PEERS score is derived by adding these two scores together, for a total possible score of 140.

Benefits of the PEERS

The PEERS facilitates the identification of evidence of key instructional practices and environmental features. This information can then be used in conjunction with other data to examine current student and school performance, as well as progress made over time. Moreover, the PEERS offers several additional benefits. It is easy to use, with items that are self-explanatory and user-friendly. This means that, in contrast to some measures of classroom quality, minimal training is required prior to its use in order to obtain reliable results. Moreover, it only takes approximately an hour and a half to administer the PEERS. For all of these reasons, the PEERS is extremely well-suited for use by teachers, principals, and external observers conducting a "learning walk" in any school district.

Like other measures of preschool quality, the PEERS represents a vital first step in improving the quality of care and education that preschools provide. Given the importance of kindergarten readiness to future academic success and the sheer number of young children enrolled in center-based care (about 55 percent of children ages 3–6 in 2007, according to the Federal Interagency Forum on Child and Family Statistics), this is critical work. Indeed, we as a nation have long expressed concern that all children arrive in school ready to learn. We hope that the PEERS will be of value in helping early childhood educators design classrooms that will help them do so.

REFERENCES

Bowlby, J. (2008). *Attachment*. New York, NY: Basic Books.

Campbell, P., & Scott-Kassner, C. (2013). *Music in childhood: From preschool through the elementary grades*. New York: Schirmer.

Carter, K., & Doyle, W. (2006). Classroom management in early childhood and elementary classrooms. In C. M. Evertson & C. S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 373-406). New Jersey: Routledge.

Chaille, C., & Britain, L. (1997). *The young child as scientist: A constructivist approach to early childhood science education*. New York: Longman.

Christenson, S., & Sheridan, S. M. E. (2001). *Schools and families: Creating essential connections for learning*. New York: Guilford Press.

Cohen, D. K., Raudenbush, S. W., & Ball, D. L. (2003). Resources, instruction, and research. *Educational evaluation and policy analysis, 25*(2), 119-142.

Cohen, E. P., & Gainer, R. S. (1995). *Art: Another language for learning*. Portsmouth, NH: Heinemann.

Connor, C. M., Son, S., Hindman, A., & Morrison, F. J. (2005). Teacher qualifications, classroom practices, and family characteristics: Complex effects on first graders' language and early reading. *Journal of School Psychology, 43*(343– 375).

Crain-Thoreson, C., & Dale, P. S. (1999). Enhancing linguistic performance: parents and teachers as book reading partners for children with language delays. *Topics in Early Childhood Special Education, 19*(1), 28-39. doi: 10.1177/027112149901900103

Črnčec, R., Wilson, S. J., & Prior, M. (2006). The cognitive and academic benefits of music to children: Facts and fiction. *Educational Psychology, 26*(4), 579-594.

Cross, C. T., Woods, T. A., & Schweingruber, H. (2009). Mathematics learning in early childhood: Paths toward excellence and equity. National Academies Press. Chicago.

Day, D. (1983). *Early childhood education: A human ecological approach*: Scott, Foresman.

Federal Interagency Forum on Child and Family Statistics.). America's children: Key national indicators of well-being, 2013 Retrieved July 5, 2014, from www.childstats.gov.

Foorman, B. R., & Torgesen, J. (2001). Critical elements of classroom and small-group instruction promote reading success in all children. *Learning Disabilities Research & Practice, 16*(4), 203-212.

Gallas, K. (1995). *Talking their way into science: Hearing children's questions and theories, responding with curricula*. New York: Teachers College Press.

Graue, E., Clements, M. A., Reynolds, A. J., & Niles, M. D. (2004). More than teacher directed or child initiated: Preschool curriculum type, parent involvement, and children's outcomes in the Child–Parent Centers. *Education Policy Analysis Archives, 12*, 1-40.

Greenman, J. (1988). *Caring spaces, learning places: Children's environments that work*. Redmond, WA: Exchange Press, Inc.

Gronlund, G., & Engel, B. (2001). *Focused portfolios: A complete assessment for the young child*. St. Paul, MN: Redleaf Press.

