# Common Roots and Threads: Developmentally Appropriate Practice, Whole Language, and Continuous Progress

*Wendy C. Kasten, Kent State University*
*Elizabeth Monce Lolli, Nordonia Hills City Schools*
*Judith Vander Wilt, University of South Florida at Sarasota*

## Abstract

This paper compares the historical roots and principles of three current bodies of literature, all of which advocate school and curricular reform. Originating from different fields, *developmentally appropriate practice* (early childhood), *whole language* (literacy education), and *continuous progress* (educational leadership) are presented and compared by authors representing each field. A discussion of common roots and threads among these fields concludes the paper.

As a century and a millennium both draw to a close, it is clear that many professional fields have undergone revolutions (Kuhn, 1970) and this includes the ways in which educators are contemplating learning, development, and schooling in general. Several different disciplines are offering new ways or revising old ways of viewing knowledge and the world in general. A curious common thread among discussions in various fields is a notion of wholeness and connectedness, or the inter-relatedness of features, phenomena, subjects, or ideas.

In conjunction with the changes emerging, different educational fields or professional societies put forth summations of their ideas or principles for the benefit of practitioners in their field. These summative principles represent a long genesis of ideas, research, and scholarly discussion that have germinated over many decades. For educators who have multi-disciplinary and inter-disciplinary loyalties, it becomes apparent that the principles, practices, and issues expounded have similar properties and common threads, and often appear congruent. This paper explores the similarities and differences in the espoused principles from three related disciplines in education: developmentally appropriate practice, whole language, and continuous progress. Such an exploration demonstrates a high degree of consensus among the three fields with respect to best practices for

An International Journal of Early Reading and Writing
An Official Publication of the Reading Recovery Council of North America

teaching and learning and provides members in each field an opportunity to consider the language of consensus and to recognize that highly similar messages in the three related fields represent a reinforcement of each body of beliefs and writings.

The principles derive from different fields. The first of these involves the principles of *developmentally appropriate practice* from the early childhood educators and is framed by the National Association for the Education of Young Children (Bredekamp, 1987; Bredekamp & Copple, 1997). The second set of principles is extracted from numerous sources in the literacy education body of knowledge and is referred to as *whole language*. The third set of principles emanates from the educational leadership movement, which is looking at schools and their restructuring, and is referred to as principles of *continuous progress.*

All three authors have varying degrees of experience in all of these schools of thought. Yet, because we each had our roots more strongly in one as we followed parallel but different career ladders, we have chosen here to present separately the roots and tenets of our respective backgrounds (developmentally appropriate practice, [Vander Wilt], whole language, [Kasten], continuous progress, [Lolli]), and then subsequently to compare and contrast these three bodies of thought.

Proponents of the three schools of thought may vary and perhaps even disagree on aspects of the principles. We view such discussions as the healthy and scholarly dialogue that keeps any school of thought dynamic rather than dogmatic. We make the assumption here, since each of these schools of thought is based on a growing body of research and thinking, that as the processes continue to evolve, the resulting principles, too, will constantly be in revision. This article then, will likely date itself within a decade. Thus, we examine issues as they are now, with change as an imminent expectation. For each area we will describe the relevant principles, consider the key figures, and present the implications for education.

## What is Developmentally Appropriate Practice?

Developmentally appropriate practice (DAP) has become a buzz word in educational circles, suggesting a variety of meanings and practices. In an effort to articulate clearly the meaning of DAP and its implications for educational practice, the National Association for the Education of Young Children (NAEYC) developed a comprehensive statement of developmentally appropriate practices (Bredekamp, 1987; Bredekamp & Copple, 1997). While DAP has typically been associated with the education of young children, the term has recently taken on a broader definition. For instance, the Association for Childhood Education International (ACEI) has a publication entitled *Developmentally Appropriate Middle Level Schools* (Manning, 1993), which examines the developmental concerns of early adolescence with implications for curricular and instructional decisions. In recent years, DAP has come to mean that educational practice must always account for the developmental levels of students, no matter their age.

As defined by the NAEYC, DAP has three dimensions: age appropriateness, individual appropriateness, and knowledge of children's social and cultural contexts. Age appropriateness suggests that "there are universal, predictable sequences of growth and change that occur in children" (Bredekamp, 1987, p. 2). Awareness of typical sequences of growth and change, then, provides a framework from which teachers prepare the learning environment and plan appropriate experiences" (Bredekamp, 1987, p. 2). Individual appropriateness addresses the uniqueness of the development of each child, as reflected in each child's pattern of growth, personality, learning style, and family background. Thus, while a teacher forms a framework for curriculum that is age appropriate, the additional awareness of individual children's interests and understandings provides further direction for curriculum and adult interactions with children. The third and latest addition to DAP is knowledge of children's social and cultural contexts to ensure that learning experiences are meaningful, relevant, and respectful for the participating children and their families" (Brede-kamp & Copple, 1997, p. 9).

### *Who's Who in DAP Today*

A number of contemporary educational leaders have provided support for NAEYC's position on DAP. Constance Kamii, a former student of Piaget, continues to apply Piagetian theory to teaching, particularly the teaching of mathematics (Brewer, 1992). David Elkind has written several books on the miseducation of young children. His writings have addressed the problem of too much academic pressure, suggesting "that it is much healthier for children to … develop in as stress-free an environment as possible" (Brewer, 1992, p. 20). Lillian Katz has focused on the teaching/learning process. She believes that teachers must be concerned about how children acquire attitudes, skills, and dispositions, in addition to knowledge (Katz, 1987). Other contemporary voices include those of David Weikart, Marian Hyson, Rosalind Charlesworth, and Majorie Kostelnik. These persons are representative of educators who are addressing educational issues from a perspective which complements the NAEYC's position.

DAP has evolved from a belief that children have within themselves a natural disposition toward learning into a comprehensive perspective which embraces a constructivist approach toward learning. Deeply embedded in DAP is the belief that children must actively construct their own knowledge through exploration and interaction with materials, peers, and adults.

### *DAP Educational Principles and Practices*

Educational principles and practices that are supportive of DAP include many strategies which are currently encouraged by educational leaders and professional organizations. The guidelines developed by NAEYC (Bredekamp, 1987; Bredekamp & Copple, 1997) draw together the expertise and experiences of hundreds of early childhood professionals. These beliefs were compiled by a commission of 29 persons representing a national membership of NAEYC, chaired by Bernard Spodek. A summary of the central tenets of DAP, with a special focus on the primary grades, is presented below. A more complete description of DAP is available in the work of Bredekamp and Copple (1997).


