

Bugs in a Bag: Literacy through Language Activities

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Abstract

Early literacy is the primary focus in many early childhood education programs because of its predictors of later school academic success. While explicit instruction is effective in teaching young children early literacy skills, activities that encourage children's active participation are also a promising avenue for supporting young children's learning. Therefore, the purpose of this article is to present an idea of how to use a literacy bag to engage children's language activities that classroom teachers can do to promote early literacy in early childhood settings.

Key words: Early literacy, literacy bag, young children, early childhood education program

1.1 Early Literacy

Early literacy is a developmental precursor or prerequisite for formal reading and writing. It is a set of skills that young children need to know to be able to do necessary or useful components of literacy later in elementary and secondary education settings (National Center for Family Literacy, 2008; Roskos, Christie, & Richgels, 2003). Research has shown the importance of early literacy in predicting later success in reading in schools (Lonigan, Bloomfield, Anthony, Bacon, Phillips, & Samwel, 1999; Lonigan, Burgess, & Anthony, 2000; Storch & Whitehurst, 2002, cited from Massetti, 2009). As a result, early literacy skills have been a particular focus of early childhood programs, such as Head Start, which was designed for children who are at risk for success in school (Diamond, Gerde, & Powell, 2008).

According to the report of the National Early Literacy Panel (2008), there are six early skills that predict later literacy achievement and five early skills moderately predictive of later literacy achievement. These will be discussed in brief. The first six variables not only correlated with later literacy but also maintained the predictive power even when the role of other variables (i.e., socioeconomic status) was counted.

- Alphabet Knowledge (AK: knowledge of the names and sounds associated with printed letters),
- Phonological Awareness (PA: ability to detect, manipulate, or analyze the auditory aspects of spoken language),
- Rapid Automatic Naming of letter or digits (RAN: ability to rapidly name a sequence of random letters or digits),
- Rapid Automatic Naming of objects or colors (ability to rapid name a sequence of repeating random sets of pictures of objects or colors),
- Writing (ability to write letters in isolation on request or write own name),
- Phonological memory (ability to remember spoken information for a short period of time).

A second set of skills were moderately correlated with at least one measure of later literacy achievement and include:

- Concept about print (reading orientation from left to right, front to back, book cover, author, and text),
- Print knowledge (a combination of alphabet knowledge, concept about print, and early decoding),
- Reading readiness (a combination of alphabet knowledge, concepts of print, vocabulary, memory, and phonological awareness),
- Oral language (ability to produce or comprehend spoken language), and
- Visual processing (ability to match or discriminate visually presented symbols)

In summary, the instruction of phonological awareness (PA), rapid naming (RAM), print awareness, reading and writing, and cognitive ability (e.g., visual processing and phonological memory) *are an important* focus for early childhood programs to ensure later success in literacy achievement.

1.2 Who struggles with early literacy skills?

Given the importance of early literacy skills for later literacy achievement, researchers and practitioners are increasingly concerned with children who might show difficulty before kindergarten, such as children with language impairment or with low socio-economic status (Justice, Bowles, & Skibbe, 2006). For example, children with disabilities experience more difficulties while learning to read and write compared to other typically developing peers (Allington & Baker, 2007; Koppenhaver, Hendrix, & Williams, 2007; Snow, Burns, & Griffin, 1998). Moreover, research has found that children living in low-income environments enter school with lower levels of skills necessary for becoming good readers throughout schooling compared to peers from middle and upper income backgrounds (Arnold & Doctoroff, 2003; Snow et al., 1998). As a result, many researchers and educators are searching for effective teaching strategies to best support children who are at risk, such as code-focused intervention, shared reading instruction, and language enhancement interventions (see National Center for Family Literacy, 2008 for detailed discussion). An approach such as Family Literacy Bags has been widely used by early childhood professionals to be emergent literacy support for building school-to-home connections. Most family literacy bags contain collections of books and sometimes activities that children take home from school. The bags are generally homemade by the teachers, with inexpensive materials and with determined themes.

In addition to many specific interventions available for school-to-home literacy connection, the National Institute for Literacy (2009) recommends planning literacy activities throughout the school day, such as activities that help children to:

- learn the names of the letter-shapes in the alphabet
- hear the sounds the letters make
- be aware of sounds in language

These activities give children extensive practice manipulating sounds and support oral language development.

