

# Education Glossary

This is the first installment of educational terms to which we will continue to add explanations throughout the series.

## Child Centered Learning

Please see **Constructivism**.

## Coalition of Essential Schools (CES)

CES was founded in 1984 by Ted Sizer. Sizer received a BA from Yale, doctorate from Harvard, and held several teaching positions before becoming dean of the Graduate School of Education at Harvard, followed by the role of headmaster at Phillips Academy in Andover, MA. Sizer is the founding director of the Annenberg Institute of School Reform and considered by many to be the leader of educational reform in the United States. Under his leadership, CES draws on research collected from schools, teachers, university consultants, and college admissions, as well as outside testing data in calling for schools that “emphasize equity, personalization, and intellectual vibrancy.” Although students’ knowledge is assessed in their subject area courses through a variety of methods (including written tests), students also need to show they know how to apply this knowledge. —*Kimberly Campbell*

## Constructivism

Constructivism argues that knowledge is not yours until you interpret it in light of your past experiences and personality, and place it within the mental structures you have already built. Here is a familiar example: A person reads that it snows a lot in Canada. He or she has a particular mental picture of that phenomenon. A child living in Africa, who has never seen snow, will certainly “construct” a very different understanding of snow from a child living in Buffalo, New York or one in Portland, Oregon.

Even more important than differences of understanding, however, is the placement of new knowledge in relation to the child’s concept of the world. If the new information is meaningless or unimportant to him or her, the child will forget it or lump it with other miscellaneous information. If on the other hand the child is going on vacation to Montreal, he or she will place the new information about snow in a category that tells what clothes to bring.

Still, this is an over-simplification of constructivism. More academically defined, it is a theory of how people handle new information. Kant, Piaget, Vygotsky, and others hypothesized that we interpret all new information in terms of what we

already know and believe. In order for information to be useful to us, we have to be able to fit it into an existing framework and build on it. We also have to continually re-form and re-adjust those frameworks in light of new information. Learners do not re-invent the world as they read and have new experiences, but they do re-interpret it, categorize its contents, and use new knowledge in ways that seem most meaningful to them. —*Joanne Yatvin*

More on constructivism: Joanne Yatvin discusses **integrated reading** in her article “O Brave New World.” This approach and others represented by terms such as **whole language, new math, and whole student** emerged from a constructivist or progressive outlook. Diane Ravitch, an outspoken critic of constructivism, in her book *Left Back: A Century of Failed School Reforms*, points out that the central claim of constructivists, that students are not blank slates upon which knowledge can be imposed, is correct. However, Ravitch, Rob Kremer, Siegfried Engelmann, and other critics believe claims by constructivists that people only learn by integrating experiences are over-reaching. Critics of constructivism support reforms such as **Direct Instruction** in the Reading First Program, a sanctioned intervention for Title I schools under NCLB, and more standardized testing, especially for early grades.

A 1989 reform based on constructivist principles was the standards developed by the National Council of Teachers of Mathematics (NCTM). These are referred to in Ron Kremer’s article *Progressive Education: One Parent’s Journey*. Please see **Piaget, Jean** for more on constructivism. —*Jay Hutchins*

## Descriptive Research

A form of qualitative research. Descriptive researchers in education attempt to describe the behavior of teachers and students in learning situations as accurately as possible, in order to provide other teachers with models they can follow or reject. At the same time, descriptive researchers formulate hypotheses about teacher/learner behavior in general from the specific instances they have observed.

## DIBELS

Dynamic Indicators of Basic Early Literacy Skills. This is an assessment system designed to assess

all students’ progress (K-3) on the big ideas of early literacy development in a standardized, time efficient manner. Developed at the University of Oregon.

## Direct Instruction

Direct Instruction is a method by which the teacher presents explicit information to students for them to memorize. When questioned, students recite the information verbatim or paraphrase it accurately. For example—Teacher (to class): George Washington was the first president of the United States. Teacher (the next day): Tell me, Helen, who was our first president? Helen: The first president of the United States was George Washington.

Although proponents of Direct Instruction contend that material taught in this scripted manner is internalized by students and thus made available for future application, it is just as likely that students are unable to apply the material to any situation other than the one in which it was initially presented. Direct Instruction does not require students to interpret, categorize or relate new information. —*Joanne Yatvin*

## Another view of Direct Instruction

from M. Kozloff: The DI script is not any old assortment of words. It is a precisely crafted logical argument that makes it easy for students to decode increasingly complex concepts, rules, and strategies. As a resource that teachers can use to communicate with students, it is a far more effective device than anything the ordinary teacher or a herd of education professors could produce.

