

## **THE SHARED SEARCH FOR MEANING**

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Everyone aspires to find meaning in life. In this quest, individuals and groups must confront problems that require choices on how to act wisely, live according to beliefs, and be respectful of others. A possible source for guidance, philosophy is the field of study dedicated to the search for meaning and the pursuit of wisdom. Major philosophical interests include the nature of existence (metaphysics), the source of belief (epistemology) and the conduct of life (ethics). While not always apparent, one's own philosophy guides the decision-making process about what to do next. In addition to having personal value, philosophy has significant implications for professional work with children and families. Having roots in philosophical ideas, the concepts of co-inquiry, interchange and communicative literacy explain how children, teachers and parents acquire meaning in early education programs. By examining the underlying philosophical ideas, these three concepts can be more fully understood and applied in teaching and learning.

## **Philosophy and Education**

While having a long and distinguished history in education, philosophy has fallen out of favor in the United States in recent years. Formerly in education, study of the critically important philosophical ideas of Plato, Rousseau, Dewey, Peters and Freire were required in teacher preparation. In contrast, today's school leaders regard philosophies of education as vague and abstract. They consider data-driven, empirical research to be the sole criteria for educational decisions.

Calling for objective standards for student performance, they give little credence to philosophy as a foundation for classroom practice.

Paradoxically, both research and philosophy are forms of inquiry. Both value logic, attempt to make generalizations about experience and seek the truth. Having a philosophical understanding of learning and development validated by research provides early educators with a rationale for thoughtful action in the classroom. By integrating these approaches to practice, educators would be able to: 1) clarify their beliefs about children and learning; 2) apply research on early education in their teaching; 3) communicate their beliefs coherently to parents and others; and 4) make choices consistent with their professional philosophy.

### **Thought and Language: The Meaning-Making Process**

Thought and language are central to learning and development. These processes permeate *communicative literacy*, the ability to use symbolic languages to represent ideas, *interchange*, the negotiation of meaning, and *co-inquiry*, an educational approach for collaborative research and problem-solving. Several different theories have been forwarded as to how language and thinking operate in the meaning-making process.

Piaget, Vygotsky, Bruner and others have sought to understand the relationship of language and cognition in children's development. Although differing in their views, these authorities agree that language and thought work in unison to create

meaning. Piaget's early work (1926/1962) explores children's use of language in school. According to Piaget, children frequently engage in egocentric speech, that is, they use speech for private purposes without much concern for the need to communicate successfully to others. Mature, socialized speech develops slowly. After conducting many studies, Piaget concludes that thought, consisting of cognitive schema, is the primary basis for constructing meaning from experience and that language is a secondary, subsystem of thought (Ginsberg & Opper, 1989).

Other theorists argue that language and thought have equal importance in conceptualizing ideas. According to Vygotsky (1934/1962), language and thought begin as parallel processes in early childhood. As a result of social interaction and cultural mediation, language and thought merge over the course of development. Through interchange with peers and adults, as well as cultural beliefs and values, children socially negotiate the meaning of their experiences and ideas. As children internalize meaning, thought becomes verbal and language becomes rational. Having a different perspective on the relationship, the Sapir-Whorf hypothesis (Sapir, 1958), holds that language influences one's thought, behavior and understanding of the world. Another point of view is expressed by Bruner (1990) is that language liberates thought, enabling the transformation of experience into understanding.

Although not familiar to most educators, the theory of semiotics (Eco, 1976) concerns the processes and interconnectedness of language, thinking and

perception. According to this theory, signs communicate meaning. Eco describes a sign as anything that can be interpreted by someone. Semiotic theorists contend that people are born with the capacity for producing signs and use them continuously. In the theory of semiotics, verbal and written literacy as well as other symbolic systems such as mathematics, visual and performing arts, computer languages, etc. are seen as essential systems for producing meaning. These standard symbolic systems are necessary for transmitting knowledge, culture and ideas and for allowing their further development. In the shared search for meaning, children acquire communicative literacy, the ability to use standard signs and symbolic systems such as language, by having interchange with people, the environment and the symbolic systems that represent knowledge and culture. Influential in the arts, computer sciences, linguistics and mass communication, and other areas of study, semiotics has yet to be fully explored in relation to educational studies.

