Early Childhood Examples & Definitions for Multilingual Learners

Content developers can improve their educational materials by incorporating the following research-based recommendations related to early grades mathematics and language instruction:

- Create purposeful, equitable, and consistent opportunities for all children to interact with one another and with the content they are learning.
- Make play and routines a crucial part of the language development and learning process.
- Use authentic concrete representations, manipulatives, and realia to support meaning making and language development.
- Use mathematizing activities and practices that come from children, their families, and their communities.
- Develop oral language as the foundation for language, literacy, and all learning

A full description of these recommendations and a review of the empirical research from which they are drawn is available in the *Research Background for the Early Childhood (PK–2) Supplement*.

The following examples and definitions serve as a resource for content developers to better understand what these recommendations look like in instructional materials and in the classroom. This resource includes the following sections:

1. Vignette of Kindergarten Classroom
2. Different Types of Play
3. Concrete Representations
4. Daily Routines
5. References

1. Vignette of Kindergarten Classroom

The following classroom description is provided for the reader to use as a sample learning context and is referred to throughout the remaining sections of this resource. This classroom description illustrates how language and content learning are integrated into difference types of play, the use of realia, and objects, and daily routines for young multilingual learners.

Ms. Julie, a teacher in a kindergarten classroom in New York City, noticed that Gabriel, a young multilingual learner in her classroom, has developed an interest in trains. He brings a toy train with him to school and frequently chooses to draw trains during Writer's Workshop. In math, the class is learning about length and height and how to use the words "shorter," "longer,"and "taller" to compare objects. Ms. Julie transforms the block center in the classroom into a train building station to meaningfully support Gabriel's language and mathematical content development in this area. She puts out blocks that connect and stack for building, clipboards with paper and pencils for planning, pieces of yarn for measuring and she decorates the space with signs that resemble those of NYC train stations.

She introduces the new center to the whole class during Circle Time.

"Today I was called by the leader of the New York City subway! She told me that they need us to be their new train designers! She heard that we are learning all about measurement, how long, short, or tall things are. She asked us to build trains of different lengths. Some need to be shorter than others and some need to be longer."

Ms. Julie explains all of the materials that are now available in the center while she holds them and shows how to use the materials to build a train. Then she asks a child to join her at the front of the circle to build a train that is shorter than hers to demonstrate to the children how to use the materials.

During center time, she observes Gabriel and his peers in the block center as they build their trains. After observing for a few minutes, she notices that Gabriel is not interacting with his peers. She joins in on the play in order to scaffold Gabriel's interactions with his peers and support his language use.

"Gabriel, I notice that your train looks long. I wonder if it is longer than Suzy's train? Suzy and Gabriel, should we use the string to compare the lengths of your trains?"

Gabriel and Suzy jump up to fetch the measuring string. Ms. Julie supports them as they work together to count how many pieces-of-string long their trains are.

"Suzy, how many pieces-of-string long is your train?"

"Two!"

"Gabriel, how many pieces-of-string long is your train?"

"Three!"

"Whose train is longer?"

"Gabriel's!"

"Oh... so Gabriel, your train is longer than Suzy's train. Suzy's train is shorter than your train."

To connect the learning to Gabriel's interests, Ms. Julie integrates the toy train that Gabriel brings to school every day.

"Gabriel, I wonder how long your toy train from home is compared to the train you just built. Go get your train from your backpack!" Gabriel excitedly races to his bag and brings back his toy train.

Ms. Julie says, "Gabriel and Suzy, work together to measure Gabriel's toy train. Then, let's see if it is longer or shorter than Gabriel's train that he just built!"

She steps back and observes Suzy and Gabriel work together. As they collaborate, she takes note of what math language Gabriel uses. She asks Gabriel if he remembers what he calls trains when he's at home, and prompts Gabriel to tell her how to say "long train" and "short train" in his home language.

2. Different Types of Play

What is play?

Decades of research support the importance of play for learning and development, particularly for our youngest learners (Elkind, 2008; Schweinhart, Barnes, & Weikart, 1993; Colliver et al., 2022). For learning to occur during play, the experience should have certain characteristics (Hirsh-Pasek & Hadini, 2020; Zosh et al., 2017, 2018; Hirsh-Pasek et. al, 2015). Children learn through play when the activity is *actively engaging*, meaning it is not only hands-on but also minds-on.