Using a script is no different from a skilled teacher who has finally developed an effective set of things to say when teaching some skill. Such a teacher may have even written the lesson plan. In that case, the DI script and the script of the skilled non-DI teacher function the same way as logically precise resources for communicating.

This means that the critics of DI scripts either do not create communication protocols or they create their own—in which case they are doing the same thing as the DI teacher.

A good DI teacher must continually observe students, adjust the pace, add repetitions, add prompts, correct errors, strengthen weak parts, put some pizzazz into the communica-

tion, provide verifying feedback, note weak skills to review next time, and consider activities for generalization. —*Martin A. Kozloff (Distinguished Professor, Watson School of Education, University of North Carolina at Wilmington)*

## Elementary and Secondary Education Act (ESEA)

A federal law first enacted in 1965 that governs K-12 education, which was modified by President Bush to create the No Child Left Behind Act.

## Integrated Reading

Please read Joanne Yatvin’s article “O Brave New World”.

## National Assessment of Educational Progress (NAEP)

NAEP compares student achievement in states and other jurisdictions and tracks changes in achievement of fourth, eighth, and twelfth graders over time in mathematics, reading, writing, and science. The No Child Left Behind Act of 2001 provides strong incentives for school districts and states to participate in NAEP. Title I grants from the federal government are only available if schools participate in the biennial fourth grade and eighth grade NAEP reading and mathematics assessments. The federal government assumes the full cost of administering these assessments. Federal law also specifies that NAEP is voluntary for every pupil, school, school district, and state. Recently, the NAEP has come under criticism because the level they call “basic” for fourth grade confuses parents who think basic means below standard. In this case basic means reading grade level material with only literal comprehension which most educators consider satisfactory for fourth grade students.

## National Reading Panel (NRP)

In 1997, the US Congress created the NRP with the charge to determine, from existing research, the most effective approaches for teaching children how to read. Please see Joanne Yatvin’s article “O Brave New World.”

## No Child Left Behind (NCLB)

Passed in 2002 by the Bush Administration, this is a revision of the **Elementary and Secondary Education Act of 1965**. The four stated goals of NCLB are 1) To make states, school districts, and individual schools more accountable for the success of each student, 2) To give states and school districts greater

freedom in how to use their federal funding, 3) To support teaching methods that have been scientifically proven effective using empirical quantitative data, and 4) To give parents more options for sending their children to the safest and best performing schools in their district.

Opponents of NCLB contend that the policy focuses on the wrong priorities, making education a one-size-fits-all program without attention to important features of the educational process such as reducing class size, maintaining strong afterschool programs, or increasing professional development efforts. They also complain that too much of NCLB funding is earmarked for assessment rather than for actually making improvements to schools. **Reading First** is one of the **DI** programs sanctioned as an intervention in Title I Schools under NCLB.

#### Percentile

A child who scores at the 50th percentile on a reading test is in the middle of his or her peers on a regional or national basis with respect to performance. An equal amount of students scored lower as scored higher. When an educator says that 90 percent of the kids in a school are reading at grade level he or she means that 90 percent of the kids are reading at or above the 50th percentile. —*Jay Hutchins*

**Joanne Yatvin comments:** Jay is correct, but there are still a few glitches in the system. One problem is how grade level is defined. The fact is that experts don't agree on how to determine which books are appropriate for a particular age group. Is it the content, sentence length, vocabulary, sentence structure complexity, text structure, or all of the above? I believe it is some combination of all, but there is no precise formula.

Another problem is that the system you are talking about is for "norm referenced" tests, and most states, including Oregon, are giving "criterion referenced" tests these days. On such tests, a panel of experts (e.g. teachers and administrators) decides the proper level of competence for a grade and sets that as a standard. And, since states differ in the standards they set, it is really impossible to compare students from state to state—unless they are using the same test. That's why right now the NAEP is considered the only reliable basis for a state by state comparison. —*Joanne Yatvin*

#### Piaget, Jean

Jean Piaget (1896-1980) was one of the most influential researchers in the area of developmental psychology during the 20th century. Piaget was trained in the areas of biology and philosophy, and considered himself a genetic epistemologist—he was mainly interested in the biological influences that affect how people come to know things. Piaget created the theory that a child takes information and processes the information at a level of understanding already attained—and that actual learning takes place by **constructing** a new view as a child processes the new information. Piaget believed that he had discovered through observation the biological stages of development that corresponded with a child's progress toward more sophisticated levels of understanding of the world. Piaget's views have often been compared with those of Lev Vygotsky (1896-1934), who thought these stages were influenced by socially interacting with others to co-create a new understanding. The writings of Piaget and Vygotsky, along with the work of John Dewey, Jerome Bruner, and Ulrick Neisser, form the basis of the **constructivist** theory of learning and instruction. —*Jay Hutchins and Barbara Ruben*

#### Progressive Education

Please see **Constructivism**.