Common Roots and Threads

**Age and Individual Appropriateness**

As was noted earlier, the central tenet of DAP is that "best" educational practice for children includes three dimensions: age appropriateness, individual appropriateness, and honor of the child's social and cultural background. Therefore, adherence to DAP suggests that teachers must be aware of and account for the typical sequences of growth and change which "provide a framework from which teachers prepare the learning environment and plan appropriate experiences" (Bredekamp, 1987, p. 2), as well as be aware of and account for individual children's development, understandings, and interests.

Not only should common learning experiences that meet the needs of all or most of the children be provided, but experiences that meet the needs of only one or a few children must be provided as well. Not all children should be expected to achieve the same skills or understandings. In addition to the above, revised guidelines include: (a) the critical role of the teacher; (b) the concept that classrooms are learning communities; (c) the role of culture; (d) the significant role of families; (e) attention to children with special needs; (f) the importance of meaningful and relevant curriculum; (g) auth-entic assessment practices; and (h) the importance of an infrastructure to deliver quality programs (Bredekamp & Copple, 1997).

**Wholeness of Children**

Children are whole persons; physical, social, emotional, and cognitive development are integrated. While cognitive development is important, each area of development affects every other area of development. An understanding of the relationships that exist among all aspects of development strengthens the teacher's ability to foster the development of each child's whole person.

**Active Involvement**

Children must be active participants in their own learning. Only they can construct their understandings and meanings from their life experiences. Affirming this belief means that teachers must provide many opportunities for children to assume an active role in their own learning, recognizing that they cannot "pour" meaning and understanding into children's minds.

**Interaction with Adults, Peers, and Materials**

Learning occurs when children interact with both people and materials in their environments. Interactions between children and adults as well as other children facilitates children's mental manipulation and ownership of ideas. Furthermore, manipulation of real, concrete, and relevant materials also contributes to children's understandings. Children learn through both talking and touching.

**Authentic Experiences**

Children learn best from personally meaningful experiences that flow from the reality of their lives and are authentic. When school experiences reflect the reality of life beyond the school, learning is more purposeful and relevant for learners. Furthermore, all the experiences of the school day—and life—are potentially meaningful learning opportunities. Even times in the school day which might be perceived as "down time" (e.g., recess, lunch hour, and transitions) provide opportunities for personal growth.

**Appropriate Learning Activities**





Appropriate learning activities include projects, learning centers, and activities such as building, drawing, writing, discussing, and reading. Engag-ement of children in independent research, excursions, interviews, and the practice of social skills leads to individual involvement in learning. Activities involving exploration, discovery, and problem solving are recommended, especially when learning math and science concepts. Additionally, cooperative and individual as opposed to competitive activities are more appropriate.

**Integrated Curriculum**

The curriculum should enable children to make connections among and between ideas and knowledge. Distinct-ions among the various subject areas are arbitrary and not very meaningful for children. Integrated thematic units form the foundation for a developmentally appropriate curriculum.

**Intrinsic Motivation**

Fostering intrinsic motivation has the potential to support the development of responsible and autonomous learners, that is, learners who develop a passion and love for a lifetime of learning. Intrinsic motivation is enhanced when children become engaged in and committed to a curriculum that is personally meaningful. Additionally, empowering learners to make meaningful and appropriate choices also contributes to intrinsic motivation for an ownership of responsibility.

**Authentic Assessment**

Evaluation of children's progress should flow directly from the tasks and experiences in which learners have engaged. Assessment strategies include regular observation, which is recorded and regularly reported to parents in the form of narrative comments. Furthermore, meaningful evaluation should lead to improved instruction. In other words, evaluation and instruction must be integrally related so that each informs the other.

**Inappropriateness of Grade Retention**

Grade retention is inappropriate. The assumption of DAP is that each child grows and develops at his or her own pace. Since children do not grow at the same pace, the classroom must meet and accommodate the unique learning needs of each child. In many instances, it may serve a child best to be part of a family grouping in which children's ages span more than the traditional one year. Also, meeting the special needs of most children within the regular classroom is realistic, given the assumption that children are not expected to achieve at the same pace.

**Literacy Development**

Through a variety of interesting and meaningful experiences, children construct and "expand their abilities to communicate orally and through reading and writing … Subskills such as learning letters, phonics, and word recognition are taught as needed to individual children and small groups through enjoyable activities" (Bredekamp, 1987, p. 70).

**Role of Culture and Families**

The most recent revision of DAP expands awareness of the whole child by calling for an understanding of children's family and culture. This understanding by teachers and caregivers will assist in making curriculum meaningful

and relevant and will honor an individual's diversity (Bredekamp & Copple, 1997).

### *Summary*

To summarize, DAP embraces a comprehensive set of guidelines, the goal of which is to empower learners to construct their own knowledge, based on real and meaningful life experiences. Furthermore, these practices are not meant to minimize the importance of the teacher; teachers play a significant role in designing and providing experiences that support all children at their growing edge. The learning community, which is developmentally appropriate, is one in which learners are actively involved in "meaning-making" that is reflective of who they are at a given point in time and is supportive of their growth and development in ways that are personally engaging and relevant to their life experiences, thereby honoring the family and culture

## What is Whole Language?

Explaining whole language may be as difficult as explaining the principles of a major world religion in the space of a matchbook cover. Part of the difficulty stems from the fact that there is a difference between what whole language is (a body of knowledge) and what whole language does (principles for practice). Whole language emanates from a set of beliefs and assumptions. These beliefs and assumptions represent the best in what the field of language arts/reading has to offer in terms of the emerging body of knowledge regarding language learning and becoming literate. Keeping in mind the extreme difficulty and impossibility of covering all bases, this section will present some of the roots of whole language, followed by some of the principles.

### *Research Launching Whole Language*

The body of knowledge now called whole language was launched from a variety of disciplines that all involved learning, language, and literacy. Each contributed theory and research that illuminated the process of educating people in the combined language arts. These strands derive from: (a) psychology and its constructivist-based views of learning; (b) research on oral language development and linguistics; (c) miscue analysis, which involves the study of the process by which people read connected discourse; (d) the research on writing as a developmental process (including spelling as a component of the process); (e) the study of reader response to different kinds of text in the field of English; and (f) the incorporation of qualitative, descriptive research paradigms from the field of anthropology. Obviously these roots are substantial and complex. Therefore, only a brief explanation will be included here, and readers are urged to read further.