Gump, P. (1989). Ecological psychology and issues of play. In M. Bloch & A. D. Pellegrini (Eds.), *The ecological context of children's play* (pp. 35-56). Norwood, NJ: Ablex.

Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development, 72*(2), 625-638.

Hargrave, A. C., & Sénéchal, M. (2000). A book reading intervention with preschool children who have limited vocabularies: The benefits of regular reading and dialogic reading. *Early Childhood Research Quarterly, 15*(1), 75-90.

Harms, T., Clifford, R. M., & Cryer, D. (2005). *Early childhood environment rating scale, revised edition*. New York: Teachers College Press.

Lonigan, C. J., & Whitehurst, G. J. (1998). Relative efficacy of parent and teacher involvement in a shared-reading intervention for preschool children from low-income backgrounds. *Early Childhood Research Quarterly, 13*(2), 263-290. doi: 10.1016/s0885-2006(99)80038-6

Lorenzo-Lasa, R., Ideishi, R. I., & Ideishi, S. K. (2007). Facilitating preschool learning and movement through dance. *Early Childhood Education Journal, 35*(1), 25-31.

Lynch, E. M., & A., S. N. (2001). Children in context: Portfolio assessment in the inclusive early childhood classroom. *Young Exceptional Children, 5*(1), 2-10.

Marcon, R. A. (1999). Differential impact of preschool models on development and early learning of inner-city children: A three-cohort study. *Developmental Psychology, 35*(2), 358.

Marulis, L. M., & Neuman, S. B. (2010). The effects of vocabulary intervention on young children's word learning: A meta-analysis. *Review of Educational Research, 80*(3), 300-335.

Mcgrew, P. L. (1970). Social and spatial density effects on spacing behaviour in preschool children. *Journal of Child Psychology and Psychiatry, 11*(3), 197-205.

Mills, L. (1994). Yes, it can work!: Portfolio assessment with preschoolers.

Mol, S. E., Bus, A. G., & de Jong, M. T. (2009). Interactive Book Reading in Early Education: A Tool to Stimulate Print Knowledge as Well as Oral Language. *Review of Educational Research, 79*(2), 979-1007. doi: 10.3102/0034654309332561

Montie, J., Claxton, J., & Lockhart, S. (2007). A multinational study supports child-initiated learning: Using the findings in your classroom. *Young Children, 62*(6), 22-26.

Moody, A. K., Justice, L. M., & Cabell, S. Q. (2010). Electronic versus traditional storybooks: Relative influence on preschool children's engagement and communication. *Journal of Early Childhood Literacy, 10*(3), 294-313. doi: 10.1177/1468798410372162

Morrow, L. M. (2002). *The literacy center: Contexts for reading and writing* (2nd ed.). Portland, Maine: Stenhouse.

Morrow, L. M., & Smith, J. K. (1990). The effects of group size on interactive storybook reading. *Reading Research Quarterly*, 213-231.

National Mathematics Advisory Panel. (2008). Foundations for success: The final report of the National Mathematics Advisory Panel. US Department of Education.

Neuman, S. B. (1999). Books make a difference: A study of access to literacy. *Reading Research Quarterly, 34*(3), 286-311.

Neuman, S. B., Celano, D. C., Greco, A. N., & Shue, P. (2001). *Access for all: Closing the book gap for children in early education*. Newark, DE: International Reading Association.

Neuman, S. B., Koh, S., & Dwyer, J. (2008). CHELLO: The child/home environmental language and literacy observation. *Early Childhood Research Quarterly, 23*(2), 159-172.

Neuman, S. B., Newman, E. H., & Dwyer, J. (2011). Educational effects of a vocabulary intervention on preschoolers' word knowledge and conceptual development: a cluster-randomized trial. *Reading Research Quarterly, 46*(3), 249-272. doi: 10.1598/rrq.46.3.3

Neuman, S. B., & Roskos, K. (1990). The influence of literacy-enriched play settings on preschoolers' engagement with written language. *National Reading Conference Yearbook, 39*(179-187).

Neuman, S. B., & Roskos, K. (1992). Literacy objects as cultural tools: Effects on children's literacy behaviors in play. *Reading Research Quarterly, 27*(3), 202-225.