#### Project Follow Through

A massive program designed to follow through on the gains of Project Head Start; Project Follow Through was a significant part of President Johnson's War on Poverty. The project began in 1968 and involved over 500,000 disadvantaged students living in more than 180 communities. The Office of Education and the Office of Economic Opportunity provided funding. Parent groups in each community selected and installed one of 18 educational models for children in grades kindergarten through 3. The project was designed as an experiment that used planned variation. Each model was fully implemented for several years before the final evaluation occurred in 1976. The evaluation compared Follow Through third graders and comparable non-Follow Through students. The models were evaluated on three categories of assessment: Basic Skills, which focused on basic components of cognitive skills; Cognitive Skills, which measured the child's higher levels of knowledge; and Affective Performance, which measured the child's self-esteem and attitudes about self reliance

and achievement. The **Direct Instruction** students performed the highest of all models in all three categories. The **Direct Instruction** model showed the greatest advantage over all other models in higher order thinking and skills-comprehension. The **Direct Instruction** Model was the only model that essentially eliminated the performance difference between disadvantaged and average students. In other words, the **Direct Instruction** Model was the only model that raised the performance of high-poverty students (generally performing at the 20th percentile) to the average level (50th percentile). —*Siegfried Engelmann, Bonnie Grossen*

#### Qualitative Research

Inductive research. The goal is to understand a social phenomenon through a holistic, context-specific approach that often makes use of participant observation and narrative descriptions. Examples of this type include historical research, ethnographic research (in-depth case studies of particular groups), and action research (self-study, in which the researcher is part of the study; a method designed to examine the effects of one's actions on research). In this type of research, theory is developed after, not before, the study. It is therefore more open-ended than **Quantitative Research**.

#### Quantitative Research

Deductive research. Often considered more scientific, it is designed to test an already developed theory. The role of the researcher is as a detached scientist. (This type of research looks at relationships, cause and effect, and statistical analysis, and focuses on individual variables. This includes experimental research (when the researcher deliberately manipulates a variable to determine the effects), survey research, and correlational study. Participants must be randomly assigned, and therefore are not considered in their normal social context. In quasi-experimental research a variable is also being tested, but the participants have not been randomly selected; "naturally selected groups" are studied, providing a somewhat more contextual approach.

NCLB, which relies on quantitative research, does not recognize a whole body of research that is "not scientific," i.e. qualitative. Based on William Wiersma's definitions from *Research Methods in Education: An Introduction*, 7th Ed. Needham, MA: Allyn & Bacon. —*Barbara Ruben, EdD*

#### Reading First

The **No Child Left Behind Act (NCLB)** signed into law by President George W. Bush in 2002, established Reading First as a new, high-quality, evidence-based program for the students of America. According to the US Department of Education web site, the Reading First initiative builds on the findings of years of scientific research, which, at the request of Congress, were compiled by the **National Reading Panel**. Reading First is designed to assist schools in establishing reading programs for students in kindergarten through third grade. These programs aid in ensuring that every student can read well by the end of third grade. Title I schools which apply for Reading First Grants must use only programs on the Reading First list.

#### Reading Mastery

Reading Mastery is a **Direct Instruction** program endorsed by Siegfried Engelmann and **Reading First** under NCLB.

#### Whole Language

A philosophy of how literacy best develops in learners, a system in which children are immersed in rich literature. Skills are not taught in isolation, but are instead woven into the context of reading and writing. Whole language classrooms are student-centered, places where children read books of their choosing and freely write about topics of their interest. Drama, music, poetry, and writing are interwoven. Whole language supporters believe that children can be taught to read the same way they learn to speak their native language— by interacting with their environment. The ideas behind the development of whole language emerge from the **constructivist** approach to teaching. Please see Joanne Yatvin's article "O Brave New World".

Whole language does not omit the teaching of phonics or other skills, as its critics claim. Rather, it attempts to integrate those skills into a flexible process aimed at comprehension of real written material not contrived teaching texts. Whole language teaching also uses the characteristics of oral language and written literature that young children are already familiar with to facilitate the shift from the speaking and listening habits of early childhood to the reading and writing modes required at school. —*Joanne Yatvin and Barbara Ruben, EdD*