

# Brown's Useful Guide: Where Theory Becomes Applicable to Classroom Practice

*Georgia eEdition*

Jennifer L. Brown, Ph.D.  
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# Preface



**As an educational psychologist, it is important for me to show my undergraduate and graduate students how a particular theory applies to the day-to-day activities within the Classroom.**

The benefit of educational psychology is the application of the various learning theories from the abstract world of psychology into the practitioner's classroom. It is not as important for my students to remember a particular theory word for word, but I want them to implement it in their classroom so that their students can benefit from the years of educational research. Thus, I have written this etextbook to illustrate those applications.

Not only have I written about the history of American education, Skinner's Behaviorism, and classroom management principles (to name a few), I have included peer-reviewed articles to explain concepts and

examples from my high school classroom and other teachers' classrooms to provide application. Each chapter begins with learning objectives to outline the intentions of the chapter. There are links to short videos to illustrate the presented concepts and interactive games to review those concepts. In addition, I have included notetaking guides at the end of the etextbook to guide your reading and studying of the material.

The beauty of this etextbook is the user-friendliness and flexibility of the format. After downloading it, you can read it on your desktop, laptop, or other mobile devices. Some students may choose to print it partially or in its entirety. The flexible format should cater to everyone's preferred learning style. My hope is to give you, the student, a real-world experience regarding the importance of educational foundations and theories.

As we begin this journey, think about why you want to be a teacher. On the next page, you will find what other teachers say when asked the same question. Most people respond that they have a strong desire to work

with children and young adults. Now, pick a favorite, former teacher between your very first day of school and graduation day. Why was he or she your favorite teacher? How would you characterize or describe this teacher? How did this teacher encourage you to learn in his or her classroom? What instructional strategies and/or routines did he or she use when teaching? When examining these strategies and/or routines, how did you know they were effective? What general attitudes and/or beliefs were evident by how he or she conducted his or her classroom?

Next, think about four adjectives that describe a good and effective teacher. Did your favorite teacher exhibit all of those "good and effective" characteristics? How were these adjectives evident in the teacher's daily actions? For example, my adjectives were patient, organized, creative, and flexible. One of my favorite, former teachers in high school was my physical science and chemistry teacher. Regarding patience, if I did not understand the science concept, she would explain the





### Three Main Reasons Selected by All Teachers for Originally Deciding to Become a Teacher, 1971–2006 (%)

Reason	1971	1976	1981	1986	1991	1996	2001	2006
Desire to work with young people	72	71	70	66	66	68	73	71
Value or significance of education in society	37	34	40	37	37	42	44	42
Interest in subject-matter field	35	38	44	37	34	37	36	39
Influence of teacher in elementary or secondary school	18	21	25	25	27	31	32	31
Never really considered anything else	17	17	20	21	24	19	19	14
Influence of family	21	18	22	23	23	19	20	19
Long summer vacation	14	19	22	21	21	20	21	19
Job security	16	17	21	19	17	18	17	17
Opportunity for a lifetime of self-growth	21	17	13	10	8	11	11	8

*Status of the American Public School Teacher, 2005–2006 (NEA, 2010)*

concept again but using either different terminology or analogies. For organized, her lessons were well planned, and they had logical flow. As a student, I knew where the train was heading. Her classroom was nice, neat, and orderly without excess clutter. With respect to flexible, she would arrive at school early so I could work on my science project. I rode the school bus so I was unable to stay afterschool, but my Daddy could drop me off at 7 AM on his way to work. She always accommodated my schedule. For creative, she used science labs and demonstrations to illustrate and guide the learning of the science concepts. Also, all four of my years in high school, I studied acetylsalicylic acid (i.e., aspirin). Each year, she thought of different methods and research questions for me to conduct my science project. As we progress through the course together, keep this brief discussion in mind. These thoughts will establish the basis for your educational philosophy.

Lastly, I want you to think about the roles of a teacher in the 21st century classroom. Teaching is

a career – not just a job. Many hours are spent outside of classroom instructional time to complete a variety of tasks necessary to be effective in the classroom. In a recent report by the Bill and Melinda Gates Foundation and Scholastic (2012), it revealed the average teacher works 53 hours per week. Of those 53 hours, approximately 37 hours are considered within the required school day (i.e., 8 AM until 3:30

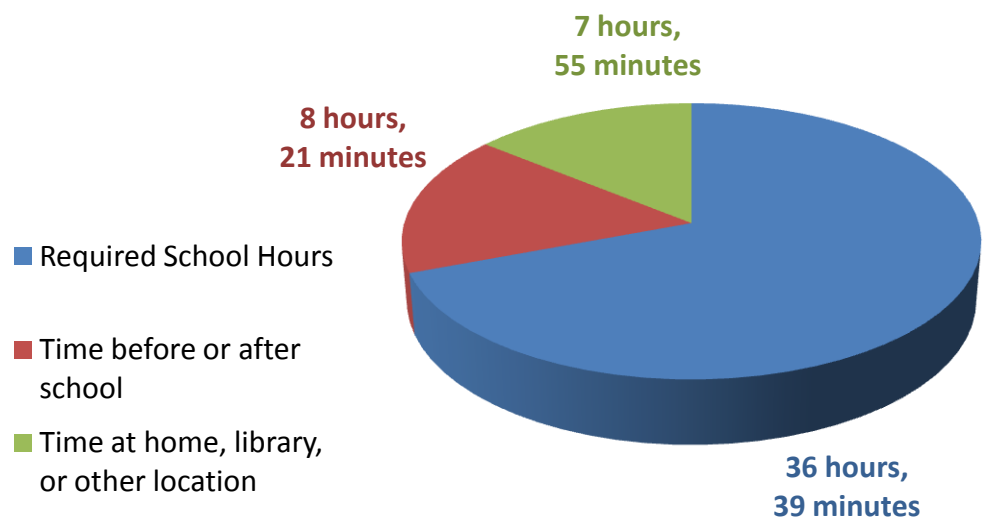
PM). See the figure at the bottom of this page. According to that same report, a teacher spends:

- **4 hours and 49 minutes on classroom instruction,**
- **36 minutes on student supervision and discipline,**
- **45 minutes on planning, preparing, and collaborating,**
- **36 minutes on grading, documenting, and analyzing student work,**
- **14 minutes contacting parents, and**
- **23 minutes on break or lunch time (depending on the school).**

What are the roles that a teacher will fulfill in his or her classroom? Below, there is a link for a video that I created. You can select the link or copy and paste it into your internet browser. It depicts what I think are the current roles of an effective teacher. While working at the secondary level, I assumed many of them as a teacher and coach.

[www.bugforteachers.com/roles.html](http://www.bugforteachers.com/roles.html)

### How Teachers Spent Their Average Work Week



*Primary Sources: 2012 (Bill and Melinda Gates Foundation, 2012)*



# Unit I

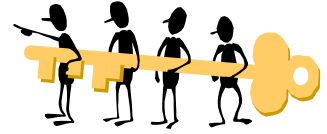


## Foundations of Education



# Chapter 1: History of American Education

## LEARNING OBJECTIVES



1. Explain the rationale for learning educational history.



2. Discuss the impact of events and people during the various time periods in American Education.



“Those who cannot remember the past are condemned to repeat it.” This popular quote by George Santayana (1905, p. 284), who was a Spanish-born American philosopher, can apply to many settings, including education.

### Why do we need to know the history of education?

As an aspiring classroom teacher, it is important to know the history of your future profession. When taking a closer look at the history, you will notice a pendulum swing of ideas. This pendulum swings back, forth, and between the extreme ideas throughout all periods of

educational history. Surprisingly, there are some ideas that continue to persist in education that derive from the Colonial Period (1600 – 1776).

The history of American Education can be broken into five time periods: Colonial Period, Early National Period, Common School Period, Progressive Period, and Modern Period. For each time period, the content will be presented in a timeline format.

### Colonial Period (1600 – 1776)

During the colonial period, the purpose of schooling was to learn the 4 R's (i.e., reading, writing, arithmetic and religion). It was an essentialist curriculum (see Chapter 2) infused

with Protestant religious beliefs. (As a side note, popular childhood games of the Colonial Period were marbles and hopscotch.)

Most children were educated at dame schools. At these dame schools, often at a kitchen table, boys and girls learned the 4 R's curriculum from a neighborhood lady or “dame” while she completed her daily household chores. These dames had minimal qualifications (i.e., basic education) but high moral qualifications. Select the following video link, or copy and paste it into your internet browser to see a dame school reenactment.

[www.bugforteachers.com/dameschool.html](http://www.bugforteachers.com/dameschool.html)

Print the  
notetaking guide  
on pages 240 - 242!

“A New England Dame school in old colonial times” circa 1713. Retrieved from the Bettman Archive (Corbis Corporation, Seattle, WA).



1636

Harvard College was established in Cambridge, MA. The curriculum included classic academic course work based on the English university model but consistent with the prevailing Puritan philosophy of the first colonists. Many of the early graduates became ministers in Puritan congregations throughout New England, but the College was never formally affiliated with a specific religion.

1600

1635

First Latin Grammar School was established in Boston, MA. Only males of certain socioeconomic and social classes were considered for this school in order to prepare boys for higher education similar to the modern high school.



Retrieved from *Columbia Daily Tribune* (Russell, 2009).

1647

*Massachusetts Law of 1647 (Old Deluder Satan Act)* was passed. In response to the lack of compliance with the 1642 law, it required every town of at least 50 families to hire a teacher. Towns of at least 100 families were required to have a teacher for their Latin Grammar School.

1642

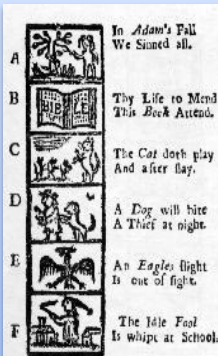
*Massachusetts Bay School Law* was passed. It required parents to see that their children knew how to read, fundamentals of religion, and capital laws of the commonwealth.

The textbooks were a "hornbook", which was a wooden paddle with lessons tacked on and covered by a piece of transparent horn (hence the name). The wooden paddles measured approximately 2 3/4" by 5". The lessons were handwritten on parchment paper. The typical lessons included the alphabet, vowel and consonant combinations, and the Lord's Prayer.

1690

The *New England Primer* was first printed in Boston, MA, by Benjamin Harris. It combined the alphabet lessons with Bible reading. It was used by students into the 19th century. Here is an example:

- A In Adam's Fall We sinned all.
- B Thy Life to Mend This Book Attend.
- C The Cat doth play And after slay.
- D A Dog will bite A Thief at night.
- E An Eagle's flight Is Out of sight.
- F The Idle Fool Is Whipt at School.



1693

The College of William and Mary was established in Williamsburg, VA.

1700

1751



Ben Franklin helped to establish the first "English Academy" in Philadelphia, PA. The curriculum included history, geography, navigation, surveying, and modern and classical languages. This academy became the University of Pennsylvania.

In the New England colonies, by age 9, the parents of the boys, who had mastered the curriculum at the dame school, had three options: (1) the boy could attend a Latin School and study Latin and Greek languages along with their literature in preparation for admittance to Harvard College; (2) the boy could train at home with his father's occupation; or (3) the boy could obtain an apprenticeship. For the apprenticeships, the boy (and girl on rare occasion) lived and worked with the craftsman for 7 years. The craftsman received an extra set of hands while the child learned the skills of the trade to be used in his or her own business. At the end of the 7-year contract, the apprentice left the craftsman and often opened his own "shop".

1775

American Revolutionary War began with the Battle of Lexington and Concord.

1776

Declaration of Independence was signed.

1800

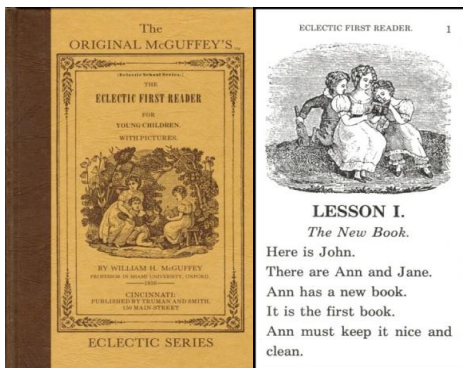


## Early National Period (1776 – 1840)

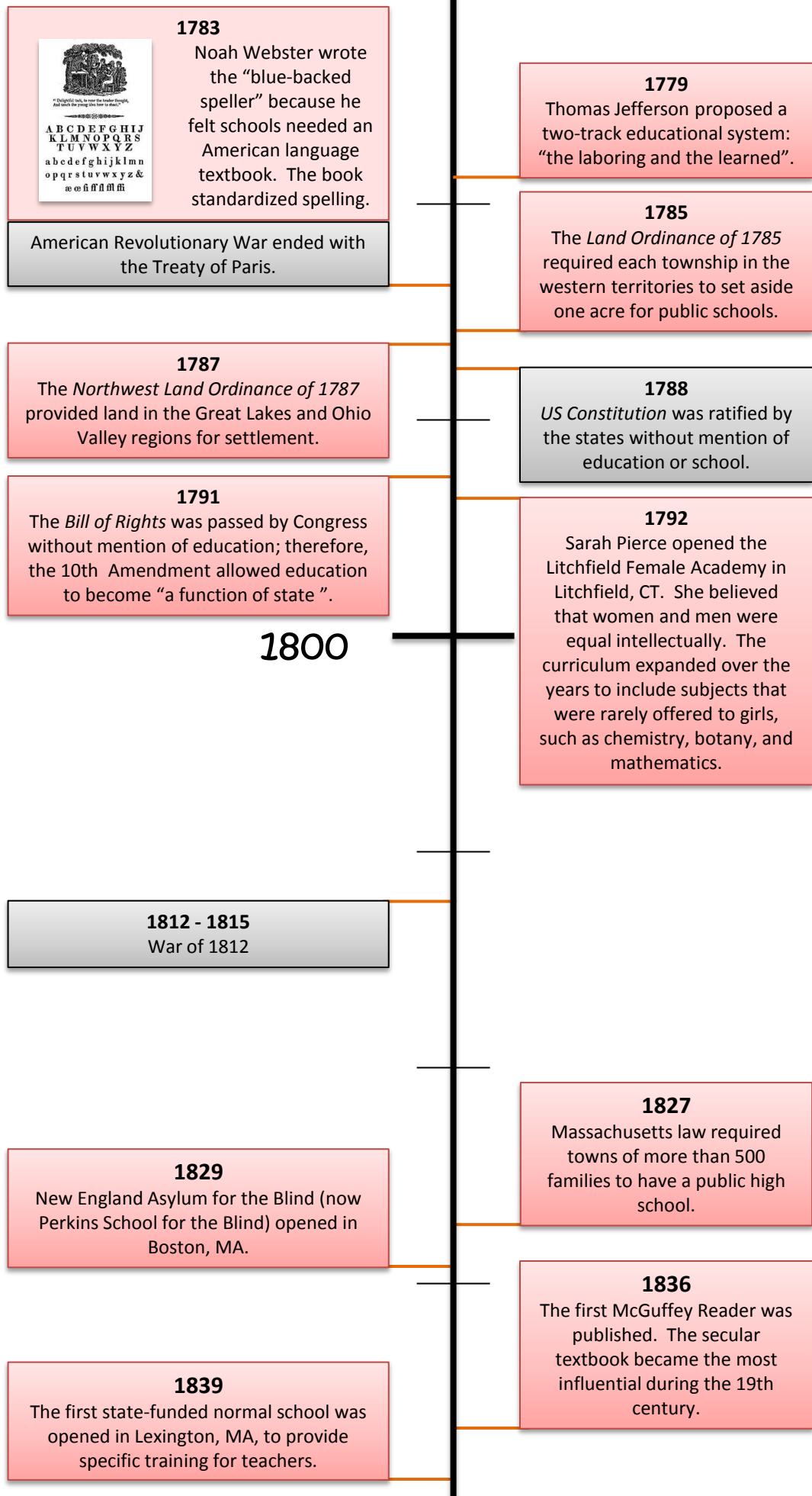
Children across the states and territories were encouraged to go to school during the beginning of the nation. For example, an excerpt from Article 3 of the *Northwest Land Ordinance of 1787* read, “Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged.”

Thomas Jefferson viewed education of the common people as the most effective means of preserving liberty. For a society to remain free, it must support a continuous system of public education. He designed the *Bill for the More General Diffusion of Knowledge*, which called for state controlled schools that would teach at no cost to parents three years of reading, writing and arithmetic. The bill was presented in the Virginia House in 1778 and again in 1780, but it was not passed. A version of the original bill was passed into law in 1796 as an "Act to Establish Public Schools"; however, there were numerous changes compared to the original bill.

Another development during this period was the publishing of textbooks, such as the McGuffey Reader. Reverend William Holmes McGuffey wrote the books, which emphasized virtues of hard work, honesty, truth, charity, and obedience. In addition, school curriculum expanded to include science.

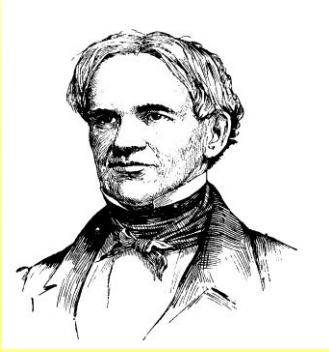


(Retrieved from mcguffeyreaders.com)



**1837**

Horace Mann became the Secretary of the newly formed State Board of Education in MA. He supervised the creation of common schools that educated all white children using a uniform curriculum.



Watch this short video about the creation of high schools and colleges by selecting the link or copying and pasting it into your internet browser.

[www.bugforteachers.com/highschool.html](http://www.bugforteachers.com/highschool.html)

## Common School Period (1840 - 1880)

The common school movement began with the ideas of Horace Mann. Common schools were state supported to educate most children within the increasing diverse population. It was thought that education would increase stability and productivity and decrease crime and poverty. City residents, nontaxpayers, democratic leaders, philanthropist, and humanitarians were in favor of the movement. Rural residents, taxpayers, aristocratic and conservative groups, private school owners, conservative religious groups, Southerners, and non-English speaking groups were opposed to the common school movement. In 1885, 16 states had compulsory attendance laws, but most laws were ignored or infrequently enforced. Georgia (in 1916) and Mississippi (in 1918) were the last two states to pass compulsory attendance laws.

After the US Civil War, the common school movement included freed slaves. The Freedmen's Bureau created schools across the South to educate blacks. Since blacks previously were not allowed by law to be educated, there was a strong desire to learn how to read and write. Many freed slaves worked hard to establish schools despite the lack of approval by the white citizens.



Image taken at the James's Plantation School in North Carolina. (Retrieved from latinamericanstudies.org)

**1852**

*Compulsory Attendance Act of 1852* was passed in MA. It required mandatory school attendance for children between 8 and 14 years of age for at least 3 months out of each year.

**1856**



Retrieved from [www.andrews.edu](http://www.andrews.edu)  
The first kindergarten was begun in Watertown, WI, by Margarethe Meyer Schurz, who learned the principles from its creator, Friedrich Froebel.

**1862**

*Morrill Act of 1862*, known as Land Grant College Act, was passed. It established higher education institutions in each state that would educate people in agriculture, home economics, mechanical arts, and other applied studies.

**1861 - 1865**  
US Civil War

**1867**

Federal Office of Education, now the US Department of Education, was established to help states establish effective schools.

**1865**

The Bureau of Refugees, Freedmen, and Abandoned Lands, known as the Freedmen's Bureau, was created by Congress to assist for one year in the transition from slavery to freedom in the South.

**1868**

Worcester Polytechnic Institute opened in Worcester, MA. The school was the first vocational school. It combined academics with hands-on learning in science and engineering.

**1874**

*Stuart v. School District No. 1 of Village of Kalamazoo*  
Michigan Supreme Court upheld the right of school boards to establish taxes for funding public high schools.

**1877**

Reconstruction ends when President R. B. Hayes removes the last troops from the south. Segregation and discrimination (e.g., "Jim Crow" laws) were established.

**1881**

Tuskegee Normal School for Colored Teachers was founded with Booker T. Washington as the first principal in Tuskegee, AL. In addition to training teachers, the school taught practical skills needed for life in the rural south.

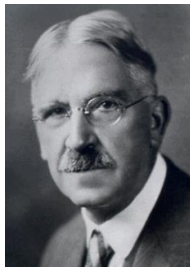


## Progressive Period (1880 - 1920)

At the beginning of the Progressive Period, the Industrial Revolution was in full swing. Efficiency models used in business and industry carried over into the field of education. Elwood Cubberly, a turn-of-the-century historian, stated that schools should be like factories where the teachers served as the factory workers and the students served as the raw material that needed manufacturing. Joseph Lancaster led a movement to establish schools that used what he called the Monitorial System, in which more advanced students taught less advanced ones, enabling a small number of adult masters to educate large numbers of students at low cost. The method was similar to the modern day peer tutoring. His method influenced the assembly-line methods of Frederick Taylor's scientific management.

Many parents sent their children to work in the factories or to work in the fields because the family needed the extra income to survive. At the dawning of the 20th century, state laws regarding child labor varied on content and enforcement. Compulsory attendance laws and child labor laws greatly influenced the often one-room schoolhouse. As school enrollment increased, the number of teachers increased. Thus, the role of principal and superintendent were created to supervise the increasing numbers of teachers and students. In addition, elementary and secondary students were separated into individual grade levels with specific curriculums for the given grade level.

John Dewey is considered the Father of the Progressive Education Movement. (Retrieved from [www.dewey.pragmatism.org](http://www.dewey.pragmatism.org))



A classroom on the Lower East side in New York City circa 1886. Retrieved from Bettman Archive (Corbis Corporation, Seattle, WA)

Typical student desk from the early 20th century were made of hardwood and iron, organized in columns, and bolted to the floor. This desk was used between 1889 and 1919 in Watonwan, MN. (Retrieved from [www.mnhs.org](http://www.mnhs.org))



## 1900

**1892**

The Committee on Secondary Social Studies, known as the Committee of Ten, recommended high School should consist of grades 7 through 12, courses should be arranged sequentially, students should be given a few electives in high school, and students should be permitted to graduate earlier so they could enter college.

**1896**

*Plessy v. Ferguson*  
US Supreme Court ruled "separate but equal" policies were legal.

**1900**

The College Entrance Examination Board was formed. It administered its first college entrance exams during the next year.

**1906**

The Carnegie Foundation for the Advancement of Teaching encouraged the adoption of a standard system for equating "seat time". The system became "Carnegie Units", which continues today at the secondary level.

**1905**

Alfred Binet published an article that described the Binet-Simon Scale development, which would identify students with mental retardation.

**1915**

Eight states enacted physical education laws based on WWI concerns. The US wanted all men to be fit for battle.

**1916**

Louis M. Terman completed the American version of the Binet-Simon Scale. It became a widely-used individual IQ test.

John Dewey's *Democracy and Education: An Introduction to the Philosophy of Education* was published.

**1917**

The Smith-Hughes Act was passed. It provided federal funding for agricultural and vocational education.

**1917 - 1919**  
World War I

Robert Yerkes became Chairman of the Committee on Psychological Examination of Recruits. The committee developed a group intelligence test for screening recruits intellectual abilities (i.e., Army Alpha and Beta tests), which laid the groundwork for future standardized tests.

**1918**

The Cardinal Principles of Secondary Education were issued by the Commission on the Reorganization of Secondary Education. They provided objectives for secondary education.

## Modern Period (1920 – present)

The Modern Period began with the decline in progressivism due to public criticism; however, there were lasting effects of progressivism, such as inquiry or discovery learning, self-paced instructional approaches, field trips, flexible scheduling, open-concept classrooms, non-graded schools, small group activities, and school-based counseling.

The grade levels were adjusted again during this period. The idea of junior high school, which served grades 7 and 8, began to flourish. By 1920, the number had grown to 883 in the US. By 1960, four out of five students attended a junior high school. Based on criticism that the junior high school was a watered down version of a senior high school, the concept of a middle school was created. These schools would implement developmentally appropriate programs for the students. In 1965, William Alexander and Emmett Williams recommended the creation of grade 5 through 8 middle schools. Currently, nearly 95% of this age group attends a middle school instead of a junior high school.

During this time period, there is an increased involvement in education by the federal government. In addition, numerous US Supreme Court rulings impacted the local classroom.



A classroom during the Great Depression in Alabama circa 1935. (Retrieved from [www.library.sussex.tec.nj.us](http://www.library.sussex.tec.nj.us))

**1925**

*Pierce v. Society of Sisters*  
US Supreme Court ruled Oregon could not compel all school-aged students to attend public schools.

*Tennessee v. John Scopes*, known as “the Monkey Trial”, ended with a conviction of John Scopes, who was a high school biology teacher charged with teaching evolution.

**1926**

Scholastic Aptitude Test (SAT) was first administered. It was based on the Army Alpha test.

**1929**

Jean Piaget’s *The Child’s Conception of the World* was published.

The Great Depression began with the stock market crash.

**1938**



“In the Mill” by Lewis Hine, Pittsburgh, PA, 1909 .(Retrieved from [www.archives.gov](http://www.archives.gov))  
*Fair Labor Standards Act* was passed. It established federal guidelines for child labor.

**1941**

Several pieces of legislation passed that allowed married women to teach.

**1944**

*GI Bill* was signed by FDR, which provided money for veterans to attend college.

**1941 - 1945**  
World War II

**1954**



September 8, 1954 - Fort Meyers Elementary School in Fort Meyers, VA. (Retrieved from [www.nytimes.com](http://www.nytimes.com))  
*Brown v. Board of Education of Topeka, KS*  
US Supreme Court ruled separate facilities were not equal.

**1950 - 1953**  
Korean War

**1955**

Rosa Parks refused to give her bus seat to a white passenger. Her subsequent arrest and fine served as a catalyst for the Civil Rights Movement.

**1957**

The Soviet Union launched SPUTNIK I, which was the first satellite to orbit the Earth.

Federal troops enforced integration at Central High School in Little Rock, AR.

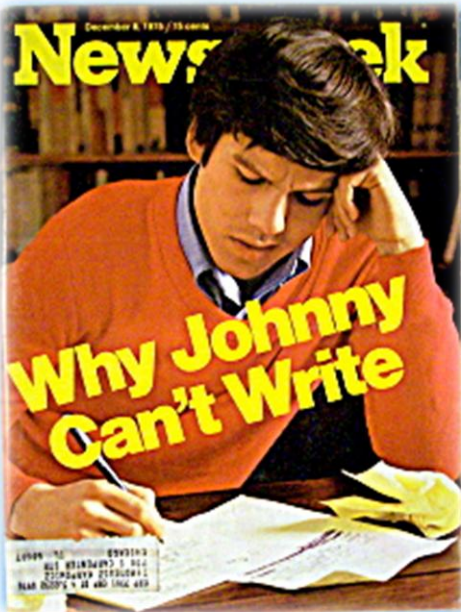
**1958**

*National Defense Education Act* was passed. It increased funding for math and science education. It was in response to the launching of SPUTNIK I.





Datamath, which was the first hand-held calculator, was created by Texas Instruments in 1972. (Retrieved from [www.vintagecalculators.com](http://www.vintagecalculators.com))



The December 8, 1975, *Newsweek* magazine cover that fueled the Back-to-the-Basics Movement. (Retrieved from [www.tias.com](http://www.tias.com))



An elementary classroom in Littleton, Colorado circa 1970. (Retrieved from [www.littletonpublicschools.net](http://www.littletonpublicschools.net))

**1961**  
US involvement in the Vietnam War began.

**1963**  
Samuel A. Kirk used the term “learning disability” at a Chicago conference on children with perceptual disorders.

**1965**  
*Elementary and Secondary Education Act* was passed. It provided federal funds to help low-income students, such as Title I.

Head Start was launched to provide education enrichment for low-income preschoolers.

**1972**  
Texas Instruments introduced the first electronic hand-held calculators.

*Mills v. the Board of Education of Washington, DC*  
US Supreme Court extended the PARC ruling to students with other disabilities.

*Title IX of the Education Amendments of 1972* became law. It prohibits discrimination based on gender in all aspects of education.

**1973**  
US involvement in the Vietnam War ended.

*Rehabilitation Act* became law. Part of the law provided “504 Plans” for students who are not served by special education.

**1981**  
*Pylar v. Doe*  
US Supreme Court ruled Texas law denying access to public education for undocumented school-age children violated the Equal Protection Clause of the 14th Amendment.

**1990**  
*Individuals with Disabilities Education Act (IDEA)* renamed and amended P.L. 94-142. It changed the terminology to people first.

**1962**  
*Engel v. Vitale*  
US Supreme Court ruled school prayer violates the First Amendment.

**1964**  
The *Civil Rights Act* became law. It prohibited discrimination based on race, color, sex, religion, or national origin.

**1969**  
National Assessment of Education Progress (NAEP), known as the Nation’s Report Card, began.

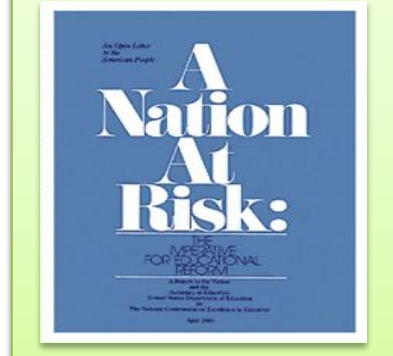
**1970**  
*Diana v. California State Board*  
US Supreme Court ruled that children must be tested in their primary language for special education placement.