Neuman, S. B., & Roskos, K. (1993). Access to print for children of poverty: Differential effects of adult mediation and literacy-enriched play settings on environmental and functional print tasks. *American Educational Research Journal, 30*(1), 95–121.

Neuman, S. B., & Roskos, K. (1997). Literacy knowledge in practice: Contexts of participation for young writers and readers. *Reading Research Quarterly, 32*(1), 10-32.

Nir-Gal, O., & Klein, P. S. (2004). Computers for cognitive development in early Childhood - The teacher's role in the computer learning environment. *Information technology in childhood education annual, 2004*(1), 97-119.

Ostrosky, M. M., Gaffney, J. S., & Thomas, D. V. (2006). The interplay between literacy and relationships in early childhood settings. *Reading & Writing Quarterly, 22*(2), 173-191.

Owocki, G. (2005). *Time for literacy centers: How to organize and differentiate instruction*. PA: Heinemann.

Phyfe-Perkins, E. (1980). Children's behavior in pre-school settings: A review of research concerning the influence of the physical environment. In L. Katz (Ed.), *Current topics in early childhood education* (Vol. 3, pp. 91-123). Norwood, NJ: Ablex.

Pianta, R., Belsky, J., Houts, R., Morrison, F., & the National Institute of Child Health and Human Development's Early Child Care Research Network. (2007). Opportunities to learn in America's elementary classrooms. *Science, 30*(315), 1795-1796.

Pianta, R., Howes, C., Bryant, D., Clifford, R., Early, D., & Barbarin, O. (2005). The features of pre-kindergarten programs, classrooms, and teachers: Do they predict observed classroom quality and child-teacher interactions? *Applied Developmental Science, 9*(3), 144-159.

Pianta, R. C., & Stuhlman, M. W. (2004). Teacher-child relationships and children's success in the first years of school. *School Psychology Review, 33*(3), 444-458.

Pianta, R. C., & Walsh, D. J. (1996). *High-risk children in schools: Constructing sustaining relationships*. New York: Routledge.

Powell, D. R. (1994). Parents, pluralism, and the NAEYC statement on developmentally appropriate practice *Diversity and developmentally appropriate practices: Challenges for early childhood education* (pp. 166-182).

Prior, J., & Gerard, M. R. (2004). *Environmental print in the classroom: Meaningful connections for learning to read*. Newark, DE: International Reading Association.

Reynolds, A. J., Mavrogenes, N. A., Bezruczko, N., & Hagemann, M. (1996). Cognitive and family-support mediators of preschool effectiveness: A confirmatory analysis. *Child Development, 67*(3), 1119-1140.

Robbins, C., & Ehri, L. C. (1994). Reading storybooks to kindergartners helps them learn new vocabulary words. *Journal of Educational Psychology, 86*, 54-64.

Sarama, J., & Clements, D. H. (2009). *Early childhood mathematics education research: Learning trajectories for young children*. Chicago: Routledge.

Sarama, J., Lange, A. A., Clements, D. H., & Wolfe, C. B. (2012). The impacts of an early mathematics curriculum on oral language and literacy. *Early Childhood Research Quarterly*(27), 489-502. doi: 10.1016/j.ecresq.2011.12.002

Schickedanz, J. A. (1999). *Much more than the ABCs: The early stages of reading and writing*. Washington, DC: NAEYC.

Slaby, R. (1995). *Early violence prevention: Tools for teachers of young children*. Washington, DC: National Association for the Education of Young Children.

Smith, M., Dickinson, D., Sangeorge, A., & Anastasopoulos, L. (2002). Early literacy and language classroom observation scale (ELLCO). Baltimore, MD: Paul Brookes.

Stanovich, K. E. (1986). Matthew Effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*(4), 360-407.

Strait, D. L., Parbery-Clark, A., O'Connell, S., & Kraus, N. (2013). Biological impact of preschool music classes on processing speech in noise. Developmental cognitive neuroscience. *6*, 51-60.

Tharp, R. G., & Gallimore, R. (1989). Rousing schools to life. *American Educator: The Professional Journal of the American Federation of Teachers, 132*.

