Once Upon a Theory: Using Picture Books to Help Students Understand Educational Psychology

Debby Zambo and Cory Cooper Hansen

Instructors of educational psychology courses are faced with the challenge of making theory interesting and meaningful. One way to do this is to supplement the course text and lectures with children’s picture books. Picture books can be used to introduce theory, build background knowledge, make theory understandable, create an image of theory and its vocabulary terms, and help students make connections between theory and their lives. Well-chosen picture books are motivating and cognitively stimulating because, when information is presented both verbally and visually, learning is enhanced. Suggestions for how to use picture books in educational psychology courses and titles that link to theories commonly taught are provided.

Keywords: instructional strategies, picture books, educational psychology, teacher education

Imagine a college instructor reading the picture book *Lilly’s Purple Plastic Purse* by Kevin Henkes (1996) to her class of 38 preservice teachers enrolled in an educational psychology course. As she reads, the students listen to the story and focus their attention on the story’s illustrations being projected on a screen at the front of the room. After reading each page and examining each illustration, the instructor poses questions to spark discussion about the main character, Lilly, and how her actions are typical of children in the preoperational stage of cognitive development (Piaget & Inhelder, 2000). The students’ replies indicate that they are connecting the story to experiences in their intern classrooms and their assigned textbook readings. For example, after reading the page where Lilly disrupts story time because she wants to share her purple plastic purse and movie star sunglasses, one student tells the class about a child in his mentor’s classroom who is just like Lilly. He talks about the thinking of preoperational children and the strategies his mentor uses with children this age. Another student connects Lilly’s behavior to the word *egocentric*, a term she read in the course text. She notes that preoperational children, like Lilly, can be egocentric in their thinking: they do not see the perspectives of others and believe that their view is the only one. When the story ends, one student says she understands why Lilly’s teacher punished her for disrupting story time but she empathizes with Lilly because she was reasoning the best she could, given her stage of cognitive development. The responses of these preservice teachers demonstrate that they are relating the story to their experiences working with children and to the theories they are learning in the educational psychology classroom. The fact that they are thinking about Lilly’s behavior in terms of her cognitive development shows that they are beginning to look at children through a theoretical lens.

This type of interactive learning demonstrates the power children’s picture books can afford when they are used to make psychological theories come alive. As instructors within a teacher preparation program, we have consistently found this practice to be motivating and cognitively stimulating for our students over our collective thirteen years of college teaching. Initially, some students are taken aback when we read out loud to them and wonder why we use children’s picture books at the college level. However, once we begin to link theory to the behavior and thinking of various characters, our students begin to develop an appreciation for interpreting theory through the medium of children’s picture books.

Students at our institution are required to take an introductory educational psychology course in the initial semester (junior year) of their teacher preparation program. The institution itself is a satellite campus of a large, southwestern, Research One university. Our location and commuter status bring us a unique group of students: many come from working-class families, have families themselves, and work-full time while they pursue their degrees. The majority of our students are Anglo, 95% of them are female, and they average between the ages of 22 and 26. Our classes tend to be relatively small (between 20 and 28) and
students are cohorted by majors: early childhood, elementary, and bilingual education.

Courses in educational psychology are the theoretical backbone of college preparation programs for students seeking degrees and/or certification for jobs that lead to careers with children (Alexander, 2006; Woolfolk, 2004). While students are usually enthusiastic about taking practicum courses because they provide hands-on activities for immediate and direct use, they are often less enthusiastic about studying theories about cognition, moral and social development, and motivation. Enthusiasm may wane because students do not see the practicality of theory or understand how it applies to their immediate needs. Typically, educational psychology courses are taught in a lecture format, and this also can make theories seem dry and removed from real life. To appreciate the practical nature of educational psychology theory, students must bridge the gap between what they learn in their courses and their interactions with children in the field. One way to do this, as the opening scenario shows, is to enrich lectures and course work with well-chosen picture books.

Researchers and instructors have discovered the motivating appeal and cognitive benefits of children's literature for students of all ages and abilities (Evans, 1998; Hansen & Zambo, in press; Ho, 2000; Routman, 1994; Zambo, 2005). We are partial to children's picture books (32 pages that convey a message through both story and picture) because they are entertaining, can be read and discussed in a short period of time, and when carefully selected, present theory accurately in both words and pictures. Sipe (2001) calls this text-picture relationship “synergy” because it is neither the text nor the illustration that creates understanding but a combination of the two. Images contribute to a deeper understanding of text, and text helps one see and learn from the images. Along these same lines, Mitchell (1994) uses the term “imagerytext” to convey the cognitive advantages of an image juxtaposed with the text. Text and image converge to become multi-modal input, and this is a powerful way to learn. When learning is energized, motivation is enhanced.