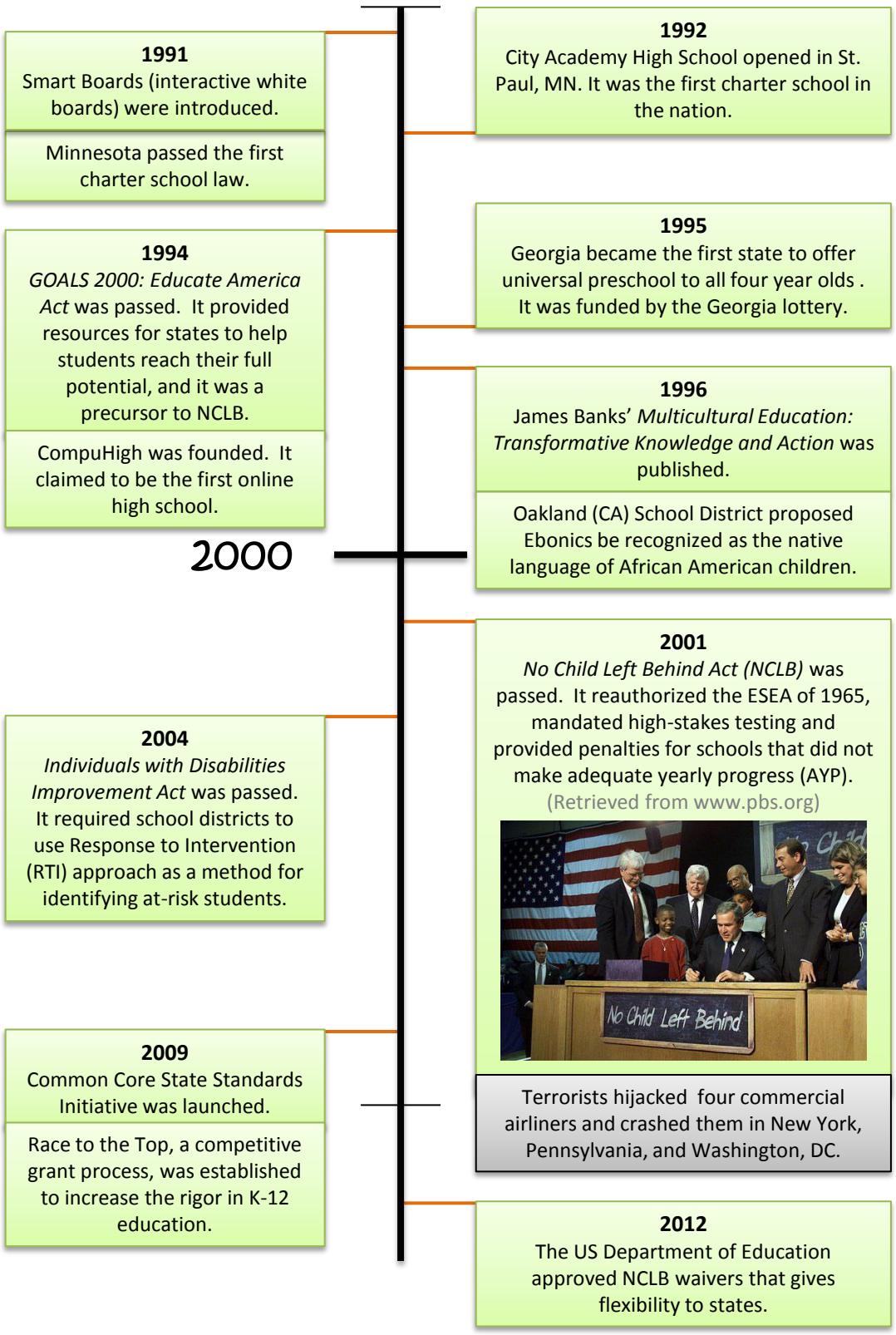
*Pennsylvania Association for Retarded Children (PARC) v. Pennsylvania*  
US Supreme Court ruled that students with mental retardation are entitled to a free public education.

**1975**  
*Education of All Handicapped Children Act (P.L. 94 – 142)* was passed. It required a free and appropriate public education for all children.

*Newsweek’s* December 8 cover story, “Why Johnny Can’t Write”, fueled the Back-to-the-Basics Movement.

**1983**  
*A Nation at Risk* called for reform in public education and teacher training.





**Conclusion**

During this chapter, with the use of this timeline, I tried to show you the relationship between the events in US history and the events in the American educational history. You should notice trends (i.e., pendulum swings of ideas) and cause-effect relationships between society and education. (Note: The gray blocks are events in US history.) According to Horace Mann, "Education is the great equalizer." Often, education is charged with solving all of society's problems.

**References**

A variety of online sources were used to create this timeline of American Education. The following websites were utilized:

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- <http://www.monticello.org>
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- <http://www.cloudnet.com/~edrbsass/educati>
- [onhistoryactivity.html](http://www.onhistoryactivity.html)
- [www.schoolright.com](http://www.schoolright.com)
- <http://honestedu.org/essays/novello/compu>
- [sory.php](http://sory.php)
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# Chapter 2: Philosophy of Education

## LEARNING OBJECTIVES



1. Define “educational philosophy” and its purposes.



2. Explain the influence of five philosophical orientations on teaching.



Watch the Classroom video by selecting the link below or copying and pasting it into your internet browser.

Think about the teacher’s educational beliefs and attitudes. What evidence illustrates them? What “good and effective” teaching characteristics are exemplified by the teacher in this video?

[www.bugforteachers.com/model.html](http://www.bugforteachers.com/model.html)

Print the notetaking guide on pages 243 - 245!

### What is educational philosophy and why is it important?

A teacher’s educational philosophy acts as a guide for him or her during establishment of the classroom and interactions with students, parents, colleagues, and community stakeholders. All of these decisions made in the classroom will derive from your educational philosophy. As an aspiring classroom teacher, it is important to articulate your ideal classroom including your role and the students’ role. Also, it is important to realize that your educational philosophy will change as you complete your degree. It will more than likely change during your first few years in the classroom. Often, educational philosophies are given the term “living document”. As you saw with educational history, philosophies have pendulum swings, too. After 11 years of high school classroom experience, my educational philosophy has changed. I laugh when I read my first educational philosophy paper from my sophomore year of college.

Some of the ideals are present today in my practice while others have gone by the wayside.

### Five Philosophical Orientations

On the following pages, five philosophical orientations (i.e., Perennialism, Essentialism, Progressivism, Existentialism, and Social Reconstructionism) that affect education are described along with key philosophers. This list of philosophical orientations is not exclusive. Some individuals use the six branches of philosophy (i.e., Metaphysics, Epistemology, Axiology, Reality, Knowledge, Values, and Logic). Others use behavioral or leadership theories to provide philosophical frameworks. Commonalities exist among the various viewpoints. At the end of the reading, there are five short videos to illustrate each of the five philosophical orientations within the classroom setting. For each link, you can select it or copy and paste it into your internet browser.



# Perennialism

## Perennialism

As you doubtless have surmised, the root word of *perennialism* is “perennial.” The philosophy of perennialism advances the idea that the focus of education should be the universal truths conveyed through the classic and profound thoughts and works that have lasted through the centuries and have recurred in each generation. Like a perennial plant that returns year after year, these thoughts and works are everlasting. They have withstood the test of time and are as important and relevant today as they were when first conceived. The enduring wisdom of the past is a guide to the present.

Examples of these classic materials include works of great literature, findings of great scientists, and timeless concepts of history. High school students study Shakespeare’s plays, Homer’s *Iliad*, Melville’s *Moby Dick*, Newton’s laws of motion, Einstein’s theories, and other works that have become part of today’s classic repertoire. Students take courses that focus on the traditional subjects of reading, writing, language, mathematics, science, history, and the arts. Elementary and middle school students prepare for more advanced work by studying basic subjects from the perspective of the classic tradition in a tightly controlled and well-disciplined atmosphere. The perennialist believes the emphasis of school should be the mastery of content and the development of reasoning skills in the arts and sciences and that thoughtful consideration of the classical works is the way these goals can be achieved.

Perennialists believe that truth does not depend on time or place but rather is the same for all people. They believe the same curriculum should be required of all students. Their reasoning is twofold: (1) Because the goal of school is to teach the truth, and the truth is the same for everyone, the curriculum must be the same. (2) Because people are born equal and have the same opportunities, to give some students a curriculum that is different from that of others is to treat them differently and is a form of discrimination.

Who decides what should be taught? Society at large makes these decisions because it is society that has validated the importance of these works over time and has continued to hold these classics in high esteem. Many individuals have assembled canons of material they believe should be taught. Noteworthy is Mortimer Adler, whose 1982 work *The Paideia Proposal* describes a system of education based on the classics. His book has led to the development of an innovative school model called the Paideia (pronounced py-DEE-a) program, which several hundred schools in all grade levels throughout the United States have adopted. The Paideia program calls for all students to study a single rigorous curriculum in which the only elective is foreign language. Teachers in the program use three basic methods of teaching: (1) didactic teaching in which the teacher lectures (10% to 15% of the time), (2) Socratic seminars in which the teacher uses directed questioning to help students arrive at desirable answers (15% to 20% of the time), and (3) coaching in which the teacher coaches students in the academic subjects (60% to 70% of the time) (Brandt & Voke, 2002; National Paideia Center, 2005).

The Socratic method is patterned after the way Socrates taught. He believed people were born with all the information they need in life and that all people were born with the same basic information. This information was already present at birth, but it was

How is the Socratic method of questioning used in schools today?

hidden. He believed that through skillful question and discussion sessions with students, he was able to get his students to bring this hidden information to the surface.

In the 1930s, Adler and Robert Maynard Hutchins, then president of the University of Chicago, organized the classics into a set of more than 400 works titled *Great Books of the Western World* (1952), which they believed would enable students to become independent and critical thinkers. They held that people can discover the truths through their senses and their reasoning—that they do not construct truths because they are already in existence. The *Great Books of the Western World* represent the fruit of these discoveries made by other people; as students read and discuss them, they, too, can encounter the great truths of the universe.

Of course, because the perennialist believes the primary goal of school is for students to learn what others have created and to use this knowledge in their own lives, the teacher is expected to present this material to the students. There is little or no room for students to venture into tangents of their own interest; the curriculum must be covered. The teacher's role is to impart knowledge. To do this, teachers hold seminars, engage students in Socratic discussions, foster directed readings of great books, explain principles and concepts, and lecture as effectively as possible, presenting dynamic lessons with all the interest-grabbing devices available. The work is demanding, and the classroom is disciplined.

The student's role is to discuss, examine, and reexamine the information presented by the teacher with the ultimate goal of learning the content.

Have you taken a course in classic literature or philosophy? How did the requirements of this course reflect the arguments of Adler?

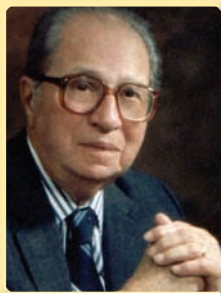
*Of the five philosophies of education—perennialism, essentialism, existentialism, progressivism, or social reconstructionism—which is demonstrated in this elementary classroom?*



ImageState/Alamy

## BIOGRAPHY

© Center for the Study of The Great Ideas



### Mortimer Jerome Adler

(1902–2001) was born in New York City, the son of an immigrant jewelry salesman. He dropped out of school at the age of 14 to become a copy boy for a New York newspaper, but hoping to become a journalist, he took courses in writing at Columbia University. While there, he became intensely interested in philosophy. He completed his course work but did not

graduate because he had not completed the physical education requirement. He later earned his Ph.D. at Columbia. Adler served as a professor of psychology at Columbia during the 1920s, and he taught at the University of Chicago during the 1930s. At the Uni-

versity of Chicago, he advocated the adoption of the classics as a main part of the curriculum, although the rest of the faculty disagreed.

Adler believed in providing the same liberal education without electives or vocational classes for all people. He believed education should teach people (1) to think critically, (2) to use their leisure time well, (3) to earn their living ethically, and (4) to be responsible citizens in a democracy. He believed that people should become lifelong learners.

Mortimer Adler is best known in the education community for his devotion to the adoption of the classics as the mainstream of education, the Paideia schools, and his insistence that students read key works of Western literature and philosophy.

# Essentialism

## Essentialism

The philosophy of essentialism takes its name from the word *essential*. The essentialist believes there are certain basic or essential knowledge, skills, and understandings students should master. Essentialists assert that, over time, society has found that certain skills, such as reading, writing, computing, and, in today's world, computer skills, are needed for people to function effectively. Accordingly, certain subjects, such as the language arts, mathematics, science, history, and, in today's world, computer training, are essential for people to gain the knowledge and skills they need. According to the essentialist viewpoint, this knowledge and these skills will always be needed. Thus, we can say that society at large decides in general what these essentials are. Businesses, banks, manufacturers, retailers, and others provide input to the institutions of education, detailing the strengths and weaknesses they see in high school graduates. The educators, in turn, use this input to help them develop programs of study that will prepare students to enter the workforce. Because most of the people who provide input into the educational system are concerned with students mastering the basic skills of reading, writing, and basic mathematics (the "3 Rs"), the programs developed naturally reflect these concerns. Thus, essentialism can be termed the "Back to Basics" approach to education.

Essentialism has been the guiding philosophy of American education for a very long time. (You will consider this again in Chapter 10, when you investigate the history of American education.) The Soviet launching of Sputnik in October 1957 rekindled this thinking. The United States felt deeply humiliated by the Soviet success. American scientists had been working on launching an American spacecraft for a number of years. Americans asked, "How did this happen? How did the United States, with all its technological capabilities, all its talent, and all its money, not achieve the goal of being first in space?" As so often happens, education took much of the blame.

Two opposing views addressed the seeming weaknesses in American education. One advocated an increased emphasis on education in science, mathematics, and technology and an increase in inquiry teaching strategies. This thrust was strengthened by the Woods Hole Conference of 1959, chaired by Jerome Bruner and attended by scientists, mathematicians, psychologists, and technology specialists (Bruner, 1965). The conference affirmed the increasing momentum in science, mathematics, and technology education and called for studying less material but studying it in greater depth and requiring students to inquire and figure things out for themselves.

The other view was a growing concern that American students were not mastering the basic material of reading, writing, mathematics, science, and other areas. This concern was later highlighted in *A Nation at Risk*, the 1983 report of the President's Commission on Excellence in Education (National Commission on Excellence in Education, 1983). The report essentially said that American children were at risk for lagging behind other nations in achievement of basic subjects and that we had better teach our children to read, write, and do mathematics—and we had better do it *now*. In 1998, the Center for Education Reform reaffirmed these findings in *A Nation Still at Risk*. These same concerns are the chief underliers of the No Child Left Behind Act of 2001 (*The No Child Left Behind Executive*



Summary, 2001). This wide support for a back-to-basics curriculum and the emphasis on basic subjects has eclipsed the recommendations made at the Woods Hole Conference.

In essentialist education, students receive instruction in the basic subjects of reading, writing, mathematics, science, history, foreign language, and technology. Unlike perennialism, which emphasizes a canon of great works and classics, essentialism emphasizes fundamental knowledge and skills that business and political leaders believe members of today's society need to know to be productive in the workplace.

Teachers transmit this essential knowledge and expect students to learn it. The teacher is considered the repository of knowledge to be transmitted. This means educators develop and employ a sequence of topics in each subject that progresses from less complex to more complex material through successive grade levels. It also means using lecture and recitation, discussion, drill and practice, and a variety of teaching and learning materials to ensure that students learn the content. For example, a middle grades social studies teacher might give a lecture on why large cities are located where they are, using maps and videos as aids, rather than having students investigate the phenomenon for themselves by engaging in map exploration activities.

The role of the students is to learn the content and skills being taught and to demonstrate their mastery of them on achievement tests, often in the form of standardized tests that are used to make local, regional, statewide, and national comparisons.

E. D. Hirsch, Jr., has written extensively on what should be included in essentialist education. His works include *Cultural Literacy: What Every American Needs to Know* (Turtleback Books, 1988), *The Dictionary of Cultural Literacy: What Every American Needs to Know* (Houghton Mifflin, 1987), and *A First Dictionary of Cultural Literacy: What Our Children Need to Know* (Turtleback Books, 1991). In addition, he has published several volumes in his *Core Knowledge Series* that deal with what children in elementary grades should know (Hirsch, 1994–1999). Hirsch's work could be considered perennialist in nature except for its emphasis on science, which reflects the essentialist viewpoint.

How important do you think it is to teach a basic core curriculum to all students?

## BIOGRAPHY

Courtesy Hoover Institution



**E. D. Hirsch, Jr.** (b. 1928), is a prominent figure in the theories underlying essentialist education. He holds degrees from Cornell and Yale and is a professor of education and the humanities at the University of West Virginia. He is founder and chairman of the Core Knowledge Foundation, a nonprofit organization dedicated to the establishment of a curriculum of Core Knowledge, a sequenced body of

knowledge recommended by the Foundation to be taught in preschool through eighth grade. The Foundation is a major source of research, theory, and practical lessons and assessments for all recommended subjects in pre-K–8 schools. Although his Core Knowledge schools operate nationwide, critics have challenged Hirsch's essentialist theories, contending that students who use the Core Knowledge curriculum are taught *what* to think rather than *how* to think and that the perspective is Eurocentric, giving only minor attention to non-Eurocentric influences.

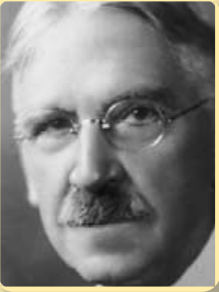
# Progressiveism

## Progressivism

The educational philosophy of progressivism takes its name from the word *progressive*. The dictionary defines *progressive* as “making use of or interested in new ideas, findings, or opportunities” and “. . . an educational theory marked by emphasis on the individual child, informality of classroom procedure, and encouragement of self-expression” (Merriam-Webster, 2003). Thus, the philosophy of progressivism espouses the idea that the focus of education should be students rather than content and that whatever is taught should be meaningful. To the progressivist, the purpose of education is to prepare students to be lifelong learners in an ever-changing society.

One of the key figures in the progressivist movement was John Dewey. Dewey’s writings and his work at the Laboratory School at the University of Chicago, where he tested and refined his educational ideas, have produced tremendous innovations in American education. To Dewey, the traditional school where students sat in rows and passively received information imparted by the teacher was ineffective. He argued that if students are to learn, they must be involved with real problems and meaningful questions, must solve problems according to a scientific method, must be free to develop their own theories and their own conceptualizations, and must be encouraged to test their conclusions in real situations. The progressivist movement focused on several basic principles\*:

1. Students should be free to develop naturally.
2. Student interest should guide the teaching.
3. The teacher should be a guide, not a taskmaster.
4. Student development should involve the *whole* student, and should include physical, mental, moral, and social growth.
5. Schools should attend to the physical development of students.
6. There should be school-home cooperation to meet the needs of students realistically.



Born on a farm near Burlington, Vermont, **John Dewey** (1859–1952) was arguably the most influential American educator in the 20th century. He graduated from the University of Vermont, and after 3 years of teaching, he earned his doctorate at Johns Hopkins University. Dewey taught philosophy at the University of Michigan and the University of Minnesota before becoming chair of the Department of Philosophy, Psychology, and Pedagogy

at the University of Chicago. He developed the university’s Laboratory School in 1896 and directed it for the next 7 years, pioneering experimental efforts and translating their results into practice. Because of disagreements with the university over the Laboratory School, Dewey left in 1904 to become a professor of philosophy at Columbia University.

In addition to his contributions in the areas of philosophy, psychology, politics, and social thought, Dewey was instrumental in developing modern education theory. His was a prominent voice in educational philosophy, with an emphasis on progressivism. He rejected authoritarian teaching meth-

ods and advocated the importance of experiential education—learning by doing. He also stressed the importance of the development of the person.

Dewey’s ideas were adopted by the “progressivist education” movement, but they frequently were distorted, with the result that, contrary to Dewey’s intentions, subject matter education was often neglected in favor of classroom entertainment or vocational education.

To some of Dewey’s admirers, he was the greatest educator who ever lived. On the other hand, many attribute the “ills” of American education to the influence of his ideas. Whatever one believes about John Dewey, there is no mistaking the fact that he taught generations of students to examine ideas carefully and objectively before deciding on their own conclusions or course of action.

Several of Dewey’s quotes are apropos:

- Anyone who has begun to think places some portion of the world in jeopardy.
- Education is not preparation for life; education is life itself.
- Every great advance in science has issued from a new audacity of the imagination.

\*From “The Principles of Education” stated by the Progressive Education Association in 1924; cited in Tyack, 1967, pp. 347–348.

Progressivists focus the curriculum on the needs of students. These needs include academic, social, and physical needs and are fueled by the interests of the students. Therefore, the material to be studied is determined jointly among the school, the teacher, and the students. Learning is considered a natural response to curiosity and the need to solve problems. In the progressivist school, teachers expose students to many new developments in science, technology, literature, and the arts to show that knowledge is constantly changing. Progressivists believe there are great ideas and thoughts of the past that students should study, but they also believe knowledge is changing and the job of students is to learn *how* to learn so that they can cope successfully with new challenges in life and discover what truths are relevant to the present.

Of prime importance is the idea that knowledge that is true in the present may not be true in the future. Costa and Liebman (1995) estimate that by the year 2020, the amount of knowledge in the world will double every 73 days. Not only is knowledge expected to grow exponentially, but new knowledge will replace old knowledge and old knowledge will become obsolete.

The progressivist teacher engages students in inquiries that the students themselves develop. Students learn from one another, so the progressivist classroom fosters social learning by having students working in cooperative groups. The progressivist teacher is a facilitator, a resource person, and a co-inquirer. The primary role of students is to develop new and deeper understandings continuously through their own investigation. Thus, in an elementary education progressivist mathematics class dealing with place value, we see children in small groups using various kinds of manipulatives to develop their own understandings of place value and helping each other clarify their ideas. The teacher facilitates these activities but does not lecture.



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*Which philosophy of education encourages active, hands-on learning, like using mathematics manipulatives in a math lesson—perennialism, essentialism, existentialism, progressivism, or social reconstructionism?*



# Existencetialism

## Existentialism

Existentialism focuses on the *existence* of the individual. Existentialists emphasize that people are responsible for defining themselves. To exist is to choose, and the choices people make define who they are. According to the existentialist point of view, people have two choices: they can either define themselves, or they can choose to be defined by others. The existentialist believes the only “truth” is the “truth” determined by the individual. Individuals determine for themselves what is meant by such terms as *right*, *wrong*, *beautiful*, *ugly*, *true*, *false*, and the like. The existentialist truly believes “beauty is in the eye of the beholder.” The existentialist believes that, whereas the great thinkers of the past had their own ways of thinking about life and the natural world, their thoughts were uniquely theirs, and today’s students need to find their own ways of thinking and develop their own conclusions.

In the existentialist classroom, students determine what they need to study, guided, of course, by the teacher. The idea is for students to come to their own understandings. Because every student is different, no single set of learning outcomes is appropriate for all students. Teachers and the school lay out the topics that are considered appropriate for the students at each grade level to study, and the students make their own meaningful choices.

The teacher is a facilitator, working with each student to help him or her find appropriate materials and the best methods of study. The teacher is a resource—one of many resources that also include other students, books, great works, contemporary works, the Internet and other technological resources, television programs, newspapers and magazines, and other people.

In the existentialist classroom, students do many different things and study many different topics at the same time. For example, in a science class, a group of three or four students might be dissecting a frog, using models, manuals, and drawings to guide their work; another group might be watching a video on the human circulatory system (using headphones); and yet another group might be recording the observations they had previously



**Jean Paul Sartre** (1905–1980), a leader of existentialism, was born in Paris. After earning his doctorate, he taught philosophy in French high schools until he was drafted into the army at the start of World War II. He was captured by the Germans but escaped and became a leader in the resistance movement.

The philosophy of existentialism became very popular in Europe after the war. According to existentialism, we first exist and then we define ourselves through the choices we make. Sartre believed man’s responsibility is vested

in man, himself. People are entitled to be human with dignity, and a human is a human only when he or she is entirely free and accepts responsibility for this freedom. Sartre’s basic premise was that life has no meaning or purpose except for the personal goals each person sets. This philosophy captured the attention of post–World War II Europeans who were yearning for freedom, and it is embraced today by people who believe they have the freedom to take responsibility for their own actions.

Although Sartre was principally a novelist, essayist, and playwright, his works captured the essence of his philosophy and have become the underpinnings of today’s application of existentialism to education.

made of the night sky in chart form. The teacher moves from group to group, working to facilitate the investigations, probing for understandings, and challenging students' conclusions.

The role of the student is to pursue his or her investigations of the chosen topic until the desired learnings and understandings have taken place.

# Society Reconstructionism

## Social Reconstructionism

Social reconstructionism is particularly germane in today's shrinking world. As its name suggests, the social reconstructionist philosophy of education asserts that society needs to be changed (reconstructed) and that schools are the ideal instrument to foster such changes. Social reconstructionists believe that world crises require the use of education to facilitate the development of a new social order, one that is truly democratic in nature. Schools are seen as agents of the reformation of society rather than as transmitters of knowledge.

To this end, teachers help their students understand the validity and urgency of social problems. The determination of which of the many important and controversial social problems should be studied is made through democratic consensus of the students under the leadership of the teacher. There is an abundance of social problems at the local, national, and global levels that can be the focus of the curriculum. Examples include violence, hunger, poverty, terrorism, inflation, inequality, racism, sexism, homophobia, acquired immunodeficiency syndrome (AIDS), pollution, homelessness, substance abuse, and many others. In social reconstructionism, the students select the social priorities to be studied and decide on the educational objectives to be attained from the study. The curriculum integrates all the traditional subjects into single thematic interdisciplinary units. The students and teacher work together to uncover, solve, and propose solutions to the selected problems. The teacher helps students explore the problems, suggests alternative perspectives, and facilitates student analysis and conclusion formation. Throughout the study, the teacher models the democratic process. Teaching methodologies include simulation, role-playing, group work, internships, work-study programs, and other forms of cooperation with the community and its resources.

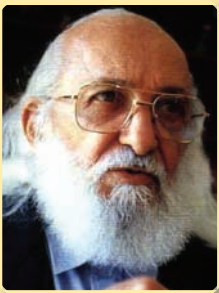
Similar to their role in the existentialist classroom, students in a social reconstructionist class engage in many different activities to study the agreed-on topic, such as researching through the Internet, reading case histories, analyzing multiple aspects of the topic, formulating predictions, proposing and justifying workable revisions and solutions, and taking action to implement these solutions.

A good example of a social reconstructionist issue is a problem that captured the attention of a university class in 1999. Northwestern University journalism students teamed with the *Chicago Tribune* to investigate the trials and backgrounds of death row inmates in Illinois. Their work showed that some of the inmates were innocent; this uncovered serious flaws in the state's death penalty system and resulted in the release of several death row inmates. This series of investigations has prompted additional investigations, which, in turn, have freed numerous death row convicts, and has changed the way the United States thinks about capital punishment (American Civil Liberties Union, 2002; CBS News, 2002). In another example, social reconstructionists have fostered the development of nationwide literacy programs, especially for students in urban schools, "helping poor, urban students to become resilient, to change their communities, and thus improve their lives" (Reed & Davis, 1999, p. 293).

A social reconstructionist curriculum can help students become successful in school by encouraging them to develop a sense of self-worth (Reed & Davis, 1999). This can occur by engaging students in activities that instill purpose to their lives, providing them with a sense of accomplishment, and providing them with a support system. Among these activities are service learning and experiential learning activities that simultaneously foster students' academic achievement and respond to community needs. As you can infer, social reconstructionist principles are important in helping guide schools, teachers, and students toward a multicultural emphasis.

Social reconstructionism is a very influential and powerful philosophy, especially when its goals of social reform are combined with other philosophies such as progressivism and existentialism. Critics of social reconstructionism are concerned with its singularity of purpose (the formation of a utopian democratic world society) and the indoctrination of students into this purpose. However, the new world order of the 21st century may well need the type of impact that can be given by students whose education is provided in a social reconstructionist environment.

How are social reconstructionism, progressivism, and existentialism as educational philosophies similar? How are Freire's beliefs similar to the constructivist approach to education?



**Paulo Freire** (1921–1997) was a Brazilian educator who, although educated in law, became interested in education after he had children. He worked in literacy campaigns with the poor in Brazil to help them overcome their sense of powerlessness and empower themselves. Because he challenged the ruling elite, he was exiled from Brazil during a military coup in 1964. He taught at Harvard University

from 1969 until 1979, when he was able to return to Brazil. In 1988, he assumed the position of Minister of Education for the City of Sao Paulo, a large city that contains two-thirds of Brazil's schools.

Freire is considered among the most influential educational thinkers in the late 20th century. He has been a major figure in progressive education, especially as it relates to empowering poor and oppressed adults. In his *Pedagogy of the Oppressed*, a significant and highly popular education book, he discussed his belief that education must involve dialogue and mutual understanding and must nurture respect between student

and teacher, stressing that this was the key to the liberation of the oppressed. According to Freire, education is a two-way exchange of beliefs, thoughts, and ideas, unlike the traditional system of schooling, which he called a "banking approach" in which the teacher makes deposits of information into the students. He believed that true knowledge can result only from experiences in which students inquire into unknown phenomena and thereby establish their need for further knowledge. He believed that teachers must be sensitive to their students' viewpoints and lifestyles.