Thompson, C. M. E. (1995). *The visual arts and early childhood learning*. Reston, VA: National Art Education Association.

Trancik, A. M., & Evans, G. W. (1995). Spaces fit for children: Competency in the design of daycare center environments. *Children's Environments, 12*(3), 311-319.

Vernadakis, N., Avgerinos, A., Tsitskari, E., & Zachopoulou, E. (2005). The use of computer assisted instruction in preschool education: Making teaching meaningful. *Early Childhood Education Journal, 33*(2), 99-104.

Vygotsky, L. S. (1978). *Mind and society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wachs, T. D. (1987). Developmental perspectives on designing for development. In C. S. Weinstein & T. G. David (Eds.), *Spaces for children: The built environment and child development* (pp. 291-307): Springer US.

West, R. F., Stanovich, K. E., & Mitchell, H. R. (1993). Reading in the real world and its correlates. *Reading Research Quarterly, 28*(1), 35-50.

Whitehurst, G. J., & Lonigan, C. J. (2003). Emergent literacy: Development from prereaders to readers. In S. B. Neuman & D. K. Dickinson (Eds.), *Handbook of early literacy research* (Vol. 1, pp. 11-29): Guilford Press.

Wolfersberger, M. E., Reutzel, D. R., Sudweeks, R., & Fawson, P. C. (2004). Developing and validating the Classroom Literacy Environmental Profile (CLEP): A tool for examining the "print richness" of early childhood and elementary classrooms. *Journal of Literacy Research, 36*(2), 211-272.

Zimmerman, C. (2000). The development of scientific reasoning skills. *Developmental Review, 20*(1), 99-149.

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Observation Record

PEERS

Observer: _____

School: _____ **Teacher:** _____

Funding stream (e.g. Title I; Magnet; District; Head Start) _____

Date and time of observation: _____

Number of adults in classroom (e.g. teachers, co-teachers, aides, assistants): _____

Total number of children in classroom _____ **Gender: Girls** _____ **Boys**_____

Ethnicity: Caucasian _____ **African-American** _____ **Hispanic** _____ **Other** _____

Number of English language learners: _____

General Comments:

Environment

PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
1. Classroom Organization and Environment	There is **strong** evidence of an intentional approach to the organization of the physical environment.	There is **some** evidence of an intentional approach to the organization of the physical environment.	There is **little** evidence of an intentional approach to the organization of the physical environment.	
Evidence: Organization of room and furnishings, observations of traffic flow, activities and materials available to children. **Notes:**	*a. Furnishings are appropriately sized for young children and are in good repair. The classroom appears well-organized with well-placed furnishings, and is safe and free from hazards.*	*a. Some furnishings are appropriately sized for young children and are in relatively good repair. The classroom may appear somewhat barren or crowded with furnishings, but is safe and free from hazards.*	*a. Furnishings do not appear to be appropriately sized for young children and may be in disrepair. The classroom appears either barren or too crowded with furnishings, may have inadequate lighting, ventilation, or temperature control, or may be unsafe.*	____
	b. The space is intentionally organized rich areas that allow for exploration, as well as and large-group interactions.	*b. The space is intentionally organized, but has limited opportunity for engagement in content-rich activity.*	*b. The space is not intentionally into content-organized and does not allow for individual engagement in content-rich activities. small-*	____
			Average Score	____

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Environment

PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
2. Planning and Documentation Evidence: Classroom schedule, lesson plans, documented content standards, observed instruction, portfolios, and anecdotal records. **Notes:**	There is **strong** evidence of documentation, and that promote	There is **some** evidence of planning, documentation, and assessments that promote learning.	There is **little** evidence of planning, planning, documentation, and assessments assessments that promote learning. learning.	
	a. The daily schedule includes teacher-directed and child-initiated activities. Schedule and grouping flexibility allow children to pursue ongoing investigations related to current activities.	*a. The daily schedule includes some time for teacher-directed and child initiated activity but may not allow for ongoing investigations related to current instructional activities.*	*a. The daily schedule does not include appropriate opportunities for teacher-directed and child-initiated instruction. The classroom may be characterized by strict scheduling and grouping practices or, conversely, by excessive time in unstructured activities.*	____
	b. Lesson plans are maintained and updated weekly, are organized by topic, and are stored in a binder and/or posted.	*b. Lesson plans are maintained and updated weekly, but may be poorly organized. They may not be consistently stored or posted.*	*b. Lesson plans are poorly maintained and updated infrequently. They are not well-organized by topic, and may not be stored in a binder or posted.*	____
	c. Content standards are well instructional activities.	*c. Content standards are documented for some, but not many, instructional activities.*	*c. Content standards are not documented for all documented for instructional activities.*	____
	d. Portfolios, assessments, or other documentation are used to children's ongoing progress.	*d. While portfolios, assessments, or other methods of documentation are used to monitor children's ongoing progress, they may appear out of date or irregularly maintained.*	*d. Portfolios, assessments, or other methods of methods of documentation are not used monitor to monitor children's ongoing progress.*	____
			Average Score	____