**Constructivist Based Learning**

Cognition implies entities of knowledge, consciousness, intelligence, thinking, imagining, creating, inferring, problem solving, conceptualizing, classifying, relating, symbolizing, and perhaps fantasizing and dreaming (Flavell, 1977). Cognitivism and constructivism have their roots in the work of Piaget, which describes cognition as a system of interacting processes "which generate, code, transform, and otherwise manipulate information of various sorts" (Flavell, 1977, p. 12). This view





of learning is very complex and multilayered.

Vygotsky, a Russian psychologist, contributed to knowledge of cognition when he explored the relationship between thought and language and theorized about the more subtle workings of the mind. He urged that one must consider the relationship between learning and development, and not view learning as a purely external process (Vygotsky, 1978). He went on to suggest that good teaching should be slightly in advance of development, so that learners are constantly stretched. Vygotsky describes his notion of "the zone of proximal development" as the place between what a learner can do alone in problem solving and what can be accomplished with the powerful element of collaboration between peers and between adults and children. Vygotsky's contributions to the foundation of whole language are vital and deserve further study on the part of any interested reader.

**Roots of Whole Language Specific to Literacy Learning**

Three areas of research that are highly essential to the development of whole language are each mentioned here briefly because they are discipline-specific. First of all, a number of respected scholars fostered thinking about the interrelationships of reading, writing, listening, and speaking in various ways, and examining language, taking into consideration its external relation to its social context, including the form, content, and expression. Language learning was viewed as a system of constructions of meanings in a semiotic, or symbol system (Halliday, 1980) and aptly coined the expression for language development as "Learning How to Mean," which is also the title of a landmark book on the subject (Halliday, 1977; 1980). Young children's knowledge (schema) was also examined from the perspective of what they know instead of what they do not know, referring to them as tacit analyzers of language (Read, 1971). Their early knowledge of phonetic subtleties, including their use and logical and systematic errors, taught us that the process of language learning cannot be simply memorization, as that would not account for children's ability to spell unfamiliar words.

A second area of research emerged in the early 1960's when Ken Goodman began to look at reading from the premise that it must be a "language process." By observing readers engaged in the process, analyzing variations in the reading, and examining the nature of the errors or miscues in the context of the comprehending of the text, Goodman identified a psycholinguistic basis for reading (Goodman, 1970; 1973). Simultaneously, Frank Smith, a Canadian researcher, was examining reading in a similar fashion and reached the same conclusions, also calling reading a psycholinguistic process (Smith, 1973; 1978). Extensive subsequent studies incorporated miscue analysis into every aspect of reading instruction, applying its principles to practical considerations (e.g., Allen, 1976; Goodman, 1979; Goodman, Watson, & Burke, 1987; etc.). All this research proposes a descriptive view of literacy learning in authentic situations.

A third area of significant research was in writing development. Researchers began to look at writing as both a cognitive process, and as a developmental one. Researchers in secondary and higher education first

looked at the cognitive nature of writing, noting, for example, that writing has inherent subprocesses that involve extensive, intensive thinking (Emig, 1977; Flower, 1981; Flower & Hayes, 1980; Odell, 1980; Perl, 1980). Meanwhile, researchers in elementary education were looking at the emergent, developmental writing of young children, noting the parallels in the process to oral language learning, and seeing it as an active process of constructing meaning (Calkins, 1983; Chomsky, 1971; Clay, 1975; Graves, 1983). With the focus on the relationship between reading and writing, the term "emergent literacy" resulted with researchers who looked at children's developing concepts about print and written language (e.g., Ferreiro & Teberosky, 1982; Goodman & Altwerger, 1981; Harste, Woodward, & Burke, 1984; Holdaway, 1979; Teale, 1986; etc.). This resulted in an increasingly developmental view of children's literacy learning with the child at the center of the process.

## Reader Transactions with Text

Another area of scholarly pursuit that was occurring simultaneously with, and in some cases prior to, much of the aforementioned work came from the field of literature. Rosenblatt, whose work began in the 1930's and was later reissued (Rosenblatt, 1978), dispelled earlier notions held by many theorists that meaning was somehow inside a story or piece of text, and that readers needed to interpret it correctly and accurately. Rosenblatt asserted that reading events have three constituent parts that all contribute to the experience of literature, including readers with all of their prior knowledge (schema), physical texts written down on paper, and intended messages of the authors. These three constituents, Rosenblatt argued, result not in an interaction, but rather a transaction. Each transaction, she argued, resulted in some change on the part of the reader. Rosenblatt's work gloved nicely with ongoing research in the field of reading which began to look at comprehending, the process, as opposed to comprehension, the product of reading.

## Research Paradigms

One of the most significant contributions to the whole language body of knowledge comes from the field of anthropology where areas can be studied in-depth, and within the context of the larger picture of human living. Heath (1983) taught the field to view the big picture, considering how language learning relates to culture. Much educational research in the past was of short duration and investigated a particular behavior, strategy, or technique outside the realm of the context of the social structure in which it would ordinarily take place. Heath's *Ways with Words* provided us with new insight for considering a variety of research methodologies, including naturalistic inquiry (Guba, 1978).

## Other Whole Language Influences

In addition to the above-mentioned fields and lines of inquiry that constitute some roots of whole language, there is a parade of people—thinkers about education—to whom whole language is also indebted. John Dewey is one who is often cited and quoted (e.g., Dewey, 1929) as the principles of his progressive movement are echoed in the principles and in the practices that follow. Indeed, many others had sentiments that focused on the individual or on the whole person and the power of





experience in learning that form the long genesis of whole language thought.

### *Principles of Whole Language*

In different sources, one will see different principles of whole language presented, but all have the same common thread, spirit, and intent. Because of the immense size of the bodies that contribute to the roots of whole language, it is difficult to state those principles concisely. Part of this difficulty is in the fact that some of the principles apply to learning in general, and some refer more specifically to language learning. Consequently, the principles of whole language in reality apply to all areas of curriculum, a fact which is indicative of the wholeness and interrelatedness that describe all three topics in this paper. In this section we attempt to synthesize the principles from several different sources.

### Whole Language Principles Applying to all Learning and Curriculum

As stated earlier, although the whole language body of literature emerged from language-related sources, whole language theorists have not confined their ideas to reading, writing, listening, and speaking. Part of the thread of wholeness and inter-connectedness that characterizes whole language makes it paradoxical to speak of language learning without the rest of the picture.

**The learner.** Basic to whole language principles is that the learner is active and involved in the process. This is necessary because language learning is a highly personal and social process (Cazden, 1992; Crafton, 1991; K. Goodman, 1986; Y. Goodman, 1989; Poplin, 1988). In other words, language and literacy are developed when learners use them in meaningful, functional ways, interacting with teachers, learners, family, and the wider community.