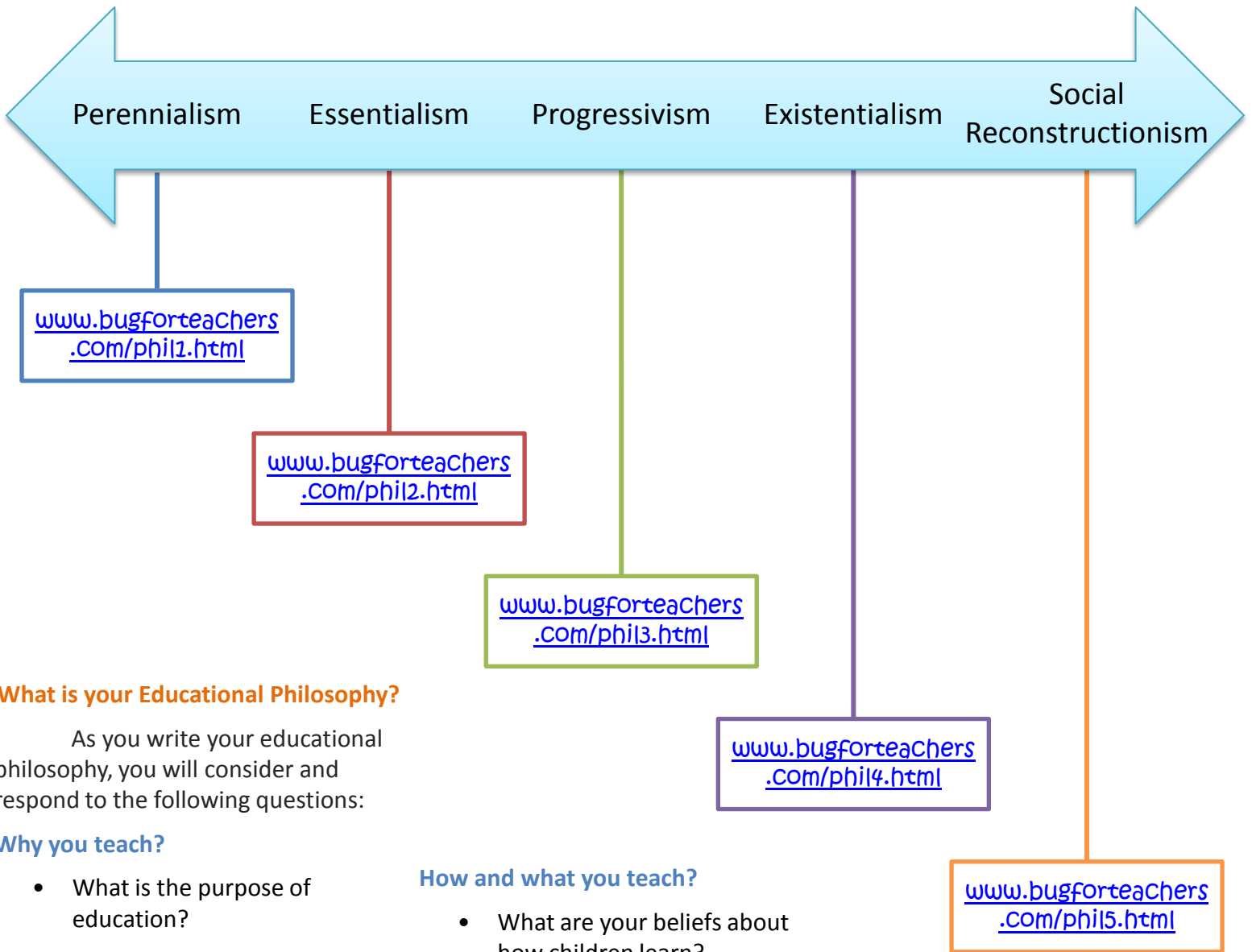
According to Freire, students must be viewed as being in charge of their own education and destinies. Once they arrive at this point, they can find their own ideas and then begin to reconstruct the society they knew on the basis of their new and validated conclusions.

Freire's contributions to education are firmly grounded in the progressivist approach and have helped expand progressivism to encompass the investigation and resolution of social problems and the subsequent reconstruction of a new and meaningful social order.





# Continuum of Educational Philosophies



## What is your Educational Philosophy?

As you write your educational philosophy, you will consider and respond to the following questions:

### Why you teach?

- What is the purpose of education?
- Which philosophical beliefs do you support?
- What is your role as a teacher?

### Whom you teach?

- What is the student's role in his/her education?
- How will you reach the diverse children in your classroom?
- How do you define your community of learners?
- How do we assure that all students are prepared to assume that role?

### How and what you teach?

- What are your beliefs about how children learn?
- What are your goals for students?
- How will your beliefs affect your classroom instruction and teaching (e.g., classroom management, instructional strategies, curriculum design/content, and assessments)?
- How do you balance the needs of the individual learner with the needs of the learning community?

### Where you teach?

- How will you bring a cultural awareness into your classroom?
- What will be your relationship with the community, parents, teaching colleagues, and administration?

## PHILOSOPHIC INVENTORY

**Directions:** The following inventory is to help identify your educational philosophy. Respond to the statements on the scale from 5 “Strongly Agree” to 1 “Strongly Disagree” by circling the number that most closely fits your perspective.

- |           |     |  |
|-----------|-----|--|
| 5 4 3 2 1 | 1.  | The curriculum should emphasize essential knowledge, <i>not</i> students’ personal interests.                                      |
| 5 4 3 2 1 | 2.  | Teachers should emphasize interdisciplinary subject matter that encourages project-oriented, democratic classrooms.                |
| 5 4 3 2 1 | 3.  | Education should emphasize the search for personal meaning, <i>not</i> a fixed body of knowledge.                                  |
| 5 4 3 2 1 | 4.  | The ultimate aim of education is constant, absolute, and universal: to develop the rational person and cultivate the intellect.    |
| 5 4 3 2 1 | 5.  | Schools should actively involve students in social change to reform society.   |
| 5 4 3 2 1 | 6.  | Schools should teach basic skills, <i>not</i> humanistic ideals.   |
| 5 4 3 2 1 | 7.  | Teachers should be facilitators and resources who guide student inquiry, <i>not</i> managers of behavior.                          |
| 5 4 3 2 1 | 8.  | The best teachers encourage personal responses and develop self-awareness in their students.                                       |
| 5 4 3 2 1 | 9.  | The curriculum should be the same for everyone: the collective wisdom of Western culture delivered through lecture and discussion. |
| 5 4 3 2 1 | 10. | Schools should lead society toward radical social change, <i>not</i> traditional values.   |
| 5 4 3 2 1 | 11. | The purpose of schools is to ensure practical preparation for life and work, <i>not</i> to encourage personal development.         |
| 5 4 3 2 1 | 12. | Curriculum should emerge from students’ needs and interests: therefore, it should not be prescribed in advance.                    |
| 5 4 3 2 1 | 13. | Helping students develop personal values is more important than transmitting traditional values.                                   |
| 5 4 3 2 1 | 14. | The best education consists primarily of exposure to great works in the Humanities.  |



- 5 4 3 2 1 15. It is more important for teachers to involve students in activities to criticize and transform society than to teach the Great Books.
- 5 4 3 2 1 16. Schools should emphasize discipline, hard work, and respect for authority, *not* encourage free choice.
- 5 4 3 2 1 17. Education should enhance personal growth through problem solving in the present, *not* emphasize preparation for a distant future.
- 5 4 3 2 1 18. Because we are born with an unformed personality, personal growth should be the focus of education.
- 5 4 3 2 1 19. Human nature is constant—its most distinctive quality is the ability to reason; therefore, the intellect should be the focus of education.
- 5 4 3 2 1 20. Schools perpetuate racism and sexism camouflaged as traditional values.
- 5 4 3 2 1 21. Teachers should efficiently transmit a common core of knowledge, *not* experiment with curriculum.
- 5 4 3 2 1 22. Education should involve students in democratic activities and reflective thinking.
- 5 4 3 2 1 23. Students should have significant involvement in choosing what and how they learn.
- 5 4 3 2 1 24. Teachers should promote the permanency of the classics.
- 5 4 3 2 1 25. Learning should lead students to involvement in social reform.
- 5 4 3 2 1 26. On the whole, school should and must indoctrinate students with traditional values.
- 5 4 3 2 1 27. The major goal for teachers is to create an environment where students can learn on their own by guided reflection on their experiences.
- 5 4 3 2 1 28. Teachers should create opportunities for students to make personal choices, *not* shape their behavior.
- 5 4 3 2 1 29. The aim of education should be the same in every age and society, *not* differ from teacher to teacher.
- 5 4 3 2 1 30. Education should lead society toward social betterment, *not* confine itself to essential skills.

# PHILOSOPHIC INVENTORY SCORE SHEET

**Directions:** In the space provided, record the number you circled for each statement (1-30) from the inventory. Total the number horizontally and record it in the space on the far right of the score sheet. The highest total indicates our educational philosophy. You may have an eclectic philosophy, which involves more than one philosophy.

## Essentialism

Essentialism was a response to progressivism and advocates a conservative philosophic perspective. The emphasis is on intellectual and moral standards that should be transmitted by the schools. The core of the curriculum should be essential knowledge and skills. Schooling should be practical and not influence social policy. It is a back-to-basics movement that emphasizes facts. Students should be taught discipline, hard work, and respect for authority. Influential essentialists include: William C. Bagley, H. G. Rickover, Arthur Bestor, and William Bennett; E. D. Hirsch's *Cultural Literacy* could fit this category.

$$\frac{\quad}{1} + \frac{\quad}{6} + \frac{\quad}{11} + \frac{\quad}{16} + \frac{\quad}{21} + \frac{\quad}{26} = \frac{\quad}{\text{Total}}$$

## Progressivism

Progressivism focuses on the child rather than the subject matter. The students' interests are important; integrating thinking, feeling, and doing is important. Learners should be active and learn to solve problems by reflecting on their experience. The school should help students develop personal and social values. Because society is always changing, new ideas are important to make the future better than the past. Influential progressivists include John Dewey and Francis Parker.

$$\frac{\quad}{2} + \frac{\quad}{7} + \frac{\quad}{12} + \frac{\quad}{17} + \frac{\quad}{22} + \frac{\quad}{27} = \frac{\quad}{\text{Total}}$$

## Existentialism

Existentialism is a highly subjective philosophy that stresses the importance of the individual and emotional commitment to living authentically. It emphasizes individual choice over the importance of rational theories. Jean Paul Sartre, the French philosopher, claimed that 'existence precedes essence.' People are born, and each person must define him- or herself through choices in life. Influential existentialists include Jean Paul Sartre, Soren Kierkegaard, Martin Heidegger, Gabriel Marcel, Albert Camus, Carl Rogers, A. S. Neill, and Maxine Greene.

$$\frac{\quad}{3} + \frac{\quad}{8} + \frac{\quad}{13} + \frac{\quad}{18} + \frac{\quad}{23} + \frac{\quad}{28} = \frac{\quad}{\text{Total}}$$

### Perennialism

The aim of education is to ensure that students acquire knowledge about the great ideas of Western culture. Human beings are rational, and it is this capacity that needs to be developed. Cultivation of the intellect is the highest priority of an education worth having. The highest level of knowledge in each field should be the focus of curriculum. Influential perennialists include Robert Maynard Hutchins, Mortimer Adler, and Allan Bloom.

$$\frac{\quad}{4} + \frac{\quad}{9} + \frac{\quad}{14} + \frac{\quad}{19} + \frac{\quad}{24} + \frac{\quad}{29} = \frac{\quad}{\text{Total}}$$

### Social Reconstructionism

Social Reconstructionists advocate that schools should take the lead to reconstruct society. Schools have more than a responsibility to transmit knowledge, they have the mission to transform society as well. Reconstructionists go beyond progressivists in advocating social activism. Influential reconstructionists include Theodore Brameld, Paulo Friere, and Henry Giroux.

$$\frac{\quad}{5} + \frac{\quad}{10} + \frac{\quad}{15} + \frac{\quad}{20} + \frac{\quad}{25} + \frac{\quad}{30} = \frac{\quad}{\text{Total}}$$

Adapted by: Dr. Jennifer L. Brown, Columbus State University, 2012

Original Source: Parkway, F. W., & Stanford, B. H. (2010). *Becoming a teacher* (8th ed.). Upper Saddle River, NJ: Merrill.





# Chapter 3: Law, Ethics, and Dispositions

## LEARNING OBJECTIVES



1. Identify the legal and ethical issues that might affect the classroom teacher.



2. Define professional dispositions.



As a profession, the field of teaching is governed by its own professional members in addition to federal and state legislation. These governing agencies and entities outline legal and ethical guidelines for its members to follow. This chapter will discuss these legal and ethical guidelines along with professional dispositions.

### What are ethics?

Ethics serve as guidelines for a person's or group's behavior. The Georgia Professional Standards Commission (GaPSC), who is the governing body for the teaching

profession in Georgia, sets, communicates, and enforces the expected ethical guidelines for Georgia Educators. In addition, this agency sets guidelines for preparing, certifying, and continued licensing of public educators in Georgia. The current Code of Ethics for Educators is presented on the following pages.

After reviewing the Code of Ethics, use what you have learned about the Georgia Code of Ethics to think about how you would handle the following situations as an outside observer.



[www.gapsc.com](http://www.gapsc.com)

### Scenario #1

A teacher discusses the information from "Dave's" cumulative folder while standing in the hallway and in the presence of another teacher, a school volunteer, and students.

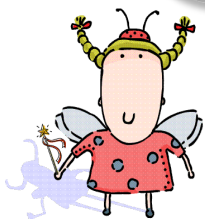
### Scenario #3

A teacher is chaperoning an overnight band trip. It is after curfew for all of the students, and they are sleeping soundly in their rooms. The teacher walks into the fellow teacher's motel room and finds two of the other chaperoning teachers drinking alcohol in celebration of the band's success at the competition. They invite the teacher to join them, but she politely refuses and leaves the room.

### Scenario #4

Over the Christmas break, a student e-mails a teacher to ask about his Christmas. The student shares a list of gifts she received and a rundown of the activities she did. The teacher sends a response indicating that he had a visit with his family and he took a mini-vacation to the beach with his girlfriend. As the year progresses, they continue to exchange casual e-mails about each other's daily lives.

Print the notetaking guide on pages 246 - 251!



**Effective October 15, 2009**

## **505-6-.01 THE CODE OF ETHICS FOR EDUCATORS**

(1) Introduction. The Code of Ethics for Educators defines the professional behavior of educators in Georgia and serves as a guide to ethical conduct. The Professional Standards Commission has adopted standards that represent the conduct generally accepted by the education profession. The code defines unethical conduct justifying disciplinary sanction and provides guidance for protecting the health, safety and general welfare of students and educators, and assuring the citizens of Georgia a degree of accountability within the education profession.

### (2) Definitions

- (a) “Certificate” refers to any teaching, service, or leadership certificate, license, or permit issued by authority of the Professional Standards Commission.
- (b) “Educator” is a teacher, school or school system administrator, or other education personnel who holds a certificate issued by the Professional Standards Commission and persons who have applied for but have not yet received a certificate. For the purposes of the Code of Ethics for Educators, “educator” also refers to paraprofessionals, aides, and substitute teachers.
- (c) “Student” is any individual enrolled in the state’s public or private schools from preschool through grade 12 or any individual under the age of 18. For the purposes of the Code of Ethics and Standards of Professional Conduct for Educators, the enrollment period for a graduating student ends on August 31 of the year of graduation.
- (d) “Complaint” is any written and signed statement from a local board, the state board, or one or more individual residents of this state filed with the Professional Standards Commission alleging that an educator has breached one or more of the standards in the Code of Ethics for Educators. A “complaint” will be deemed a request to investigate.
- (e) “Revocation” is the invalidation of any certificate held by the educator.
- (f) “Denial” is the refusal to grant initial certification to an applicant for a certificate.
- (g) “Suspension” is the temporary invalidation of any certificate for a period of time specified by the Professional Standards Commission.
- (h) “Reprimand” admonishes the certificate holder for his or her conduct. The reprimand cautions that further unethical conduct will lead to a more severe action.
- (i) “Warning” warns the certificate holder that his or her conduct is unethical. The warning cautions that further unethical conduct will lead to a more severe action.
- (j) “Monitoring” is the quarterly appraisal of the educator’s conduct by the Professional Standards Commission through contact with the educator and his or her employer. As



a condition of monitoring, an educator may be required to submit a criminal background check (GCIC). The Commission specifies the length of the monitoring period.

- (k) “No Probable Cause” is a determination by the Professional Standards Commission that, after a preliminary investigation, either no further action need be taken or no cause exists to recommend disciplinary action.

### (3) Standards

(a) **Standard 1 : Legal Compliance** - An educator shall abide by federal, state, and local laws and statutes. Unethical conduct includes but is not limited to the commission or conviction of a felony or of any crime involving moral turpitude; of any other criminal offense involving the manufacture, distribution, trafficking, sale, or possession of a controlled substance or marijuana as provided for in Chapter 13 of Title 16; or of any other sexual offense as provided for in Code Section 16-6-1 through 16-6-17, 16-6-20, 16-6-22.2, or 16-12-100; or any other laws applicable to the profession. As used herein, conviction includes a finding or verdict of guilty, or a plea of *novo contender*, regardless of whether an appeal of the conviction has been sought; a situation where first offender treatment without adjudication of guilt pursuant to the charge was granted; and a situation where an adjudication of guilt or sentence was otherwise withheld or not entered on the charge or the charge was otherwise disposed of in a similar manner in any jurisdiction.

(b) **Standard 2: Conduct with Students** - An educator shall always maintain a professional relationship with all students, both in and outside the classroom. Unethical conduct includes but is not limited to:

1. committing any act of child abuse, including physical and verbal abuse;
2. committing any act of cruelty to children or any act of child endangerment;
3. committing any sexual act with a student or soliciting such from a student;
4. engaging in or permitting harassment of or misconduct toward a student that would violate a state or federal law;
5. soliciting, encouraging, or consummating an inappropriate written, verbal, electronic, or physical relationship with a student;
6. furnishing tobacco, alcohol, or illegal/unauthorized drugs to any student; or
7. failing to prevent the use of alcohol or illegal or unauthorized drugs by students who are under the educator’s supervision (including but not limited to at the educator’s residence or any other private setting).

(c) **Standard 3: Alcohol or Drugs** - An educator shall refrain from the use of alcohol or illegal or unauthorized drugs during the course of professional practice. Unethical conduct includes but is not limited to:

1. being on school premises or at a school-related activity while under the influence of, possessing, using, or consuming illegal or unauthorized drugs; and
2. being on school premises or at a school-related activity involving students while under the influence of, possessing, or consuming alcohol. A school-related activity includes, but is not limited to, any activity sponsored by the school or school system (booster clubs, parent-teacher organizations, or any activity designed to enhance the school curriculum i.e. Foreign Language trips, etc).

(d) Standard 4: **Honesty** - An educator shall exemplify honesty and integrity in the course of professional practice. Unethical conduct includes but is not limited to, falsifying, misrepresenting or omitting:

1. professional qualifications, criminal history, college or staff development credit and/or degrees, academic award, and employment history;
2. information submitted to federal, state, local school districts and other governmental agencies;
3. information regarding the evaluation of students and/or personnel;
4. reasons for absences or leaves;
5. information submitted in the course of an official inquiry/investigation; and
6. information submitted in the course of professional practice.

(e) Standard 5: **Public Funds and Property** - An educator entrusted with public funds and property shall honor that trust with a high level of honesty, accuracy, and responsibility. Unethical conduct includes but is not limited to:

1. misusing public or school-related funds;
2. failing to account for funds collected from students or parents;
3. submitting fraudulent requests or documentation for reimbursement of expenses or for pay (including fraudulent or purchased degrees, documents, or coursework);
4. co-mingling public or school-related funds with personal funds or checking accounts; and
5. using school property without the approval of the local board of education/governing board or authorized designee.

(f) **Standard 6: Remunerative Conduct** - An educator shall maintain integrity with students, colleagues, parents, patrons, or businesses when accepting gifts, gratuities, favors, and additional compensation. Unethical conduct includes but is not limited to:

1. soliciting students or parents of students to purchase equipment, supplies, or services from the educator or to participate in activities that financially benefit the educator unless approved by the local board of education/governing board or authorized designee;
2. accepting gifts from vendors or potential vendors for personal use or gain where there may be the appearance of a conflict of interest;
3. tutoring students assigned to the educator for remuneration unless approved by the local board of education/governing board or authorized designee; and
4. coaching, instructing, promoting athletic camps, summer leagues, etc. that involves students in an educator's school system and from whom the educator receives remuneration unless approved by the local board of education/governing board or authorized designee. These types of activities must be in compliance with all rules and regulations of the Georgia High School Association.

(g) **Standard 7: Confidential Information** - An educator shall comply with state and federal laws and state school board policies relating to the confidentiality of student and personnel records, standardized test material and other information. Unethical conduct includes but is not limited to:

1. sharing of confidential information concerning student academic and disciplinary records, health and medical information, family status and/or income, and assessment/testing results unless disclosure is required or permitted by law;
2. sharing of confidential information restricted by state or federal law;
3. violation of confidentiality agreements related to standardized testing including copying or teaching identified test items, publishing or distributing test items or answers, discussing test items, violating local school system or state directions for the use of tests or test items, etc.; and
4. violation of other confidentiality agreements required by state or local policy.

(h) **Standard 8: Abandonment of Contract** - An educator shall fulfill all of the terms and obligations detailed in the contract with the local board of education or education agency for the duration of the contract. Unethical conduct includes but is not limited to:



1. abandoning the contract for professional services without prior release from the contract by the employer, and
  2. willfully refusing to perform the services required by a contract.
- (i) **Standard 9: Required Reports** - An educator shall file reports of a breach of one or more of the standards in the Code of Ethics for Educators, child abuse (O.C.G.A. §19-7-5), or any other required report. Unethical conduct includes but is not limited to:
1. failure to report all requested information on documents required by the Commission when applying for or renewing any certificate with the Commission;
  2. failure to make a required report of a violation of one or more standards of the Code of Ethics for educators of which they have personal knowledge as soon as possible but no later than ninety (90) days from the date the educator became aware of an alleged breach unless the law or local procedures require reporting sooner; and
  3. failure to make a required report of any violation of state or federal law soon as possible but no later than ninety (90) days from the date the educator became aware of an alleged breach unless the law or local procedures require reporting sooner. These reports include but are not limited to: murder, voluntary manslaughter, aggravated assault, aggravated battery, kidnapping, any sexual offense, any sexual exploitation of a minor, any offense involving a controlled substance and any abuse of a child if an educator has reasonable cause to believe that a child has been abused.
- (j) **Standard 10: Professional Conduct** - An educator shall demonstrate conduct that follows generally recognized professional standards and preserves the dignity and integrity of the teaching profession. Unethical conduct includes but is not limited to any conduct that impairs and/or diminishes the certificate holder's ability to function professionally in his or her employment position, or behavior or conduct that is detrimental to the health, welfare, discipline, or morals of students.
- (k) **Standard 11: Testing** - An educator shall administer state-mandated assessments fairly and ethically. Unethical conduct includes but is not limited to:
1. committing any act that breaches Test Security; and
  2. compromising the integrity of the assessment.

#### (4) Reporting

- (a) Educators are required to report a breach of one or more of the Standards in the Code of Ethics for Educators as soon as possible but no later than ninety (90) days from the date the educator became aware of an alleged breach unless the law or local procedures require reporting sooner. Educators should be aware of legal requirements and local policies and procedures for reporting unethical conduct. Complaints filed with the

Professional Standards Commission must be in writing and must be signed by the complainant (parent, educator, personnel director, superintendent, etc.).

- (b) The Commission notifies local and state officials of all disciplinary actions. In addition, suspensions and revocations are reported to national officials, including the NASDTEC Clearinghouse.

#### (5) Disciplinary Action

- (a) The Professional Standards Commission is authorized to suspend, revoke, or deny certificates, to issue a reprimand or warning, or to monitor the educator's conduct and performance after an investigation is held and notice and opportunity for a hearing are provided to the certificate holder. Any of the following grounds shall be considered cause for disciplinary action against the holder of a certificate:

1. unethical conduct as outlined in The Code of Ethics for Educators, Standards 1-10 (PSC Rule 505-6-.01);
2. disciplinary action against a certificate in another state on grounds consistent with those specified in the Code of Ethics for Educators, Standards 1-10 (PSC Rule 505-6-.01);
3. order from a court of competent jurisdiction or a request from the Department of Human Resources that the certificate should be suspended or the application for certification should be denied for non-payment of child support (O.C.G.A. §19-6-28.1 and §19-11-9.3);
4. notification from the Georgia Higher Education Assistance Corporation that the educator is in default and not in satisfactory repayment status on a student loan guaranteed by the Georgia Higher Education Assistance Corporation (O.C.G.A. §20-3-295);
5. suspension or revocation of any professional license or certificate;
6. violation of any other laws and rules applicable to the profession; and
7. any other good and sufficient cause that renders an educator unfit for employment as an educator.

- (b) An individual whose certificate has been revoked, denied, or suspended may not serve as a volunteer or be employed as an educator, paraprofessional, aide, substitute teacher or in any other position during the period of his or her revocation, suspension or denial for a violation of The Code of Ethics. The superintendent and the superintendent's designee for certification shall be responsible for assuring that an individual whose certificate has been revoked, denied, or suspended is not employed or serving in any capacity in their district. Both the superintendent and the superintendent's designee must hold GaPSC certification.

Authority O.C.G.A. § 20-2-200; 20-2-981 through 20-2-984.5

### Scenario #5

A teacher has a standing offer for tutoring afterschool on Wednesdays in his classroom. Generally, there are four to five students who attend. On the first Wednesday after spring break, only one 8th grade girl comes to his room for afterschool tutoring. The teacher continues the tutoring session as planned.

### Scenario #6

A teacher walks away from her computer without logging off. A student sits down and, still logged in as the teacher, sends inflammatory e-mails to students and posts similar messages on the class newsgroup.

### Scenario #2

The athletic trainer gave a group of students her cell phone number during the football season in case of emergency. One of those students, who is infatuated with the athletic trainer, began texting her after the football season had ended. The athletic trainer is unaware of the student's feelings towards her.

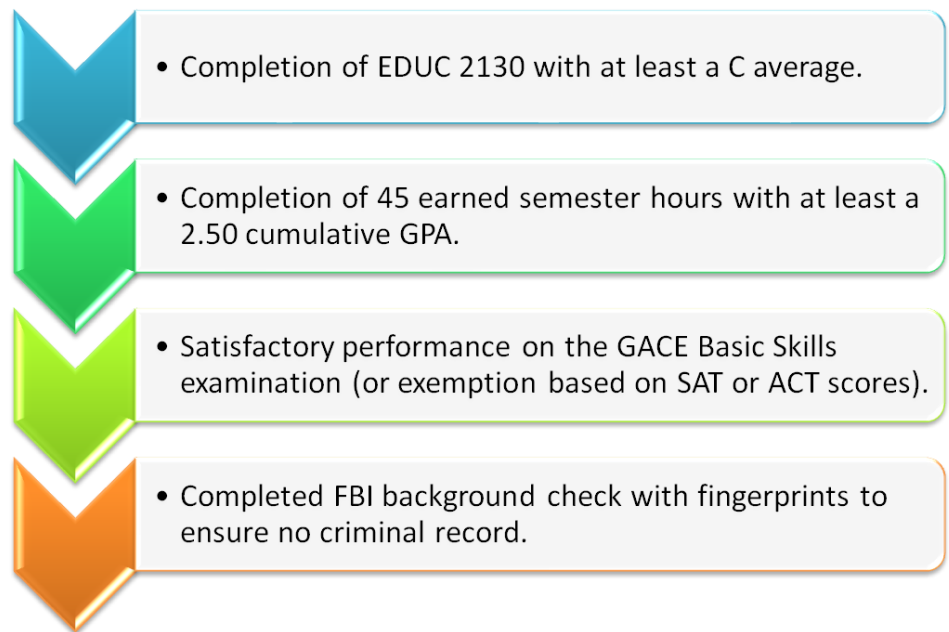
### Scenario #7

A teacher shares with his students in one of his classes that he really wanted the new Atlanta Falcons poster. The teacher was delighted to receive the poster in May from a senior in one of his classes. Since the student cared enough about the teacher to give such a prized poster, the teacher gives the student an extra assignment so that he could pass the class and graduate.

### Scenario #8

A teacher for an honors level class discovered that half of the class has plagiarized information from the internet on their projects. The project counts for 30% of their final grades.

## Undergraduate Admission Requirements for Teacher Education at Columbus State University



For more detailed admission procedures, visit the SAFE Office ([safe.columbusstate.edu](http://safe.columbusstate.edu))

### Scenario #9

A teacher has had a terrible and exasperating day at school. He and a group of friends decide to go to the local restaurant for dinner. At the restaurant, he tells his friends about Sally Sue who cannot solve a one-step math problem to save her life. He goes on to say that she is a student with a behavior disorder so she throws a tantrum when she gets frustrated during the math lesson.

### Obtaining a Teaching License

Within the last decade, the GaPSC established various routes to achieve teacher certification. First, the question is whether or not you have a baccalaureate degree. If not, you must complete an approved teacher certification degree program to become a teacher. See the above figure that outlines the undergraduate admission requirements for Teacher Education at Columbus State

University. The figure at the bottom of the next page outlines the initial certification process for CSU undergraduate students. If you do hold a baccalaureate degree, then the following options are available:

- **post-baccalaureate teaching certification program,**
- **Troops to Teachers** ([www.tttga.net](http://www.tttga.net)),
- **Georgia Teacher Academy for Preparation and Pedagogy, TAPP, (usually for “career switchers” who hold a college degree but did not complete teacher education requirements), and**
- **Master of Arts in Teaching, MAT, (for those individuals who want to earn a graduate degree along with their teaching certification).**

For more information about these options, contact the GaPSC.