Environment

PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
3. Lesson Plans	There is **strong** evidence that instructional activities intentionally key areas.	There is **some** evidence that planned instructional activities are designed to intentionally foster learning in key areas.	There is **little** evidence that planned planned instructional activities are designed to intentionally foster learning in foster learning in key areas.	
Evidence: Contents of lesson plans, observed instructional activities. **Notes:**	*a. Sufficient time is set aside for shared Teachers provide formal and informal opportunities to engage in various settings and group sizes.*	*a. Time is set aside for shared book reading, although it may be infrequent. Teachers may engage children with books in limited settings and groupings.*	*a. Little to no time is set aside for book reading. reading. Teachers do not appear to provide opportunities for engagement with books.*	____
	b. Opportunities are planned for children to see writing and to use their emergent writing skills (e.g., group story-writing). Writing is differentiated from art, and instruction is provided when appropriate.	*b. Opportunities are occasionally planned for children to see writing and to use their emergent writing skills. Writing is often embedded in art. Instruction may be provided at times, or may sometimes be inappropriate.*	*b. Opportunities are rare for children to see writing or use their emergent writing skills. Writing may be solely embedded in art. Instruction is either never provided, or solely when inappropriate.*	_____
	c. Opportunities are provided for children to develop number concepts, logical thinking, and scientific ideas (e.g., board games, sorting, predicting).	*c. Opportunities are sometimes provided for children to develop number concepts, logical thinking, and scientific ideas.*	*c. Opportunities are rarely or never provided for children to develop number concepts, logical thinking, and scientific ideas.*	_____
	d. Music, art, and movement are regularly integrated into the daily plan.	*d. Music, art, and movement are sometimes integrated into the plan.*	*d. Music, art, and movement are rarely or never integrated into the daily plan.*	_____
	e. Instruction across content areas is coordinated with the curriculum and learning goals. Ongoing meaningful themes are used to integrate learning.	*e. Instruction across content areas is somewhat coordinated with the curriculum and learning goals. Themes may not integrate learning.*	*e. Instruction across content areas is not coordinated with the curriculum or learning goals. Themes are not used to integrate learning.*	____
			Average Score	____

Environment

PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
4. Materials and Displays	There is **strong** evidence of an intentional approach to the organization of materials and	There is **some** evidence of an intentional approach to the organization of materials and displays.	There is **little** evidence of an intentional approach to the organization of materials and displays. displays.	
Evidence: Organization and content of materials and classroom displays. **Notes:**	*a. Materials are appealing and accessible, and clearly organized into conceptually related groups. (E.g., a area contains magnifying "samples", and pencils and for recording observations.)* *b. Children have access to many authentic objects (i.e., objects from the natural world), and math and science-related materials.* *c. Displays are related to current investigations (e.g., from exploration) and children's original work.*	*a. Some materials are organized into conceptually related groups, but links between the items may be unclear. (E.g., a science area contains magnifying glasses, a rock collection, an aquarium, and tweezers.)* *b. Children have some access to authentic objects (i.e., objects from the natural world), and math and science-related materials.* *c. Displays may be related to classroom investigations; however, children's work may lack originality and may reinforce singular interpretations of classroom investigations. (E.g., children create identical "cut-and-glue" products).*	*a. Materials may be stored or arranged in a manner that limits their appeal and accessibility to science children. (E.g., in an art area, glasses, markers are out of ink; science paper materials might be in closet.)* *b. Children have little to no access to authentic objects (i.e., objects from the natural world), and math and science-related materials.* *c. There is little or no relationship classroom between displays and current photos/charts classroom investigations. Teacher- highlight generated displays may predominate, with little evidence of children's original work.*	____ ____ ____
	d. Much of the classroom is clearly labeled with print at children's eye level. Print is used for functional purposes (e.g., classroom rules), and is present in play props (e.g., menus in kitchen area).	*d. Only some classroom areas are labeled with print at children's eye level. is used for functional purposes, but may not be present in play props.*	*d. Print is not used to label classroom areas. It is not used functionally in the Print classroom, and is not incorporated into play areas.*	____ ____
				Average Score