**Motivational Aspects of Picture Books**

Many people think of picture books as simple texts for beginning readers. Parents read picture books to children at bedtime and primary teachers use picture books in early childhood education. This may have been true in the past (Demers & Moyles, 1982), but contemporary picture books have emerged as a key literary form within children's literature, and as a source of enjoyment and inspiration for people of all ages. For example, many of our students report receiving *Oh, the Places You’ll Go!* (Seuss, 1990) as a high school graduation gift and share their positive emotions towards a work typically considered to be written for younger readers.

Few articles were found in a review of the literature on using picture books in educational psychology courses, but other disciplines have reported increased motivation when this genre is used. For example, Juchartz (2004) uses the work of Dr. Seuss to get his community college students, who struggle with reading, engaged with text. He uses Seuss's books to scaffold learning and bridge the gap between his students’ levels of literacy proficiency, their personal experience, and meanings found in more complex texts. An example of this is his use of *The Sneetches* (Seuss, 1989). Reading about the prejudice faced by the Plain Belly Sneetches helps his students understand social injustice and challenges that minorities face in the world today. Once students relate this story to their lives, he is able to lead them to more complicated texts with similar issues and themes. Juchartz finds his students are “consistently delighted to engage in such nontraditional material” (p. 337).

Smallwood (1992) is another instructor who advocates the use of picture books in the college classroom. Smallwood uses the “synergy” of picture books to teach literacy skills to her adult English language learners. She uses the stories to provide insight into the customs and concepts of a new culture, and she uses illustrations to visually depict new vocabulary terms and ideas. An example is her use of the dramatic illustrations in *Brother Eagle, Sister Sky* (Jeffers, 1991) to, in her words, “convey the deeper meaning of the story, that is, respect for our environment” (p. 2).

College textbook writers recognize that picture books are powerful ways to illustrate concepts and ideas. The teacher's edition of *Child Development* (Santrock, 2004) suggests using *Miss Rumphius* (Cooney, 1982) to spark discussion about adolescent thinking and idealistic views. *Fish is Fish* (Lionni, 1970) is recommended in a book called *How People Learn* (National Research Council,
Using Picture Books

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2000) to help readers understand Piaget’s concept of assimilation. The audience for picture books has broadened, and the use of picture books has expanded well beyond childhood.

**Cognitive Benefits of Picture Books: Stories and Illustrations**

Bruner (1966) notes that when learners see something happen, as well as read or hear about it, they encode this information both visually and verbally in their long-term memory. We agree with Bruner and find evidence for the cognitive benefits of picture books in the work of Paivio (1971; 1991). According to Paivio’s dual coding theory, two cognitive systems are used to process and store information: a verbal system for linguistic information and an imagery system for non-verbal input. Both language and images are stored independently and work together through associative cross-code links. Paivio’s theory has since been confirmed with by neuroscience research (Miyake & Shah, 1999), and it means that a word in the verbal system can spark an image and an image in the non-verbal system can prompt recall of a verbal fact. Experiencing a picture book readaloud encourages dual encoding because the narrative provides verbal input while the illustrations show the concept in non-verbal form. Picture books are unique learning tools because they not only provide input in tandem but also do it contiguously in time. Mayer and Anderson (1991) call this the contiguity principle, and it supports our claim that picture books help students learn and understand theory at a deeper level. Contiguity of input helps students form a coherent mental model of theory in both images and words.

**Stories and Natural Cognition**

Historically, humans have enjoyed listening to and have learned about themselves and their world through story. Stories have been created in all human cultures, to explain natural forces, social contexts, and cultural mores (McCaughey, 2000). Thinking about story, in this broader sense of the word, emphasizes how learning from narratives is an innately human, natural way of thinking, learning, and understanding what is important in one’s world. Hearing the stories of others (as through a readaloud) can provide individuals with vicarious experience and lead to insight beyond what is personally known. This is especially important when students lack background knowledge or practical experience to understand a theory and how it connects to the children with whom they are working. The stories we use with our students help them understand what a theory or concept looks, sounds, and feels like in the context of a character’s experiences.