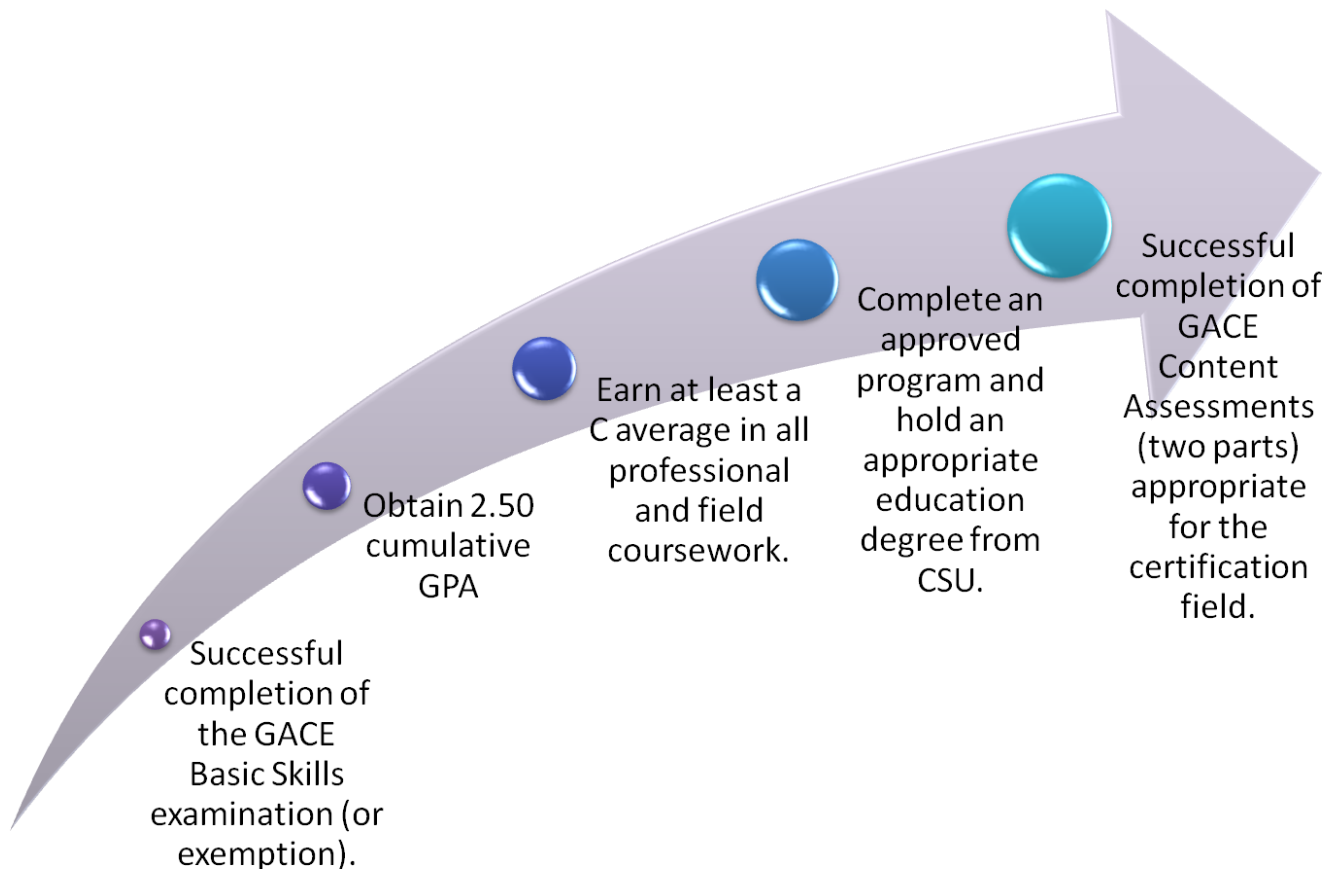
The GaPSC also regulates teacher preparation programs at Georgia post-secondary institutions. This regulatory body grants you the initial teaching license as well as grants you the renewals, change of fields, and upgrades (e.g., moving from a T-4 to a T-5 level after completing a master degree program). The SAFE Office at Columbus State monitors and assists you with the initial certification process. Often, your employer's human resource department helps you with other licensure applications and keeps you abreast of policy and procedural changes; however, it is your responsibility to maintain your professional learning units (PLUs), if required, and a current teaching license. PLUs are earned by successful completion of professional development courses offered by your school, district, regional educational

agencies, and post-secondary institutions. Currently, 10 PLUs are required to renew your teaching license. These policies and procedures are subject to change. When you request a renewal, change of field, or upgrade, the GaPSC will ask you the same questions. See the following nine questions from the current application:

1. **Have you ever had an adverse action (i.e., warning, reprimand, suspension, revocation, denial, voluntary surrender, disbarment) taken against a professional certificate, license or permit issued by an agency OTHER THAN the Georgia Professional Standards Commission?**
2. **Are you currently the subject of an investigation involving a violation of a profession's laws, rules, standards or Code of Ethics**
3. **Have you ever received a less than honorable discharge from any branch of the armed services?**
4. **Have you ever left an employment position (i.e., retired, resigned, been dismissed, terminated, non-renewed, or otherwise) while under investigation?**
5. **Are you currently the subject of an investigation involving sexual misconduct or physical harm to a child?**
6. **Are you the subject of a pending investigation involving a criminal act?**

**by an agency OTHER THAN the Georgia Professional Standards Commission?**

## Initial Certification Process for CSU Undergraduate Students



For more detailed certification procedures, visit the SAFE Office ([safe.columbusstate.edu](http://safe.columbusstate.edu))

7. For any felony or any crime involving moral turpitude, have you ever:
- ◆ Pled guilty;
  - ◆ Entered a plea of *nolo contendere*;
  - ◆ Been found guilty;
  - ◆ Pled guilty to a lesser offense;
  - ◆ Been granted first offender treatment without adjudication of guilt;
  - ◆ Participated in a pre-trial diversion program;
  - ◆ Been found not guilty by reason of insanity; or
  - ◆ Been placed under a court order whereby an adjudication or sentence was withheld?
8. Have you ever been convicted, or pled to a lesser offense for any sexual offense?
9. Have you been convicted of a drug offense (felony or misdemeanor) after July 1, 2008, while holding any professional certificate, license or permit?

Also, if you move to another state, there is no guarantee that state has a reciprocity agreement with Georgia. Such an agreement would mean that state would recognize your teaching license from Georgia; however, you may have to complete additional coursework or successful complete additional assessments within a designated time period to become licensed in that state. The



National Association of State Directors of Teacher Education and Certification (NASDEC) is an organization that represents the professional standard boards and commissions from all 50 states, the District of Columbia, the Department of Defense Education Activity, and the US Territories. This organization facilitates the interstate agreements among the above listed entities and Canadian Provinces. For more information is available at [www.nasdtec.net](http://www.nasdtec.net).

## Teacher and the Law

The following page is an excerpt from *K-12 Classroom Teaching* (4th edition) by Andrea M. Guillaume. Regarding #6, the state of Georgia does allow corporal punishment in schools; however, the decision to use corporal punishment is left to the local school board. About 45% of the 180 school districts do not allow corporal punishment in their districts.



### How Have Supreme Court Decisions Affected the Public Schools?

Source: Parkway & Stanford (2010)

For each of the following practices, determine whether the Supreme Court has held that practice to be mandatory (**MUST**), permitted (**MAY**), or prohibited (**MUST NOT**).

1. A school district \_\_\_\_\_ require the posting in each classroom of a copy of the Ten Commandments that has been obtained via private contributions and is expressly labeled as nonreligious material.
2. A school district \_\_\_\_\_ provide classes to nonpublic school students in classrooms located in nonpublic schools.
3. A school district \_\_\_\_\_ dismiss a teacher for expressing criticism of school policies or practices that are not of public interest.
4. A school district \_\_\_\_\_ permit nonexcessive corporal punishment of students under the authorization or in the absence of a state statute.
5. A school district \_\_\_\_\_ conduct a search of a student, without the assistance of police, if the school authorities have reasonable suspicion that the student has violated or is violating the law or school rules.
6. A school district \_\_\_\_\_ refuse to provide clean-intermittent-catheterization for students with disabilities who need this service to attend school.
7. A school district \_\_\_\_\_ deny reenrollment in their public schools to children who are "illegal aliens" in the United States.
8. A school district \_\_\_\_\_ discipline students for using lewd and offensive language that does not cause a substantial disruption in the school.

**Check your answers at the end of the chapter.**

1. *Public schools must not promote worship.* Schools may teach about religion if the intent is not to worship. If a public school allows some groups to meet there, it must provide equal access and allow religious-based groups (such as religious clubs) to meet there as well. The groups cannot be school sponsored (Alexander & Alexander, 2005).  
Students cannot be required to salute the flag if their religious convictions or matters of conscience (in some states) prohibit it (Fischer, Schimmel, & Kelly, 1999).
2. *Academic freedom has limits.* Education is a marketplace of ideas (Alexander & Alexander, 2005). Teachers are permitted to address controversial topics and use controversial methods if they are educationally defensible, appropriate for the students, and are not disruptive. School boards have authority to set curriculum and methods.
3. *Teachers' private activities must not impair their teaching effectiveness.* Although teachers hold the same rights as other citizens, their conduct is held to a higher standard. When teachers' private lives weaken their classroom effectiveness, it is possible that they may be dismissed. Sexual relationships with students are cause for dismissal (Fischer et al., 1999).
4. *Students have rights to due process.* Teachers' and schools' rules and procedures must be fair and reasonable, and justice must be administered even handedly. Due process is important for such issues as search and seizure, suspension, and expulsion (McCarthy, Cambron-McCabe, & Thomas, 1998). Families of students with disabilities have additional due process procedures related to special education services (Fischer et al., 1999).
5. *Teachers must not use academic penalties to punish behavior.* Students' academic grades cannot be lowered as a result of disciplinary infractions. Students must be allowed to make up work that accumulates during suspensions or other disciplinary periods (McCarthy et al., 1998).
6. *Corporal punishment must not be misused.* Fewer than half the states allow corporal—or physical—punishment (Underwood & Webb, 2006). In states where it is allowed, corporal punishment must be delivered while the teacher is not in a state of anger, it must fit the crime and the student's age and condition, and it must not lead to permanent injury or run the risk of such (McCarthy et al., 1998). Disciplinary actions that serve to humiliate a child may be illegal too.
7. *Teachers must protect children's safety.* Teachers must act in place of the parents (Alexander & Alexander, 2005), providing prudent, reasonable supervision to protect children from harm. They can be held negligent if they do not do so.  
Teachers and schools can protect children's safety by establishing and enforcing rules pertaining to safety and by providing prudent, reasonable care in their supervision (Fischer et al., 1999).
8. *Teachers must not slander or libel their students.* Teachers must say and write only things about students that they know objectively to be true. Even confidential files must not contain statements that demean a student's character, background, or home life. Statements should be based on relevant observable behavior (Fischer et al., 1999). Teachers must share information only with personnel who have a right to such information.
9. *Teachers must copy instructional materials in accordance with copyright laws.* The reproduction without the author's permission of copyrighted instructional materials, including print sources, visual images, videotapes, and computer software, is restricted to conditions of fair use. Examples of fair use are a single copy of a book chapter for a teacher's own use, or a copy of a poem. Teachers may not make copies to replace collected works, nor may they make copies of consumable materials. Teachers may not make copies of computer software, and they are greatly restricted in their use of videotape in the classroom (Fischer et al., 1999; McCarthy et al., 1998). Teachers should consider materials found on the World Wide Web to be copyright protected, unless the materials state that they are public domain (Underwood & Webb, 2006).
10. *Teachers must report suspected child abuse.* All states require teachers to report suspected physical or sexual abuse, and no state requires certainty, only reasonable cause to believe that abuse is present (Fischer et al., 1999). If the state requires teachers to report suspected abuse to an agency, then a teacher's report to a principal or district does not satisfy the agency requirement; the teacher must also report to the agency (Underwood & Webb, 2006).
11. *Teachers need to know the law.* Ignorance is no excuse.
12. *Teachers should be aware of emerging legal issues.* One is educational malpractice, which can be either instructional (wherein students fail to learn) or professional (wherein school personnel misdiagnose, provide improper placements, or misadvise students) (Underwood & Webb, 2006).

Source: Adapted from McDaniel (1979). Corroborated and updated with Alexander and Alexander (2005); Fischer, Schimmel, and Kelly (1999); McCarthy, Cambron-McCabe, and Thomas (1998); and Underwood and Webb (2006).



## What are Professional Dispositions?

I am sure that you are asking yourself, “What are professional disposition?” The National Council for Accreditation of Teacher Education (NCATE) defines professional dispositions as professional attitudes, beliefs, and values that are demonstrated through verbal and non-verbal behaviors. These behaviors are observed during any interaction with students, families, colleagues, and other community stakeholders. According to NCATE Standard 1, *teacher candidates should know and demonstrate knowledge, skills, and professional dispositions*. In addition, NCATE expects teacher education programs to evaluate professional dispositions within the educational settings; however, each unit (e.g., the Teacher Education Department at Columbus State University) can identify, define, and operationalize professional dispositions (NCATE, 2007).

Even though these attitudes, beliefs, and values are defined by the faculty members within the Teacher Education Department, upon completion of your teacher education program, you will be expected to adhere to these professional dispositions. These behaviors are considered to be appropriate and expected behaviors for the teaching professional from the preschool to post-secondary education levels. On the next two pages, the current draft of the Teacher Candidate Dispositions Assessment for Columbus State University. Your professional dispositions will be assessed by faculty, staff, and cooperating teachers at various points during the teaching preparation program.

## Conclusion

There are a variety of issues under the topic of school law and professional ethics. This overview was meant to give you a practical application to the classroom. Fortunately or unfortunately, depending on how you view the situation, school law changes as society changes; hence, items presented within this chapter are subject to change. Once you are in the classroom, you will need to familiarize yourself with the current laws and code of ethics for your given state and the policies and procedures of your respective school district.



## Check your Supreme Court Answers

1. MUST NOT  
*Stone v. Graham* (1980)
2. MUST NOT  
*Grand Rapids v. Ball* (1985)
3. MAY  
*Pickering v. Board of Education* (1968)
4. MAY  
*Ingraham v. Wright* (1977)
5. MAY  
*New Jersey v. T.L.O.* (1985)
6. MUST NOT  
*Irving Independent School District v. Amber Tatro* (1984)
7. MUST NOT  
*Plyer v. Doe* (1982)
8. MAY  
*Tinker v. Des Moines Independent School District* (1969)

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## Columbus State University Teacher Candidate Dispositions Assessment

The following seven dispositional domains will be assessed by faculty, staff, and cooperating teachers at various points during the teaching preparation program. Numbers in parentheses refer to the Interstate New Teacher Assessment and Support Consortium (INTASC) principles that are addressed by each domain. Example behaviors operationalize each dispositional domain. This list is meant to illustrate the domain, but it is not intended to be comprehensive. Example behaviors may or may not be weighted equally in the determination of the dispositional domain rating.

Dispositional Category	Unacceptable	Needs Improvement	Acceptable	Target
<b>1. Legal &amp; Ethical Conduct (9)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Demonstrates a clear understanding of legal and moral obligations of the profession.</li> </ul>				
<ul style="list-style-type: none"> <li>• Demonstrates ethical conduct by meeting established standards.</li> </ul>				
<ul style="list-style-type: none"> <li>• Demonstrates integrity and honesty.</li> </ul>				
<ul style="list-style-type: none"> <li>• Maintains confidentiality of student records, parent communications, and private professional communications.</li> </ul>				
<b>2. Interactions With Others (3, 5, 10)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Interacts with peers, instructors, and/or mentors appropriately and professionally using appropriate language, voice, and tone.</li> </ul>				
<ul style="list-style-type: none"> <li>• Establishes an effective rapport with others while exhibiting an appropriate level of respect and care.</li> </ul>				
<ul style="list-style-type: none"> <li>• Acknowledges perspectives and seeks opportunities to work/interact with individuals from diverse cultural and experiential backgrounds.</li> </ul>				
<ul style="list-style-type: none"> <li>• Displays respect and consideration for people, ideas, and property.</li> </ul>				
<ul style="list-style-type: none"> <li>• Participates with others in a collaborative and cooperative manner to achieve a common goal.</li> </ul>				
<b>3. Reliability (9)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Meets deadlines for the assignments, is punctual for the meetings, and responds to requests timely.</li> </ul>				
<ul style="list-style-type: none"> <li>• Always makes prior arrangements with instructor/supervisor when absence is necessary.</li> </ul>				
<ul style="list-style-type: none"> <li>• Maintains active and focused participation.</li> </ul>				
<ul style="list-style-type: none"> <li>• Asks questions proactively and does not need to be told everything.</li> </ul>				

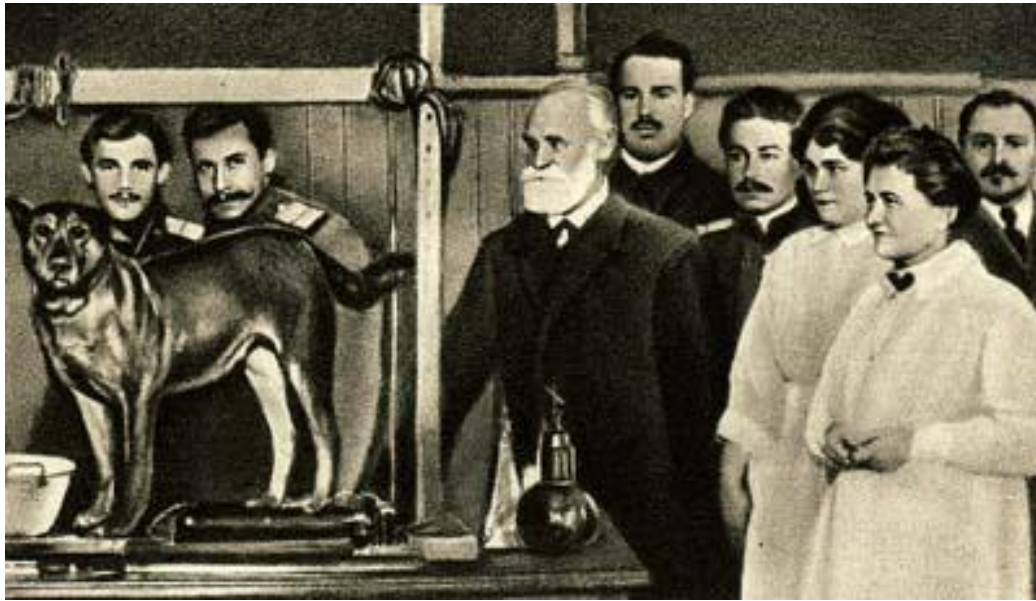
<b>4. Professional Appearance &amp; Demeanor (9)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
• Exhibits appropriate attire for the setting and/or activity.				
• Demonstrates good personal hygiene.				
• Acts in a mature manner and maintains emotional control.				
• Exhibits confidence and composure.				
• Displays a positive attitude.				
<b>5. Commitment to Student Learning (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
• Demonstrates and advocates the belief that all students can learn.				
• Adapts instruction to meet various needs and abilities.				
• Demonstrates accountability for student learning and development.				
• Assists all students in becoming successful, lifelong learners.				
<b>6. Commitment to Improvement (6, 9)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
• Listens to feedback from instructors, cooperating teachers, peers, and students.				
• Improves based on feedback.				
• Avoids making excuses, defenses, or justifications for deficiencies.				
• Pursues lifelong learning.				
<b>7. Commitment to the Profession (9)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
• Views teaching as a career more than a job.				
• Refrains from undermining colleagues.				
• Follows appropriate protocols when seeking solutions to problems.				
• Values opportunities for networking with others in the field.				
• Uses appropriate language conventions in communications both oral and written.				
• Demonstrates flexibility.				
• Engages in appropriate use of personal electronic devices and social media.				

# Unit II

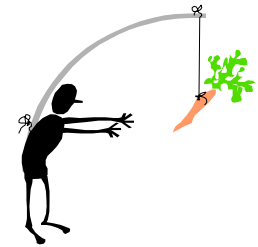


# Learning Theory





## LEARNING OBJECTIVES



1. Describe the applications of Behaviorism in the classroom
2. Describe the applications of Social Learning Theory in the classroom.

## Behaviorism began in the 1920's with John Watson's Baby Albert experiments.

Watch the video to get an idea of the experimental procedures and results. Watson along with Rosalie Rayner studied the three phases of conditioning: generalization, discrimination, and extinction. After the conditioning, Little Albert generalized his fear to a rabbit, fur coat, and Santa Claus mask. His mother withdrew him from the study before it was concluded. Watch the video about Baby Albert by selecting the link or copying and pasting it into your internet browser.

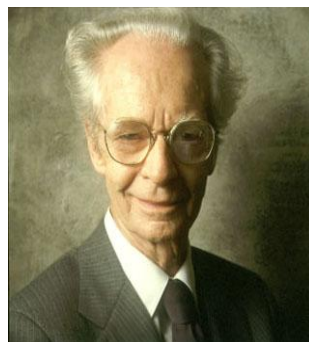
[www.bugforteachers.com/babyalbert.html](http://www.bugforteachers.com/babyalbert.html)

Print the notetaking guide on pages 252 - 257!

## Behaviorism

### Nature of the Learner

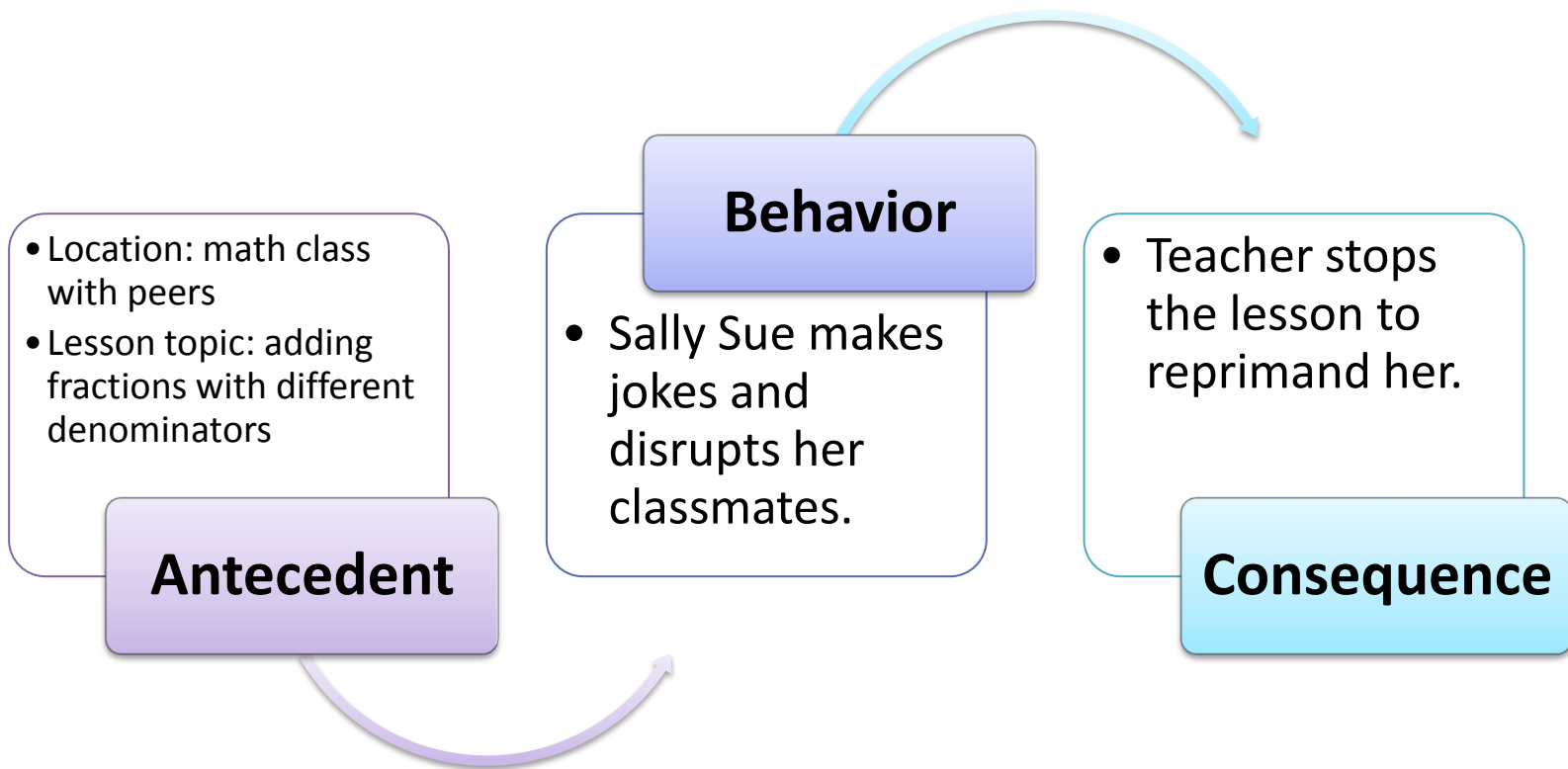
Behaviorism sprang from Ivan Pavlov and his salivating dog experiments. From these experiments, the concept of classical (or stimulus-response) conditioning, where the learner is trained to respond to stimuli that the learner does not have control over, was defined. In other words, motivation does not play a role in behavior.



Burrhus Frederic (BF) Skinner (1904-1990) was a behavioral psychologist who was influenced by Charles Darwin's Theory of Evolution and natural selection, and Sigmund Freud's psychoanalysis where early experiences shaped the individual

later in life. He felt that motivation did play a factor. Thus, he defined operant conditioning, where the learner is motivated to change his or her behavior to receive the reward/consequence. To study this concept, Skinner designed and constructed "Skinner Boxes" where he studied a variety of animals, including pigeons and rats, select a switch to obtain an edible snack. He also created a "Skinner Box" for his daughters as shown below.





There are two principles associated with operant conditioning: (1) any response that is followed by a reinforcing stimulus tends to be repeated, and (2) a reinforcing stimulus is anything that increases the rate with which an operant response occurs. A classroom teacher applies this concept using shaping. Shaping involves teaching new behaviors by using differential reinforcement where some responses are reinforced and others are not or using successive approximation by rewarding only those responses that become increasingly similar to the target behavior. For example, the teacher wants the student to pick up the block using the pincher grasp (i.e., thumb and point finger). She first gives the student verbal praise when the student places his hand on the block. Then, she continues to give him verbal praise when he clinches his fingers on the block, when he attempts to pick up the block, and when he uses his pincher grasp to pick up the block. This same concept applies to

decreasing inappropriate behavior when the teacher rewards appropriate displays of behavior.

In order to shape the behavior, a teacher must define the antecedent (i.e., behavior or event immediately preceding the targeted behavior), the targeted behavior, and the consequence (i.e., the behavior or event immediately following the targeted behavior). In the above example, Sally Sue disrupted her math class during a fractions lesson. Why do you think Sally Sue disrupted her math class? There are a few possible options. Option 1: She could feel frustrated because she cannot add the fractions with different denominators. Option 2:

She had an argument with her parents before school. Option 3: She wants the attention from the teacher, whether it is for appropriate or inappropriate behaviors. As a teacher, you would need to examine all possible options based on your knowledge of the student to determine the possible rationale.

### Practical Application

Watch the video of Peppermint Patty at school by selecting the link or copying and pasting it into your internet browser. In the notetaking guide, complete the antecedent-behavior-consequence (ABC) form for Peppermint Patty.

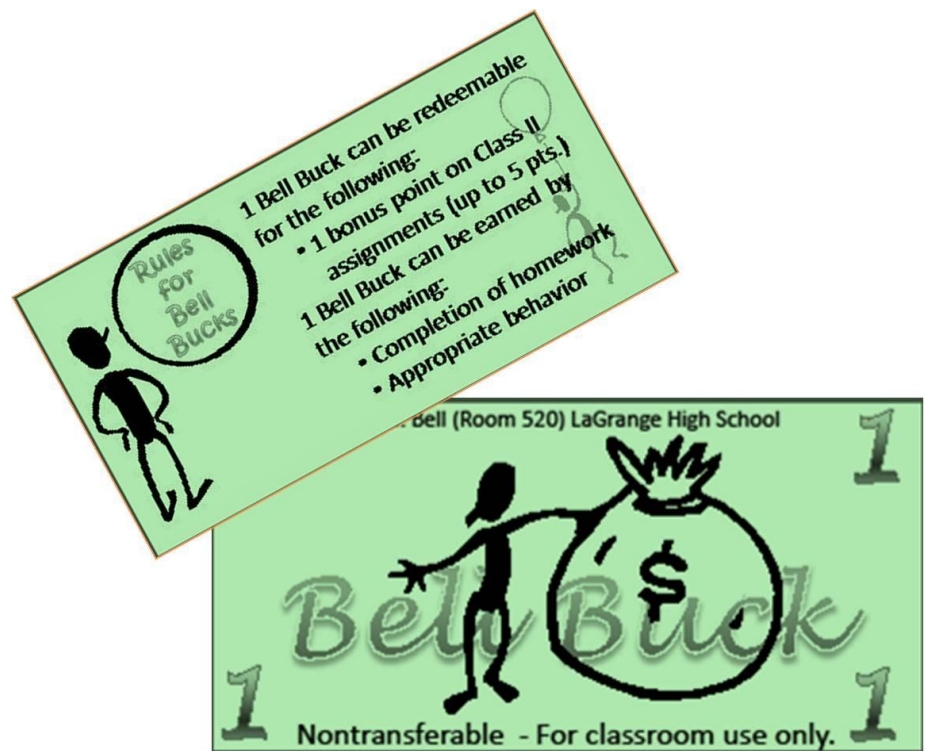
[www.bugforteachers.com/peppermintpatty.html](http://www.bugforteachers.com/peppermintpatty.html)

## Nature of the Learning Process

Reinforcing stimulus is anything that increases the rate of a target behavior occurring.

*Punishment* is a consequence that decreases the probability of an undesirable behavior. It involves either taking away a positive reinforcer or adding a negative reinforcer. A *positive reinforcer* is a pleasant consequence that increases the probability of the behavior occurring again (i.e., receiving an A on the assignment or a piece of candy). A *negative reinforcer* is a unpleasant consequence that increases the probability of the behavior occurring again because the learner wants to avoid the consequence (i.e., staying on task to avoid detention or exhibiting appropriate behavior to avoid an office referral). Skinner did not believe punishment was effective. He felt it suppresses a behavior as long as it was applied; however, it does not weaken the likelihood of the behavior occurring again. According to Skinner, rewards change the frequency of a behavior reoccurring and punishments do not.

In Behaviorism, learning requires the students to master current objective before moving onto another, to be presented with new material when they are ready, and to be motivated through immediate and frequent reinforcement. Consider the previous example of the child picking up a block using her pincher grasp. In education, Behaviorism is the primary approach for behavior analysis (i.e., antecedent, behavior, and consequence) and behavior modification (i.e., token economy). For example, IDEA 1997 required all students who faced a possible change in placement for disciplinary



reasons to have a functional behavior assessment (i.e., antecedent, behavior, and consequence) prior to their manifestation determination hearing. This assessment would determine the target behavior(s), antecedents, and consequences for the student along with possible rewards for appropriate behavior.