Environment

PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
5. Books and Computers	There is **strong** evidence that information resources such as books and technology are used systematically to support children's learning.	There is **some** evidence that information resources such as books and technology are used systematically to support children's learning.	There is **little** evidence that information resources such as books and technology are used systematically to support children's learning.	
Evidence: Classroom contents, observations of activities, and materials available to children.	*a. A distinct book area exists with a of books that are accessible to and are in good condition.*	*a. A book area might exist but it is not distinct from other areas. Although there may be books available, some are not in good condition.*	*a. There is no book area, and displays of variety books may be unorganized and may children, limit appeal and accessibility to children. The numbers, conditions, and variety of books may be seriously limited.*	____
Notes:	*b. Computers and/or other technologies available and accessible to children, their regular use is encouraged. Technology in the classroom is used to support learning in a variety of areas, as science, math, and literacy.*	*b. Computers and/or technologies are available and accessible to children, although their regular use may not be encouraged. Technology is sometimes used to support such learning in a few areas.*	*b. Computers and technologies are not are available, or are inaccessible to children. and Technology is rarely or never used to support learning.*	____
			Average Score	____

Instruction PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
6. Supervision and Management	There is **strong** evidence of adequate and appropriate supervision and classroom management.	There is **some** evidence of adequate and appropriate supervision and classroom management.	There is **little** evidence of adequate and appropriate supervision and classroom management.	
Evidence: Observations of the rules and routines in classroom management. **Notes:**	*a. Children appear to have internalized regular rules and routines, and move throughout the classroom day smoothly, purposefully, and peacefully.*	*a. Children appear to understand regular rules and routines, but there are occasional needs to remind them.*	*a. Children appear to have limited understanding of regular rules and routines. They may engage in conflicts and appear to lack engagement in purposeful activity.*	____
	b. Teacher intervention in conflicts is calm, nonthreatening, and leads toward peaceful, independent (i.e., alone or with peers) resolutions.	*b. Teacher intervenes in conflicts, but in a way that might not lead to peaceful resolutions. The teacher consistently resolves conflicts with children.*	*b. Teacher may fail to identify conflicts or may resolve them in an arbitrary or children harsh manner.*	____
	c. Adults can easily view all areas used children, and show awareness of whole group at all times.	*c. Adults can see most of the areas used by children, and are usually aware of the whole group.*	*c. Adults are unable to see all areas used by by children, or may appear unaware of the the whole group.*	____
			Average Score	____

Instruction PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
7. Climate	There is **strong** evidence that children's social and personal development is fostered.	There is **some** evidence that children's social and personal development is fostered.	There is **little** evidence that children's social and personal development is fostered.	
Evidence: Observed interactions, behavior, and demeanors. **Notes:**	*a. Teachers model active listening and empathy. Unpleasant or harsh interactions between teachers and children are not observed.*	*a. Teachers provide some modeling of active listening and empathy. Occasional unpleasant or harsh interactions between teachers and children may be observed.*	*a. Teachers do not model active listening or empathy. Teachers may yell at children or use sarcasm with them.*	____
	b. Children are actively engaged and happy, and their interactions demonstrate mutual trust & respect. Children's autonomy appears to be encouraged through opportunities to make choices for themselves.	*b. Most children are engaged and happy. Children's interactions tend to demonstrate mutual trust and respect, although some may be unpleasant. Children are provided with limited choices.*	*b. Children may appear unengaged or unhappy, and their interactions may demonstrate distrust or a lack of mutual respect. Children may be directed about the classroom, rather than allowed to explore possibilities.*	____
			Average Score	____