In the vignette above, not only does Gabriel physically manipulate objects, but his mind is also engaged in thinking about how he can make trains a certain length. The play experience must be *meaningful* by giving children the opportunity to draw connections between their unique set of experiences and their interests. The train-building experience is certainly meaningful for Gabriel because he incorporates his interests in trains (and even his toy train!). Ms. Julie also makes the experience meaningful by relating it to the NYC subway system, something familiar to all of the children in the group.

The play experience should be *joyful*, rather than dull. How joyful it is for Gabriel and his peers to practice concepts of length in this playful way! Children also tend to build deeper understanding when learning is *socially interactive*. We see this in how Ms. Julie encourages Gabriel and Suzy to collaborate. Playful learning involves *iterative* thinking, where children should have the opportunity to test and try out different hypotheses to get closer to solving a problem. Gabriel and his peers have the opportunity to do this as they try out making trains of different lengths.

What does research tell us about what types of play may be most beneficial to promoting language and learning for young multilingual learners?

Play experiences naturally foster meaningful language experiences that are tied to concrete objects and realia. Play is an authentic way for children to engage with others and allows them to practice their developing and interconnected skills across all domains of development (physical, cognitive, social-emotional). Through this interaction naturally afforded during play experiences, young multilingual learners have the opportunity to try out new language in a space that feels fun and safe (Baker, 2019; Tabors, 2008). Play also helps children reinforce word meanings as they observe peers use language to describe objects that they play with and interact with the objects themselves (Tsao, 2008). Children can remember words better when talk is connected to something that they are interested in or something that is relevant (Barone & Xu, 2008). Play is also conducive to the inclusion of children's home language and culture, which supports their engagement and feelings of belonging (Tabors, 2008). Play can incorporate and validate aspects of home and home language so that children associate home culture and language with learning and fun.

All young children benefit from a myriad of play opportunities. Certain types of play are particularly beneficial to promoting language and learning for young children who are learning English as an additional language.

2a. Guided Play

Definition	Guided play is adult-initiated and child-directed. It is situated in between free play and direct instruction. In guided play, children are autonomous within a prepared environment and the adult scaffolds the child's learning to support their progress towards a learning goal (Weisberg et al., 2016).
Benefits	Research suggests that this kind of play tends to lead to better learning outcomes than free play or direct instruction (see Skene et al., 2022, for a review; Fisher et al., 2013). During guided play, teachers can support multilingual learners by: (1) curating an environment that fits the child's unique language abilities and naturally integrates their funds of knowledge and realia (including items from home and culture) and (2) scaffolding language and social interaction by narrating the play or by facilitating interactions with peers (Dominguez & Trawick-Smith, 2018).

2b. Socio-dramatic Play

Definition	Sociodramatic play can occur within the context of guided or free play and involves six characteristics: 1) make-believe using objects; (2) assuming a make-believe role; (3) make-believe in a situation or action; (4) persisting in the face of challenges; (5) using language to communicate in the context of play; and (6) interacting socially during play (Smilansky, 1968; as cited in Banerjee et al., 2016).
Benefits	Socio-dramatic play is particularly conducive to language use and learning, as children collaborate to make up and act out their own storyline. Within socio-dramatic play, vocabulary for concrete objects is reinforced, as objects play an important role in helping children tell their stories. Furthermore, socio-dramatic play offers the space for teachers to curate the space based on children's interests and target language goals. It also offers a natural way to incorporate items from home and home language. Since socio-dramatic play often operates around a theme (e.g., house, doctor, supermarket) it gives young multilingual learners the chance to hear context-embedded language (Barone & Xu, 2008). It can also reflect themes children are familiar with from home and in their communities.

2c. Scripted Play

Definition	In scripted play, an adult introduces the roles and objects available for play and gives background information for the play experience as well as a demonstration.