In my classroom, I used a token economy approach to increase homework completion. I called it “Bell Bucks”. (See the “Bell Bucks” pictured above.) If the student attempted all of the homework problems, which usually was 5 to 7 problems, then he or she would receive one “Bell Buck”. I also gave them as prizes when we played BINGO and other math games. The students could use up to five “Bell Bucks” on a quiz, which gave them up to five extra points added to the final grade. I saw homework completion dramatically improve, which is vital to mastering mathematical concepts and procedures.

In other teachers’ classrooms, I have seen similar reward systems. “Powell Bucks”, pictured at the top of the next page, are given when the student contributes meaningfully to the discussion. Mrs. Powell at Northside High School allows the students to apply their “Powell Bucks” to their final nine week point total. Jones Elementary (a pseudonym) uses the token money idea to reward attendance and punctuality. The students can then use the token money at the school store. Miss Smith (a pseudonym) utilizes punch cards to reward appropriate behavior. Once the student earns 10 punches on one card, he or she can get one prize from the Treasure Chest. Mrs. G from Hickory Hills Elementary School employs a token economy for the class. If the class exhibits appropriate behavior during the drama lesson, then they earn popcorn (actually pom-poms) in their class jar. Once filled, the entire class receives popcorn as a reward. Teachers of older students can





utilize a similar concept by using a point system. Miss George (a pseudonym) uses the traffic light idea. The students begin each day on green. If Vanessa breaks a classroom rules, then she moves her color from green to yellow. If the inappropriate behavior continues, Vanessa would change the yellow to red. See the example below.

A common misconception within the classroom is whether or not the teacher is reinforcing the behavior or punishing the behavior. We discussed earlier in this chapter that a reinforcer can be either positive or negative. *Reinforcement* is a consequence that increases the probability of a desirable behavior. *Punishment* is a consequence that decreases the probability of an undesirable behavior. As a classroom teacher, you should know that your intended punishment could increase the rate

of a target behavior occurring. For example, Vanessa sings “You are my Sunshine” during calendar time each day. If Vanessa likes the attention she receives from the teacher during the intended punishment, she will continue to misbehave to receive the attention, which is considered a positive reinforcer. However, if the teacher ignores the inappropriate behaviors, then ignoring becomes a negative reinforcer since Vanessa will stop singing to avoid the ignoring consequence. More than likely, the teacher will see Vanessa’s behavior improve over time based on her desire for attention, and the frequent misbehaviors for attention will become extinct or cease. Other positive reinforcers could include verbal praise, hand gestures, stickers, games, and candy. (I would caution you about the overuse of candy and other sweets.)

Another concept, which incorporates positive reinforcers, is shaping. As we discussed earlier, *shaping* is process of teaching new behaviors using positive reinforcers to reward successive approximations until the target behavior is achieved. For example, Martha Sue exhibits off-task behavior (e.g., talking out of turn). Miss Smith tells Martha Sue that she will give her a sticker if she exhibits appropriate behavior 2 out of 5 ten-minute intervals. Martha Sue achieves that goal and receives her shining new sticker. After maintaining this pattern for three days, Miss Smith tells Martha Sue that she will get two stickers if she exhibits on-task behavior 4 out of 5 ten-minute intervals. Again, Martha Sue achieves that goal and earns two stickers. Each student is different. Some students may need many rewards across a longer period of time before increasing the goal. Other students may need the goals to have smaller time intervals or smaller increments (e.g., 5 out of 10 two-minute intervals).

Watch the following video about Skinner’s Shaping Experiments. You can select the link or copy and paste it into your internet browser. Consider how you could apply this concept of positive reinforcement into your future classroom with behavior and/or instruction. What other types of positive and negative reinforcers exist within the classroom? Which of these reinforcers lead to unintended consequences?

[www.bugforteachers.com/shaping.html](http://www.bugforteachers.com/shaping.html)



Retrieved from [www.qualityclassrooms.com](http://www.qualityclassrooms.com).





### Advantages and Disadvantages

The greatest advantages for the theory of behaviorism are applied behavior analysis and behavior modification. First, applied behavior analysis can target a behavior, assess the frequency of the behavior, determine methods for either decreasing or increasing the behavior, and collect data to decide if the selected method was successful or unsuccessful. In practice, this analysis can reduce off-task behaviors, such as biting a classmate, and increase daily living skills, such as using a coin operated vending machine. Second, the antecedent-behavior-consequence (ABC) is an excellent method for behavior modification. The ABC method can be used to determine the positive or negative reinforcers for target behaviors or causes for those target behaviors. For instance, by using the ABC method, a teacher can pinpoint the cause of a student's sudden outburst in class, the reason why a student fails to complete his assignment, or

a positive reinforcer for a target behavior. Both methods are invaluable when educating students with and without disabilities.

Behaviorism does not view people as living organisms, which grow, adapt, think, or feel. Instead, people are viewed as machines. Also, it does not consider the learner in relation to organized social life, mental and spiritual state. Instead, the learner is viewed in isolation. Behaviorism is directly linked with the behaviors and actions of the learner. For example, if I offer a student a pizza lunch if the student completes his or her homework every night for a two-week period, then the ultimate goal at the end of the conditioning period would be for the learner to complete his or her homework every night. As a result, the lower functioning students become conditioned to think that they should only complete tasks when they are given a tangible reward. As a high school teacher, I witnessed this response when

Fridays rolled around and my students expected a "free" day for being good during the week. Often, the behaviorism model is used for drill and practice or other rote situations. With this theory, higher order thinking skills are neglected. To develop critical thinking skills, assessments and other assignments should be written to assess higher order thinking skills instead of the basic knowledge and comprehension levels in Bloom's Taxonomy. A strict application of Behaviorism would put these students at a great disadvantage.

With Behaviorism, a major caution for its use is extrinsic motivation. First, as a learner matures, you want to replace extrinsic motivation with intrinsic motivation so the learner wants to learn for the joy of learning instead of a piece of candy, but intrinsic motivation involves metacognitive skills or self-regulation which are not addressed with the theory of Behaviorism. Another point of caution is satiation with extrinsic motivators. If the same reward or punisher is continually employed, then satiation with that reward or punishment will decrease the desired behavior. Therefore, the teacher would need to seek new extrinsic motivators for that student so he or she will continue to be engaged or disengaged in the target behavior. As I pointed to earlier, this situation is a disadvantage of Behaviorism because the theory only addresses behaviors instead of the cognitive and developmental level of the learner.

### Conclusion

As a special education teacher, I used Behaviorism in a variety of ways, such as classic conditioning when students came to me with math anxiety or

operant conditioning to promote generalization between mathematical processes, such as solving two-step word problems and three-step word problems. My primary utilization was classroom management (i.e., proximity control and regulation of appropriate and inappropriate behavior). In the beginning of the school year, I would establish policies and procedures for the classroom. These policies involved maintaining appropriate behaviors and eliminating inappropriate behaviors. The goal of these policies and procedures was for the class to run efficiently with or without the teacher in the classroom. If I had to leave the classroom and go to the office or miss class to attend a conference, my teaching assistant and students carried on “business as usual”. The students were conditioned to follow a specific and systematic routine.

## Social Learning Theory

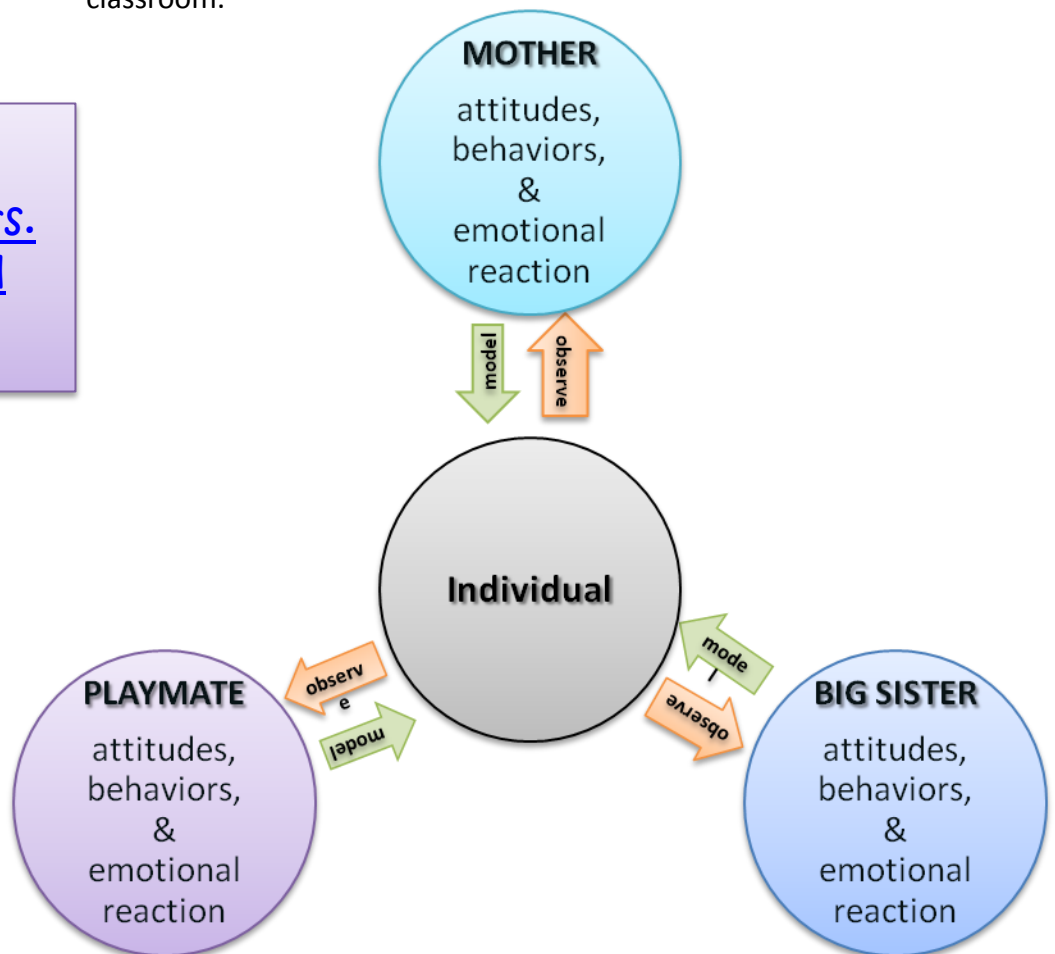


With Behaviorism, the relationship between motivation and performance of the learner are not addressed. Albert Bandura (1925 - ) is a psychologist and social learning theorist who developed the Social Learning Theory. The main focus of Social Learning is socialization. Behaviors are influenced by the social context in which they occur, such as observational learning, which is applicable each day in the classroom.

## Nature of the Learner

Learning is vicarious (i.e., watching someone complete the task). Bandura conducted the famous Bobo Doll Study in the 1960s where children watched an adult beat on a bobo doll and repeated the observed behavior once they played with the doll themselves. Watch the video to provide you with a brief overview by selecting the link or copying and pasting it into your internet browser. Using the principle of observational learning, the individual can learn new behaviors, change or assist new behaviors, and/or arouse emotions. See the figure below. The individual observes and models the attitudes, behaviors, and emotional reactions from the mother, big sister, and playmate. This scenario is the reason children exhibit foul language or temper tantrums when

[www.bugforteachers.com/bobodoll.html](http://www.bugforteachers.com/bobodoll.html)



Retrieved from [www.amazon.com](http://www.amazon.com).

entering a new school or daycare center despite no prior history of such episodes. A positive use for observational learning is the game “Compliment”. As the students are in the hallways or transitioning from one activity to the next, the teacher will compliment only the students who are exhibiting appropriate behavior. For example, “Johnny, I like how you are sitting on the carpet.” When Martha Sue hears the compliment, she realizes that she needs to sit on the carpet so she can earn a compliment. The teacher did not need to give her a verbal reprimand for standing during circle time.

Another concept from Social Learning is self-regulation, which was missing from Behaviorism. *Self-regulation* is the controlling one’s own behavior. Bandura outlined three steps for achieving self-regulation.

1. **Self-observation** - monitor one’s self and progress of the behavior;
2. **Self-Assessment** - compare one’s behavior with a standard;
3. **Self-response** - reward or punish one’s responses.

For example, in special education, students are taught to self-regulate their behavior. A teen student may be working on solving one-step word problems. He could have a simple tally sheet on his desk or in his folder where he marks the number of correctly solved word problems each day during the bellringer activity (step 1). At the end of the week, he could graph the recorded numbers and compare them to the previous

week’s recorded numbers (step 2). If he met his goal for the week, then he could receive computer time, candy, or breakfast, which I often used (Step 3).

### Nature of the Learning Process

The process of observational learning, according to Bandura, includes four modeling steps. See the below figure that outlines those four modeling steps.

According to Social Learning, rewards motivate learning, but negative motives, or punishments, could cause the learner to not imitate. The primary purpose of reinforcement is to provide the learner with information about conditions likely to yield reinforcement in the future. See the types of motivation or rewards from the Social Learning perspective on the following page.

## Observational Learning Modeling Steps

(based on four skills)

1. Careful attention to the model and observing appropriate features of act.
2. Retention of the main features of the behavior.
3. Adequate reproduction of modeled act.
4. Justification of the imitative act in terms of external, internal, or vicarious rewards (motivation).



Teaching fundamental techniques for football, basketball, soccer, cheerleading, and dance involve the use of observational learning.



## Types of Motivation

- **Past reinforcements** (from traditional behaviorism)
- **Promised reinforcements** (rewards that can be imagined)
- **Vicarious reinforcements** (seeing and recalling the model being reinforced)

## Advantages and Disadvantages

The social learning theory rejects the stimulus-response component of Behaviorism. Reactions to various stimuli, such as a book dropping on the floor or a sudden loud noise, tend to be more innate reactions than learned responses through observation.

Bandura discusses metacognition (i.e., think about one's thinking); however, he does not address that a child could choose not to imitate the observed behaviors. Social influences, such as parents, peers, and environment, also play into his or her decision making (e.g., learning inappropriate behaviors from peers and adults, such as toddlers using profanity). This theory does

not consider learning differences among individuals. Some students can successfully learn behaviors visually, but other students are either kinesthetic or auditory learners, which require them to learn by doing or by hearing instead of by watching others perform the target behavior.

## Conclusion

As a side note, there is uncertainty in the literature about whether children learn violent behaviors from television and video games. Bandura thinks most behaviors are learned through observation, which leaves room for some behaviors to be innate. Despite children playing violent video games all day, they have cognitive ability. Depending on the stage of development, their perceptions will vary, but they are able to think for themselves and make decisions about inappropriate behaviors. There is empirical evidence that attempts to connect violence and video games and to explain violence among children (e.g., the Bobo Doll experiment).

## References

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## LEARNING OBJECTIVES



1. Describe the applications of Piaget's theories to a classroom.



2. Describe the applications of Vygotsky's theories to a classroom.

A teacher should identify the student's instructional level and match the instructional approach to the student's learning characteristics and stage of cognitive development. In the classroom, Piaget's cognitive development theory and Vygotsky's zone of proximal development can adjust instruction to match the cognitive needs of the student. This chapter will discuss the theories of Piaget and Vygotsky along with possible classroom applications.

### Piaget

#### Nature of the Learner

Jean Piaget (1896 – 1980) was a developmental psychologist; however, Piaget earned a doctorate in biology before turning his interests to psychology and psychoanalysis. In 1929, Piaget published *The Child's Conception of the World*. This book explained his theory of cognitive development and became an important influence in American developmental psychology and education.



According to Piaget, learning (readiness) and instructional methods are limited to a developmental stage. Each stage is characterized by the acquisition of new schema. As individuals progress through the stages, they are thought to be able to have more complex thinking and behavior. Different age levels are characterized by distinct stages of cognitive development: (a) sensorimotor, (b) preoperational,

(c) concrete operational, and (d) formal operational (Piaget & Inhelder, 2000; Pressley & McCormick, 2007).

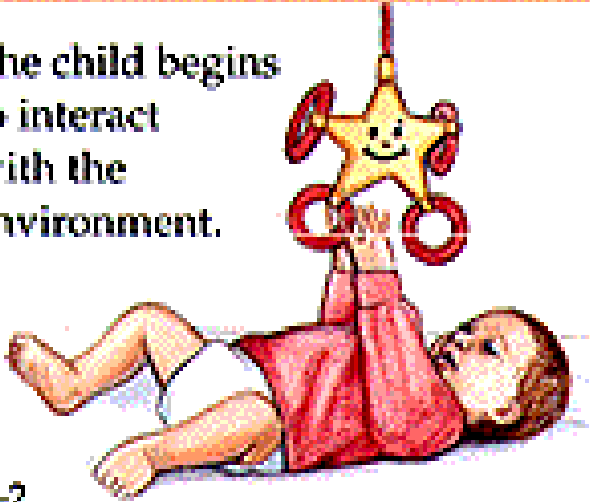
**Sensorimotor.** At the sensorimotor stage, from birth to approximately 2 years of age, children use their interactions through the senses and motor skills to acquire schemas (Saylor, Alexander, & Lewis, 1981). These schemas are action-oriented relative to the environment (e.g., an infant who reaches and grasps a building block). These innate reflexes that infants use to explore their environment eventually develops into object permanence. Prior to developing object permanence, if an object is out of sight, it no longer exists; however, once object permanence is achieved, the child understands that the object exists whether the child can see it or not. For example, the peek-a-boo game is successful with children in the sensorimotor stage because they are surprised by the appearance of another person when they uncover their eyes. At this stage, interactions with physical environment and other people are critical for cognitive

Print the notetaking guide on pages 258 - 261!



## SENSORIMOTOR STAGE

The child begins to interact with the environment.



0-2

## PREOPERATIONAL STAGE

The child begins to represent the world symbolically.



2-6 or 7

## CONCRETE OPERATIONAL STAGE

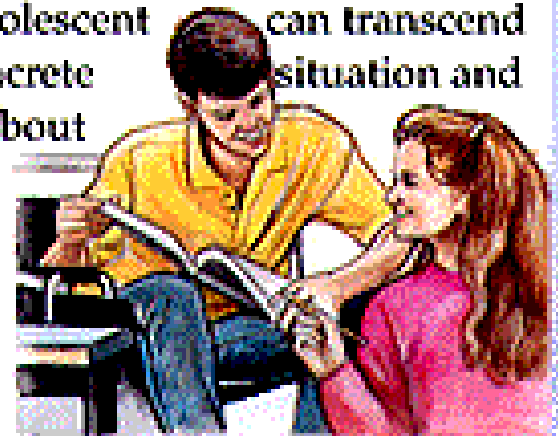
The child learns rules such as conservation.



7-11 or 12

## FORMAL OPERATIONAL STAGE

The adolescent can transcend the concrete situation and think about the future.



12-Adulthood

Retrieved from [edu.glogster.com](http://edu.glogster.com).

development (Piaget & Inhelder, 2000; Pressley & McCormick, 2007).

**Preoperational.** For individuals at the preoperational stage, which continues through age 7, symbolic thought represents objects and events (e.g., language and gestures). The first indication of this symbolic representation is deferred imitation, when the child imitates behavior that has occurred previously. Another indication is symbolic play, when the child uses an empty bowl as a hat or a bath toy as a helicopter. Preschool-aged children exhibit egocentrism (i.e.,

unaware of the perceptions of others). Thus, they are unable to understand a situation from another person's viewpoint. For example, the preschoolers will tend to talk at all once instead of taking turns, or, when they are retelling a story, they will tend to leave out contextual information (Pressley & McCormick, 2007). Watch the Delaney video by selecting the following link or copying and pasting it into your internet

[www.bugforteachers.com/delaney.html](http://www.bugforteachers.com/delaney.html)

browser. The conversation between Delaney and her mother is a great example of egocentrism.

According to the research of Piaget, children at the preoperational stage are unable to solve conservation (i.e., changes in appearance does not equal change in quantity). One of Piaget's conservation tasks involved pouring water from a tall, slender glass into a short, wide glass. The child at the preoperational stage believes that water has been added or subtracted by pouring the water from one glass

to another (Pressley & McCormick, 2007). If the child was asked to select the glass with the most liquid, he or she would select the short, wide glass based on this child's egocentric perception.

### Concrete Operational.

Beginning at the age of 7, children at the concrete operational stage can apply cognitive operations to problems using concrete manipulatives. The learner depends on concrete manipulatives to reason. For example, children at this stage would calculate the addition problem "2 + 2" by counting two sets of two blocks because they are unable to represent the action of adding two plus two mentally. The concrete operational structures are weak and require step by step reasoning because the exchanges are based on directly related information or objects. For instance, it is possible for a child to verbally count the numbers 1 through 20 but not understand the sequencing from smallest to largest (Piaget & Inhelder, 2000). Children at the concrete operational stage moves from egocentric, where interactions revolve about them, to sociocentric, where they are able to see interactions from the perspective of the other participants.

Piaget believed that effective learning occurs in a child's everyday experiences; therefore, the school must provide opportunities for concrete, first-hand experiences and activities where children can share their beliefs and perspectives with each other (Pressley & McCormick, 2007). This discovery learning approach or constructivism allows the students to interact with their environment and "construct" their own connections with new information and prior knowledge.

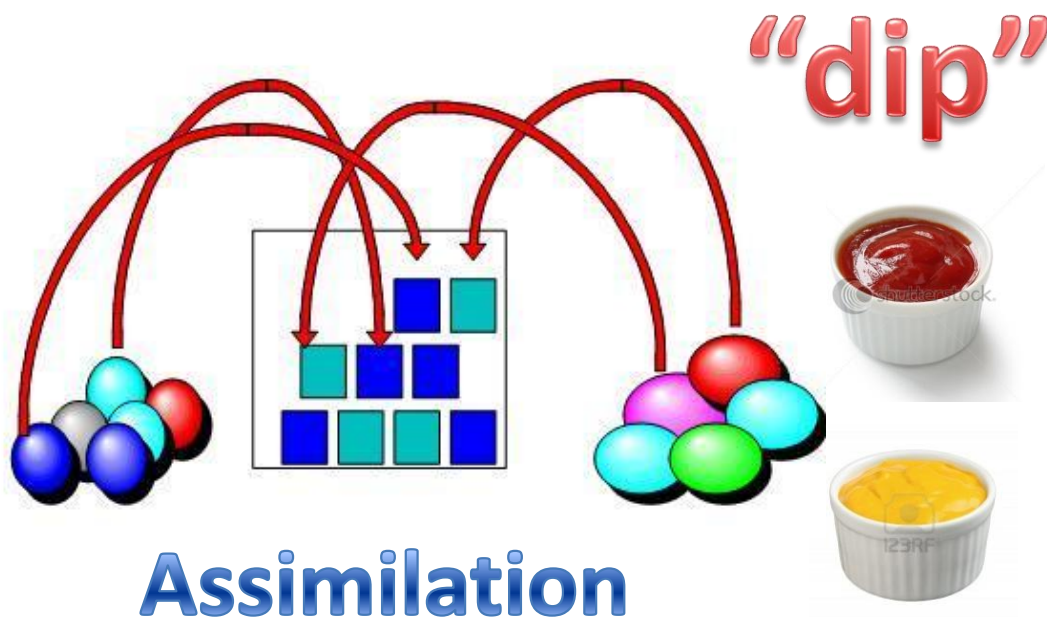
**Formal Operational.** During early adolescence, around age 11, the individual moves into the formal operational stage, where they are capable of reasoning and formulating abstract ideas, which are critical for problem solving, and are capable of thinking ahead (Pressley & McCormick, 2007). Where the individual at the concrete operational stage can seriate or sequence objects in one dimension (e.g., from smallest to largest), a child at the formal operational stage can seriate in several dimensions (e.g., color, shape, size, weight, or texture) (Piaget, 2006; Pressley & McCormick, 2007). Likewise, children at this stage can think without the use of concrete manipulatives (Pressley & McCormick, 2007), and their thinking no longer depends upon direct experiences (Saylor et al., 1981). Therefore, they can identify a problem, develop possible hypotheses, and test these hypotheses. Through this trial and error process, the child can reflect on the identified questions and anticipate the possible solutions. Thus, they have obtained abstract reasoning skills (Piaget, 2006).

### Nature of the Learning Process

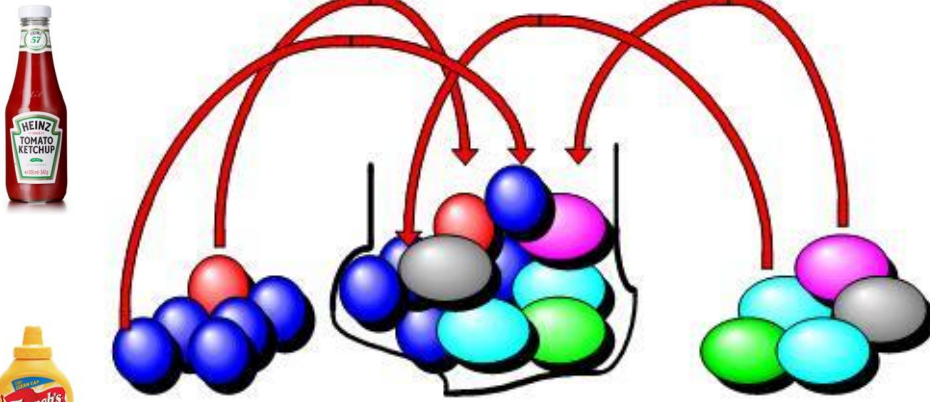
Individuals progress through the stages of cognitive development at different rates, and formal thought is

acquired during the adolescence period. However, some individuals do not reach the formal operational stage. In the classroom, according to Piaget, all thinking reflects the characteristics of the cognitive stage, and instruction should match those cognitive characteristics. An individual may reach the formal operational stage in different areas according to their aptitudes and experiences (Pressley & McCormick, 2007). Thus, readiness according to their cognitive stage becomes an important consideration for instruction (Saylor et al., 1981). For example, an art teacher would not assign a group of first grade students to create a Vincent Van Gogh type painting without prior instruction, examples, or manipulatives because their current cognitive development inhibits them from understanding abstract concept.

The way children develop schemas or storage containers as they adapt to the changing environment. New information is organized through two separate processes: assimilation and accommodation. *Assimilation* is the incorporation of environmental stimuli into existing schema. *Accommodation* is a modification of existing cognitive structures in response to environmental stimuli.







# Accommodation

For example, a young child often refers to ketchup and mustard as “dip” because the child knows the sauces are used for dipping purposes. In other words, the child is assimilating. As the child grows older, he or she will learn the specific names for the sauces (e.g., ketchup and mustard); therefore, the child has accommodated the new schema.

Piaget used the term *disequilibrium* to refer to the state where two ways of thinking contradict each other. This uncertainty, or *disequilibrium*, requires the learner to accommodate or assimilate the contradicting idea and return to the state of equilibrium or balance. At any stage of development, this process of *disequilibrium* occurs. Thus, cognitive development involves the continuous cycle of *disequilibrium* followed by equilibrium at a higher level of competence using active inquiry by the learner (Pressley & McCormick, 2007). Using this concept, the teacher should provide the learner with the opportunity to construct new knowledge and understanding from authentic experiences to promote cognitive development.

## Criticisms of the Theory

With Piaget’s developmental levels, ages, and stages are not

perfectly matched with all children at all times. Logical reasoning varies depending on the circumstances and is affected by prior knowledge, experience, education, and culture. Recent research revealed symbolic thought and object permanence for infants occur sooner than thought by Piaget. Other examples include preschoolers who are not completely egocentric and able to make inferences, elementary school students who show evidence of abstract thought and able to reason deductively, and adolescents and young adults who gradually move into the formal operations stage.

Also, some theorists propose the idea of a post-formal stage where the learner can solve the problem with multiple approaches. Since Piaget emphasized the process of learning new knowledge, the art of teaching and the interaction between the teacher and learner are not addressed. He viewed the learner as independent and motivated by experience. Lower functioning students may lack self-discipline and cognitive skills to work independently with grade level material. Following Piaget’s theory, they would fall through the cracks. Vygotsky’s theories leave room for greater diversity than Piaget. For example, Piaget thought cognitive

development was independent of language. Vygotsky thought language was critical for cognitive development. (See the next section that discusses Vygotsky’s theories.)

## Vygotsky

### Nature of the Learner

Lev Vygotsky (1896-1934) placed more significance on the impact of language and social interaction in cognitive development compared to Piaget. He recognized interdependence exists between the individual, interpersonal, and cultural-historical aspects. Vygotsky’s concept of *zone of proximal development* allows the teacher to develop instructional methods, or scaffolded instruction, to promote cognitive development. At the proximal or instructional level, the learner can perform a task with the assistance of teachers or peers at his or her developmentally-appropriate level. In Piagetian terms, the learner’s developmentally-appropriate level is the learner’s stage of cognitive development.