Instruction PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
8. Responsive Instruction	There is **strong** evidence of responses to children's interests and activities.	There is **some** evidence of positive responses to children's interests and activities.	There is **little** evidence of positive positive responses to children's interests and activities.	
Evidence: Teacher's responses to children's questions or requests. **Notes:**	*a. Teachers regularly respond contingently to children's questions queries in ways that support children's learning. Regular, efforts are made to expand children's spoken vocabulary.*	*a. Teachers occasionally respond contingently to children's questions and queries in ways that support children's learning. Some efforts are made to expand children's spoken vocabularies.*	*a. Teachers rarely or never respond contingently to children's questions and and queries in ways that support children's learning. Few efforts are made to intentional expand children's spoken vocabulary.*	____
	b. Teachers regularly use verbal encouragement in ways that are related to an actual task behavior.	*b. Teachers occasionally use verbal encouragement in ways that are genuine and related to an actual task of behavior.*	*b. Teachers rarely or never use verbal encouragement in ways that are genuine and genuine and related to an actual task of of behavior.*	____
	c. Teachers regularly acknowledge children's accomplishments or attempts with specific comments.	*c. Teachers occasionally acknowledge children's accomplishments or attempts with specific comments.*	*c. Teachers rarely or never acknowledge children's accomplishments or attempts with specific comments.*	____
	d. Teachers adjust the lesson to accommodate children's needs, and effective strategies to help apply their knowledge.	*d. Teachers sometimes adjust the lesson to accommodate children's needs, and use effective strategies to help students apply their knowledge.*	*d. Teachers rarely or never adjust the lesson to accommodate children's needs, uses and use effective strategies to help students students apply their knowledge.*	____
			Average Score	____

Instruction PEERS

	5 4 Excellent	3 2 Basic	1 Deficient	
9. Facilitating Home Support for Learning Evidence: Newsletters and other home-school contact information. **Notes:**	There is **strong** evidence that support is considered classroom-based and goals.	There is **some** evidence that home support is considered integral to classroom-based programs and goals.	There is **little** evidence that home home support is considered integral to integral to classroom-based programs programs and goals.	
	a. A distinct area with a variety of materials is dedicated to keep parents and to encourage their support in children's learning and development.	*a. There is a distinct area dedicated to family involvement to support children's learning and development but materials are limited.*	a. *There is neither a distinct area nor materials available to encourage informed family support in children's learning and development.*	____
	b. Families are frequently provided appropriate materials and meaningful activities that support children's learning.	*b. Families are occasionally provided with with materials and assignments intended to support children's learning.*	*b. Families are not provided with materials and assignments that support children's learning.*	
			Average Score	____

Score Form

PEERS

Environment	Score
1. Classroom Organization and Environment	
2. Planning and Documentation	
3. Lesson Plans	
4. Materials and Displays	
5. Books and Computers	
Environment subtotal	
Instruction	
6. Supervision and Management	
7. Climate	
8. Responsive Instruction	
9. Facilitating Home Support for Learning	
Instruction subtotal	
Total PEERS Score	

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PEERS

	1. This question corresponds with item 2b	
	● **How do you plan your instruction and activities?**	
Interview Questions	● Key words to look for: frequency of planning, theme-based, lesson plans	
	● (follow up question) **Can I see a recent lesson plan?**	
	2. This question corresponds with item 2d	
These questions are only used if needed and not observed during the observation period.	● **How do you document children's progress?**	
	● Key words to look for: portfolios, assessments	
	● (follow up question) **Can I see an example of what you use?**	
	3. This question corresponds with item 5b	
Questions are in **bold**	● **How do you use technology with the children in your classroom?**	
	4. This question corresponds with item 6b	
	● **Let's say that two children are having a disagreement, what would you do?**	
Notes:		
	5. This question corresponds with item 9b	
	● **What type of materials do you provide to the family to support children's learning?**	
	● (follow up question) **Can I see an example of some materials?**	