Effective teachers often use story intuitively when they teach. They use anecdotes, analogies, and metaphors to simplify and clarify concepts, make them more concrete, and build vocabulary. Instructors share personal experiences to enrich ideas presented in the classroom and students relate to that insider perspective. Deeper understanding occurs when a more knowledgeable other assists with vocabulary understanding and points out connections that bridge initial knowledge to life experiences (Cazden, 1988; Vygotsky, 1978). Picture books and focused discussions can be used to supplement presentation of theory and concepts, allow teachers to make their point without lecturing, challenge current ideas, and advance the reasoning skills of their students (Koc & Buzzelli, 2004).

**Illustrations: A Picture is Worth a Thousand Words**

Proficient readers often ignore the illustrations in a picture book, focusing on the words rather than noticing how the message of the text is reinforced through the pictures (Anderson, Kauffman & Short, 1998). In doing so, they neglect three cognitive benefits: development of visual literacy, awareness of abstract concepts, and the use of imagery.

Visual literacy, or the learning from pictures as well as from print (Evans, 1998), is dependent on analysis of illustrations within the context of the story. Promoting visual literacy teaches students to look at pictures for the details and information they contain. Students who develop this ability move beyond concrete, literal interpretations of what they see to deeper and more complex understandings of characters, contexts, and thoughts. Encouraging the use of visual literacy helps students look beyond the surface to the deep complexity and subtleties that exist in the world (Falk, 2005).

Abstract concepts can come to life through illustrations in tandem with text. Drawings allow students to see theory in the context of a character’s experiences and interpret the reactions, responses, and decisions that a character may...
make. For example, how it feels to have dyslexia is poignantly portrayed on page 24 of Thank you, Mr. Falker (Polacco, 1998); without words, the message comes through loud and clear.

Finally, the use of imagery allows learners to form mental representations in their mind and helps make theory more concrete. Neisser (1987) notes that imagery is constructive in nature and promotes active learning, deep processing, and superior recall. A picture is worth a thousand words, and supplementing course readings and lecture with the richness of illustration can be of cognitive benefit.

Theory learned with story and illustrations is better understood, remembered, and transferred. This method is a powerful tool to enhance learning about theory, but finding and using picture books with adult learners takes know how, time, and skill.

**PICTURE BOOK SELECTION AND USE**

Key points to using picture books successfully with adult learners are a thorough knowledge of theory, access to picture books, and an ability to make connections between theory and appropriate books. Stories and illustrations should match the theory presented in a clear and well-defined way. Books should contain literary elements that encourage lively discussion, problem solving, and critical thinking. We like stories with human characters, or animal characters with decidedly human characteristics that display a wide range of cognitive, social, and emotional features.

When using picture books in our classrooms, we take steps to ensure that students can both hear the story and see the illustrations at the same time. Technology has helped us achieve this goal. We have scanned pictures into our PowerPoint presentations and, now that document cameras are available, we project the corresponding page onto the screen while we read. If technology is not available, we achieve the same goal by obtaining multiple copies of the book, so small groups of students can examine the illustrations as we read aloud to the whole group.

Carefully selected books are used in five ways: to introduce theory, to build background knowledge, to make theory understandable, to create images of concepts and vocabulary terms, and to help students make connections between theory and their work with children.

**To introduce theory**

The opening scenario is an example of how we would use a picture book to introduce a theory. Students read an assigned section from the course textbook before presentation of the theory in class. To start the session, the book is read aloud and the illustrations are projected. During the readaloud, students discuss the story and pictures as we facilitate connections between theory, the story, and the children in their classrooms. This introductory session usually entails a book that provides a broad overview of the theory because our purpose is to engage students’ thinking, discussion, and wondering about the finer points and nuances of the theory.

**To build background knowledge**

Sometimes introductory sessions reveal that students have read the course text but lack background knowledge or practical experience to understand what various theories are truly about and how they connect to the children they see. For example, students who teach young children may not understand ethological attachment theory, or how important toys and blankets can be to their young students when they are used as a secure base (Bowlby, 1989). Owen by Kevin Henkes (1993) presents this theory in appealing story form with delightful illustrations. A toddler named Owen attaches himself to a fuzzy yellow blanket to help self-regulate and manage stress as he experiences life’s little stressors like “nail clippings and haircuts”. Unfortunately, for Owen, his attachment to Fuzzy becomes a source of concern for his parents, and they try to wean him from his beloved blanket. The more they try, the more tensions arise and the more Owen needs Fuzzy. Eventually, a solution that respects both Owen’s needs and those of his parents is discovered. The blanket is cut up into smaller pieces, like handkerchiefs, that Owen keeps to use as a secure base when he enters school. Attachment – the strong emotional bond between young children and their caregivers – is a key concept in understanding socio-emotional development (Ainsworth, 1973; Bowlby, 1989), but students may not have experience with this concept in the context of a classroom.
To make theory more understandable