Benefits	Scripted play provides beneficial scaffolding for young multilingual learners as it gives them the opportunity to prepare for the play experience and be exposed to content-specific language beforehand (Tabors, 2008). This type of play should reflect the practices children participate in at home and in their communities. It is important that teachers take time to know their learners and families in order to incorporate familiar and relevant contexts for scripted play.

2d. Free Play

Definition	Free play is child-initiated and child-directed. Within a free play experience, children have the freedom to explore with minimal constraints. There is no predetermined goal (Zosh et al., 2018).
Benefits	Since teachers are not directly involved in a free play experience, they should take time to observe the child and their language use during the experience and take anecdotal records that act as a form of formative assessment. Teachers can listen for use of home language during play, as well as the use of content-specific language. Checklists to track language use are particularly helpful. Free play is a window into a child's preferences since the child chooses their activity and has freedom over their actions within that activity. Teachers should take note and consider what they learn about young multilingual learners to make future lessons and activities more meaningful.

2e. Games

Definition	Playful learning with games involves games that are voluntary and enjoyable and that have rules that players must follow to meet the goal that is inherent within the games system (Hassinger-Das et al., 2017).
Benefits	Games offer multiple exposures to new language. The repetitive and predictable nature of games gives young multilingual learners repeated opportunities to hear, practice, and apply new language in an engaging way. Games can be a useful space for teachers to uncover children's thinking (e.g., math concepts and strategies) and to support engagement with meaningful activities with important concepts embedded within them. As children play games, they take up the mathematical and linguistic practices that are used to participate. Games can also draw on participation structures that are often familiar to young multilingual learners, thus broadening access to activities with important concepts and ideas (Hassinger-Das et al., 2017).

3. Concrete Representations

Early childhood learning environments are often filled with a variety of objects for children to use and explore. These objects can include games, manipulatives, and tools for specific interest areas (i.e., a cash register in a pretend store) (Wager, 2013). Other materials include blocks, toys, dolls, and trains. Instructional materials can guide teachers to use and incorporate these materials and objects into interest areas, play centers, or use them to encourage hands-on play and problem solving (Wager, 2013). Instructional materials can also show teachers how to connect language and concepts to objects and make these connections explicit and visible for young multilingual learners.

Teachers can use relevant and particularly meaningful realia and authentic objects from the children's homes, culture and communities to make meaningful connections between language and content (Echevarría, Vogt & Short, 2014). While realia helps young multilingual learners to build understanding of the world around them, it also promotes rich dialogue and learning content-specific vocabulary (Kinard & Gainer, 2015). The use of familiar objects to teach new concepts provides an effective scaffold for natural bridging of a child's home and new language (Goldenberg, Hick & Lit, 2013).

For early numeracy, mathematical ideas may not be obvious to children without guidance or prior instruction when they use games, manipulatives or interest areas (e.g., how to play a game, how to use base ten blocks, how to use a cash register) (Fuson, 2009; Perry & Dockett, 2002). Instructional materials can show teachers how to foster connections between these objects, language, and math concepts.

The following examples provide descriptions of various hands-on and concrete materials which can be used in the early grades to support content and language learning:

3a. Board Games

What: Include a variety of developmentally appropriate board games that have various participation structures (partners, small groups, taking turns, working together) as well as various features (e.g. dice, spinners, or cards) with the goal of getting to the end or figuring out the clues to solve a riddle.

How: Teachers should introduce board games and parameters for participation, before leaving them out for children to play on their own. Board games can give children opportunities to participate in various math practices like counting, adding and subtracting and use content language in low-stakes environments.

For Mathematics	For Literacy
Teachers can observe and interact with children playing games to better understand their mathematical thinking and listen for their use of mathematical language.	Board games can be adapted to target specific language goals. They can be a vehicle for reinforcing certain vocabulary, and phonics, sentence structures, and grammar rules.