**The teacher**. A basic whole language principle is that teachers are professionals who continue to learn and grow and who are responsible for classroom decisions based on their knowledge, their observations of children, and their reflection of daily classroom events (Cazden, 1992; K. Goodman, 1986; Y. Goodman, 1989). They are participating members of the classroom community and models for the processes they teach (Y. Goodman, 1989; Raines, 1995).

### The Curriculum and the Classroom

Classrooms are expected to be meccas of rich learning environments with access to quality children's literature, informational books and reference sources, and with ample opportunities to use rich resources to inquire about engaging questions relevant to children's lives and their futures (Cazden, 1992; K. Goodman, 1986; Raines & Canady, 1990; Weaver, 1990). A further principle is that these environments lend themselves to authentic, meaningful, integrated curriculum in which language processes are means rather than ends and the context includes opportunities for learner choice (Cazden, 1992; Cordiero, 1992; Crafton, 1991; K. Goodman, 1986; Y. Goodman, 1989; Poplin, 1998). In conjunction with this connected curriculum which simulates real life situations, events, and circumstances, are the expectations that this type of learning will be motivating for all learners and that all children will learn and eventually be successful (Raines & Canady, 1990; Weaver, 1990).

**Learning Theory**

Some whole language principles are simply restatements of sound learning principles. For example, these may include acceptance of children where they are and acceptance of approximations as signs of growth along a learning continuum (Raines, 1995). In addition, they may include the notions that learning proceeds from whole to part or from the big picture to the specific (Crafton, 1991; K. Goodman, 1986; Weaver, 1990); that modeling and demonstrations are at the heart of learning and teaching (Crafton, 1991); and that the learning process is spiraling but self regulating, with learners continuing to search for new meanings (Poplin, 1998).

**Principles of Whole Language Specific to Language Learning**

Although it is difficult to separate principles dealing with learning from those more specific to language learning (and it may be paradoxical to do so), nonetheless, there are themes that emerge in the literature.

For one, attitude and expectation are critical. A principle of whole language might be stated as: children must be accepted as readers and writers, and their attempts, their risk-taking, and the resulting approximations of language children produce must be valued (Crafton, 1991; Raines & Canady, 1990; Weaver, 1990).

Another principle involves the basic notion that reading, writing, and oral language are all related processes (Goodman, Goodman, & Hood, 1989), and that understanding these processes develops from whole to part rather than in small, unrelated fragments (Crafton, 1991; K. Goodman, 1986; Y. Goodman, 1989). Such an idea is, again, likely a result of the principle that language learning (like other learning) is socially constructed and personal (Crafton, 1991; Goodman, 1986; Weaver, 1990) and that developing language is empowering to learners as they continue to "learn how to mean" in language (Goodman, 1986, p. 26).

As in the principles presented earlier involving curriculum, whole language blossoms in the context of a rich learning environment (Cazden, 1992; Raines & Canady, 1990) that is well stocked with quality books and other resources and that offers learners opportunities to choose how to use these materials in meaningful, functional contexts (Cazden, 1992; Cordeiro, 1992; K. Goodman, 1986; Y. Goodman, 1989; Weaver, 1990).

As must be evident by now to the reader, these principles are complex and multi-layered because of the vastness of the body of literature from which they have emerged over time.

## Continuous Progress: An Old Idea With a New Twist

Continuous progress is easily defined as continuous movement through the curriculum. However, the question then arises, "Whose movement through the curriculum—the group's or the individual's?" Therein lies the misconception about this field of study. Continuous progress is intended by its followers to provide for the *individual's* continuous movement through the curriculum. Only when the graded structure of schooling was implemented in 1847 did individualized instruction become the less preferred method (Goodlad & Anderson, 1987). Continuous progress, then, came to





mean the class would continually and steadily move through textbooks and materials—ready or not.

### *Continuous Progress Emerges*

Continuous progress as explored in the 1960s tended to rely heavily on matching instruction with cognitive development. Some situations that were called continuous progress were, in effect, what we now refer to as "mastery learning" programs. Students were pretested prior to and post tested following instruction. In some schools this instruction was individualized, and other schools used group instruction methods to facilitate the mastery learning, according to Hillson and Bongo (1971):

Continuous progress included the following characteristics:

- children's achievements thus far are viewed as baseline data for a starting point
- no ceilings are placed on learning
- activities and operation eliminate pupil retention and the need for promotion
- readiness is taken into consideration so success is imminent and habitual
- patterns of failure are avoided
- continuous progress is enhanced by teacher collaboration
- flexibility is achieved through differentiated student-teacher activities. (p. 9)

Many of the early twentieth century continuous progress models utilized a checklist style diagnosis and the Joplin plan of grouping for instruction, which was a means of grouping children in what was considered to be a more manageable way (Hillson & Bongo, 1971; Murray & Wilhour, 1971; Smith, 1968). Teachers taught one level in reading and math and children needing that particular level came to the teacher no matter their age or physical size. Schools scheduled large blocks of time for reading and math instruction, whereby all classes had the same time for both subjects so movement of children was easily facilitated. For example, a six-year old needing a Level 10 (fourth grade) basal went to the Level 10 teacher during the block of time set aside for reading instruction. Joplin planning (Slavin, 1988) was another means of ability grouping for children. Concentration on the adopted texts used in the Joplin plan, with a checklist/mastery approach, did not facilitate the type of individualized movement that continuous progress was meant to provide. Consequently, the results of such programs did not provide the "reform" for which everyone had searched.

### *Continuous Progress Today*

Continuous progress for today's student now carries the impetus of current research on effective practice, teaching, and learning. Rather than the textbook or other adopted materials, the individual child becomes the focus of curriculum and instruction (Rollins, 1968). The age-old assumption that children of the same age learn the same thing at the same time in the same way has been put to rest with continuous progress advocates (Katz, Evangelou, & Hartman, 1991). The notion of rigid, graded classrooms, and promotion at the end of each school year is no longer applicable. The schooling structure becomes flexible and tied to children's needs, not artificial calendars.

Following is a description of the general concepts and principles of continuous progress as outlined by Anderson and Pavan (1992).

**Individual Differences**

Perhaps the single most important principle of the continuous progress movement is that individual differences among the population are accepted and respected. Diversity in the classroom is embraced. This principle is drawn from other work on learning styles, child-centered teaching, and developmentally appropriate practice. Children are accepted for who they are and where they are and taken as far as they can go individually by a teacher who uses a variety of instructional approaches, including hands-on learning, technology, and mini-skills lessons.