On the other hand, to make learning occur effectively, children must be engaged. When children are engaged within the learning environment, they interact with others more, manipulate materials more, and learn more. Child engagement indeed affects children's learning (McWilliam & Casey, 2008). Studies have shown that higher levels of engagement are related to higher levels of student achievement. As a result, large proportions of time during which students are engaged are desired (Ridley, McWilliam, & Oates, 2000; McWilliam & Bailey, 1992). A few studies have found that the proportion of time when typically developing preschool children were actively engaged was only 58% of the time at school (Odom, Schwartz, Zercher, & Sandall, 2002). In conclusion, given the recommended literacy activities by the National Institute of Literacy and what we know about children's engagement status at schools, intervention approaches that can be implemented in early childhood classrooms to increase children's engagement and promote higher learning achievement are needed.

Regardless of children's developmental abilities, early literacy skills can be acquired through active and meaningful activities, experiences, and opportunities. Providing high quality of learning opportunities to promote the acquisition of emerging literacy skills is important for all children, including children who are at risk.

2.1 Why use a literacy bag in the classroom?

Literacy bags are thematic, content related collections of materials including books, small objects, and toys. It is grounded in the research and professional literature on early literacy learning and parent involvement and education (Dever & Burts, 2002). These activities have been called "writing suitcases" (e.g., Rich, 1985; Miller-Rodriguez, 1991) or "literacy backpacks" (e.g., Richgels & Wold, 1998).

Most literacy bags are designed for school teachers to send home for a school-to-home connection with the purpose of increasing family involvement in supporting children's literacy and learning at home (e.g., Barbour, 1998; Marchant & Womack, 2010; Richardson, Miller, Richardson, & Sacks, 2008; Zeece & Wallace, 2009). However, the literacy bags discussed in this article are designed for classroom teachers to use during the day to enhance the child engagement across daily routines via the base of intentional literacy activities. Most literacy bags are intended to engage parents in learning at home activities focusing on literacy; therefore, the books and extension activities are around the a theme to increase parental involvement in book reading and related activities with or without other family members. Yet, our literacy bag contains not only a series of theme-specific books and the related activities, but also provides a list of intentional teaching strategies for classroom teachers to support children's skills in the following early literacy areas: print awareness, rhyming, alliteration, and vocabulary (see Table 1 for an example). Therefore, the literacy bag that we describe in this article is smaller than most home-based literacy bags because it is designed for classroom teachers and children to access easily and to carry throughout the day.

2.2 Bugs-in-a-Bag (BIB) approach

2.2.1 Integrated curriculum support. Each literacy bag would include, but not be limited to, the following components:

- Small objects and books related to the current curriculum theme (e.g., bugs, pumpkin, winter, etc)
- A tag with a list of potential activities that classroom adults can do with children across classroom routines.

For example, several ideas are presented under the category of "print awareness" including "make a list of items seen and discussed". The classroom teachers would take the children outside for a walk during the week to learn about nature or a "bugs" themes. Prior to the walk, a discussion could be lead to ask children to predict what would be seen, and after the walk, the classroom teacher then can ask the children to make a list of items seen and collected while outside walking. Staff members not only make the curriculum comprehensive across different developmental domains (cognition, language, and physical, etc) but also enhance the early literacy skills practiced into the classroom activities. Please see Table 1 in details.

2.2.2 Ongoing monitoring. Within each bag, a check sheet is included with a simple checklist for classroom teachers to keep track of children's progress on an Individualized Education Plan (IEP) goals or objectives (if applicable). See Table 2 in detail. With this simple sheet, classroom teachers are able to check on a few objectives or skills with one or even a few children at a time when using the bags during the transition time or specific activity time in class.

2.3 Make your own literacy bags

A "green" approach would be to use bags you already have:

- reusable shopping bags (e.g., cotton, hemp, nylon, etc fabric)
- bags you receive when attending conferences
- paper/gift bags

A "creative" approach if you or a friend can sew:

- purchase theme or novelty fabrics
 - cut two rectangle pieces to desired size, stitch three sides
 - finish top edge to encase elastic or draw strings
- cut off a leg of old jeans below the knee, use the bottom hem for opening, stitch the cut, open end closed

2.3.1 Collecting Items to Include in the Bags. Gather items from your home, class, a neighbor, send a note home specifying the theme. Frequent yard sales or "Dollar" stores would be good places for common items. Label plastic "zip-lock" bags so that items can be returned.