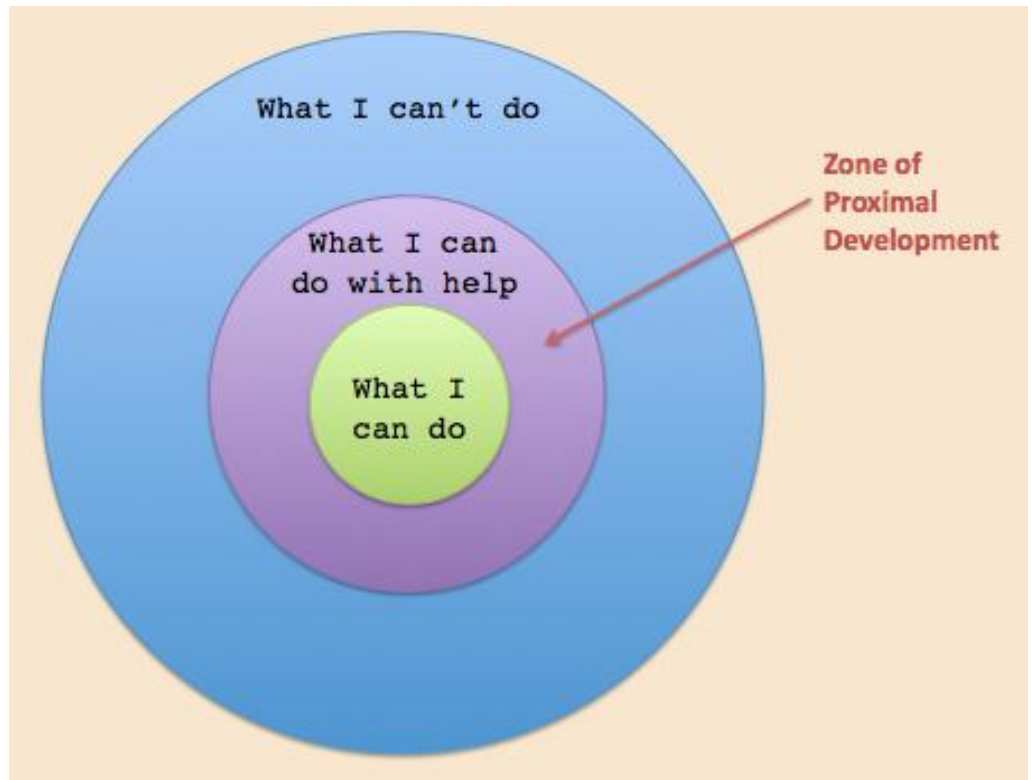
Learning through play (e.g., preschool classrooms) helps children understand language. When I worked with Early Intervention (i.e., children with special needs birth to age three), I used play therapy with my little babies. As we played with different toys, I was constantly naming objects, colors, shapes, and sounds. This dialogue could help the child to associate the object with the spoken word. A similar technique is used when the child is nonverbal. The dialogue helps the child associate wants and needs with gestures and spoken words of the caretaker. Involvement in social activities allows the learner to develop conceptual tools (i.e., interpreting, organizing, and problem solving).



## Nature of the Learning Process

See the diagram to the right that illustrates the zone of proximal development. In the center, the child's *actual level* is depicted. What can the child do independently? Often, this independent level of functioning is determined by formal or informal assessments. In the next ring, the child's *proximal level* is depicted. What can the child do with assistance from peers or adults? The tasks should be developmentally appropriate. At this instructional level, or zone of proximal development, the child can perform more challenging and difficult tasks with assistance. These challenging and difficult tasks promote maximum cognitive development.

In the outer ring, the *frustration level* is depicted. What can the child not do with or without assistance? If a child receives instruction at this level, he or she will shut down and/or become nonresponsive. For example, if a child reads on a second grade level, then the independent reading level is second grade or less, the instructional reading level is third grade, and the frustration level is fourth grade or higher. However, you must consider developmentally and age-appropriate materials. If the child is 16 years old, giving him or her a second grade



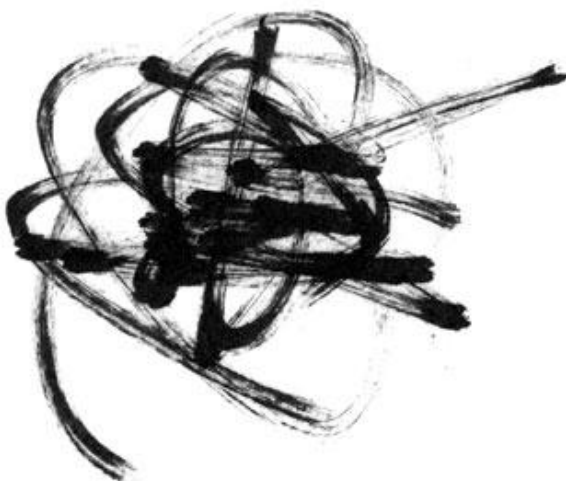
Retrieved from [innovativelearning.com](http://innovativelearning.com).

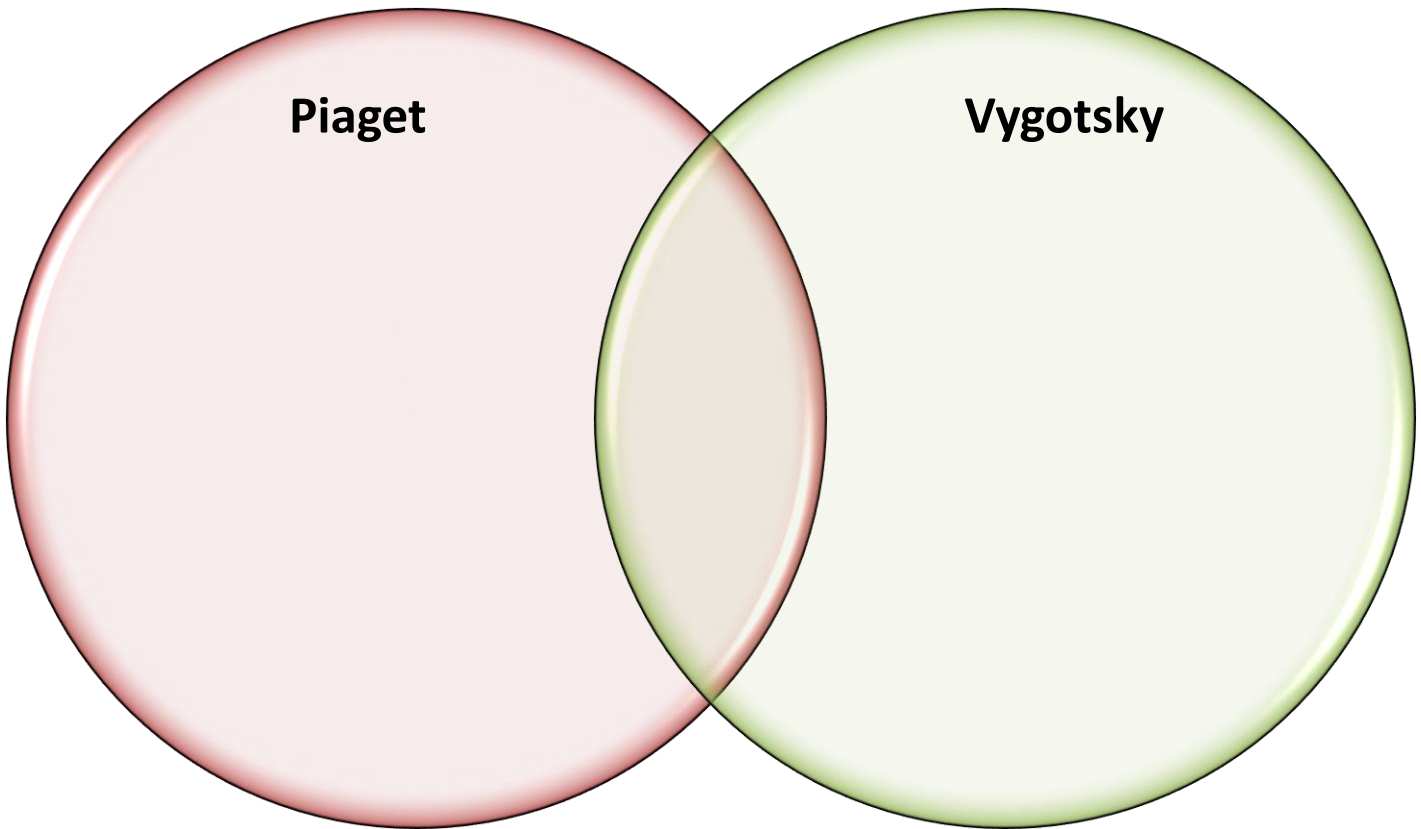
reader would insult him or her. You must be more creative when looking for age-appropriate reading materials.

To demonstrate the zone of proximal development, find a partner to serve as your "learner". Use the artwork at the bottom left by Ricky Salisbury. You are the "teacher" so you will assist the learner with recreating this artwork. The learner cannot view the artwork or ask questions of the teacher. The teacher cannot view the work in progress. The creation must result from the teacher's

verbal description only. What were the results? What were the obstacles encountered? Do the differences between the original and the recreation reflect the teacher's lack of knowledge or lack of ability?

As a second demonstration, use the Scribble lamp by Thout, which is pictured at the bottom right. You will use a similar process; however, the learner can ask questions, and the teacher can answer those questions to the best of his or her ability. Also, the teacher can monitor the progress and give corrective feedback. Were the results better? Why or why not?





### Criticisms of Theory

One of the biggest criticisms of Vygotsky's theories was the translation of "obuchenie" (i.e., teaching or learning). Vygotsky was a Russian psychologist. Many of his ideas were viewed as anti-communist so his work was not translated until many years after his death in 1934. A few published books from 1962 and the 1980's translated the term to mean "instruction"; therefore, the teacher provided instruction, and the child learned the material. *Mind in Society* (1978) translated the term to mean "learning". These translations implied an unidirectional relationship between the teacher and child. Actually, Vygotsky viewed the relationship as bidirectional. The teacher provides instruction to the child, but the teacher also learns from the

experience with the child. Vygotsky's theory emphasized the effect of interpersonal and cultural influences on development. According to Vygotsky, social interactions provide the basis for cognitive development.

### Conclusion

To conclude this chapter, use the above Venn diagram to compare and contrast the theories of Piaget and Vygotsky in your notetaking guide. You should find both unique and shared attributes for Piaget and Vygotsky.



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# Chapter 6: Information Processing Theory

## LEARNING OBJECTIVES

1. Explain how the information processing model works & illustrate its processes in a diagram.



2. Identify factors that lead to forgetting and to retaining information.



3. Describe several ways in which memory strategies can be directly taught.



**If I was sitting in your classroom, how would you teach me a new concept?** Richard

Atkinson and Richard Shiffrin (1968) first introduced the cognitive theory of learning that describes the processing, storage, and retrieval of knowledge in the mind. This theory came known as information processing theory in later

years. Basically, it is the systematic way that we learn. The learner is like a computer because he or she inputs information, saves it, and outputs the information upon request. Complete the information processing activating activity (see the link to the right) in your notetaking guide. You can select the link or copy and paste it into your internet browser.

learner's attention span and memory limitations (e.g., distributed learning, suitable time and amount of information). For example, I used various advanced organizers and mnemonics devices in the classroom. To remember the classification system in biology, I taught my students **King** (kingdom) **Prince** (phylum) **came** (class) **over** (order) **from** (family)

### Nature of the Learner

Students with mild intellectual disabilities traditionally have had difficulty with short-term memory. By learning and employing rehearsal strategies and other memory strategies, they can move information to long term memory. It is essential to motivate the learner by grabbing and maintaining his or her attention. In today's classroom, many students have difficult with short-memory. As a teacher, you should be aware of the

Print the  
notetaking guide  
on pages 262 - 264!

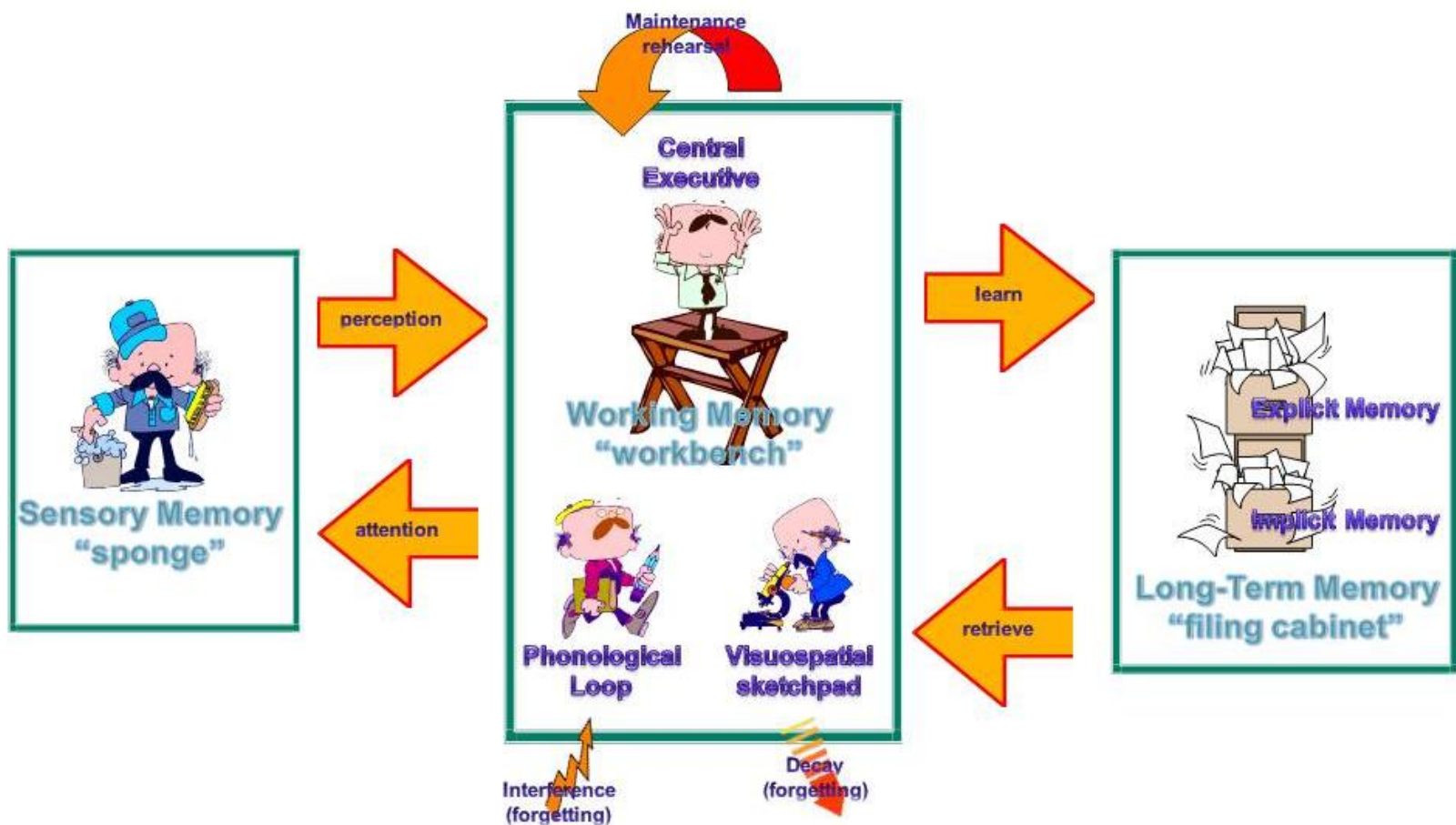


[www.bugforteachers.com/information.html](http://www.bugforteachers.com/information.html)

Information Processing  
Activating Activity

(Note: Use the play and pause buttons when directed to complete the tasks.)





**Greece** (genius) **singing** (species). To keep the students interest, I would change King Prince to students' names so they had ownership. In addition, I used advanced organizers for multiple step problems, such as calculating overtime pay and balancing a checkbook.

### Nature of the Learning Process

In the information processing model, there are three phases (pictured above): Sensory Memory, Working Memory, and Long-term Memory. First, the stimuli from the environment enters the Sensory Memory, or "sponge", where it is transformed into information. The Sensory Memory has a very large capacity, but its duration is 1 to 4 seconds. This environmental stimuli is collected through the five senses, which includes sights, sounds, tastes, smells, and feelings. There

are two roadblocks that can impede information from moving into the next phase, perception and attention. *Perception* is the process of detecting stimuli and giving it meaning. Think of a cute little kitten who might look in the mirror and see himself as a furious lion. *Attention* enables the learner to select or ignore stimuli. Both of these roadblocks are major issues in today's classroom. The presentation of material that integrates kinesthetic and tactual cues, such as handwriting or the use of visual and auditory cues, can assist with attention. For the teacher, you have to gain the students' attention with color and/or interest (e.g., sports) and maintain it throughout the learning process.

Next, if those obstacles do not hinder it, the information moves into Working Memory, or the "workbench". Working Memory is a place where currently activated

information is processed. Working memory is where the information is temporarily stored and where calculations and transformations occur. The capacity is seven plus or minus two new pieces of information based on the research of George A. Miller (hence, the seven-digit phone number). The duration of the information is 5 to 20 seconds. The contents on the "workbench" are words, images, ideas, and/or sentences. To oversee this process, the central executive supervises attention, makes plans, retrieves information, and integrates the information. There are two workers at the "workbench": Phonological Loop and Visuospatial Sketchpad. The Phonological loop is a system for rehearsing words and sounds. It focuses on the verbal information. The Visuospatial Sketchpad is a place, where images are manipulated after retrieval. It focuses on the visual information.



## SOLITUDE

(SOL uh tud) *n.*

being alone or isolated from others;  
a lonely or secluded place

Sounds like: **SOLO DUDE**



"A SOLO DUDE in SOLITUDE."

Retrieved from [www.vocabularycartoons.com](http://www.vocabularycartoons.com).

When working with information on the “workbench”, organization and rehearsal can improve the chances of information moving into the next phase because the learner gains more meaning from the information; therefore, it encodes the information into the long-term memory. Methods for improving organization are chunking, clustering, sequential (or serial), and paired association. Allowing the learner to acquire and master small chunks of information before moving onto the next small chunk or skill is a common procedure in the classroom. I told my students that “Rome was not built in a day”, but I continued to remind them about “Where the train was going?”. In pre-school, I learned the “ABC Song”. When I need to alphabetize anything, I tend to sing that song to myself. That song is an excellent example of the sequential method. Paired associations have been used for many years in special education. Using paired association instruction allows students to store and retrieve information effectively. For example, as you learned in

pre-school, “A is for apple”. Methods for rehearsal these methods include distributed practice, massed practice, and enactment.

The primary issue at the “workbench” is forgetting. Two reasons why a learner might forget information are interference and decay. *Interference* is distractions, such as intercoms or students leaving class. *Decay* is the lack of rehearsal over time, such as the “use it or lose it” expression. For the teacher, you have to use advance (or graphic) organizers to increase organization of the information and be cautious of the amount of instructional time and the amount of information (e.g., Pre-K = 3.5 pieces and 4th grade = 5.5 pieces). As you move through the school year, you should use frequent distributed practice so the students can retrieve and utilize previously learned content. Classroom management (see Chapter 10), including policies and procedures, is key to reducing the amount of distractions within the classroom.

Lastly, if the information processing is not impeded, the final

phase is Long-term Memory, or “filing cabinet”, where the information is stored permanently. The capacity and duration are practically unlimited. The contents include propositional networks, schemata, productions, episodes, and images. Within Long-term Memory, there are two types of memory, explicit and implicit. *Explicit memory* is the conscious recall of general knowledge or episodes. *Implicit memory* is the unconscious recall, such as classical conditioning (e.g., the smell of your favorite food when you enter a restaurant) and procedural memory (e.g., how to ride a bicycle). Proper encoding of information results in it being accurately and quickly retrieved from the Long-term Memory for use at the “workbench”. For example, rote memorization has little meaning to the learner. It is retrieved less easily and less frequently compared to information that has meaning and is understood.

Elaboration is a method of recalling stored information to the Working Memory. Examples of elaboration are imaging (keyword), loci method, pegword, rhyming, and initial letter. For the keyword method, first, select a word that is familiar to the learner, sounds like the new word, and easily pictured. Second, create a picture or imagine with the new word and keyword. See the above vocabulary cartoon for the word “solitude”. Often, I used this book and technique in the classroom. Another idea is to use the first letter and make silly phrase, sentence, or rhyme (e.g., FOOTBALL at the beginning of this chapter or the two examples on the next page).

For the teacher, mnemonic devices or silly songs during instructional periods can be useful

## What are the freedoms guaranteed by the First Amendment to the Constitution?

**RAPS (Religion, Assembly, Press, and Speech)**

## What are the notes on the treble line staff?

**Every Good Boy Deserves Fudge**

and could assist with effective information processing methods (e.g., the Quadratic Formula Song or the Circle Angle Formula Song). It allows the students to incorporate prior knowledge with new content. While in the classroom, I tried to create memorable learning experiences for my students. I wanted my students to remember the words to the formula songs or the day when we rolled the ball up the hill and created the gravity parabola when they sat down to take the standardized test.

### Advantages and Disadvantages

Information in context has meaning for the learner, easily understood, easily retrieved, and successfully moves to long term memory. If information is not in context, rote memorization occurs with the less meaningful information, and information is not easily retrieved or successfully stored in long-term memory. In special education, the instructional approach is often rote

memorization of multiplication facts, sight words, and subject-specific jargon with the notion of “playing catch-up”. This drill and practice approach was thought to be the most effective (i.e., evidence based) for older students with mental retardation because they were incapable of high-order thinking skills (i.e., Piaget’s concrete operational versus formal operational stages). Recent research has proven otherwise.

Research suggests that high-achieving students tend to self-regulate more automatically than low-achieving students. Providing the instruction to low-achieving students to promote their self-regulation, such as requiring them to use specific rehearsal strategy (e.g., graphic organizers or cognitive strategies to follow various steps), can cause confusion for the high-achieving student. The explicit instruction of rehearsal strategies often conflicts with their higher order thinking.

### Conclusion

Rehearsal strategies and organized input encourage the easy retrieval of information. For many students, they must be taught when and how to use those strategies and



practice them frequently. At the end of this chapter, I included three role play activities for you to review. As you review them, determine which phases of the Information Processing Theory would apply to the various components of the presented activity. My thoughts follow the activities. For my future science teachers, I included a “Cell Play”. It is an excellent way to teach how organelles within a cell create protein. Lastly, there is a comparison chart for the three theories that have been discussed in this unit. It can assist you with comparing and contrasting the theories. In addition, there is a link at the bottom of this page for an interactive game to review the three learning theories. You can select the link or copy and paste it into your internet browser. The software that I used to create this interactive game is available free of charge to educators from [www.contentgenerator.net](http://www.contentgenerator.net).

### References

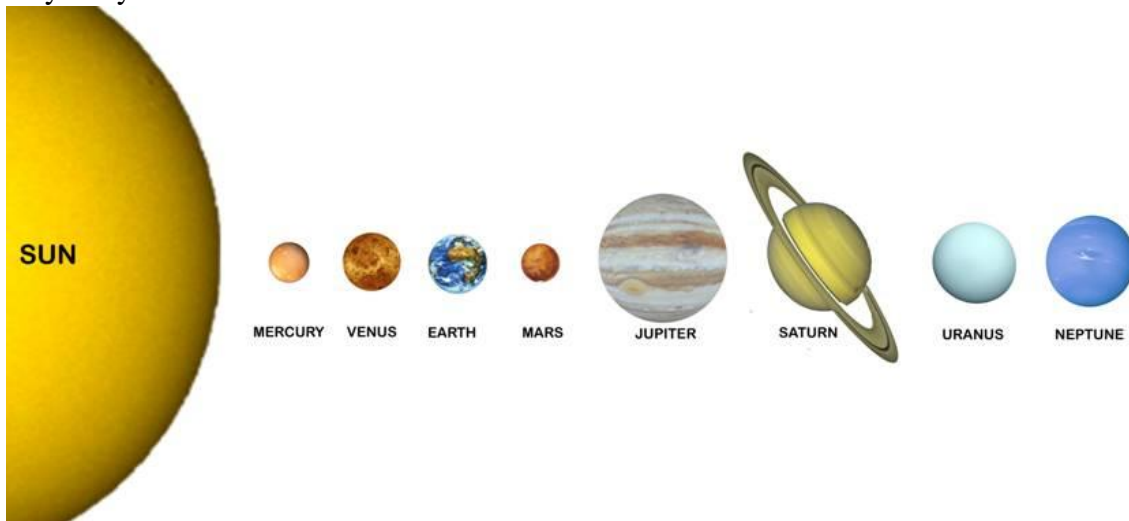
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[www.bugforteachers.com/learningtheories.html](http://www.bugforteachers.com/learningtheories.html)

## INFORMATION PROCESSING ROLE PLAY #1

Miss Sally Sue takes her second grade class to the library. The class has been studying the solar system, and Miss Sally Sue wants to use the library time to focus on the planets of the solar system. *Need 9 students (Sun and 8 planets) along with Miss Sally Sue. I would make name tags with pictures to denote each student's role.*

- Group the inner and outer planets (chunking).
- Demonstrate the motion of the solar system using students.  
Movement in terms of Earth revolution:  
Mercury – 4 complete revolutions (50 steps = 1 revolution); Venus – 80 steps; Earth – 50 steps; Mars – 25 steps; Jupiter – 9 steps; Saturn – 1.5 steps; Uranus – 0.5 steps; Neptune – 0.25 steps.
- Use cues to signal when you are ready to begin.
- Use sentence to remember the order of the planets:  
“My Very Educated Mother Just Served Us Nachos”



## INFORMATION PROCESSING ROLE PLAY #2

Miss Martha Sue's first -grade class is practicing how to round one-digit numbers to the nearest ten in the math learning center. She makes a graphic organizer poster that listed the two rules for rounding to the nearest ten.

1. Use a number line.
2. Give a worksheet with manipulatives (e.g., cups that will not hold more than 4 bean bags).
3. Use a rhyme.

**"Five or more,  
Raise the score;  
Four or less,  
Give it a rest."**

- Move around the room to monitor students.
- Use real world situation.
- Review previous lesson about rounding.

### INFORMATION PROCESSING ROLE PLAY #3

Mr. Billy Bob's third-grade class is studying the water cycle. He uses a Reader's Theatre to teach the parts of the water cycle. *Cast: 7 Water Drops, the Sun\*, and a Little Kid. I would make name tags with pictures to denote each student's role.*

\*Sun (teacher or student) needs to change the volume and pitch of its voice.

Water Drop 1: Here we are hanging around in this puddle.

Water Drop 2: Yeah, this is the life!

Water Drop 3: Hey! Look behind that cloud! Guess who??

Drops 1,2,3 : It's the sun! Yay! Evaporation!!!

**Sun: Hey guys!! I told you I would see you again soon! What have you been doing?**

Water Drop 1: I've been in the ocean! I saw a lot of fish!

Water Drop 2: I've been hanging around on Dr. Pepper and tea glasses. Yummy!

Water Drop 3: I helped water some flowers! They sure smelled pretty!

**Sun: It sounds like you were busy! Well, you are up here now, I have done my job, I will see you later.**

Water Drop 1: I wonder who else will show up?

Water Drop 2: It is a little bit cold. I should have brought my jacket!

Water Drop 3: Here are the others! Hi Guys!!

Water Drops 4, 5 ,6, 7 : Hi! How are you?

Water Drop 4: I haven't seen you guys in a long time!!

Water Drop 5: I just got off of a surf board!

Water Drop 6: Really? I just came from a dog's bath. He shook me into the air!

Water Drop 7: It is really getting cold up here! Gather around guys. We need to condense!

All the Water Drops: BRRRRRRRRRRR! I am Freezing! A-CHOOOOO!

Water Drops 4 and 5: It is getting crowded. OOPS!

Water Drop 6: Ah, my favorite part: Precipitation!

Water Drop 7: Yeah, and my favorite kind, snow!

Little Kid: Yay!! It snowed last night!! I'm going to build a snowman!

Water Drop 3: Tee Hee! That tickles!

Water Drop 5: I'm getting smushed here!

Little Kid: Wow! My snowman looks great! I'm going to go eat lunch.

**Sun: Well, that was a nice nap, but now I have to do my work. Guess I had better thaw out those little guys.**

All the Water Drops: We're Melting! We're Melting!

Water Drop 1: Hey guys, we all ended up in the puddle together!

Water Drop 2: And look who is up in the sky!

Water Drop 3: The SUN! Here we go again!!



Possible Answers for Information Processing Role Play Activities

Scenario	Sensory Memory	Working Memory	Long-Term Memory
1 (solar system)	Gained attention – movement & cued the students Senses – see colors & shapes INTEREST Prior knowledge	Chunking - Grouping the planets by color. Serial learning – grouping planets by size Enactment	Initial letter – acronym sentence Review previous information Episodic memory
2 (math learning center)	Attention – movement around the room (proximity control) Prior knowledge	Graphic organizer with steps Different presentation methods	Rounding rhyme Review previous information Real world context (elaboration)
3 (water cycle)	Gained attention – change in voice tone & movement & cued with “name tags” Senses – felt objects & see shiny & hear and say the words INTEREST	Serial learning – sequence of events Enactment	Real world context (elaboration) Episodic

Other possible additions to the lesson(s):

- Informal drill and practice (working memory)
- Discuss the similarities and differences between the planets (long-term memory: elaboration)
- Keyword method for large vocabulary words (e.g., evaporation) (long-term memory)
- Could we have used paired associations with these scenarios? (working memory)

(Bell, J. L., 2008)

# The Cell Play

by Christina Hilton ([Chilton@gcsc.k12.in.us](mailto:Chilton@gcsc.k12.in.us)) Maxwell Middle School, Maxwell, IN

Concepts Taught: How the organelles work together to create a protein.

## Directions:

1. Assign organelles to the students:
  - nucleus
  - nucleolus
  - rough er
  - smooth er
  - (3) golgi apparatus
  - lysosome
  - (2) vacuole
  - (2) mitochondria
  - (2) cytoskeleton
  - (2) ribosomes
2. Distribute trash bags (membranes):
  - nucleus 2 (because nucleus has a double membrane)
  - mitochondria 1 each
  - nucleolus 1
  - rough er 1
  - smooth er 1
  - golgi apparatus 1 each
  - vacuole 1 each
  - lysosome 1
3. Paperclip or tape organelle name tags to trash bags or student's clothing.
4. Read over the script with the class. Explain to the students that for the play the nucleus will speak, but it actually directs the cell functions by sending out chemical messages.