While there are several different semiotic theories, all build on the original, general theory of semiotics proposed by the American philosopher, Charles Sanders Peirce. Most educators are not aware of his theory or of its indirect contribution to education through Peirce's student, John Dewey.

## **Charles Sanders Peirce: An American Philosopher**

In the history of semiotics, the seminal work of an acclaimed American philosopher, Charles Sanders Peirce (1839-1914) (his name is pronounced “purse”), affords profound insights concerning the relation of thought and language and how meaning emerges through a transactional process in signs. Understanding Peirce’s theory of signs is critical to examining how semiotic ideas might be adapted to education.

Unknown to those outside philosophy prior to the publication of the Pulitzer prize-winning, *Metaphysical Club* (Menand, 2001), Peirce is regarded as one of the most important American philosophers (Auspitz, 1994, Hoopes, 1991, Fisch, 1986). The eminent philosopher, Karl Popper hailed Peirce as the greatest philosopher of all time (Hoopes, 1991). Peirce is recognized for two groundbreaking, complementary modern philosophies: pragmatism and semiotic theory.

In addition to being a brilliant logician, Peirce was also accomplished in mathematics, chemistry, astronomy and several other fields of study. Realizing that he was a genius, Peirce’s father, a professor of mathematics at Harvard University, decided to home school his son. Beginning at the age of 11, with his father’s guidance, Peirce made a systematic, critical analysis of the philosophies of Aristotle, Descartes and Kant. Peirce eventually determined that all

philosophies were flawed and therefore, set out to construct his own (Auspitz, 1994).

Over the course of his life, Peirce continually worked on perfecting his theories. A prolific writer, Peirce published mainly in scholarly journals. By contemporary standards, his published work would be equivalent to approximately 20 books, each about 500 pages in length (Hoopes, 1991). However publications during his lifetime comprise only 10% of the more than 100,000 pages of handwritten notes left by Peirce. Although volumes of his collected papers are now available, much of his work, including papers on the theory of signs, remain unpublished. Currently, Peirce is being rediscovered. A true visionary, Peirce used the term *virtuality* to describe mental operations in 1902 (Skagestad, 1998). His mathematical calculations and “existential graphs” have yielded important applications for computer programming (Ransdell, 1998).

### **Acquiring Meaning in a Community of Learners**

Peirce believed that knowledge is acquired in a social context, among a community of learners. In the 1870's, he was a founding member of the first Metaphysical Club at John Hopkins University. The Metaphysical Club was comprised of a small, select group of noted intellectuals, including Oliver Wendell Holmes and others. A forerunner of the co-inquiry meeting, the Metaphysical Club was a forum for discussing philosophy, proposing innovative ideas and sharing work. The lively interchange among the group inspired their scholarly

efforts and, most importantly, gave rise to the philosophy of pragmatism that shaped American thinking in the next century.

Peirce is credited with the version of pragmatism now generally accepted in philosophy. His theory of pragmatism states that the practical effects or consequences of an idea determine its meaning. In other words, to understand an idea, one should examine what happens when the idea is applied in the real world. Thus the pragmatic philosophy reflects a scientific viewpoint and a practical understanding of reality.

A truly American philosophy, pragmatism has had a tremendous impact on American business, law and education. In the pragmatic view, in order to make progress, problems require innovative solutions. The philosophy of pragmatism was a mandate for scientific thinking and research-based methods. For education, the philosophy of pragmatism is consistent not only with innovative teaching practices such as observation, inquiry projects, integrated curriculum and documentation, but also the use of educational research to improve learning.

## **Pragmatism and Education**

John Dewey, the most distinguished educational philosopher in US history, based his theory of progressive education on the philosophy of pragmatism. In his writing on education, Dewey (1938) advocates for inquiry as a teaching method. For Dewey, inquiry begins in “doubt,” a state due to a specific problem

or interest that may also take the form of a question (stage 1); this problem can be researched through experience by a group of learners (stage 2); until it resolves with a degree of certainty in an assertion, belief or plan for action (stage 3); this final state often leads to new questions or problems, reinitiating the cycle of inquiry. These stages generally correspond with the scientific method--hypothesizing, collecting data and analyzing results. As discussed here, these stages also parallel the categories of inquiry in Peirce's semiotic philosophy.