For Mathematics	For Literacy
Teachers can adjust the goals of the game for emergent bilinguals to offer practice for mathematics (add 10, take away ten, race to 100). Teachers can use games to prompt mathematical discussions (e.g., what was the most efficient way to get to 100, how many spins would it take to move ahead of your partner)	Teachers can intentionally group learners to give a variety of language opportunities (paired with an English speaking learner, paired with another multilingual learner, or paired with a learner whose home language is the same)

3b. Manipulatives & Realia

What: Manipulatives can include traditional items like counting bears, pattern blocks, links, dominos, dice, and counters as well as familiar objects like jacks, paintbrushes, and cubes. Realia includes objects from everyday life, such as objects from children's homes, culture, and communities.

How: Teachers need to explicitly show and tell children how to use manipulatives in ways that align with the goal of an activity. After introductions, children can use manipulatives during games and activities. The use of realia and everyday objects from children's homes and communities can interest children and increase access to activities in familiar contexts.

For Mathematics	For Literacy
Manipulatives and objects should be used to model thinking and doing mathematics (e.g. using counters for addition and subtractions, sorting objects to identify quantity). Children should have a variety of opportunities to connect multiple representations including objects/ manipulatives, equations, numbers, drawings, etc. with concepts and with mathematical language. Realia and objects that are familiar to multilingual learners can be used to contextualize mathematics problems.	The use of realia, objects, and materials from everyday life, supports language comprehension, particularly when students have the opportunity to manipulate the materials themselves. For example, if a class is learning about modes of transportation, the curriculum should include real train and bus maps, tickets and schedules, ideally from the students' community. Teachers can elicit students' experiences with trains and model how to use these items, including emphasizing vocabulary. Students can explore the objects and use them in their play.

3c. Learning Center Tools

What: There are many items used in interest areas (e.g., a cash register in a play kitchen, a magnifying glass in a science area, dolls) to support play and social interaction.

How: Teachers can interact with these items to model relevant language and connections to concepts. Materials should give teachers prompts for eliciting tools/objects for interest areas that reflect objects that children use in their homes and communities. Interest areas should be utilized as places to connect to children's homes and communities and a place for purposeful learning.

For Mathematics	For Literacy
Teachers can uncover the mathematical practices children participate in while playing in interest areas (e.g. selling and buying food in a play grocery store, weighing ingredients in a play bakery using various methods like eyeballing, measuring cups, and proportions, and designing and identifying angles and shapes in a construction/building area). Interest areas can reflect what young multilingual learners and their families do in their homes and communities. Teachers may elicit information from their children's about what they like to do on the weekends and after school. Teachers may collect these interests and build a pretend worlds fair with food stations, buying and selling, building, painting, sports, and many other interests. The teacher can highlight the mathematical practices that already exist in these places.	Physical objects, particularly those that relate to a children's interest and culture, can be powerful vehicles for language learning. Teachers can use the Language Experience Approach using an object of interest. A child or teacher can share an object of interest to inspire rich dialogue. From there, the teacher uses and elaborates on the language they hear to model speech-to-print matching.

3d. Blocks

What: Blocks can come from sets of blocks with various shapes and can also come from everyday items seen at home (cereal boxes, books, tissue boxes, shipping boxes, etc).

How: Blocks and block centers can help teachers uncover mathematical concepts and develop literacy. Block play can be integrated into teacher-led activities as well as being left out for children to play with on their own.

For Mathematics	For Literacy
Materials can prompt teachers to ask questions and elicit a child's language about quantity, shapes, comparisons, and other mathematical concepts. Teachers should have examples in materials of ways to incorporate block play into mathematical activities (e.g. comparing two towers, building using different shapes).	Teachers should have examples of open ended questions to ask during block play to prompt children to use oral language and discuss what they see. Materials should offer language forms to use when using block play (e.g. tall, wide, narrow, building, technique, strategy, construction, above, below, on top of).

4. Daily Routines

A consistent daily schedule and routine help young multilingual learners easily pick up cues and know "what to do and when" in the classroom (Tabors, 2008, p.97). The predictable and consistent daily routines support them to feel and act as part of the group. Along with routines comes consistent and predictable language. The repetitive nature of language associated with daily routines supports learners to understand and more comfortably participate (Tabors, 2008). The physical environment should reflect the predictability of daily routines (Barone & Xu, 2008). The integration of a focus on language throughout consistent routines builds a culture of word-consciousness and thinking about language.