**Learning is the Work of the Child**

Learning, which is the work of the child, is intended to be not only challenging, but also pleasurable and rewarding. Continuous progress allows children to be aware of their own learning and progress rather than being isolated from the evaluation process. It allows the children to enjoy the learning based on their interest, needs, and abilities. They are engaged with meaningful learning on their developmental levels, which guarantees success and continued intrinsic motivation. Appropriate instructional challenges establish a comfort level that fosters risk taking.

**Recognizing the Whole Child**

The five areas of growth and development—social, emotional, cognitive, physical, and aesthetic—are nurtured and continuously assessed as the whole child is recognized. Teachers in continuous progress classrooms consider the whole child in making instructional decisions, providing children with a wide range of experiences and activities to nurture developmental needs. Interaction and self-expressions are viewed as vital elements of a continuous progress classroom.

**Interaction with Others**

Children interact with other children and adults of varying personalities, backgrounds, abilities, interests, and age levels. The children are exposed to the outside world through interactions with classroom visitors as well as through appropriate field trips and neighborhood visits. The knowledge they develop and the experience they gain from these opportunities for interaction are invaluable (Piaget, 1947; Vygotsky, 1978). Many classroom projects are best completed as a classroom unit, while other projects are best completed with community involvement. The continuous progress classroom provides a flexible, varying style of grouping for experiences.

**Flexible Arrangements for Progressing**

Students are expected to progress at their own pace and in appropriately varied ways. Instruction, learning opportunities, and movement within the curriculum are individualized to correspond with individual needs, interests, and abilities. Children are moved through the curriculum continuum as they demonstrate they are ready to move (Athey, 1970). For example, if a child, in the five areas of growth and development mentioned above, signals that he or she would be better served in an older age level classroom, the movement can occur at any time during the school year. True continuous progress is movement fluidly through the grades, multiage classrooms, or school levels. This does not imply backward movement of children, nor the bouncing of a





child up and down and then back to the younger age group.

**Expectations for Learning**

The expectations for learning are grounded in developmental learning theory; benchmarks indicate what students are expected to learn over time. While this does not imply that all children reach the benchmarks at the same time and in the same way, it does imply that standards exist which are based upon theories of child development. These standards serve as goals for the teacher, parent, and child. The standards are not excuses for retention or failure. They serve merely as guiding indicators of curriculum goals.

Curricular areas are integrated and center around learner inquiry. Methods of inquiry and the skills of learning to learn—inquiry, evaluation, interpretation, and application—are taught and applied in relevant and purposeful activities. Children learn about broad concepts through individual research and inquiry. The teacher provides opportunities to learn, the reference and study skills needed to pursue the inquiry, and the children provide relevant information to answer the questions generated.

**Assessment is Holistic, Continuous, and Comprehensive**

The assessment in a continuous progress classroom must be holistic in order to provide information on the whole child. Teachers use observations, anecdotal records, audio tapes, video tapes, portfolios, student assessments, and many other forms of authentic assessments to analyze progress and to determine the next step for the child. By understanding the five areas of growth and development, teachers can more readily determine student needs. Documenting children's growth over a period of time and at frequent, often daily, intervals is vital to achievement in continuous progress settings.

**Teachers are Empowered**

Teachers are empowered to create learning experiences and to use instructional strategies at their own discretion as they orchestrate children's progress based on perceived individual needs. The teacher chooses appropriate materials for the individual child and directs his or her learning opportunities. Such greater creativity and flexibility are hallmarks of a continuous progress classroom.

### *Summary*

In this section, we have described the relevant concepts, principles, and philosophical bases of developmentally appropriate practice, whole language, and continuous progress. Table 1 summarizes certain aspects of each of these three related schools of thought that have developed in parallel ways. Their striking similarities are presented in the following section.

## Common Roots and Threads

Developmentally appropriate practice, whole language philosophy, and continuous progress share common history and threads that now need to be identified and explored. In comparing and contrasting the principles of each of these areas, differences are not nearly as apparent as similarities. The differences are evident in their origins and intent, not in their underlying principles.

To recap, *whole language* is a philosophy for learning language with def-

inite implications for practice. The whole language movement originated in the literacy and language field. Implications for the classroom include authentic reading and writing experiences for diverse learners. *Developmentally appropriate practices,* with beginnings in early childhood education, are child-centered methodologies used in a classroom. Hands-on experiences enable the teacher and children to experience concrete learning in an enjoyable atmosphere. *Continuous progress*, from educational leadership, is a view of how children move through the schooling structure in a coherent fashion with forward progress. Continuous progress is used to create diverse learning communities, free of rigid grade or age level structures.

The guiding questions include: Can a context based on whole language philosophy exist without both developmentally appropriate practices and continuous progress? Can developmentally appropriate practices be used without a sense of whole language philosophy and continuous progress? Can continuous progress be achieved without a whole language philosophy and developmentally appropriate practices? The answers to the questions are found in the threads that follow, always connecting, not separating the three schools of thought.

**Table 1** Summary of Characteristics of Three Related Schools of Thought

| | D.A.P. | Whole Language | Continuous Progress |
|---|---|---|---|
| Progress Origin | Early Childhood | Reading & literacy | Educational Leadership |
| Question | How do we structure an early childhood environment for optimum, positive development? | What are the optimum circumstances and environments to create lifelong readers, writers, and thinkers? | What are the optimum school structures that allow children to progress as needed through curriculum? |
| Intent | Explicate methods practice | Articulate philos. of how kids learn, learn language, become literate. | Suggest/ direct appropriate movement through schooling structures and institutions. |
| Consequence or Implications | Setting up child centered classrooms with hands-on experiences. | Creating authentic reading/writing programs that provide for diverse learners growing into literacy. | Create learning communities that suit diverse learners and are devoid of rigid grade/age level structures. |





### *Common Ancestors Claimed by Each Tradition*

When we explored the roots of DAP, whole language, and continuous progress individually, it soon became apparent that each of these traditions claims many of the same ancestors as its own.

For example, all three traditions overtly claim both John Dewey and Jean Piaget as their grandparents. While each tradition may ground its work more heavily on some ancestors than others, that is primarily because certain ancestors' work is more closely aligned with the goals and practices of each, but these scholars are not rejected by the others.

For example, the work of Pestalozzi (1746-1827), Friedrich Froebel (1782-1852), and Maria Montessori were focused on the young child. Consequently, their names appear frequently among DAP advocates. But their work can also appear among those in whole language and continuous progress because many of their principles apply elsewhere as well. In other words, whole language and continuous progress also concern themselves with young children's issues—it is just that their advocacy extends beyond those issues.