## **The Trouble With Peirce**

While a phenomenal genius, Peirce remains a controversial figure among academicians. He was arrogant, egotistical, short-tempered and an outspoken critic of other scholars and their work. Peirce wanted to set his ideas apart, and did so in a way that alienated his colleagues. For example, when his friend, benefactor and fellow philosopher, the highly respected William James lauded him and his philosophy of pragmatism, Peirce publicly reviled James because he objected to his interpretation of pragmatic theory. Thereafter, in order to set his ideas apart, Peirce altered the term for his philosophy, calling it *pragmaticism*.

Deledalle (2000) tactfully sums up the problem: "Peirce was "not open to other people" (p. 187). While Peirce's declaration "I do not make any contrast between Subject and Object" (Deledalle, p. 41), may be true to his philosophical beliefs, it also suggests a lack of sensitivity and intersubjective awareness important for interchange with others. Thus despite his great brilliance, Peirce's difficult

behavior caused irreparable damage to his career. After losing a temporary position at John Hopkins, he was unable to obtain a post at another university and lived for many years in professional isolation and poverty. At the end, Peirce moderated his stance and spoke with respect for James and several other colleagues with whom he had clashed earlier. However animosity toward Peirce in academic circles was so intense that it persisted even after his death (Ransdell, 1998).

John Dewey was a notable exception. When Dewey was a graduate student at John Hopkins, Peirce was on his doctoral committee. Although he was also critical of him (Deledalle, 2000), Dewey expressed admiration for Peirce, describing him as a “philosopher’s philosopher” (as cited in Prawat, 2001). While the extent of Peirce’s influence on Dewey’s thinking is controversial (see Prawat, 2001, Garrison, 2001), Dewey openly acknowledges Peirce’s contributions in his later writings (see Dewey, 1946; and references to Peirce in his books, *Logic: The theory of inquiry*, 1938 and *Knowing and the known*, 1949). In addition, Dewey (1949) defended Peirce’s semiotic theory from misinterpretation and by writing against the competing ideas of the more popular Charles Morris.

Although claiming to be an adherent of Peirce’s theory, Morris was regarded by Dewey as an empiricist and behaviorist . Morris(1955) divides language into three categories: phonology, syntactics, semantics, and defines them as behavioral rather than logical processes. Ultimately, Morris’ semiotic theory was adopted in linguistics. Morris’s categories are fundamental to current language

and literacy theory and methods. Another theory of signs proposed by the Swiss linguist, Ferdinand de Saussure (1916/1959), a contemporary of Peirce, is the foundation for the theory of structural linguistics that emphasizes the study of phonology and other structural features also basic to modern literacy instruction.

With the exception of specialized studies in philosophy, Peirce's semiotic theory fell into relative obscurity. Although committed to the concept of community, the shared search for meaning and "how to make our ideas clear" (Peirce, 1878/1991), Peirce's antagonistic interactions and his difficult terminology caused him problems and led to disinterest in his philosophical ideas. As a result, many of his invaluable insights have not been given the attention they deserved.

Peirce's life story offers many "lessons learned" icaring about alternative perspectives, respecting differences, listening and constructive problem-solving and building relationships are valuable professional attributes. Furthermore, the ability to convey ideas successfully depends on having a standard, accessible vocabulary. For educators to have interchange with one another as well as with parents and the larger community, commitment, empathy and clear communication must be demonstrated.

## **Peirce's Semiotic Theory**

Even for those who study philosophy, Peirce's terminology is a barrier to understanding his writing. Well-versed in ancient, medieval and modern

languages including Greek, Latin, French and Italian, Peirce was deeply occupied with nomenclature and the preciseness of words. Consequently, his writing abounds in totally new, intentionally difficult terms to understand.

As a scientist, Peirce believes that the universe favors continuity, pattern and predictability. His philosophical orientation, “realism,” is a philosophy with origins in medieval and Greek thought. His philosophy differs from phenomenology, the contemporary European philosophy affecting modern thinking in the 20<sup>th</sup> and 21<sup>st</sup> centuries. Phenomenology holds that the meaning of reality is individually perceived and therefore relative, subjective and changeable. In contrast, the philosophy of realism argues that reality is objective and rational. Rather than a deconstruction of sensory data, logic is a constructive process that is mentally directed (Hoopes, 1991).

