**Strand 4 – Educational Theories of Learning and Instruction**

**1900 – 1910**

1901 - Francis W. Parker opened a progressive school that fostered a child-centered, progressive philosophy. <http://fcis.oise.utoronto.ca/~daniel_sc/assignment1/1901parker.html>

1905 – Alfred Binet published an article in which he described his work to identify students who may be mentally retarded, establishing the Binet-Simon Scale. <http://www.indiana.edu/~intell/binet.shtml>

1905 - The Carnegie Foundation for the Advancement of Teaching opened its doors and proposes a standard for equating “seat time” (Class time) to high school credits known as the “Carnegie Unit”. <http://www.carnegiefoundation.org/about-us/about-carnegie>

1907 - Paul Natorp proposed social pedagogy, a German progressive education concept with an emphasis on community. Social pedagogy (sozial pädagogik) is sometimes translated as 'community education' or 'education for sociality'. <http://www.infed.org/biblio/b-socped.htm>

1910 – Emma Goldman helped found the Ferrer Modern School. Named for Francisco Ferrer, it served as a school and institute for intellectuals and a tribute to him.

<http://legacy.oise.utoronto.ca/research/edu20/moments/1910ferrerschool.html?cms_page=edu20/moments/1910ferrerschool.html>

**1911 – 1920**

1911 – The first Montessori school opened in Tarrytown, New York, presenting the methods of Maria Montessori. <http://www.montessori-intl.org/about-montessori.html>

1912 - Dr. Wilhelm Louis Stern was responsible for the invention of the theory of intelligence quotient (I.Q.) <http://www.suite101.com/content/the-origins-of-iq-and-the-sat-a300748>

1913 - Edward Lee Thorndike published his book, *Educational Psychology: The Psychology of Learning,* which described the theory that human learning involves habit formation, or connections, between stimuli and responses. <http://www.muskingum.edu/~psych/psycweb/history/thorndike.htm>

1916 - Dr. Lewis Madison Terman revised and released a Stanford version of the Binet-Simon test scale. <http://www.suite101.com/content/the-origins-of-iq-and-the-sat-a300748>

**1921 – 1930**

1921 – Louis Terman began the ongoing (still progressing) longitudinal study of “intellectually superior” children at Stanford University. <http://www.newworldencyclopedia.org/entry/Lewis_Terman>

1924 – Max Wertheimer introduced Gestalt Theory, which emphasized learning through insight and the grasping of an entire concept. <http://gestalttheory.net/archive/wert1.html>

1928 – Edward Thorndike published his classic study, *Adult Learning*, in which he stated that the ability to learn did not decline until age 35, and then it declined only 1 percent per year. This was in direct contradiction of the belief of the time that “you can't teach an old dog new tricks.” <http://www.nwlink.com/~donclark/hrd/history/thorndike.html>

1929 – Jean Piaget published, *The Child's Conception of the World*, which introduced his theory of cognitive development. <http://www.piaget.org/>

**1931 – 1940**

1937 - The Carnegie Foundation the introduced Graduate Record Examinations (GRE). <http://findarticles.com/p/articles/mi_gx5202/is_1991/ai_n19122000/>

1939 – David Wechsler developed the Wechsler Adult Intelligence Scale which introduced the concept of the “deviation IQ”. <http://www.newworldencyclopedia.org/entry/Info:Main_Page>

**1941 - 1950**

1947 - Full Membership for Women attending Cambridge was finally realized after fifty years. This opened the floodgates for higher learning to the acceptance of female students in many disciplines.  
<http://www.admin.cam.ac.uk/news/press/factsheets/women2.html>

1949 - Ralph W. Tyler published his book, *Basic Principles of Curriculum and Instruction*, which helped shape theories of curriculum. <http://elibrary.sd71.bc.ca/teacher_resources/pedogogical_links/principles_curr_instruction.htm>

**1951 – 1960**

1953 – B.F. Skinner published, *Science and Human Behavior*, which introduced operant conditioning. <http://www.bfskinner.org/BFSkinner/Home.html>