A few years ago, the work and influence of Vygotsky, the Russian psychologist who taught us much about social interaction and learning, was appearing more frequently in discussions about whole language. However, more recently, writers in DAPand continuous progress have also realized the relationship of his work to their own principles and practices.

Our common roots do not end with historical figures as new theorists and researchers from a variety of disciplines contribute to our body of knowledge about children and learning in schools; individuals from each tradition may discover the value of new work in the field as it develops. As we noted at the beginning, all three of these traditions are dynamic, change constantly with the times, and will continue to do so.

### *Common Threads in Three Traditions*

In this section, the overlapping principles will be summarized in terms of one that speaks to *attitude*, those that express *learning theory*, and those that elucidate *curricular principles*.

**Principle of Attitude**

Thread 1, which expresses a commonalty among these three systems, is the principle of attitude.

***Thread 1*: The process of education honors the integrity of the family, including the family's language and cultural diversity.**

The three fields (early childhood, literacy, educational leadership) that spawned DAP, whole language and continuous progress make references to honoring the language and culture of learners and their families and communities (Heath, 1983). This notion supports the idea of beginning instruction or activities with learners where they are. DAP expresses this by recognizing that children are unique, by allowing them to grow and develop at their own pace, as well as by honoring the cultural context from which children come (Bredekamp, 1987; Bredekamp &

Copple, 1997). Whole language writers express this similarly, applying the notion specifically to learning to read and write, while having an attitude that both understands and honors individuals, their culture, and their learning pace (K. Goodman, 1986; Y. Goodman, 1989; Raines, 1995; Raines & Canady, 1990). Continuous progress expresses the sentiment similarly by espousing practices that recognize that individual needs, interests, and abilities are paramount in the process of meeting the needs of learners (Anderson & Pavan, 1993).

## Principles of Learning Theory

The following three ideas form the basis for threads related to learning theory.

***Thread 2*: Learning occurs as children actively construct their own knowledge.**

Learning is a process wherein learners, as active participants, internally organize and reorganize new information by constructing mental structures or schemata. The expansion or reformation of these mental structures occurs through an interaction between previous learning and new experiences. DeVries and Kohlberg (1987) refer to this as a dialectic process in which children become active participants in the formation of the mind, not just "furnishing" it (p. 17). As interactions between existing mental schemata and new experiences occur, the mind is being developed. This process of learning, otherwise known as constructivism, is a theoretical perspective that contrasts first of all with the maturationist perspective which suggests that learning is an unfolding process generated from within the individual. Learning does not occur "just naturally," but neither can learning be "poured in." A constructivist perspective requires a learning environment which affirms the active role of learners in their own learning, recognizing the importance of factors which are both internal and external to the learner (Anderson & Pavan, 1993; Cazden, 1992; K. Goodman, 1986; Y. Goodman, 1989; Weaver, 1990).

***Thread 3*: Learning occurs within a social and interactive context.**

Children's interaction with both adults and peers is a key means by which children construct their own knowledge. Within their interactions, children engage in mental manipulation of new information in combination with existing schemata. This active engagement in the development of new concepts and meanings lies at the heart of the process of forming new and expanded mental schemata.

Curriculum recommendations for DAP, whole language, and continuous progress all reflect the importance of children's active interaction with adults and other children. Speaking for a DAP philosophy, Bredekamp (1987) and Bredekamp and Copple (1997) repeatedly point toward the necessity for children to communicate with others, strengthening their abilities "to communicate, express themselves, and reason" (1987, p. 64). A foundational instructional strategy involves providing opportunities for children to engage in conversation and discussion with adults and other children by asking questions, making comments, and stating opinions and ideas.

The premise on which a whole language philosophy rests is that learning occurs in a social context in which the learner makes meaning. Since the symbols of language and literacy are socially constructed phenomena, it is only within a social environment that meaning can develop (Cazden, 1992; Crafton, 1991; K. Goodman, 1986; Y. Goodman, 1989; Weaver, 1990). The learning of language in all its forms depends on communication between the learner and others, both adults and children. It then becomes evident that the learner must be immersed in a learning context which is purposeful, meaningful, and relevant. Finally, in acknowledging the significance of the whole child, continuous progress supports the importance of the social sphere in which the child is nurtured (Anderson & Pavan, 1993).

***Thread 4*: Learning experiences need to be appropriate to learners from the standpoint of development, culture, and social age, and they must honor the learner's age and pace.**

This thread resounds the sentiments of Thread 1 that speak to the need to honor learners and their families. The difference in this case is that the learning experiences themselves must reflect these ideas, which means that teachers must have a thorough knowledge of those they teach and take that knowledge into account in planning educational experiences. In other words, curriculum should be tailored to the social, cultural, and developmental needs of the learners (Anderson & Pavan, 1993; Bredekamp, 1987; Bredekamp & Copple, 1997; Y. Goodman, 1989; Raines & Canady, 1990). All three fields advocate for such an idea.

## Principles of Curriculum

Thread 5 begins the curricular principles found in developmentally appropriate practice, continuous progress, and whole language. Each of the three concepts describes learning as the "work" of the child. In order for this learning to be meaningful, it must be challenging, pleasurable, and rewarding. The experiences for children provide a real life focus that is authentic and meaningful. In other words, children must see a relationship between actual life experiences and the activity of the classroom.

***Thread 5*: Learning is relevant and authentic.**

It is well documented that literate behavior is learned through real, functional use. This holds true for other learning in classrooms. Learning must have a functional purpose; otherwise, children fail to see the need to perform the task.

When children engage in meaningful learning experiences, they begin to take responsibility for their own learning. If the learning is truly the "work" of the child, the learning is extended beyond the classroom walls by the children themselves. As children make connections between school work and their own interests, independent, at-home learning becomes important to children. Responsibility for learning is achieved as children continue researching and studying without teacher direction (Bredekamp, 1987; Bredekamp & Copple, 1997; Crafton, 1991; K. Goodman, 1986; Pavan, 1972; Weaver, 1990), and must be challenging, pleasurable, and rewarding (Pavan, 1972). Such experiences for children provide them with a real-life focus that is authentic and meaningful. In other words, children must see a relationship between actual life experiences and the activity of the classroom.

***Thread 6*: Learners are intrinsically motivated because they experi-**

**ence rewarding, challenging, pleasurable learning experiences.**

This thread is the logical consequence of Thread 5 when authentic experiences are in place. Learners arrive at a learning task filled with intrinsic motivation. In teaching, the continuation of intrinsic motivation and drive are facilitated through challenging, authentic, and rewarding experiences. Learners bring their experiences and interests to the learning task and, thus, begin to take ownership for their learning (Anderson & Pavan, 1993; Bredekamp, 1987; Bredekamp & Copple, 1997; Cordeiro, 1992; K. Goodman, 1986; Y. Goodman, 1989; Weaver, 1990).