2.3.2 Storage of Items & Bags. Label boxes or containers as to the theme.

3.1 Case in Point: A story about Logan with Bugs-in-a-Bag

Logan began attending our early intervention preschool at the age of 3 years. Assessment had determined that he had developmental and expressive language delay, and an articulation disorder. His receptive language was only slightly delayed but his short attention span made it difficult for him to work at one task for very long.

Logan's first experience with the literacy bag was to immediately grab a handful of items to take out. With 6 months of consistent hand-over-hand and verbal instruction, "one hand, one bug" (or whatever themed items were inside), he was able to reach in the bag and take out just one item, placing it on the table next to the other items. Naming the items, touching left to right, was the next challenge. For another year, he still needed hand-over-hand plus a verbal model to name a row of four items. During his second year in the program we were able to increase the number of items to two rows of five items and he only needed hand-over-hand assistance in moving from the end of the first row to starting on the left side of the second row.

Cognitive skills of counting and color identification continued to be difficult for Logan. He could match colored cars with a color chip, for example, but could not vocalize, "two red cars" without a model. Logan's expressive language remained at 2-3 word sentences for the first year of the program, his articulation skills improved slightly. He was missing his upper incisors, which made it difficult for him to correctly articulate many sounds. During the second year, as his attention span increased, his sentence length increased and he began asking questions with correct word order.

As Logan entered kindergarten, his language skills were approaching those of his peers. He knew many of the letters of the alphabet and the corresponding sounds of the letters. He asked to take books home of the words we practiced each week and excitedly took home his bundles of books each month.

4.1 Summary

In early childhood classroom settings, many transitions naturally occur every day, from circle time to small group activities, from indoor to outdoor, from clean up time to snack time, and so forth. Within those few minutes of waiting or a transition time, the usage of literacy bugs for classroom teachers can not only make good use of time in between to keep a group of children calm, but also support children's engagement in language and early literacy activities. Using a smaller size number of books in the bag to read aloud during transition time is just one such example. For example, objects from the story, Brown Bear, could be collected for an extended activity in the class library area.

Through shared book reading, children learn new words, the basic skills of book handling, such as orienting from front to back and left to right, page turning and distinguishing print from picture. Those activities help children develop oral language comprehension and print knowledge (Justice & Lankford, 2002; Roskos, Tabors, & Lenhart, 2009). Therefore, reading to children with large groups, small groups, or one on one settings across the day has been regarded as one of the more promising ways to foster children's language and emergent literacy development (Whitehurst & Lonigan, 2001; Van Kleeck, 2003). Many classroom teachers have difficulty seeking time for this practice, and the literacy bag can be one solution because of its accessibility.

Another characteristic of the literacy bag is that classroom teachers are able to incorporate some types of writing tasks into weekly curriculum and lesson plans. Research (Aram 2005; Martlew & Sorsby, 1995; Ukrainetz, Cooney, Dyer, Kysar, & Harris, 2000; Whitehurst & Lonigan, 2001) has found that writing integrates the important early literacy skills of phonological awareness and letter knowledge and provides an avenue for learning about letters and sounds (Diamond et al., 2008).

When classroom teachers have introduced the bag and played with children for a while, the bag could be part of the classroom materials available for children to check out. Many young children enjoyed imitating a classroom teacher's behaviors and like to play with bags too. Utilizing engaging, interactive activities such as these are helping our students to learn to define, explain, hypothesize, and predict, problem solve, and reason all skills needed to build richer language skills and impact later reading comprehension.