Besides using picture books to help students build background knowledge, we also use them to make theory understandable by placing it in the context of a story and providing visual images of what to expect when working with children. For example, when we study memory, we provide small groups of students with a copy of Wilfred Gordon McDonald Partridge by Mem Fox (1985). As a pre-reading activity we ask students to discuss what memory means to them. Then we have them read the book and look closely at the illustrations. This story is about a young boy named Wilfred Gordon who sets out to help ninety-six year old Miss Nancy find her fading memory. Because memory was a new concept, and an abstract one for a little boy, Wilfred Gordon solves the problem by talking to other people, like Mrs. Jordan, who tells him a memory is something warm. To make sense of this information, Wilfred Gordon takes a fresh, warm egg from under a hen and brings it to Miss Nancy. As she holds the warm egg, a smile crosses her face, and she begins to recall her lost memories.

After finishing the story, we ask students to construct a definition of memory in the context of information processing and ways to enhance it with retrieval cues. We then explore memory strategies found in the course textbook, such as mnemonics, keywords, and acronyms.

To create images of concepts and vocabulary terms

The fourth way we use picture books is to help students form images of concepts and vocabulary terms associated with psychological theories. To help students understand the terms modeling and imitation as they are used in Bandura’s (1977) social learning theory, we read Robert Munsch’s (1996) Stephanie’s Ponytail and vary our presentation style by not showing the pictures. We ask students to imagine how Stephanie styled her hair and how the other children imitated her. Then our students look at copies of the book in small groups and talk about what they had imagined and what the illustrations really look like. We then go on to introduce the pros and cons of imitation, the role models children follow today, and factors that influence observational learning, like a model’s age, prestige, competence, or enthusiasm (Bandura, 1977). Our students inevitably begin looking at the book’s illustrations with a new eye, looking for evidence of accurate interpretation of theories of educational psychology in the pages of this children’s picture book.

Piaget’s notion of assimilation is often a difficult concept to explain and a difficult one for students to grasp and recall. Fish is Fish by Leo Lionni (1970) has become instrumental in helping our students understand this abstract concept. The story creates a visual referent for assimilation because it illustrates a fish’s mental images as he assimilates new information heard about the world into his existing fishy scheme. When Fish hears about cows, he envisions them as large fish with horns and udders. When Fish hears about birds, he imagines them as flying fish with wings. Each of the Fish’s mental representations is a slightly altered fish-like form that builds on his existing view of his world. The illustrations in this book provide a memorable visual of how the mind assimilates new information into an existing scheme.

To help students make connections between theory and their work with children

Learning theory removed from real life or not used to improve teaching is pointless; so is reading picture books aloud merely for the sake of a good story. Picture books are only effective as instructional aids when they help students make connections between what they learn in their educational psychology courses and the children in their lives. One way we encourage connections is to read aloud humorous portrayals of life in the classroom like David Goes to School (Shannon, 1999). After listening to and examining the pictures in this short story, students get into small groups to discuss David’s behavior in the context of behaviorism. Students discuss rewards and punishments that could be used with David, the Premack principle, and behavior contracts. As they talk, our students often bring up their internship classrooms and the behavior plans being used in them. This connection bridges the gap between picture book character, theory, and classroom. Virtually every theory or principle, with a little creativity and a good selection of picture books, can be interpreted from within a character’s perspective. Table 1 provides a list of theories commonly taught in beginning educational psychology courses and titles we have used successfully to scaffold connections.
TABLE 1