According to Peirce’s semiotic (he never used “s” on the end of semiotic and preferred the spelling, “semeiotic” according to Fisch, 1986, p. 322) all thought is in signs (Peirce, 1868/1991). Through the operation of signs, logical reasoning leads to the discovery of meaning. Peirce’s semiotic philosophy is also regarded as a “social theory of logic” (Fisch, 1986, p. 327). Through inquiry, a growing consensus of opinion in society leads to general agreement on universal principles about what really matters:

Truth: Systems of knowledge, concepts and principles including  
language, science, mathematics, etc..

Justice: System of laws.

The Beautiful: Aesthetic principles.

The Good: Moral and ethical principles.

Once a principle is adopted, action informed by belief becomes possible.

In Peirce's semiotic theory, "a sign, or *representamen*, is something which stands to somebody for something in some respect or capacity." (Peirce, 1897/1960, volume II, p. 228) To create meaning, the sign, operates in three dynamic mental states or categories: *Firstness*, *Secondness* and *Thirdness*. The three categories parallel the three stages of inquiry. In each mental state, the sign has a unique identity and a specific function. Moreover a sign state does not exist in isolation but is interrelated with the other states, constituting a set of meaning. Each category of the sign includes the former category. The three sequential states are in continual transaction or *semiosis*. Thus the sign functions as a "rule of action" (Deledalle, p. 102). Operating in the three categories simultaneously, thought has context, direction and purpose and "proceeds in the form of a dialogue" (Fisch, 1986, p. 358). A process for inquiry, semiosis, the continuous flow of signs, represents the active search for meaning, a basic in human behavior.

In the semiotic triad of firstness, secondness and thirdness, each category associates with a particular form of logic. These triadic categories of the sign also suggest ideas significant for understanding co-inquiry, interchange and communicative literacy and most importantly how children and adults acquire meaning in educational contexts.

The animation, Semiotics: the Search for Meaning, shows the sequential flow of evolving meaning in triadic categories of firstness, secondness and thirdness:

<http://coinquiry.org/searchformeaning.swf>

## **Firstness: The World of Possibility (Hypothesis)**

In Firstness, the sign is potential, a possibility for meaning. Firstness represents “the *capacity* for experience” and the sign functions without reference to any particular meaning (Peirce, 1894). It is “present” with no connection to anything but itself (Peirce, 1867/1991, p.24). Peirce offers the following enigmatic description of Firstness: it is “present and immediate . . . fresh and new . . . . initiative, original, spontaneous and free . . . . vivid and conscious . . . .It precedes all synthesis and differentiation; it has no unity and no parts . . . . Stop to think of it, and it has flown” (cited in Deledalle, 2000, p. 68).

In other words, firstness is the “ah ha ” moment of insight.

The logic of firstness is *abduction*, a new form of logical reasoning first proposed by Peirce. This category of logic includes discovery, invention, imagination, inspiration and the birth of an idea or a hypothesis. Thus in semiotic theory, creative thinking is a form of logic, the logic of discovery.

As firstness, the sign is an original, an *icon*. According to the logic of firstness, an original cannot be duplicated. When copied, it becomes something else, at best, a watered-down facsimile. In the arts and sciences, the competition to achieve firstness is truly high stakes. Deciding who was the first to unlock the code for DNA determines who wins the prize and lasting fame. In the arts, only the dribbled and spattered paintings made first by Jackson Pollock are costly. Nearly identical paintings, even those undistinguishable by an expert, have limited value. While assisting in the learning process, imitation, no matter how artful, is not firstness.

Because Firstness represents an idea without any physical connection to real experience, it is difficult to visualize. For Peirce, the term “likeness,” as captured in a photograph before it is interpreted, epitomizes firstness.

Similar to the mental state between dreaming and waking, Peirce describes the state of mind in firstness as pure feeling. However the emotional state of firstness is doubt and a feeling of nervousness or tension. Peirce explains: “Doubt is an uneasy and dissatisfied state from which we struggle to free ourselves and pass into a state of belief . . . . I shall term this struggle inquiry” (Peirce, 1877/1991, pp. 149-150). Thus firstness is the catalyst for inquiry and movement into the next category, *Secondness*.

## **Education and Firstness**

Although firstness is a term that is “beyond words,” for educational purposes, some of the words that transmit the sense of firstness include: inspire, hypothesize, project (verb), doubt, problem, sense, guess, express, imagine, possibility, create and invent.