4a. Morning Meeting & Circle Time

Keep to a certain order of morning meeting routines to help young multilingual learners predict the sequence of events. Include predictable language within these routines for

For Mathematics	For Literacy
Keep a graph of the daily weather and use it to emphasize language related to weather. Count the days on the calendar (by 1s and 2s) and note odd and even numbers. Keep track of the number of days you've been in school by 1s, 10s, 100s.	Include show and tell and/or "Me Bags" (small paper bags that children decorate and fill with small items or pictures from home) as a way for children to routinely share something special from home (take note of children's interests and connect to learning as much as possible!).

For Mathematics	For Literacy
Use different ways to find out how many students are present (e.g., one-to-one counting, counting by 2s, tallies, using cubes to represent students, adding and subtracting).	Include the same songs and movements, as well as songs from home, during circle time. Young multilingual learners often "find their voice" when they sing songs.

Highlight relevant vocabulary when taking attendance in creative ways. Point to what is referenced and also incorporate students' home language (e.g., "Raise your hand if you are wearing sneakers, los tenis!" "Raise your hand if you're wearing boots, las botas!" "Let's add them together to find out how many friends are here today!")

Study a child of the day and build the letters of their name. Include how children write their names in their home language. Use this as an opportunity to use language related to characteristics, interests, and feelings.

4b. Story Time

Incorporate (and create!) books that include children's home language, as well as interests and culture. While reading, be sure to make connections to children's funds of knowledge and to compare and contrast with other familiar texts. Young multilingual learners also benefit from texts that have patterns in them (including repetitive

For Mathematics	For Literacy
Incorporate books that make connections to various mathematical concepts (e.g., multiple representations of number, various properties of shape). Ask children about what they notice and wonder about math in their everyday experience, routines, at home and in their communities.	Consider the background knowledge necessary to comprehend a story before reading it. Introduce key themes and vocabulary about the story prior to reading. Include realia and video when necessary. Be sure to hone in on certain pages that have new language and/or concepts that need extra reinforcement during reading by pausing to connect the words to the illustration.

Books can be read multiple times in the same week, with attention placed on different features of the text during each reading.

Emphasize literary terminology when recounting the story (e.g., "In the *beginning* of this book, the *character* _____. *Next*, *in the middle* of the story the ___. In the *end*, the *problem* was *solved* because _____."

4c. Snack & Meal Time

Be intentional about how children are grouped. Consider sitting sociable English-speaking children next to multilingual children and partnering children with home language peers.

For Mathematics	For Literacy
Involve children in counting out snacks or utensils if the group shares snacks. Emphasize math talk related to number and amount (Will we have *enough* for everyone? How many should each person get? Did everyone get an *equal* amount?) Emphasize math talk related to the food	Reinforce mealtime vocabulary in both English and home language (e.g., types of food, utensils, etc.). Ask children to describe foods and flavors or to recount meals at home. Take advantage of the unstructured time to ask children questions and learn more about their interests and experiences.
(e.g., I notice you have five orange slices left. [child takes a bite] Oh! Now you have four.").Model counting or categorizing food (e.g. "Joey has an apple and Yolanda has an orange, they both have fruit! I have carrots and Alex has celery sticks, we have vegetables!") and expand on what you notice (e.g., "Who else has fruit for snack today?).	

4d. Centers

Create centers using objects and activities that are familiar to young multilingual learners and use these to support numeracy and language development.

For Mathematics	For Literacy
Call attention to math language and concepts during centers (e.g., "I noticed you used 1...2...3 blocks for your tower. Now you are adding 1 more. You have 1, 2, 3, 4 blocks now!") Integrate items that encourage mathematical language like number lines, measurement tools (cups, rulers, string), scales, and money when possible (e.g., If the Dramatic Play center is a store, include money and a scale for the children to weigh food).	Include clipboards, paper, and pencils at every center and encourage children to draw and write about their play (e.g., "Let's draw and label the parts of your building!", "Let's write a menu for our restaurant!") Scaffold language during center time by calling attention to certain vocabulary (e.g., At the sand table: "Let's use the *sieve* to *filter* the dinosaur *fossils* in here.") or event-cast what they are doing for them (In the Dramatic Play Center:
"I noticed you are using the knife to chop the vegetables on the cutting board. A tomato (points), corn (points), and carrots (points). I wonder what you will cook with all of these vegetables!").	