Table 1: Components of Early Literacy Bag in Class Version

Predictors of Later Literacy Achievement	Concepts of Literacy Bag in class version	Example: Bugs in a bag
<ul style="list-style-type: none"> • Writing • Concepts about print • Print knowledge 	Print awareness	<ul style="list-style-type: none"> • Left to right orientation • Use objects to act out stories • Make lists items seen/discussed • Write or dictate letters to send home
<ul style="list-style-type: none"> • Phonemic awareness (PA) 	Rhyming	<ul style="list-style-type: none"> • Which words sound the same? • Which word sounds different/doesn't belong? • What is the initial sounds in words (e.g., f in fish)
<ul style="list-style-type: none"> • Alphabet knowledge (AK) 	Alliteration (correct articulation)	<ul style="list-style-type: none"> • Beginning sounds of words • Sets of phrases with the same beginning sound
<ul style="list-style-type: none"> • Visual processing • Phonological memory 	Cognitive skills	<ul style="list-style-type: none"> • Comparison (er, est) • Categorization and classification (sort bugs that fly, crawl, hop, etc) • Designate order (first, second, etc)
<ul style="list-style-type: none"> • Oral language • Rapid automatic naming (RAN) of letters or digits, objects or color • Alphabet knowledge 	Vocabulary	<ul style="list-style-type: none"> • Characteristics, exceptions, actions, descriptive words • Rapid naming

Table 2: Objectives in a Bag: Language to Literacy in _____ (theme)Class: Butterfly room (preschool)

Date: _____

Teacher: Patti Miller

Area	Objective: (be specific based on your goal)						
Vocabulary	Name items in a bag (e.g., bugs, letters, etc)						
	Name items rapidly						
	Use descriptive words (noisy/quiet; broken/fixed; old/new; dirty/clean, etc)						
Cognition	Use comparatives and superlatives (er, est) to describe objects						
	Verbalize ordination to describe objects (first, middle, last)						
	Memory name removed object from line-up of 3 to 4 objects						
	Take turns, pronouns (my, yours)						
	Follow and give directions						
Alliteration	Correctly articulate the beginning sounds of words						
	Correctly articulate sets of words with the same beginning sound						
Rhyming	Identify words in a set that don't rhyme						
	Say words that rhyme with those in a set						
Print-Awareness	Write (e.g., a list of bugs found on walk, shopping list in play area, etc.)						
	Retell familiar stories						
	Use envelope and letter to send message						
	Read (e.g., menu of lunch, grocery ads, etc)						

Key: ++ = skill already established; + = gaining with limited prompts; +/- = emerging with sufficient support;

References

- Allington, R. L., & Baker, K. (2007). Best practices for struggling readers. In L. B. Gambrell, L. M. Morrow, M. Pressley, & J. T. Guthrie (Eds.), *Best Practices in literacy instruction* (pp. 83-103). New York, NY: Guilford Press.
- Aram, D. (2005). Continuity in children's literacy achievements: A longitudinal perspective from kindergarten to school. *First language*, 25, 259-289.
- Arnold, D. H., & Doctoroff, G. L. (2003). The early education of socioeconomically disadvantaged children. *Annual Review of Psychology*, 54, 517-545.
- Barbour, A. C. (1998). Home literacy bags promote family involvement. *Childhood Education*, Winter, 71-75.
- Dever, M. T., & Burts, D. C. (2002). An evaluation of family literacy bags as a vehicle for parent involvement. *Early Childhood Development & Care*, 172, 359-370.
- Diamond, K. E., Gerde, H. K., & Powell, D. R. (2008). Development in early literacy skills during the pre-kindergarten year in Head Start: Relations between growth in children's writing and understanding of letters. *Early Childhood Research Quarterly*, 23, 467-478.
- Justice, L. M., Bowles, R. P., & Skibbe, L. E. (2006). Measuring preschool attainment of print concept knowledge: A study of typical and at-risk 3 to 5-year-old children using item response theory. *Language, Speech, and Hearing Services in schools*, 37, 224-235.
- Justice, L. M., & Lankford, C. (2002). Preschool children's visual attention to print during storybook reading: Pilot findings. *Communication Disorders Quarterly*, 24, 11-21.
- Koppenhaver, D. A., Hendrix, M. P., & Williams, A. R. (2007). Toward evidence-based literacy interventions for children with severe and multiple disabilities. *Seminars in Speech and Language*, 28, 79-89.
- Lonigan, C. J., Bloomfield, B. G., Anthony, J. L., Bacon, K. D., Phillips, B. M., & Samwel, C. S. (1999). Relations among emergent literacy skills, behavior problems, and social competence in preschool children from low income and middle income backgrounds. *Topics in Early Childhood Special Education*, 19, 40-53.
- Lonigan, C. J., Burgess, S. R., & Anthony, J. L. (2000). Development of emergent literacy and early reading skills in preschool children: Evidence from a latent variable longitudinal study. *Developmental Psychology*, 36, 596-613.
- Marchant, M., & Womack, S. (2010). Book in a bag blending social skills and academics. *Teaching Exceptional Children*, 42 (4), 6-12.
- Martlew, M., & Sorsby, A. (1995). The precursors of writing: Graphic representation in preschool children. *Learning and Instruction*, 5, 1-19.
- Massetti, G. M. (2009). Enhancing emergent literacy skills of preschoolers from low income environments through a classroom based approach. *School Psychology Review*, 38, 554-569.
- McWilliam, R. A., & Bailey, D. B. (1992). Promoting engagement and mastery. In D. B. Bailey & M. Wolery (Ed), *Teaching Infants and Preschoolers with Disabilities* (pp. 229-255). Columbus, OH: Macmillan.
- McWilliam, R. A., & Casey, A. M. (2008). *Engagement of Every Child in the Preschool Classroom*. Baltimore, MD: Paul H Brookes.
- Miller-Rodriguez, K. (1991). Home writing activities: The writing briefcase and the traveling suitcase. *The Reading Teacher*, 45 (2), 160.
- National Center for Family Literacy. (2008). *Developing early literacy: Report of the National Early Literacy Panel: A scientific synthesis of early literacy development and implications for intervention*. National Institute for Literacy, Washington, DC: National Institute for Literacy.
- National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel*. Washington, DC: National Institute for Literacy.
- National Institute for Literacy. (2009). *Early Beginnings: Early Literacy Knowledge and Instruction: A Guide for Early Childhood Administrators and Professional Development Providers*. Washington, DC: author.
- Odom, S. L., Schwartz, I. S., Zercher, C., & Sandall, S. R. (2002). Classroom ecology and child participation. In S. Odom (Ed), *Widening the Circle: Including Children with Disabilities in Preschool Programs* (pp. 25-45). Teacher College, NY: Columbia University.