The image of the child, a conception from the philosophy of the preschools in Reggio Emilia, Italy captures the spirit of iconic firstness. Often educators in Reggio Emilia describe the image of the child as one full of potentials, echoing this idea of firstness. The child is seen as resourceful, competent and an active participant in learning (Rinaldi, 1998). Having “100 languages,” the child has the unlimited ability to express meaning in signs. As likeness, rather than an actual child, the image of the child is the subject of constant research and is continually open to interpretation.

As educators and parents know, the child lives in Firstness. For the child, every moment is an adventure and the “first-time.” Originality, creativity, inventiveness and a sense of wonder characterize the child’s exploration of the world and efforts to make sense. The child expresses joy and delight in innumerable physical and verbal signs. While the outcome may be a delightful, surprising, frustrating or a painful lesson, the child’s curiosity and intrinsic desire to learn prompt questions and constant efforts to find out why. The notion of firstness offers an ideal vision of the childhood and that every child in the world has the

right to experience: a life full of possibilities, without insecurity, fear, hunger or conflict.

Early education programs invite firstness when they offer children interesting, stimulating, provocative materials and experiences and a rich, multi-sensory, open-ended learning environment. Such an environment is filled with innumerable signs that call for interpretation and are a potential source for learning, hypothesizing and creating. As a context for relationships and learning with an array of materials both natural and recycled as well as a space and organization for experiences, the indoor and outdoor environment are places for discovery, imagination, invention and new ideas (Gandini, 2005).

The innovative use of documentation also attempts to communicate the firstness of children and the meaning of their experiences. Through documentation, an impression of children's early learning and symbolic abilities can be visualized and studied. Moreover in documenting learning and experiences, educators continually strive to distill the essence of learning and meaning of children's signs. Documentation precipitates hypotheses, questions and possibilities that motivate the inquiry process in education.

### **Secondness: The World of Experience (Inquiry)**

*Secondness* occurs in the sign's connection with a specific thing, event or phenomena in the world of experience. Peirce uses the term "bumping" to

describe the mind coming into contact with the hard facts of reality (Dewey, 1946). The logic of secondness is induction or inference, that is, meaning inferred from experience. Secondness involves inquiry, perception and communication, self and other, and past and present. Secondness is both an internal and external process.

The mental state of Secondness is “a sense of reaction” that focuses attention on the object (Peirce, 1894). In this mental state, the sign is an *index* of experiences, objects and other phenomena. The emotional state of Secondness is a sense of energy.

In secondness, the sign has two different aspects or identities. First the *immediate object* is the sign that exists in experience. The second identity of the sign represents a *dynamical object*, the universal, conceptual class for the object that exists outside human experience. These two dimensions of the sign have significance for the learning process (Deledalle, 2000).

In experiencing an immediate object in the world, for example, a simple four-legged, wood table found in one’s kitchen, a mental sign attaches to a specific physical object. We might refer to this connection as immediate secondness. However this mental sign for table also becomes a reference, an index for the concept, TABLE, the conceptual category for all tables. Deciding whether or not another object next encountered is a table (for example, not a chair), must be

inferred by the mind. As one becomes familiar with more tables (six legged, pedestal, etc.), this mental representation may need to be revised repeatedly.

To make an analogy, identifying the first table as a single, specific object separate from all other objects in ongoing experience is like filling in the first pixel of the image for the table on a blank computer screen. At this point, based on a single pixel of information, inferring the full picture would be difficult, if not impossible. We shall refer to this pixel image as the 'bit' view.

As each pixel adds definition to the image, one's knowledge of the object becomes more certain and closer to the ideal table, the "dynamic" view. Since it is impossible to experience all tables in the world, the complete representation of the concept can never be fully achieved. Some pixels in the screen image always remain in question. However as knowledge increases, correct identification of a table becomes more probable.

Interchange is crucial in constructing the "best" representation of the object, whether directly through experience or indirectly by discussing tables with others or through books, visual depictions (photographs, drawings, etc.) or other symbolic representations. For example, one's concept of a table may alter significantly upon learning about the very low tables in Japan. This example also illustrates how the concept of a table must be defined not just appearance but also by its use. Through experience and interchange, more and more pixels darken and the image of the table becomes clear, distinct and complete.