4e. Lining Up & Coming to the Rug

Children should be assigned a spot in line to maintain predictability and minimize conflict (consider switching off who gets to serve as Line Leader and the end of the line by week).

For Mathematics	For Literacy
Prompt children to count as they line up or come to the rug one by one or in small groups. Encourage children to sit in different shapes on the rug (e.g., sit in a circle, square, triangle, diamond). Talk to the children about what they notice and wonder about the shapes they are sitting in.	Use fun ways to call children to the rug and line up that emphasize different vocabulary and include children's home language (e.g. "If you are wearing a red shirt today, *hóng chènshān*, come to the rug!" "If you have a younger brother, line up!") Use fun ways to call the children to the rug and line up that teaches different movement language (e.g., "Hop to the rug!" "Slide to the line."). Include children in coming up with different ways they can move to the rug or the line.

4f. Recess

Intentionally group young multilingual learners with English-speaking children or with home language peers during collaborative games. Ask parents and children what games they play at home and have them help you lead the game during recess time.

For Mathematics	For Literacy
Emphasize math language in physical play (e.g., "Wow you are running so *fast*! Can you walk *sloooowly* like me?") It is important that children have time to play freely during recess, but consider curating the recess environment to promote math language (e.g., drawing hopscotch, including balls of different sizes and weights, etc.)	Narrate children's movement (e.g., "You are hopping *through* the tunnel. Now you are tiptoeing *across* the balance beam."). As the class walks inside from recess, ask children to talk about what they played at recess (e.g., "Who did you play with? What did you do? Where did you go?").

4g. Throughout the Day

Provide a running commentary or "event casting"—talk through what you are doing while you do it. This not only supports vocabulary learning but also syntactic structure.

Young multilingual learners may find it difficult to speak in front of the whole class initially. Include varied groupings of children throughout the day (e.g., Turn-and-Talk, Think-Pair-Share, small groups).

For Mathematics	For Literacy
Emphasize sequential language to describe expectations (e.g., *first*, put away your coat, *then* get your book, *last* come to the rug). Use math language to describe objects and groups (e.g., "Wow! This bag is so *heavy*! I should take a book out to make it *lighter*!", "There are *fewer* sharpened pencils than unsharpened pencils. We need to sharpen *more* pencils before we run out!") Point out the shape, size, and length when describing objects (e.g., "Sammy, will you pass me the round eraser." "I am going to use my square sticky note to mark our spot in the book.")	Label items around the classroom in different languages that are color-coded and refer to it when referencing different spaces and items around the room. Give the table groups different names by theme every month and change the labels for the table (e.g., Transportation: the Car table, the Airplane table, the Train table, the Boat table, the Helicopter table). Invite children to bring in items from home related to the unit theme (e.g., if the theme is animals, children can bring in a stuffed animal or animal figurine).

References

Barone, D.M. & Xu, S.H. (2008). *Literacy Instruction for English Language Learners PreK-2.* New York: Guilford Press.

Baker, M. (2019). Playing, Talking, Co-constructing: Exemplary Teaching for Young Dual Language Learners Across Program Types. *Early Childhood Education Journal*, 47(1), 115–130. https://doi.org/10.1007/s10643-018-0903-0

Banerjee, R., Alsalman, A., & Alqafari, S. (2015). Supporting Sociodramatic Play in Preschools to Promote Language and Literacy Skills of English Language Learners. *Early Childhood Education Journal*, 44. https://doi.org/10.1007/s10643-015-0715-4

Castro, D. C., Páez, M. M., Dickinson, D. K., & Frede, E. (2011). Promoting Language and Literacy in Young Dual Language Learners: Research, Practice, and Policy. *Child Development Perspectives*, 5(1), 15–21. https://doi.org/10.1111/j.1750-8606.2010.00142.x

Dominguez, S., & Trawick-Smith, J. (2018). A Qualitative Study of the Play of Dual Language Learners in an English-Speaking Preschool. *Early Childhood Education Journal*, 46. https://doi.org/10.1007/s10643-018-0889-7

Echevarría, J., Vogt, M.E., & Short, D. (2014). *Making content comprehensible for elementary english learners: The SIOP model.* (2nd ed.) Boston, MA: Pearson.