1956 – Benjamin bloom introduced his taxonomy of behavioral objectives with three overlapping domains of cognitive, affective, and psychomotor. <http://hs.riverdale.k12.or.us/~dthompso/exhibition/blooms.htm>

**1961 - 1970**

1962 – Lev Vygotsky’s, *Thought and Language*, was published in English, introducing his social constructivist theories to the western world. <http://www.newfoundations.com/GALLERY/Vygotsky.html>

1963 - The term “learning disabilities” was first used by Samuel Kirk to describe children with perceptual disorders. <http://www.nytimes.com/1996/07/28/us/samuel-a-kirk-92-pioneer-of-special-education-field.html>

1966- Jerome Bruner's*, Toward a Theory of Instruction* was published, helping to popularize the cognitive learning theory as an alternative to behaviorism. <http://www.mybrowserbar.com/cgi/errors.cgi?r=n&q=http%3A%2F%2Fau.geocities.com%2Fvanunoo%2FHumannature%2Fbruner.html&ccv=130&cnid=867034&ISN=F32FB03FD6314D009A6C3AEB8D6D3E59&type=dns&ct=8>

1969 - Herbert R. Kohl's book, *The Open Classroom,* promoted open education, which emphasized active, holistic learning in student-centered classrooms. <http://www.harpercollins.com/authors/5411/Herbert_R_Kohl/index.aspx>

1970 – Jean Piaget published *The Science of Education*, presenting his discovery-based teaching approaches of the Learning Cycle Model. <http://www.utm.edu/departments/cece/cesme/PSAM/PSAM/psam4.pdf>

**1971 - 1980**

1971 - Jerome S. Bruner published *The Relevance of Education,* which suggested that teachers are responsible for student learning. <http://www.infed.org/thinkers/bruner.htm>

1973 – Jerome S. Brunner framed the concept of Discovery Learning, in which learning is cognitive growth through interaction with elements of the environment. <http://www.infed.org/thinkers/bruner.htm>

1974 – Robert Gagne forwarded the concept that learning is influenced by instructional conditions I the learning environment. <http://www.slideshare.net/CPappasOnline/robert-gagnes-instruction-design-model-the-nine-events-of-instructions>

1975 - The National Association of Bilingual Education was founded. <http://www.nabe.org/>

**1981 – 1990**

1981 – The momentum of the growing homeschooling movement was increased by *Teach Your Own: A Hopeful Path for Education*, by John Holt. <http://www.holtgws.com/teachyourown.html>

1982 – Madeline C. Hunter’s direct instruction teaching model was introduced in her book, *Mastery Teaching.* <http://www.amazon.com/Madeline-Hunters-Mastery-Teaching-Instructional/dp/076193930X>

1983 – A Nation at Risk, a report by the National Commission on Excellence in Education, made a strong case for reform in public education and teacher training. <http://www2.ed.gov/pubs/NatAtRisk/risk.html>

**1991 – 2000**

1993 - Jacqueline and Martin Brooks published *In Search of Understanding: The Case for Constructivist Classrooms*, in support of constructivism in the American class room. <http://www.berrywood.com/reading/Constructivism.pdf>

1996 - James Banks published, *Multicultural Education: Transformative Knowledge and Action,* which presented issues of multiculturalism in education. <http://faculty.washington.edu/jbanks/>

2000 - Diane Ravitch's book, *Left Back: A Century of Failed School Reforms*, criticized progressive educational policies and argued for a more traditional, academically-oriented education. <http://www.dianeravitch.com/vita.html>

**2001 - 2010**

2004 – George Siemens introduced his concept of Connectivism, in which he stated that learning occurs continuously. <http://www.elearnspace.org/Articles/connectivism.htm>

2010 – George Siemens’ Connectivism was described as the combination of three components: Chaos Theory, Importance of Networks, and Complexity of Self-Organization. <http://projects.coe.uga.edu/epltt/index.php?title=Connectivism>