Energized by increasing knowledge, the sign moves to the next level *Thirdness*, where the symbolic meaning of the sign is integrated within already existing symbolic meanings.

## **Education and Secondness**

Some ideas that convey the notion of secondness within an educational setting might include: learn, research, inquiry, project, observe, document, act, create, communicate, experience, experiment, perform, interact, interpret and reflect.

Experiential learning, communication and inquiry typify education in secondness. For children, inquiry experiences, such as projects encourage use of the multiple symbolic modes of communication suggested by semiotic theory (Abramson, 2004). These symbolic systems must be acquired and practiced through interchange with peers and adults as well as with objects, materials, phenomena and symbolic materials. Experiences outside the classroom such as field excursions further expand children's learning, expressive abilities and realization that they too, are part of a community.

Similarly, literacy is acquired and practice in meaningful contexts where books, songs, music, drama, conversation and the arts enrich vocabulary and concept development and increase children's understanding of their culture and others in the world. To develop fully, many forms of literacy must be introduced. Children

must be provided with numerous opportunities to express meaning symbolically in oral and written language as well as visual, gestural, musical and other symbolic languages.

For the teacher, understanding children and their learning processes is the subject of research in the ongoing life of the classroom. The design for learning experiences, discourse among teachers, parents and children in the school and community of the school and documentation are interrelated, interactive processes (Forman & Fyfe, 1998). Photography and other forms of visual documentation are a language of teaching inquiry and enhance teacher's intentionality and focus (Moran & Tegano, 2005). Through the process of co-inquiry, teachers use documentation to research experiences in the classroom and project hypotheses (Abramson & Atwal, 2003). As a careful listener, observer and documenter, the teacher strives for completeness in gathering data—children's words and actions, work products and other artifacts as well as learning how others such as parents view the child in order to cultivate a deeper understanding of the child and the children as a group (Gandini & Goldhaber, 2001) Through the co-inquiry process, theories concerning the children are continually examined and revised. In collaborative learning experiences, the teacher seeks to know: THE CHILD and how the child acquires LITERACY (dynamic view of these conceptual ideas).

Recognizing that the many concepts important for education can never be entirely known, the teacher relies on the co-inquiry process to research problems

of practice by observing and documenting in the classroom, having interchange with other teachers, parents, etc. as well as reading research and attending professional conferences. In thirdness, this research translates into a blueprint for action for improving practice, using innovative ideas and sharing research with others in a variety of ways.

## **Thirdness: The World of Symbolic Systems**

*Thirdness* confers generality on the specific phenomena that the mind has experienced in Secondness. The logic of Thirdness—thinking, analysis and deduction—is the logic of science. Dewey (1946), citing Peirce, avers: “the woof and warp of all thought and all research is symbols; and the life of thought and science is the life inherent in symbols.” ( p. 92). In this state, the sign governs behavior, becoming a habit, belief or disposition.

In this category, general and comprehensive symbolic systems bring Firstness, Secondness and Thirdness into mutual relation. As thirdness, the sign represents a concept or symbol referenced to a rule, law, belief, code or principle within a system of meaning. These symbolic systems are mediators of thinking and action. With the waning of doubt, the mind attains a settled state of equilibrium. Reason prevails and reactions and feelings become more subdued. Harmony with the world and with others is possible.

The sign in thirdness enables formal learning and is "the means for passing from ignorance to knowledge" (Peirce, 1894), and is the culmination of the semiotic process. Applying language, literacy, other standard systems of symbolic knowledge and values typify this state. For Peirce, language and linguistic signs are modes of communication that are intrinsically social (Dewey, 1946). In the words of Dewey, "the heart of language . . . is communication; the establishment of cooperation in an activity in which there are partners" (Prawat , 2001, p. 671). In thirdness, creating meaning takes place within a social group as a shared undertaking: "No mind can take on step without the aid of other minds" (Peirce, cited in Dewey, 1946, p. 94). Thus the search for meaning is a semiotic and pragmatic activity that endeavors to co-construct meaning within a social group or community. This process culminates in informed action, "the forward movement of thought" and the testing of ideas (Prawat, 2001).