***Thread 7*: Curriculum is integrated, not separated.**

Curriculum is integrated, not separated within DAP, whole language, and continuous progress environments. While children have goals or benchmarks that educators have identified, the curriculum promotes integration of meaning across all subject areas. In such settings, curriculum promises a holistic view of the learning process as opposed to the acquisition of separate facts in subject areas. Movement of the children through curriculum is achieved through concept units, thematic units, topic studies, and in-quiry—not progression through the adopted textbooks (Anderson & Pavan, 1993; Bredekamp, 1987; Bredekamp, & Copple, 1997; Cordeiro, 1992; Crafton, 1991; K. Goodman, 1986; Y. Goodman, 1989; Weaver, 1990).

***Thread 8*: Evaluation and assessment are holistic, continuous, comprehensive, closely aligned with the teaching, and result in instructional decisions regarding the learner.**

The final curriculum thread advocates for authentic evaluation and assessment. Assessment should be related to the curriculum and teaching, flowing directly from tasks and experiences. Separation of teaching and assessment is not valued or promoted. Assessment is built into the teaching process as well as the learning process through use of self-evaluation, teacher observation, and portfolio development.

Assessment should be continuous and comprehensive, providing invaluable feedback for teacher planning. Comprehensive assessment goes beyond traditional grading and is accomplished by concentrating on five areas of growth and development which include social, emotional, aesthetic, physical, and cognitive areas. As assessments are conducted, teachers and students utilize the information to determine what comes next for the class, the small group and/or the individual. As opposed to gathering unused and unwanted information and numbers, assessment is a practical tool for teachers (Anderson & Pavan, 1993; Bredekamp, 1987; Bredekamp & Copple, 1997; Goodman, Goodman, & Hood, 1989). Table 2 summarizes the principles and common threads discussed in this section.

**Table 2:** Whole Language, Continuous Progress, and Developmentally Appropriate Practice: Common Threads

**Principle of Attitude**

Thread 1: The process of education honors the integrity of the family including the family's language and cultural diversity.

**Principles of Learning Theory**

Thread 2: Learning occurs as children actively construct their own knowledge.

Thread 3: Learning occurs within a social and interactive context.

Thread 4: Learning experiences need to be appropriate to learners from the standpoint of development, culture, and social age, and they must honor the learner's age and pace.

**Principles of Curriculum**

Thread 5: Learning is relevant and authentic.

Thread 6: Learners are intrinsically motivated because they experience rewarding, challenging, pleasurable learning experiences.

Thread 7: Curriculum is integrated, not separated.

Thread 8: Evaluation and assessment are holistic, continuous, comprehensive, and closely aligned with the teaching.

## Summary and Reflections

When we first conceived of this paper, it was because we informally saw commonalties that we could not find documented anywhere. The commonalties, both roots and threads, were far more compelling than we had imagined.

The ideas presented in this paper can be best summed up in a few key ideas. First of all, in keeping with basic constructivist principles, students need to be in charge of their learning. In other words, since meaning is constructed socially by the individual, then opportunities need to be provided educationally in order to enable these personal constructions to take place. Second, learning experiences are best or more effective and efficient when they are integrated and authentic, mirroring realistic life experiences. In other words, the more authentic the circumstances, the more lasting the learning. This notion can be compared to the old Chinese proverb, "I hear, and I forget; I see, and I remember; I do, and I understand." Finally, the act of teaching and learning should create, as a by-product, a passion and motivation for learning.

It is clearly significant that three different fields somewhat separately have arrived at such a high degree of consensus about teaching, learning, and curriculum. We feel these notions are the premises of a new way of considering the education of children that is coinciding with the end of this century. Like other fields experiencing paradigm shifts, the most common thread is the interrelatedness and interconnectedness of different aspects of the whole —the same wholeness we see as a goal for the development of learning and of healthy human beings.

# References


Allen, P. D. (1976). *Findings of research in miscue analysis: Classroom implications*. Urbana, IL: National Council of Teachers of English.

Anderson, R. H., & Pavan, B. N. (1993). *Nongradedness: Helping it to happen*. Lancaster, PA: Technomic Publishing.

Athey, I. J. (Ed.) (1970). *Educational implications of Piaget's theory*. Waltham, MA: Ginn and Company.

Bredekamp, S. (Ed.). (1987). *Developmentally appropriate practice in early childhood program serving children from birth through age 8* (expanded edition). Washington, DC: NAEYC.

Bredekamp, S., & Copple, C. (1997). *Developmentally appropriate practice in early childhood programs*, revised edition. Washington, DC: NAEYC.

Brewer, J. A. (1992). *Introduction to early childhood education: Preschool through primary grades*. Boston: Allyn & Bacon.

Calkins, L. M. (1983). *Lessons from a child.* Exeter, NH: Heinemann Educational Books.

Cazden, C. B. (1992). *Whole language plus*. New York: Teachers College Press.

Chomsky, C. (1972). Write first, read later. *Childhood Education*, *47*(6), 269-299.

Clay, M. M. (1975). *What did I write?* Exeter, NH: Heinemann Educational Books.

Cordeiro, P. (1992). *Whole learning: Whole language and content in the upper elementary grades*. Katonah, NY: R. C. Owen.

Crafton, L. K. (1991). *Whole language: Getting started, moving forward*. Katonah, NY: R. C. Owen.

DeVries, R., & Kohlberg, L. (1987). *Constructivist early education: Overview and comparison with other programs.* Washington, DC: NAEYC.

Dewey, J. (1929). *My pedagogic creed*. Washington, DC: The Progressive Education Association.

Emig, J. (1977). Writing as a mode of learning. College *Composition and Communication*, *XXVIII* (2), 122-128.

Ferreiro, E., & Teberosky, A. (1982). *Literacy before schooling*. Exeter, NH: Heinemann Educational Books.

Flavell, J. H. (1977). *Cognitive development*. Englewood Cliffs, NJ: Prentice Hall.

Flower, L. (1981). Writer based prose: A cognitive base for problems in writing. In G. Tate & E. P. J. Corbett (Eds.), *The writing teacher's sourcebook.* New York: Oxford University Press.

Flower, L., & Hayes, J. (1980). Writing as problem solving. *Visible Language*, *14,* 388-389.

Goodlad, J. I., & Anderson, R. H. (1987). *The nongraded elementary school*. New York: Teachers College Press.