- Rich, S. J. (1985). The writing suitcase. *Young Children, July*, 42-44.
- Richardson, M. V., Miller, M. B., Richardson, J. A., & Sacks, M. K. (2008). Literacy bags to encourage family involvement. *Reading Improvement, 45*, 3-9.
- Richgels, D. J., & Wold, L. S. (1998). Literacy on the road: Backpacking partnerships between school and home. *The reading Teacher, 52* (1), 18-29.
- Ridley, S. M., McWilliam, R. A., & Oates, C. S. (2000). Observed engagement as an indicator of child care program quality. *Early Education & Development, 11*, 133-146.
- Roskos, K. A., Christie, J. F., & Richgels, D. J. (2003). *The essentials of early literacy instruction, Young Children*, March, 1-8. Washing DC: National Association for the Education of Young Children.
- Roskos, K. A., Tabors, P. O., & Lenhart, L. A. (2009). *Oral Language and Early Literacy in Preschool: Talking, Reading, and Writing*. 2nd ed. International Reading Association.
- Storch, S. A., & Whitehurst, G. J. (2002). Oral language and code related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology, 38*, 934-947.
- Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing Reading Difficulties in Young Children*, Washington, DC: National Academy Press.
- Ukrainetz, T. A., Cooney, M. H., Dyer, S. K. Kysar, A. J., & Harris, T. J. (2000). An investigation into teaching phonemic awareness through shared reading and writing. *Early Childhood Research Quarterly, 15*, 331-355.
- Van Kleeck, A. (2003). Research on book sharing: Another critical look. In A. van Kleeck, S. A. Stahl, & E. B. Bauer (Eds.), *On reading books to children: Parents and teachers* (pp.16-36). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Whitehurst, G. J., & Lonigan, C. J. (2001). Emergent literacy: Development from pre-readers to readers. In, S. B. Neuman, & D. K. Dickinson (Ed.), *Handbook of early literacy research* (pp. 11-29). New York: Guilford Press Publications.
- Zeece, P. D., & Wallace, B. M. (2009). Books and good stuff: A strategy for building school to home literacy connections. *Early Childhood Education Journal, 37*, 35-42.