## Script

NUCLEUS: "MITOCHONDRION MAKE ENERGY" (*Mitochondrion make energy by either writing the word energy on a piece of paper. Have each mitochondria make three.*)

NUCLEUS: "CYTOSKELETON TAKE AN ENERGY UNIT TO EACH OF THE FOLLOWING: NUCLEUS, NUCLEOLUS, ROUGH ER, SMOOTH ER, GOLGI APPARATUS, AND LYSOSOME" (*Cytoskeleton picks up the energy units and delivers them to the intended organelles.*)

NUCLEUS: "NUCLEOLUS MAKE A RIBOSOME (ATTACHED)" (*Nucleolus puts a name tag that says ribosome on one of the students, then one cytoplasm student takes the ribosome and stands him/her right next to the rough er.*)

NUCLEUS: "MITOCHONDRION GIVE THE NUCLEOLUS ANOTHER ENERGY UNIT" (*Cytoskeleton picks up the energy units and delivers them to the nucleolus.*)

NUCLEUS: "NUCLEOLUS MAKE ANOTHER RIBOSOME (UNATTACHED)" (*Nucleolus puts a name tag that says ribosome on the other student that was assigned to be a ribosome, then one cytoplasm student takes the ribosome to another part of the cell.*)

NUCLEUS: "MITOCHONDRION GIVE EACH RIBOSOME AN ENERGY UNIT" (*Cytoskeleton picks up the energy units and delivers them to the ribosome.*)

NUCLEUS: "RIBOSOMES MAKE A PROTEIN" (*Ribosomes make a protein by writing the word protein on a piece of paper.*)

NUCLEUS: "CYTOSKELETON SEND PROTEIN FROM ATTACHED RIBOSOME TO SMOOTH ER AND SEND PROTEIN FORM UNATTACHED TO AN ORGANELLE" (*One cytoskeleton student takes the protein from the attached ribosome to the smooth er, and the second cytoskeleton takes the protein to any organelle.*)

NUCLEUS: "SMOOTH ER PACKAGE THE PROTEIN AND SHIP IT TO THE GOLGI APPARATUS" (*Smooth er tears off part of trash bag [membrane] and wraps it around the protein. Then, the cytoplasm delivers the packaged protein to the first student in the golgi apparatus line.*)

NUCLEUS: "GOLGI APPARATUS ALTER THE PROTEIN TO ITS NEEDED FINAL FORM, REPACKAGE IT AND SEND IT OUT OF THE CELL" (*First person unwraps the protein then hands it to the second person. The second person then alters it by folding the protein paper. Next, the second person hands it to the third person who tears off part of his/her trash bag and wraps the plastic around the protein. Finally, the wrapped protein is handed to the cytoplasm who takes the packaged protein and sets it outside the cell [through the classroom door].*)

NUCLEUS: "LYSOSOME COLLECT AND RECYCLE OLD AND DYING PARTS" (*Lysosome collects and recycles old and dying parts. [Before the activity begins, mark the name tags in some manner so that the lysosome knows who to recycle.] The lysosome finds the organelle that has been marked, tears off his/her trash bag, and shoves the removed trash bag inside his/her own trash bag.*)

\*\*Repeat script if time permits with different students.

Retrieved from <http://teachers.net/lessons/posts/2118.html>

## Review of Unit II Learning Theories

Perspective	Behavioral	Cognitive	Information Processing
<b>Background</b>	<p>Early 20<sup>th</sup> century</p> <p>B.F. Skinner – his ideas on Operant Conditioning largely contributed this perspective.</p> <p>Developed as a reaction to the study of mental phenomena.</p>	<p>Later 20<sup>th</sup> century (although ideas of constructivism have existed prior to the 20<sup>th</sup> century - Dewey, Piaget, Bruner, and Vygotsky)</p> <p>Represents a collection of theories including - generative learning, discovery learning, and situated learning..</p> <p>Ideas of constructivism come from cognitive psychology, developmental psychology, and anthropology.</p>	<p>Mid 20<sup>th</sup> century</p> <p>George Miller – provided two ideas that are fundamental to this perspective:</p> <p>Short-term memory can only hold 5-9 chunks of meaningful information.</p> <p>The human mind functions like a computer – taking in information, processes it, stores and locates it and generates responses to it.</p> <p>Developed as a reaction to behaviorism.</p>
<b>Definition</b>	<p>Learning occurs when new behaviors or changes in behaviors are acquired as the result of an individual's response to stimuli.</p>	<p>Learning is the process where individuals construct new ideas or concepts based on prior knowledge and/or experience.</p>	<p>Learning is a change in knowledge stored in memory.</p>
<b>Principles</b>	<p>The influence of the external environment contributes to the shaping of the individual's behavior.</p> <p>The environment presents an antecedent that prompts a behavior.</p> <p>Whether the behavior occurs again is dependent on the consequence that follows it.</p>	<p>Individuals construct knowledge by working to solve realistic problems, usually in collaboration with others.</p> <p>Learning as a change in meaning constructed from experience.</p> <p>Individual interpretation of experience vs. objective representation (information processing perspective)</p>	<p>Governed by internal process rather than by external circumstance (behaviorism).</p> <p>Process of selecting information (Attention), translating information (Encoding), and recalling that information when appropriate (Retrieval).</p>
<b>Applications for Instruction</b>	<ol style="list-style-type: none"> <li>1. State objectives and break them down into steps</li> <li>2. Provide hints or cues that guide students to desired behavior.</li> <li>3. Use consequences to reinforce the desired behavior.</li> </ol>	<ol style="list-style-type: none"> <li>1. Pose "good" problems - realistically complex and personally meaningful.</li> <li>2. Create group learning activities.</li> <li>3. Model and guide the knowledge construction process.</li> </ol>	<ol style="list-style-type: none"> <li>1. Organize new information.</li> <li>2. Link new information to existing knowledge.</li> <li>3. Use techniques to guide and support students' Attention, Encoding, and Retrieval process.</li> </ol>

Retrieved from <http://www.my-ecoach.com/idtimeline/learningtheory.html>



# Unit III



## Effective Teaching Tools



## LEARNING OBJECTIVES



1. Use backward design to develop a unit of study.



2. Write an instructional objective using Bloom's Taxonomy.

**Why do we need to plan?** There are various answers to this question: (1) to link instruction and assessment; (2) to guide the instructional pace; (3) to ensure that the students have mastered the established curriculum (Slavin, 2006). As a classroom teacher, I wanted to know where the train was heading. In this chapter, we will discuss how to write a unit plan using backward planning, how to write specific instructional objectives, and how to utilize Bloom's Taxonomy.

### Unit Planning

A *unit plan* is a long range plan for outlining a particular concept or skill. There are many ways to plan a unit. You may find that your school system uses a designated template. Here is a concept plan for a circles and

volume unit that I created for Analytic Geometry (10th grade) course. Among all of the methods, I have found that backward design is the best way to develop a unit plan. Backward design involves setting long-range goals first, setting objectives second, and planning daily lessons and activities last (Slavin, 2006).

There are three basic stages for backward design:

1. Identify desired results.
2. Determine acceptable evidence.
3. Plan learning experiences and instruction.

**1. Identify desired results.** In Georgia and other states, this desired result derives from the Common Core Standards. Once you select the standard, then you should ask yourself, "What concepts do these students need to understand regarding this

standard?" (McTighe, 2004). For example, in the concept map for the circles and volume unit on the next page, the "big idea" is stated at the top left corner. *The students will understand and apply theorems about circles, find arc length and area of sectors of circles, and explain volume formulas and use them to solve problems.* The majority of this unit corresponds with the Common Core Georgia Performance Standards (CCGPS) for circles. See the following standards for circles.

- **MCC9-12.G.C.1** Prove that all circles are similar.
- **MCC9-12.G.C.2** Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.
- **MCC9-12.G.C.3** Construct the inscribed and circumscribed circles

Print the notetaking guide on pages 265 - 267!



# CCGPS Analytic Geometry Content Map

Name: J. Brown Unit: 3 (Circles and Volume) Date Range of Unit: \_\_\_\_\_

<p><b>Big Idea or Unit:</b> The students will understand and apply theorems about circles, find arc length and area of sectors of circles, and explain volume formulas and use them to solve problems.</p>		<p><b>Unit Essential Question:</b> How do you apply the relationships among circles, lines, segments, and the angles that they form?</p>	
<p><b>Concept:</b> Properties of Circles MCC9-12.G.C.1, MCC9 12.G.C.2</p>	<p><b>Concept:</b> Arcs and Sector MCC9-12.G.C.5</p>	<p><b>Concept:</b> Angle Relationships MCC9-12.G.C.2, MCC9-12.G.C.3, MCC9-12.G.C.4</p>	<p><b>Concept:</b> Volume MCC9-12.G.GMD.1, MCC9-12.G.GMD.2, MCC9-12.G.GMD.3</p>
<p><b>Lesson Essential Question(s):</b></p> <ul style="list-style-type: none"> <li>• What are the segments and lines related to a circle?</li> <li>• How are all circles similar?</li> </ul>	<p><b>Lesson Essential Question(s):</b></p> <ul style="list-style-type: none"> <li>• What is the difference between arc measure and arc length?</li> <li>• How is the length of a circular arc calculated?</li> <li>• How is the area of a sector calculated?</li> <li>• How are these properties related to triangle similarity?</li> <li>• What is a radian measure?</li> <li>• How do you use radian measures?</li> </ul>	<p><b>Lesson Essential Question(s):</b></p> <ul style="list-style-type: none"> <li>• What are the properties of inscribed angles?</li> <li>• How are these properties used to solve problems?</li> <li>• How are the angles formed by tangents, secants, and chords to solve problems?</li> <li>• How do you construct inscribed and circumscribed circles of a triangle?</li> <li>• How are the properties of a tangent to a circle used?</li> <li>• How do you construct a tangent line from a point outside a given circle to the circle?</li> </ul>	<p><b>Lesson Essential Question(s):</b></p> <ul style="list-style-type: none"> <li>• How is the volume of a sphere calculated and applied?</li> <li>• How is the volume of a cylinder calculated and applied?</li> <li>• How is the volume of a pyramid calculated and applied?</li> <li>• How is the volume of a cone calculated and applied?</li> <li>• What is the relationship between circumference of a circle, area of a circle, and volume of a cylinder, pyramid, and cone?</li> </ul>
<p><b>Vocabulary:</b></p> <p>center circle chord diameter</p>		<p><b>Vocabulary:</b></p> <p>circumscribed circle inscribed angle inscribed circle inscribed polygon intercepted arc</p>	
<p><b>Vocabulary:</b></p> <p>point of tangency radius secant line secant segment tangent line</p>		<p><b>Vocabulary:</b></p> <p>cone cylinder pyramid sphere volume</p>	



of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.

- **MCC9-12.G.C.4** Construct a tangent line from a point outside a given circle to the circle.
- **MCC9-12.G.C.5** Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector (Georgia Department of Education, 2011).

As you can see, the big idea was taken directly from the performance standards. After writing the big unit, the unit's essential question was written. Essential questions, which began with Max Thompson and the Learning Focused movement in early 2000 (Reeves, 2000; Thompson & Thompson, 2009), have become common place in educational jargon. The purpose of essential questions is to guide the focus of the instruction. In the concept map for the circles and volume unit, the unit's essential question is listed at

the top right corner. *How do you apply the relationships among circles, lines, segments, and the angles that they form?* Again, this essential question derives from the performance standards. Essential questions should provoke inquiry and transfer of learning.

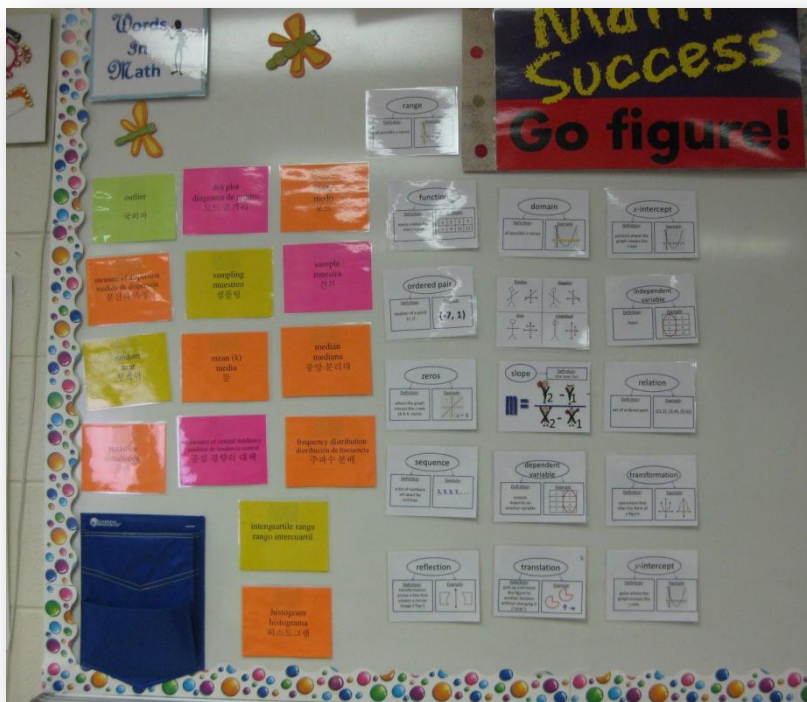
**2. Determine acceptable evidence.** After developing the big idea and unit essential question, I ask myself, "How will we know if students have achieved the desired results and met the content standards?" (McTighe, 2004). In these days of standardized testing, the ultimate outcome of most coursework is to pass the standardized test (e.g., Criterion-Referenced Competency Test [CRCT] or End of Course Test [EOCT]). In the classroom, I would write the unit test, create a performance task, or develop some type of culminating activity to measure the amount of student knowledge gained during the unit. In addition, the teacher, department, and/or school must decide on the acceptable level of performance, which usually means 70% accuracy. This level may vary depending on the grade level and district.

**3. Plan learning experiences and instruction.** After writing the unit test, I could outline the concepts of the unit with lesson essential questions by asking myself, "What concepts need to be taught?" and "What sequence of activity best suits the desired results?" (McTighe, 2004). You must always plan with the end (i.e., desired results) in mind. In the circles and volume unit's concept map, I listed the concepts as *Properties of Circles, Arcs and Sectors, Angle Relationships, and Volume*. Under each concept, the specific standard, lesson essential questions, and key vocabulary terms are listed. For example, under Properties of Circles, I listed *What are the segments and lines related to a circle?* and *How are all circles similar?* as the lesson essential questions that correspond with that concept. Under Angle Relationships, I listed the following vocabulary words:

- circumscribed circle*
- inscribed angle*
- inscribed circle*
- inscribed polygon*
- intercepted arc*

For a student to be successful with the concept of Angle Relationships, then they need to be familiar with these key vocabulary words. Vocabulary is essential in all disciplines – not just English class. See my "Words In Math".

On the following two pages, there is an example unit plan that I have written to illustrate another concept using different format since the unit plan format will vary by district. The template will be posted in CougarView. In the unit overview, I provided synopsis of what the students will learn in this unit. Next, I listed the unit's essential question: *What are the similarities and differences among the varying points of view about the Indian Removal Act?* Both of these items correspond with the national standards listed. Then, I listed the unit



The "Words In Math" wall from my high school classroom that displayed my unit vocabulary.



<p><b>Unit Title:</b> Indian Removal Act</p>	<p><b>Name:</b> Dr. Jennifer L. Brown <b>School:</b> Anywhere High School</p>
<p><b>Standards:</b> National Standards: 1b, 2e, 5a, 6a, 6c, 6f, 6j, 9a, 10c; National Educational Technology Standards: 2, 4, 7, 8</p>	<p><b>Grade Level:</b> Middle School (6 – 8) or High School (9-12)</p>
<p><b>Original Lesson Submitted by:</b> University of Houston (Texas) (<a href="http://www.digitalhistory.uh.edu/historyonline/lesson_pl.cfm">http://www.digitalhistory.uh.edu/historyonline/lesson_pl.cfm</a>)</p>	<p><b>Content Area:</b> Social Studies (includes English, Graphic Arts, and Journalism) <b>Timeline/Length:</b> 5 to 6 days depending on instruction time available</p>
<p><b>Unit Overview:</b> Beginning at the turn of the 19<sup>th</sup> century, a growing nation wanted to expand, which was a belief summarized in the phrase - Manifest Destiny. As the nation expanded into the lower southern states, the land-hungry white settlers encountered the Cherokee, Creek, Choctaw, Chickasaw, and Seminole Indian nations, who were referred to as the “Five Civilized Tribes”. The Indian Removal Act was signed into law by President Andrew Jackson, who was a notable Indian fighter, in 1830. The legislation exchanged all of the unsettled land east of the Mississippi River for the unsettled land west of the Mississippi River. Some Indian tribes moved; other resisted the move - most notably, the Cherokee Indians of Georgia. Typically, students learn about the Indian Removal Act from the white man’s point of view. This lesson allows them to investigate the event from the various stakeholders’ points of views. In addition to the various viewpoints, the lesson differentiates by ability (different levels of Bloom’s taxonomy), interest (choice board and dinner menu), and socioeconomic status (researching content and creating the newspaper).</p>	
<p><b>Essential Question:</b> What are the similarities and differences among the varying points of view about the Indian Removal Act?</p>	

<p><b>Unit Objectives:</b></p> <p>At the end of this unit, the students will be able to:</p> <ul style="list-style-type: none"> <li>• Describe the Five Civilized Tribes.</li> <li>• List the components of the Indian Removal Act.</li> <li>• Describe the role of Andrew Jackson in the removal of Indians from the southeast.</li> <li>• Compare and contrast the Cherokee Nation with other Native Americans.</li> <li>• Explain the US Supreme Court rulings in Cherokee Nation v. Georgia (1831) and Worcester v. Georgia (1832).</li> <li>• State the impact of the Tragic Trial of Tears on the Cherokee Nation.</li> </ul>	<p><b>Key Concepts:</b></p> <ul style="list-style-type: none"> <li>• Indian Removal Act of 1830</li> <li>• Andrew Jackson’s point of view</li> <li>• Five Civilized Tribes’ point of view</li> <li>• Other points of view</li> <li>• Cherokee Nation</li> <li>• Tragic Trail of Tears</li> <li>• Impact of the Indian Removal</li> </ul>	<p><b>Vocabulary:</b></p> <ul style="list-style-type: none"> <li>• Manifest Destiny</li> <li>• Cherokee</li> <li>• Creek</li> <li>• Choctaw</li> <li>• Chickasaw</li> <li>• Seminole</li> <li>• Indian Removal Act</li> </ul>
<p><b>Culminating Activity:</b></p> <p>Each group of students will create and publish a newspaper from the historical period based on their research about the Indian Removal Act and/or the Tragic Trail of Tears. Assignment will be evaluated using the “Creating and Publishing a Newspaper Rubric”.</p>		



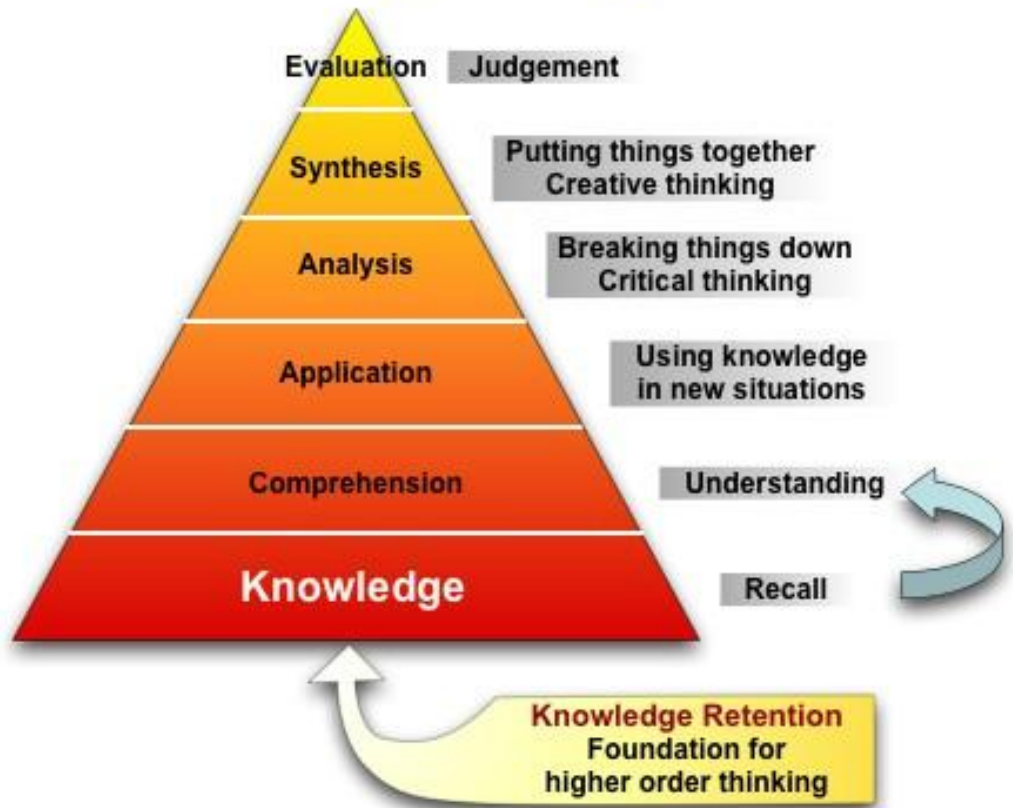
objectives, which will be the daily lesson practice objectives, key concepts, and vocabulary. This order is presented differently compared to the circles and volume unit format with the daily lesson essential questions. Lastly, I listed the culminating activity that the students will use to answer the unit's essential question and the teacher would use to assess the knowledge gained by the students during the unit's instruction. Notice, this activity required the students to use the cumulative knowledge gained from the unit instead of the knowledge gained from one or two daily lessons.

### Lesson Planning

Lesson planning involves the short-term planning with instructional objectives. You might ask yourself, "What is the difference between unit objectives and instructional objectives?" Unit objectives are expected outcomes from long-term unit instruction; however, instructional objectives are specific learning outcomes that use clear, measurable verbs (Slavin, 2006). An instructional objective is a statement of skills or concepts that students should master after a given period of instruction. There are three parts of an instructional objective: performance (or behavior) (i.e., What should the student be able to do?), conditions (i.e., Under what conditions do you want the student to perform the behavior?), and criterion (or degree) (i.e., How well must the behavior be performed?).

For instance, you want the student to calculate five multiplication problems. This task is the designated behavior that you want the student to perform. Examples of the possible conditions include giving the student flashcards, timed test, or practice worksheet. For the criterion, you want to decide the percent of accuracy

## Bloom's Taxonomy for Thinking



Retrieved from [activelearning.uta.edu](http://activelearning.uta.edu).

desired. You could choose 60% (3 out of 5), 80% (4 out of 5), or 100% (5 out of 5). Instructional objectives should be closely linked to the assessment or criterion to ensure effective lesson planning (Slavin, 2006). To put the parts together:

**Given five flashcards, the student will calculate five multiplication problems with 80% accuracy.**

Another important component of instructional objectives is the wording. The objective must use specific and clear wording containing measurable verbs. For example, words, such as know, understand, appreciate, and grasp, are not measurable or observable. Words, such as identify, list, write, sort, and solve, are observable and open to fewer interpretations (Slavin, 2006).

When writing instructional objectives, it is important to adjust the cognitive level. Bloom's Taxonomy, created by Benjamin Bloom in 1956, organizes verbs into levels from the simplest to more complex. As a teacher, you need to develop higher order thinking skills by using the more complex levels within the taxonomy. Bloom's Taxonomy consists of knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, 1956; Slavin, 2006). The following handout from the Office of Professional Development at Indiana University-Purdue University Indianapolis can familiarize you with Bloom's Revised Taxonomy.





Office for Professional Development  
Indiana University-Purdue University Indianapolis

## Bloom's Taxonomy "Revised" Key Words, Model Questions, & Instructional Strategies

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*Bloom's Taxonomy (1956) has stood the test of time. Recently Anderson & Krathwohl (2001) have proposed some minor changes to include the renaming and reordering of the taxonomy. This reference reflects those recommended changes.*

### I. REMEMBER (KNOWLEDGE) (shallow processing: factual recall and recognition)

#### Verbs for Objectives

choose  
describe  
define  
identify  
label  
list locate  
match  
memorize  
name  
omit  
recite  
recognize  
select  
state

#### Model Questions

Who?  
Where?  
Which One?  
What?  
How?  
What is the best one?  
Why?  
How much?  
When?  
What does It mean?

#### Instructional Strategies

Highlighting  
Rehearsal  
Memorizing  
Mnemonics

---

### II. UNDERSTAND (COMPREHENSION) (translating, interpreting and extrapolating)

#### Verbs for Objectives

classify  
defend  
demonstrate  
distinguish  
explain  
express  
extend  
give example  
illustrate  
indicate  
interrelate  
interpret  
infer  
judge  
match  
paraphrase  
represent  
restate  
rewrite  
select  
show  
summarize  
tell  
translate

#### Model Questions

State in your own words.  
Which are facts?  
What does this mean?  
Is this the same as. . . ?  
Give an example.  
Select the best definition.  
Condense this paragraph.  
What would happen if . . . ?  
State in one word . . .  
Explain what is happening.  
What part doesn't fit?  
Explain what is meant.  
What expectations are there?  
Read the graph (table).  
What are they saying?  
This represents. . .  
What seems to be . . . ?  
Is it valid that . . . ?  
What seems likely?  
Show in a graph, table  
Which statements support . . . ?  
What restrictions would you add?

#### Instructional Strategies

Key examples  
Emphasize connections  
Elaborate concepts  
Summarize  
Paraphrase  
STUDENTS explain  
STUDENTS state the rule  
"Why does this example. . . ?"  
create visual representations  
(concept maps, outlines, flow  
charts organizers, analogies,  
pro/con grids)  
Metaphors, rubrics, heuristics

---



### III. APPLY

(Knowing when to apply; why to apply; and recognizing patterns of transfer to situations that are new, unfamiliar or have a new slant for students)

#### Verbs for Objectives

apply  
choose  
dramatize  
explain  
generalize  
judge  
organize  
paint  
prepare  
produce  
select  
show  
sketch  
solve  
use

#### Model Questions

Predict what would happen if  
Choose the best statements that apply  
Judge the effects  
What would result  
Tell what would happen  
Tell how, when, where, why  
Tell how much change there would be  
Identify the results of

#### Instructional Strategies

Modeling  
Cognitive apprenticeships  
“Mindful” practice – NOT just a “routine” practice  
Part and whole sequencing  
Authentic situations  
“Coached” practice  
Case studies  
Simulations  
Algorithms

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### IV. ANALYZE (breaking down into parts, forms)

#### Verbs for Objectives

analyze  
categorize  
classify  
compare  
differentiate  
distinguish  
identify  
infer point  
out select  
subdivide  
survey

#### Model Questions

What is the function of . . . ?  
What's fact? Opinion?  
What assumptions. . . ?  
What statement is relevant?  
What motive is there?  
Related to, extraneous to, not applicable.  
What conclusions?  
What does the author believe?  
What does the author assume?  
Make a distinction.  
State the point of view of . . .  
What is the premise?  
State the point of view of . . .  
What ideas apply?  
What ideas justify the conclusion?  
What's the relationship between?  
The least essential statements are  
What's the main idea? Theme?  
What inconsistencies, fallacies?  
What literary form is used?  
What persuasive technique?  
Implicit in the statement is . . .

#### Instructional Strategies

Models of thinking  
Challenging assumptions  
Retrospective analysis  
Reflection through journaling  
Debates  
Discussions and other collaborating learning activities  
Decision-making situations

## V. EVALUATE (according to some set of criteria, and state why)

### Verbs for Objectives

appraise  
judge  
criticize  
defend  
compare

### Model Questions

What fallacies, consistencies, inconsistencies appear?  
Which is more important, moral, better, logical, valid, appropriate?  
Find the errors.

### Instructional Strategies

Challenging assumptions  
Journaling  
Debates  
Discussions and other collaborating learning activities  
Decision-making situations

---

## VI. CREATE (SYNTHESIS) (combining elements into a pattern not clearly there before)

### Verbs for Objectives

choose  
combine  
compose  
construct  
create  
design  
develop  
do  
formulate  
hypothesize  
invent  
make  
make up  
originate  
organize  
plan  
produce  
role play  
tell

### Model Questions

How would you test. . . ?  
Propose an alternative.  
Solve the following.  
How else would you . . . ?  
State a rule.

### Instructional Strategies

Modeling  
Challenging assumptions  
Reflection through journaling  
Debates  
Discussions and other collaborating learning activities  
Design  
Decision-making situations

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Compiled by the IUPUI Center for Teaching and Learning, Revised December 2002  
[http://www.uni.edu/stdteach/TWS/BloomRevisedTaxonomy\\_KeyWords-1-1.pdf](http://www.uni.edu/stdteach/TWS/BloomRevisedTaxonomy_KeyWords-1-1.pdf)

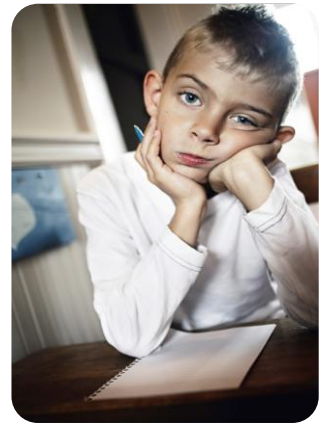
## Conclusion

The table on the next page offers some examples of Bloom's Taxonomy objectives for the area of a circle, the main idea of a story, and the colonization of Africa. It will take practice before you master the art of unit and lesson planning, but, once acquired, the skill becomes like riding a bicycle. For a practical application review, here is a link to practice writing instructional objectives (i.e., behavior, conditions, and degree). You can select the link or copy and paste it into your internet browser.