SOME USEFUL PICTURE BOOKS AND WHAT THEY ILLUSTRATE

<table>
<thead>
<tr>
<th>Theory/Concept(s)/Vocabulary</th>
<th>Books</th>
</tr>
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<tbody>
<tr>
<td>Piaget's theory of cognitive development; preoperational thinking, imagination, pretend play, constructing knowledge</td>
<td><em>Lilly’s Purple Plastic Purse</em> (1996) and <em>A Weekend with Wendell</em>, (1986) both by Kevin Henkes</td>
</tr>
<tr>
<td>Piaget's concepts of assimilation and prior knowledge</td>
<td><em>Fish is Fish</em> (1970) by Leo Lionni</td>
</tr>
<tr>
<td>Vygotsky’s sociocultural perspective of cognitive development</td>
<td><em>Once There Were Giants</em> (1995) by Martin Waddell</td>
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<td>Vygotsky’s zone of proximal development</td>
<td><em>The Three Bears</em> (1972) by Paul Galdone</td>
</tr>
<tr>
<td>Erikson’s psychosocial development, identity</td>
<td><em>The Big Box</em> (1990) by Toni Morrison and Slade Morrison; <em>The Sissy Duckling</em> (2002) by Harvey Fierstein; <em>Whomever You Are</em> (1997) by Mem Fox</td>
</tr>
<tr>
<td>Self-esteem, self-concept, resiliency</td>
<td><em>Stand Tall, Molly Lou Melon</em> (2002) by Pati Lovell</td>
</tr>
<tr>
<td>Kohlberg's and Gilligan's theories of moral development</td>
<td><em>Rose Blanche</em> (1985) by Christopher Gallaz and Roberto Innocenti; <em>Pink and Say</em> (1994) and <em>The Butterfly</em> (2000) by Patricia Polacco</td>
</tr>
<tr>
<td>Information processing, long term memory</td>
<td><em>Wilfred Gordon McDonald Partridge</em> (1985) by Mem Fox; <em>Something to Remember Me By</em> (1999) by Susan V. Bosak &amp; Laurie McGraw</td>
</tr>
<tr>
<td>Attention difficulties</td>
<td><em>Waiting for Mr. Goose</em> (1999) by Laurie Learns</td>
</tr>
<tr>
<td>Rewards and punishment in behaviorism</td>
<td><em>David Goes to School</em> (1999) by David Shannon</td>
</tr>
<tr>
<td>Reading disabilities, differentiated instruction, emotions, stress, resiliency</td>
<td><em>Thank You, Mr. Falker</em> (1998) by Patricia Polacco</td>
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</table>

CONCLUSION

Supplementing educational psychology instruction with picture books is not without its disadvantages. There is only so much time in a seventy-five minute class period and we have had to forego case study discussions in lieu of responding to a picture book. Generally, we save case studies from our textbook for areas in which we have not yet found a suitable picture book. Another disadvantage is the difficulty of documenting student achievement attributable to this teaching method with empirical evidence. Measuring differences picture book use might make in the retention of theory is difficult because we feel we cannot ethically withhold what we see as an highly effective teaching method from a control group or class. However, our teaching evaluations are consistently high and many students mention our use of picture books in the written portion of our course evaluation forms. Typical comments include
“You gave me a new understanding to a picture book I already loved.”

“The more information I have, presented in different formats, helps reinforce my learning of concepts.”

“I am very open to the idea of picture books in the classroom.”

“I think using picture books is a creative and fresh way to teach themes.”

“I enjoyed your psychological interpretations of the picture books.”

Our background in teaching reading with children’s literature has, undoubtedly, contributed to our success with this method. It may be difficult for instructors to adopt this approach without that prior experience. Nonetheless, our best lessons have been the ones that our students created by responding to the picture books from their unique perspectives and surprising us with their interpretations.

Picture books are one way that educational psychology instructors can help students transfer theory gained from textbooks and lecture to application in authentic interactions with children. Skilled authors and illustrators help us place theory in context and provide a visual image of it in action. Thinking about practical applications of theory and concepts, coupled with a solid foundation in educational psychology, increases the likelihood that our students will apply theory in their classrooms. The possibilities are limitless and, with a little creativity and ingenuity, theory can come alive through the pages of a picture book.

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Little, an educational researcher, once said: "School improvement is most surely and thoroughly achieved when teachers engage in frequent, continuous and increasingly concrete talk about teaching practices..." (Hammonds, 2010). In the spirit of continuing this critical dialogue, I have researched and reviewed a number of articles, which exemplify best practices to engage students in educational psychology courses. For example, I have used children's picture books to enhance instruction. Specifically, I have used the book Leo the Late Bloomer by Robert Kraus (1971) to introduce educational psychology theory. This book also builds background knowledge, makes theory concrete and understandable, and creates images of concepts for students. Thanks to educational psychology, students can "learn how to learn," developing more patience with themselves and others as they grasp new material. Classic grading systems don't help with this theory, as grades have become inflated, feared, and used as judge and jury about who learned what. Contrary to popular belief, learning from failure is anything but easy. It's not just about reflecting upon what you did. If you'd like to read about failure and learning, check out this Harvard Business Review article – the article is mainly about organizations but its lesson apply as much to classrooms. 7. Integrate The Curriculum. Rather than keeping each subject separate, curriculums that use thematic units work well to blend knowledge together.