Goodman, K. S. (1970). The reading process: Theory and practice. In F. V. Gollasch (Ed.), (1982). *Language and literacy: The selected writings of Kenneth S. Goodman.* Boston: Routledge and Kegan Paul, Ltd.

Goodman, K. S. (1973). Miscues: Windows on the reading process. In F. V. Gollasch (Ed.), (1982). *Language and literacy: The selected writings of Kenneth S. Goodman*. Boston: Routledge and Kegan Paul, Ltd.

Goodman, K. S. (1979). *Miscue analysis: Applications to reading instruction*. Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills.

Goodman, K. S. (1986). *What's whole in whole language?* Exeter, NH: Heinemann Educational Books.

Goodman, K. S., Goodman, Y. M., & Hood, W.J. (1989). *The whole language evaluation book.* Portsmouth, NH: Heinemann.

Goodman, Y. M., & Altwerger, B. (1981). *Print awareness in preschool children: A working paper*. Tucson, AZ: Center for Research and Development, University of Arizona.

Goodman, Y. M., Watson, D. J., & Burke, C. L. (1987). *Reading miscue inventory: Alternative procedures.* New York: R. C. Owen Publishers.







Goodman, Y. M. (1989). Roots of the whole language movement. *Elementary School Journal*, *90* 113-127.

Graves, D. H. (1983). *Writing: Teachers and children at work*. Exeter, NH: Heinemann Educational Books.

Guba, E. G. (1978). *Toward a methodology of naturalistic inquiry in educational evaluation*. DSE Monograph Series in Evaluation, Los Angeles: Center for the Study of Evaluation.

Halliday, M. A. K. (1977). *Learning how to mean: Explorations in the development of language.* New York: Elsevier.

Halliday, M. A. K. (1980). An interpretation of the functional relationship between language and social structure. In V. J. Lee & J. Swann (Eds.), *Language and language use.* Exeter, NH: Heinemann Educational Books.

Harste, J. C., Woodward, V. A., & Burke, C. L. (1984). *Language stories and literacy lessons.* Portsmouth, NH: Heinemann Educational Books.

Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. New York: Cambridge University Press.

Hillson, M., & Bongo, J. (1971). *Continuous progress education: A practical approach.* Palo Alto, CA: Science Research Associates.

Holdaway, D. (1979). *The foundations of literacy.* New York: Ashton Scholastic.

Katz, L. G. (1987). *What should young children be learning?* (OERI 400-86-0023). Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education.

Katz, L., Evangelou, D., & Hartman, J. A. (1991). *The case for mixed-age grouping in early education.* Washington, DC: National Association for the Education of Young Children.

Kuhn, T. (1970). *The structure of scientific revolutions*. Chicago: University of Chicago Press.

Manning, M. L. (1993). *Developmentally appropriate middle level schools*. Wheaton, MD: Association for Childhood Education International.

Murray, E. M., & Wilhour, J. R. (1971). *The flexible elementary school: Practical guidelines for developing a nongraded program.* West Nyack, NY: Parker.

Odell, L. (1980). The process of writing and the process of learning. *College Composition and Communication, XXXI* (1), 42-50.

Pavan, B. N. (1972). Moving elementary schools toward nongradedness: Commitment, assessment, and tactics. Dissertation. Harvard University.

Perl, S. (1980). Understanding composing. *College Composition and Communication*, *31* (4), 363-369.

Piaget, J. (1947). *The psychology of intelligence*. London: Routledge & Kegan Paul, Ltd.

Poplin, M. S. (1988). Holistic-constructionist principles of the teaching learning process: Implications for the field of learning disabilities. *Journal of Learning Disabilities, 21*, 401-416.

Raines, S. C. (1995). *Whole language across the curriculum*. New York: Teachers College Press.

Raines, S. C., & Canady, R. J. (1990). *The whole language kindergarten*. New York: Teachers College Press.

Read, C. (1971). Preschool children's knowledge of English phonology. *Harvard Educational Review*, *41*, 1-34.

Rollins, S. P. (1968). *Developing nongraded schools*. Itasca, IL: F. E. Peacock Publishing.

Rosenblatt, L. M. (1978). *The reader, the text, the poem: The transactional theory of the literary work.* Carbondale, IL: Southern Illinois University Press.

Slavin, R. E. (1988). Synthesis of research on grouping in elementary and secondary schools. *Educational Leadership, 1*, 67-77.

Smith, F. (1973). *Psycholinguistics and reading*. New York: Holt, Rinehart, and Winston.

Smith, F. (1978). *Reading without nonsense.* New York: Teachers College Press, Columbia University.

Smith, L. L. (1968). *A practical approach to the nongraded elementary school*. West Nyack, NY: Parker.

Teale, W. H. (1986). The beginnings of reading and writing: Written language development during the preschool and kindergarten years. In M. Sampson (Ed.), *The pursuit of literacy*. Dubuque, IA: Kendall/Hunt.

Weaver, C. (1990). *Understanding whole language.* Portsmouth, NH: Heinemann Educational Books.

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

## Biographies

**Wendy C. Kasten** is an associate professor of Curriculum and Instruction-Literacy at Kent State University, where she teaches courses in reading, writing, literature, action research, and language arts from a constructivist, whole language perspective. Dr. Kasten earned her Ph.D. from the University of Arizona and her Master's degree from the University of Maine at Orono. She has also taught at the University of South Florida and at Deakin University in Australia. Dr. Kasten is the current president of the Center for the Expansion of Language and Thinking, which is a professional, invitational collective of holistic educators. She serves on the executive planning committee for the National Congress for Public Education. In addition to articles related to whole language, Dr. Kasten recently co-authored with Elizabeth Monce Lolli a book titled *Implementing Multiage Education: A Practical Guide* (1998, Christopher Gordon Publishers) as well as other articles on multiage teaching and learning.

**Elizabeth Monce Lolli** is the Director of Curriculum and Instruction in the Nordonia Hills City School District in Northfield, OH. She earned her Ph.D. from Miami University of Ohio. She is a national education consultant on multiage, consensus leadership, and school reform. Dr. Lolli has written several articles published in such venues as *ERS Spectrum, Primary Voices, Principal*, and *OASCD Journal*. She is co-author with Wendy Kasten on the book titled *Implementing Multiage Education: A Practical Guide*.

**Judith L. Vander Wilt** is an assistant professor of Childhood Education at the University of South Florida at Sarasota. Dr. Vander Wilt has an M.A. in Special Education, Birth to 6, from Western Michigan University, and an Ed.D. in Educational Psychology from the University of South Dakota. She worked in both regular and special education settings for twelve years prior to teaching at Northwestern College in Iowa and at the University of South Florida.