In the dynamic transaction of semiosis, as described by Peirce (1894), "symbols grow." In his system, once a symbol is formalized, it spreads easily through interchange among people in the world. Through symbols, meaning is transmitted from one mind to another, from one generation to another and so forth. Created by symbolic thinking, symbols multiply by creating new symbols. As more symbols are adopted, meaning grows, changes and evolves. In this process, meaning is never lost, rather it is an unbroken, symbolic chain of meaning that connects humanity, past, present and future. Like matter and energy, symbols and meaning perpetuate one another.

## **Education and Thirdness**

Some of the terms that might be used to describe thirdness include: knowledge, deduction, literacy, belief, symbolize, innovation, standard, system, principle, law, theory, solution, response, transformation, action and change.

Signs and symbols are the real basics for learning in school. Thirdness in education is distinguished by children's increasing competence in using language and literacy and other symbolic systems to convey meaning and expand their knowledge. However thirdness in education has other dimensions important for learning. As they gain knowledge and understanding, children must be provided with educational challenges that motivate them to act on what they know by applying solutions to problems, putting beliefs into practice and exercising social responsibility. Even young children can benefit from opportunities to express values, care about others and engage in community projects and cultural exchanges. In thirdness, teachers, children and parents join together in the shared enterprise of bringing new meaning into the world that renews their commitment to education and enlarges culture and communication. Co-inquiry, interchange and communicative literacy( including documentation) contribute meaning and are established habits of educational practice.

## **Today's Early Education Standards**

According to the dictionary, the term standards indicates something that is established or fixed by authority, custom, or general consent as a model, example, criterion or rule (thirdness). But in reality, does the term standard achieve thirdness, the standard for belief?

The idea of standards for educational experiences, say for example, standards for an early literacy program, represents an attempt to define the qualities of literacy (firstness). Having standards that are based on specific literacy behaviors makes sense. In most cases, standards clearly specify observable behavior and performance (secondness).

However problems arise in the logic of standards as currently conceptualized. Unfortunately, many of today's standards define literacy as scattered, fragments and bits of literacy behavior such as phonemic awareness, knowing sight words, etc. This narrow "bit view" only partially represents children's early literacy behaviors. To attain a full picture of LITERACY (the dynamic view), a fuller range of literacy behaviors, including literacy in multiple symbolic systems, is necessary. For standards to be objective, literacy would be placed within the broad framework of communication and culture rather than as . The total body of research on early literacy, rather than selective findings, would be used to determine a comprehensive set of standards for early literacy programs. As currently conceptualized, most standards constitute an incomplete representation

of literacy rather the full picture of literacy, its communicative purpose, the varied uses of literacy and the multiple symbolic systems for communicative literacy.

To function as a set of principles for designing early learning, educational environments and curriculum approaches, standards must be logical and align with other research on young children and their development. As they stand now, most standards conflict with the research-based principles already guiding the field and fail to convey the richness and meaning of quality early education.

Research in child development and early education demonstrate that children actively explore their environment, learn to communicate in a social context and enjoy learning in different ways. Narrow, restrictive standards used in many US schools ignore this large body of established research on how young children acquire literacy and the value of communicative literacy. Because poorly conceived standards do not account for children's interests, curiosity and learning styles, heavy scripting and control of the learning environment are necessary for enforcing standards. When improperly defined, standards are out of sync with children's early learning and development. As a result of incomplete early literacy standards, other recognized forms of knowledge for communicating meaning are omitted, flawing the program. Of great concern is that children are denied the quality and range of educational experiences they deserve in order to be logical thinkers and contributors to culture.

For these reasons, finding that they lack meaning, many early education professionals oppose rigid academic standards for young children. Fragmented bits of literacy do not equal dynamic literacy, a multidimensional meaning-making process that views early literacy as a total process of multi-symbolic communication.

## **Communicative Literacy**

The value of communicative literacy is confirmed by semiotic theory. A meaning-making process that offers an innovative approach for early education, communicative literacy develops children's essential abilities to learn and use multiple symbolic systems for creating, preserving and expanding knowledge, culture and values. As a life-long learning process, communicative literacy encourages interchange among teachers, parents and children and a commitment to development and active engagement in the collaborative search for meaning: "To know what we think, to be masters of our own meaning will make a solid foundation for great and weighty thought" (Peirce, 1878/1991, p. 163). Fully representing the semiotic process, communicative literacy acquired through interchange and co-inquiry creates educational meaning in our lives and in the school, community and world.

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