Fisher, K. R., Hirsh-Pasek, K., Newcombe, N., & Golinkoff, R. M. (2013). Taking Shape: Supporting Preschoolers' Acquisition of Geometric Knowledge Through Guided Play. *Child Development*, 84(6), 1872–1878. https://doi.org/10.1111/cdev.12091

Fuson, K. C. (2009) Avoiding misinterpretations of Piaget and Vygotsky: Mathematical teaching without learning, learning without teaching, or helpful learning-path teaching? *Cognitive Development*, 24(4), 343-361. doi: 10.1016/j.cogdev.2009.09.009

Goldenberg, C., Hick, J., & Lit, I. (2013). Teaching young English learners. In D. R. Reutzel (Ed.), Handbook of research-based practice in early education (pp. 140-160). New York, NY: Guilford Press.

Hassinger-Das, B., Toub, T. S., Zosh, J. M., Michnick, J., Golinkoff, R., & Hirsh-Pasek, K. (2017). More than just fun: A place for games in playful learning / Más que diversión: el lugar de los juegos reglados en el aprendizaje lúdico. *Infancia y Aprendizaje*, 40(2), 191–218. https://doi.org/10.1080/02103702.2017.1292684

Kinard, T., & Gainer, J. (2015). Talking science in an ESL Pre-K: Theory-building with realia. *Dimensions of Early Childhood*, 43(1), 16-24.

Nurnberger-Haag, J. (2017) A cautionary tale: How children's books (mis)teach shapes. *Early Education and Development*. 28(4), 415-440

Perry, B. & Dockett, S. (2002) Chapter 5: Young children's access to powerful mathematical ideas. In L. D. English & D. Kirshner (Eds.), *Handbook of International Research in Mathematics Education*. (pp.81-111). New York, NY: Routledge.

Powell, S R & Nurnberger-Haag, J (2015) Everybody counts, but usually just to 10! A systematic analysis of number representations in children's books. *Early Education and Development*, 26. 377-398.

Sembiante, S. F., Bengochea, A., & Gort, M. (2020). "Want me to show you?": Emergent bilingual preschoolers' multimodal resourcing in show-and-tell activity. *Linguistics and Education*, 55, 100794. https://doi.org/10.1016/j.linged.2019.100794

Skene, K., O'Farrelly, C.M., Byrne, E. M., Kirby, N., Stevens, E. C., & Ramchandani, P. G. (2022). Can guidance during play enhance children's learning and development in educational contexts? A systematic review and meta-analysis. *Child Development*, 00, 1–19. https://doi.org/10.1111/cdev.13730

Roskos, K. A., & Christie, J. F. (2013). Gaining Ground in Understanding the Play-Literacy Relationship. *American Journal of Play*, 6(1), 82–97.

Tabors, P.O. (2008). *One Child, Two Languages*. (2nd ed.). Brookes Publishing.

Tsao, Y-L. (2008). Using guided play to enhance children's conversation, creativity and competence in literacy. *Education*, 128(3).

Wager, A. (2013) Practices that support mathematics learning in a play-based classroom. *In English, L. D. & Mulligan, J.T. (Eds)., Reconceptualizing Early Mathematics Learning.*

Weisberg, D. S., Hirsh, P. K., & Golinkoff, R. M. (2013). Guided Play: Where Curricular Goals Meet a Playful Pedagogy. *Mind, Brain & Education*, 7(2), 104–112. https://doi-org.tc.idm.oclc.org/10.1111/mbe.12015

Zosh, J. M., Hirsh-Pasek, K., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Lynneth, S.S., Whitebread, D. (2018). Accessing the Inaccessible: Redefining Play as a Spectrum. *Frontiers in psychology*, 9, 1124. doi:10.3389/fpsyg.2018.0112