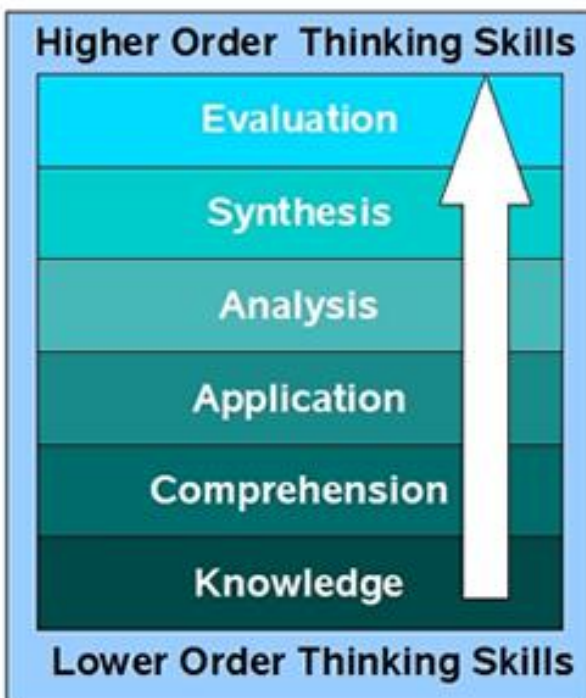
<http://itc.utk.edu/~bobannon/practice.html>

## References

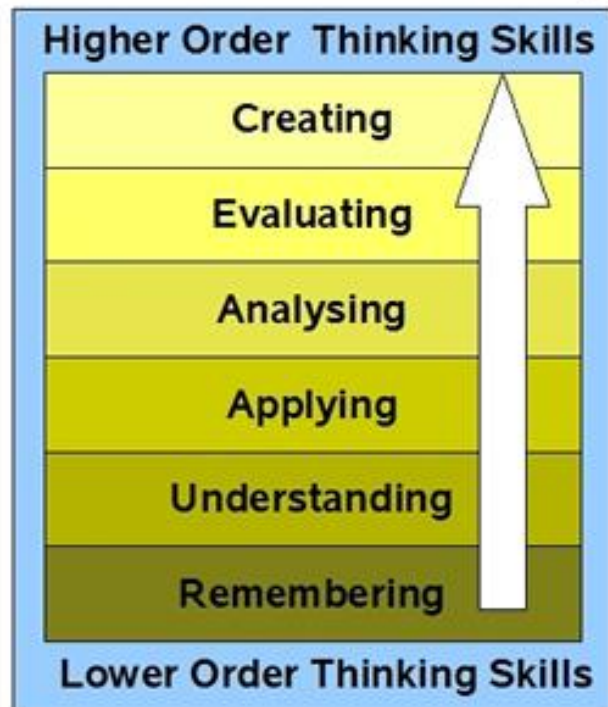
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## Bloom's Taxonomy



## Bloom's Revised Taxonomy



Retrieved from edtechvision.org.

## Examples of Objectives Using Bloom's Taxonomy

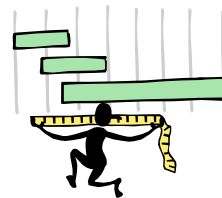
Level	Area of a Circle	Main Idea of a Story	The Colonization of Africa
<b>Knowledge</b>	List the formula for area of a circle.	Define main idea.	Make a timeline showing how Europeans divided Africa into colonies
<b>Comprehension</b>	Describe how to find the area of a circle if given the diameter of a circle.	Give examples of ways to find the main idea of a story.	Interpret a map of Africa showing its colonization by European nations.
<b>Application</b>	Apply the formula for area of a circle to real-life problems.	Predict the ending of a story if given the main idea.	Apply the colonization events to a given case study.
<b>Analysis</b>	Explain the function of finding the area of a circle.	Identify the main idea of a story.	Contrast the goals and methods used in colonizing Africa from the perspective of a Bantu chief
<b>Evaluation</b>	Compare the area of a circle to surface area of a sphere.	Evaluate the story based on the main character's point of view.	Compare the colonization of Africa and the colonization of the United States.
<b>Synthesis</b>	Use your knowledge about the area of a circle and volume of a cube to derive a formula for the volume of a cylinder.	Write a new story based on the main idea of the story read.	Create a new colony based on the colonization of Africa.

Adapted from Slavin (2006).



# Chapter 8: Teacher-Centered Instructional Model

## LEARNING OBJECTIVES



1. Write a direct instruction lesson plan for use in your classroom.



2. Describe the lecture strategy to instruction.



There are two basic types of instructional models: teacher-centered and student-centered. In this chapter, we will discuss the teacher-centered instructional model, which aligns with the behavioral learning theory that we discussed in Chapter 4. This instructional model includes three instructional strategies: direct instruction, lecture, and lecture with discussion. For each of these strategies, we will focus on the lesson planning process along with the advantages and disadvantages.



● Direct Instruction Strategy
●
●



●
●
●

Print the notetaking guide on pages 268 - 271!



Teacher-centered strategies tend to have a negative reputation, but there are content and skills that are best conveyed via teacher-centered instruction. In addition, activating and summarizing activities will be defined, and examples will be provided to enhance teacher-centered instruction.

Remember, by adding variety into your lessons, you and the students will remain engaged. As we move through this chapter and the next chapter, we will complete the above graphic organizer for the teacher-centered and student-centered instructional models.

## Direct Instruction

Direct Instruction, which is a widely accepted instructional strategy, is beneficial for teaching specific facts and basic skills. As a high school math teacher, direct instruction was my primary instructional strategy for new content. Research indicates that direct instruction, which is systematic instructional strategy, benefits students with intellectual disabilities and those students who tend to be "slow learners" (Sabornie & deBettencourt, 1997; Smith, Patton, & Ittenbach, 1994). Following the basic direct instruction strategy, the lessons are structured sequentially with demonstration, guided practice, and independent practice. At the beginning of the lesson, the teacher provides a daily review. I usually used the bellringer and homework time for this review. Then, the new material is presented (demonstration). In a math class, the teacher could demonstrate how to solve a particular type of math problem. During the lesson, the teacher provides frequent reviews and reteaching opportunities. For example, if the lesson topic was the characteristics of mammals, the teacher would need to review, possibly reteach, the definition of a mammal. The teacher conducts guided practice after the new material is presented, and he or she walks around the classroom to provide feedback and correctives. Guided practice can be conducted as a whole group, but the teacher needs to ensure that all students are actively engaged. When the teacher deems the students' performance with the guided practice acceptable, then the students can practice independently. It is recommended that you provide some independent practice within the classroom setting. Homework can provide additional independent practice. After the lesson, it is necessary for the teacher to review



weekly and monthly to embed those skills in long-term memory (Saskatchewan Education, 1994). We discussed that process earlier in Chapter 6 (Information Processing Theory).

Robert Gagne (1916 – 2002), an educational psychologist, suggested that learning tasks should be organized in a hierarchy, which identified prerequisite skills. He felt that these learning hierarchies provided a basis for sequencing instruction that was

beneficial for the students' acquisition of knowledge. In addition, Gagne identified nine instructional events to assist the students with acquisition of new knowledge (see the cartoon and transactional model overview on the following pages) (Kearsley, 2011; Penn State York, 2009). These events are subcomponents of the basic direct instruction strategy. The chart at the bottom of this page is a brief example of the nine instructional events for a lesson about recognizing an equilateral triangle, which was adapted from Gagne (1985).

## Advantages and Disadvantages

The advantages of direct instruction include very specific learning targets, clarified instructional objective for the students, and relatively easy to measure students' gain of knowledge. On the other hand, there are disadvantages for this instructional approach. Direct

Step	Instructional Event	Example
1.	Gain attention	Show a variety of computer generated triangles.
2.	Identify learning objective	Pose a question: "What is an equilateral triangle?"
3.	Recall prior learning	Review definition of triangles.
4.	Present new material	Give definition of equilateral triangle
5.	Demonstration	Show an example of how to create an equilateral triangle.
6.	Guided Practice	Ask the students to create 5 different examples
7.	Provide feedback	Check all examples as correct or incorrect.
8.	Assess performance	Provide scores for independent practice and offer remediation
9.	Enhance retention/transfer	Show pictures of objects and ask students to identify the equilateral triangle.

**GAGNE 1 - BY CALIF7ORNIA**

**HEY YOU!**



1. Gain attention

TODAY WE WILL...



2. Inform learner of objective

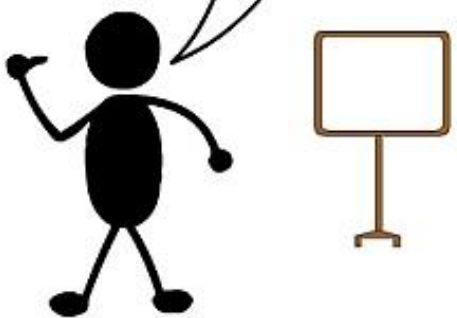
REMEMBER WHEN...?



3. Stimulate recall of prior knowledge

**GAGNE 2 - BY CALIF7ORNIA**

WATCH ME.  
HERE'S HOW IT'S DONE...



4. Present the material

HERE'S A GUIDE FOR  
YOU TO FOLLOW...



5. Provide guidance for learning

NOW, YOU TRY IT...



6. Elicit performance

**GAGNE 3 - BY CALIF7ORNIA**

OKAY, YOU NEED TO...



7. Provide feedback

IT'S TIME FOR THE TEST



8. Assess performance

NOW LET'S TRY IT OVER HERE...



9. Enhance retention and transfer

EVENT	TEACHER BEHAVIOR	STUDENT BEHAVIOR
<b>OPENING ACTIVITY</b>		
Gain Attention	<ul style="list-style-type: none"> <li>• Arousing them with novelty, uncertainty, surprise</li> <li>• Posing questions to the learner</li> <li>• Having the learner pose questions to be answered by the lesson</li> </ul>	<ul style="list-style-type: none"> <li>• Shock/surprise gains their attention</li> <li>• guide their search for skills and knowledge</li> <li>• generate their own questions helps them decide what is important in the lesson</li> </ul>
<b>DEMONSTRATION</b>		
Overview <ul style="list-style-type: none"> <li>• Review</li> </ul>	<ul style="list-style-type: none"> <li>• provides an opportunity for students to recall and/or examine what they have already learned in preparation for the current lesson</li> </ul>	<ul style="list-style-type: none"> <li>• focus on prerequisite skills and concepts</li> <li>• check homework and discuss difficult questions</li> <li>• link the lesson to previous ones</li> <li>• work a problem similar to those done already</li> <li>• review the previous lesson -- explaining what they did and why</li> </ul>
Overview <ul style="list-style-type: none"> <li>• What?</li> </ul>	<ul style="list-style-type: none"> <li>• presents the specific concept(s) and skill(s) to be learned</li> </ul>	<ul style="list-style-type: none"> <li>• read a stated objective for the lesson</li> <li>• hear what the topic of the lesson is</li> <li>• see what they will be able to do at the end of a lesson</li> </ul>
Overview <ul style="list-style-type: none"> <li>• Why?</li> </ul>	<ul style="list-style-type: none"> <li>• states a reason or a need for learning the skill(s) or concept(s)</li> </ul>	<ul style="list-style-type: none"> <li>• see how the lesson is related to the real world relate the lesson to their own interests</li> <li>• discuss how the skill or concept can be applied to other subject areas</li> <li>• see how the lesson relates to their deficiencies</li> </ul>
Overview <ul style="list-style-type: none"> <li>• How?</li> </ul>	<ul style="list-style-type: none"> <li>• present overviews and organizers to help prepare learners for what's to come</li> <li>• adapt content to 'fit' the learners' preferences and past experiences</li> <li>• Activate learner processing to help learners internalize new skills and knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>• Verbal overview</li> <li>• Oral overview</li> <li>• Graphic organizer/overview</li> <li>• Combination overview</li> <li>• Adapt to learner preferences</li> <li>• Elicit recall strategies and elaborations</li> <li>• Integrate new knowledge</li> </ul>
Explanation	<ul style="list-style-type: none"> <li>• develops or explains the concepts and skills to be learned</li> </ul>	<ul style="list-style-type: none"> <li>• hear an explanation</li> <li>• use manipulative materials to develop concepts and/or skills</li> <li>• have class discussions</li> <li>• see concrete examples</li> <li>• watch films or filmstrips</li> <li>• read explanations in textbooks</li> <li>• interact with Computer Assisted Instruction program</li> </ul>
Probe & Respond	<ul style="list-style-type: none"> <li>• probes students as to their initial understanding of concepts and skills</li> </ul>	<ul style="list-style-type: none"> <li>• answer teacher questions</li> <li>• verbalize understandings</li> <li>• model demonstrated processes</li> <li>• generate examples and non-examples of a concept</li> </ul>



<b>GUIDED PRACTICE</b>		
Guided Practice	<ul style="list-style-type: none"> <li>• closely supervises the students as they begin to develop increased proficiency by completing one or two short tasks at a time</li> </ul>	<ul style="list-style-type: none"> <li>• read a paragraph aloud in a reading group</li> <li>• complete one or two math problems in an assignment, while the teacher monitors their work</li> <li>• complete an activity on the board, while others do the same</li> <li>• activity at their seats, and the teacher monitors the work</li> <li>• use structural analysis skills to orally decode new vocabulary words</li> </ul>
Periodic Review	<ul style="list-style-type: none"> <li>• provides students opportunity to have distributed practice on previously covered content and skills</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrate retention of previously learned concepts and skills</li> </ul>
<b>INDEPENDENT PRACTICE</b>		
Independent Practice	<ul style="list-style-type: none"> <li>• allows students to work independently, with little or no teacher interaction, to reinforce individual proficiency with concepts and skills</li> </ul>	<ul style="list-style-type: none"> <li>• complete seatwork assignments</li> <li>• drill on basic arithmetic facts</li> <li>• begin or complete homework assignments</li> <li>• play games related to specific skills or concepts</li> </ul>
<b>ASSESSMENT</b>		
Formative (Daily Success)	<ul style="list-style-type: none"> <li>• checks students work each day and offers corrective instruction as necessary</li> </ul>	<ul style="list-style-type: none"> <li>• complete independent work at or above a given level of proficiency</li> </ul>
Summative (Mastery)	<ul style="list-style-type: none"> <li>• checks students work at the end of each unit of instruction</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrate knowledge and application of concepts and skills at or above a given level of proficiency</li> </ul>
<b>MONITORING AND FEEDBACK</b> (Provided throughout the lesson as needed)		
Cues and Prompts	<ul style="list-style-type: none"> <li>• provides students with signals and reminders designed to sustain the learning activity and to hold students accountable</li> </ul>	<ul style="list-style-type: none"> <li>• attend to signals and/or reminders continue working on assigned activity</li> </ul>
Corrective Feedback	<ul style="list-style-type: none"> <li>• tells students whether their answers are correct, see or hear the correct answers, and are told why those answers are correct</li> </ul>	<ul style="list-style-type: none"> <li>• read correct answers aloud</li> <li>• write correct solutions to math problems on board</li> <li>• check spelling by comparing their answers to those on a transparency</li> <li>• support their answers to reading comprehension questions by reading aloud from the text</li> </ul>

The following material has been adapted from:  
<http://teach.valdosta.edu/whuitt/col/instruct/instevnt.html> & <http://ide.ed.psu.edu/idde/9events.htm>

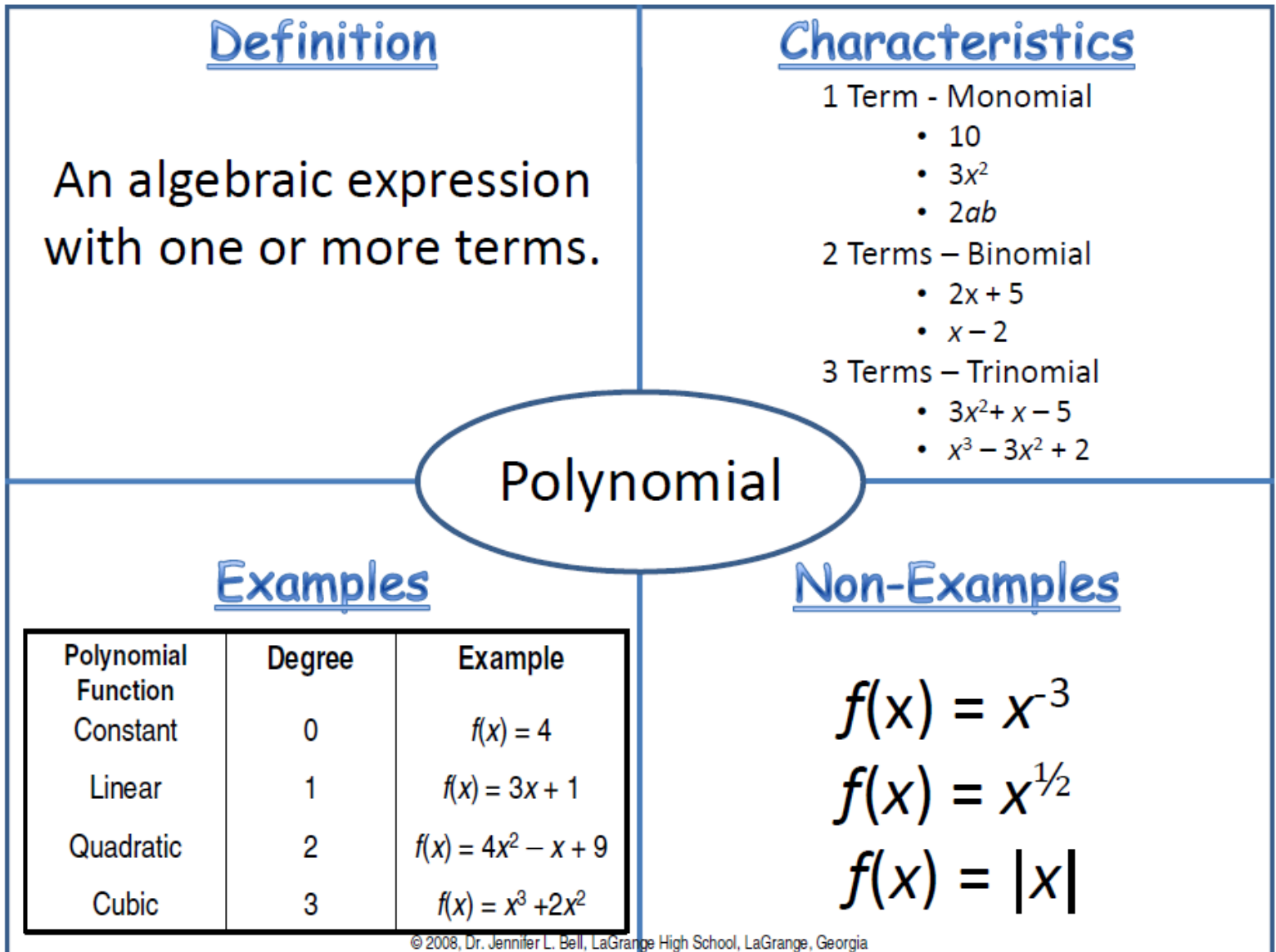
instruction can stifle teacher creativity. It requires the teacher to have well-organized content preparation, good oral communication skills, and information about students' prerequisite skills. It may not be effective for developing higher-order thinking skills (ADPRIMA Instruction System, 2010).

Teachers can incorporate different activities to overcome these disadvantages. For example, mini-lectures tend to be effective when using the direct instruction approach. A good time frame for these mini-lectures is 10 to 15 minutes, but they should not extend 20 minutes. Another helpful activity is to combine discussions and demonstrations with

the direct instruction. No matter which instruction method you are utilizing, the direct instruction should be accompanied with visual aids, such as overheads, graphic organizers, and flipcharts (Saskatchewan Education, 1994). To increase student engagement, the teacher should appeal to the students' curiosity and personal experience. When demonstrating the concept, the teacher should order examples from easy to more difficult and select examples that differ from one another. (See the demonstration examples presented on the next page.) In addition, comparing and contrasting examples and non-examples can be effective (Slavin, 2006), particularly

with the use of a Frayer Model. (See the Frayer Model for a polynomial at the bottom of this page.) The Frayer Model allows the students to write the definition of the term in the top left corner and list characteristics of that term in the top right corner. In the bottom corners, the students to list examples and non-examples. This process allows the students to distinguish between polynomials and other mathematical expressions, such as radical and rational expressions.

In the classroom, I tended to interweave demonstration, lecture, and discussion throughout the lesson. I followed the basic direct instruction approach, but I broke the lesson into components. For example, I began the



instructional lesson by reviewing how to simplify polynomial expressions. Then, I demonstrated how to simplify complex numbers, which was the new content, and offered some directive lecture. Next, I guided the students through some practice problems while monitoring their progress. Afterwards, I reviewed how to add and subtract polynomials followed by demonstrating how to add and subtract the complex numbers, which was the new content. After this guided practice session, I gave the students an opportunity for independent practice. By breaking up the lesson, the students were not overwhelmed by the content. In this case, simplifying, adding, and subtracting complex numbers was a basic concept, but the mastery depends on prerequisite skills (i.e., polynomials). It is highly recommended to break the content into smaller, more manageable, skills if possible. It is "okay" to present material, guide the students, and then present more material before offering an independent practice assignment. The goal is for the students to master the material.

I have created an example lesson plan for the Indian Removal Act using direct instruction, which is presented on the next two pages. The template will be posted in CougarView. First, notice the learning objective at the top of the page is clear, concise, and measurable. *Students will explain the impact of the Indian Removal Act of 1830 on American Indians in the United States.* Also, this learning objective aligns with the previously discussed unit plan from Chapter 7. Next, you see the introductory and demonstration activities, which use pictures by Robert Lindneux to illustrate the Trail of Tears. Then, the guided practice incorporates the skills needed to complete the independent practice using different materials. Lastly, the evaluation procedures are outlined with clear expectations and point values.



## Examples of Demonstrations within a Direct Instruction Lesson

### ■ SCIENCE VOCABULARY WORD DEMONSTRATION

First, review the vocabulary words (i.e., solvent, solute, and mixture) and their meanings. Then, distribute the materials (i.e., three chocolate kisses and a timer per student). For the first experiment, instruct the students to place one chocolate kiss in their mouth and measure how long it takes before it disappears. For the second experiment, repeat the same procedure but instruct the students to use their tongue to make the chocolate kiss disappear. For the third experiment, repeat the same procedure but instruct the students to use their tongue and teeth to make the chocolate disappear. Lastly, use a follow up activity to compare times and review what the solute and solvent were in the experiments (Sarah Hawk).

### ■ OIL AND WATER DEMONSTRATION

Place a M&M in a bowl of warm water with the M facing upward. Since the M is oil-based, it will lift off the candy and float in the bowl of water (Mary Jo Boutwell).

### ■ AUDIENCE ETIQUETTE DURING A PERFORMANCE

To begin, create different types of events around the perimeter of the classroom. At each of the events, ask the students to demonstrate how they would respond, talk, cheer, stand, and/or clap. The events can include a sporting event, movie, rock concert, and live theatre performance (Mary Gagliardi).

## Direct Instruction Lesson Plan by Dr. Jennifer L. Brown

(created for educational purposes only)

<p><b>Date</b> 5/20/2011</p> <p><b>Time</b> 55-minute class period</p>	<p><b>Learning Objectives:</b> <i>What should students be able to do at the end of this lesson? Is there alignment with course objectives?</i></p> <p>Students will explain the impact of the Indian Removal Act of 1830 on American Indians in the United States.</p>	<p><b>Standard(s)</b></p> <ul style="list-style-type: none"> <li>National Standards: 1b, 2e, 5a, 6a, 6c, 6f, 6j, 9a, 10c;</li> <li>National Educational Technology Standards: 2, 4, 7, 8</li> </ul>
<p><b>Modifications</b></p> <ul style="list-style-type: none"> <li>Read primary document to student.</li> <li>Provide the primary document on tape.</li> <li>Availability of word processing computer for typing.</li> <li>Extended time if necessary.</li> <li>Use of preferred seating.</li> </ul>	<p style="text-align: center;"><u>Instructional Procedures</u></p> <p><b>...gain students' attention (Introduction/Motivation)?</b></p> <ol style="list-style-type: none"> <li>Show the picture, <i>The Trail of Tears</i>, which was painted by Robert Lindneux in 1942.</li> <li>Ask the students, "What do you see in this picture?" "How do you think the people in the picture feel?"</li> </ol> <p><b>...recall prior relevant information (Activate Prior Knowledge)?</b></p> <ul style="list-style-type: none"> <li>Which US President fought against the Indians in the early 19<sup>th</sup> century?</li> <li>What was the purpose of the Indian Removal Act?</li> </ul>	<p><b>Checklist:</b></p> <p><b>Did students....?</b></p> <ul style="list-style-type: none"> <li>...know my objectives? <input type="checkbox"/></li> <li>...actively engage with new material? <input type="checkbox"/></li> <li>...work together on a task? <input type="checkbox"/></li> <li>...get feedback on their performance? <input type="checkbox"/></li> </ul>
<p><b>Materials Needed</b></p> <ul style="list-style-type: none"> <li><i>The Trail of Tears</i> by Robert Lindneux</li> <li>Primary document: "Indian Populations, 1830"</li> <li>1830s map of the United States</li> <li>Primary document: "Louis Cass Explains the Destiny of the Indians"</li> <li>Primary document: "Sen. Frelinghuyzen's Speech to the Senate"</li> </ul>	<p><b>...present new material (Demonstration)?</b></p> <p>In 1838 and 1839, as part of Andrew Jackson's Indian removal policy, the Cherokee nation was forced to give up its lands east of the Mississippi River and to migrate to an area in present-day Oklahoma. The Cherokee people called this journey the "Trail of Tears," because of its devastating effects. The migrants faced hunger, disease, and exhaustion on the forced march. Over 4,000 out of 15,000 of the Cherokees died (<a href="http://www.pbs.org/wgbh/aia/part4/4h1567.html">http://www.pbs.org/wgbh/aia/part4/4h1567.html</a>).</p> <p><b>...elicit performance (Guided Practice)?</b></p> <ol style="list-style-type: none"> <li>Provide students with the Primary Source document, "Indian Populations, 1830," and the 1830s map of the United States.</li> <li>Ask the students to analyze the information provided in the document and answer the following questions: <ul style="list-style-type: none"> <li>Where are the majority of American Indians at this time?</li> <li>Which area of the U.S. would be most impacted by the Indian Removal Act?</li> <li>Do you think this had any influence on the three authors of the documents you read? How and why?</li> </ul> </li> </ol> <p style="text-align: right;"><a href="http://www.oss.org/school/lesson_plans/Show/Lessons.php?pageID=AA&amp;LessonID=40&amp;ActivityID=12&amp;UnitID=6">http://www.oss.org/school/lesson_plans/Show/Lessons.php?pageID=AA&amp;LessonID=40&amp;ActivityID=12&amp;UnitID=6</a></p>	<p><b>Evaluation</b></p> <p>The presentation will be graded using a rubric.</p> <ul style="list-style-type: none"> <li>identification of the major conflict (5 points)</li> </ul>



<ul style="list-style-type: none"> <li>Primary document: "Memorial of the Cherokee Nation, Dec. 1829"</li> </ul>	<p><b>...assess performance (Independent Practice)?</b></p> <ol style="list-style-type: none"> <li>Assign each student a number (i.e., 1, 2, 3).</li> <li>Read and analyze your assigned primary source document for the points of views and attitudes expressed toward Indians and Indian removal just prior to the passage of the Indian Removal Act: <ul style="list-style-type: none"> <li>1 - "Louis Cass Explains the Destiny of the Indians"</li> <li>2 - "Sen. Frelinghuysen's Speech to the Senate"</li> <li>3 - "Memorial of the Cherokee Nation, Dec. 1829"</li> </ul> </li> <li>Prepare a short presentation, written document, or visual of the views expressed in the document, which includes the identification of the major conflict, the author's main arguments, opinions expressed about American Indians, and evidence from the text to support their understanding.</li> </ol> <p>(<a href="http://www.osv.org/school/lesson_plans/ShowLessons.php?PageID=A&amp;LessonID=40&amp;ActivityID=125&amp;UnitID=6">http://www.osv.org/school/lesson_plans/ShowLessons.php?PageID=A&amp;LessonID=40&amp;ActivityID=125&amp;UnitID=6</a>)</p>	<ul style="list-style-type: none"> <li>the author's main arguments (5 points)</li> <li>opinions expressed about American Indians (5 points)</li> <li>evidence from the text to support their understanding (5 points)</li> <li>overall (i.e., grammar, mechanics, clarity, neatness) (5 points)</li> </ul>
<p><b>...enhance retention (Homework Assignment)?</b></p> <p>Select one of these laws: Equal Employment Opportunity, Americans with Disability Act, Civil Rights Acts, and Patriot Act.</p> <ul style="list-style-type: none"> <li>What were the attitudes of the general population when these laws were passed?</li> <li>Do these laws effect the general population, or just a specific group?</li> </ul> <p>(<a href="http://www.osv.org/school/lesson_plans/ShowLessons.php?PageID=A&amp;LessonID=40&amp;ActivityID=125&amp;UnitID=6">http://www.osv.org/school/lesson_plans/ShowLessons.php?PageID=A&amp;LessonID=40&amp;ActivityID=125&amp;UnitID=6</a>)</p>	<p style="text-align: center;"><b>Lesson Closure</b></p> <p>Respond to the following question based on our discussion today before you leave class. Were there any common views about the American Indians in these documents?</p> <p>(<a href="http://www.osv.org/school/lesson_plans/ShowLessons.php?PageID=A&amp;LessonID=40&amp;ActivityID=125&amp;UnitID=6">http://www.osv.org/school/lesson_plans/ShowLessons.php?PageID=A&amp;LessonID=40&amp;ActivityID=125&amp;UnitID=6</a>)</p>	

## Lecture

Lecture is the most criticized of all teaching methods AND the most commonly used because 1) planning time is limited, 2) lectures are flexible and can be applied to any content, and 3) lectures are simple. The most critical fact about lecture is that it puts students in a passive role (O'Bannon, 2002).

The advantages of lecture are that the factual material is presented in a direct and logical manner and tends to be useful for large groups. The disadvantages include the instructor must have proficient oral skills, the audience tends to be passive, learning is difficult to gauge, communication is one-way (teacher to student), and is not age-appropriate for children younger than fourth grade. To prepare for lecturing, the teacher should have a clear introduction and summary, effectively manage the time and scope of content, and include audience specific examples (ADPRIMA Instruction System, 2010).

## Lecture with Discussion

Sometimes, lecture will be mixed with discussion among the students and teacher, but the teacher acts as a moderator during the discussion (Slavin, 2006). The advantages of lecture with discussion are that the students are engaged after the lecture has finished, and students can question and/or clarify the content with the lecturer. One option is to intersperse the discussion within the lecture. I tended to use this option in the classroom to keep the students involved. The disadvantages include time constraints limit the discussion opportunities, effectiveness of the discussion is connected to the students' appropriate questions and feedback, and often requires the teacher to "shift gears" quickly. When preparing for a lecture with discussion, the teachers should allow for questions during the lecture and anticipate difficult questions and prepare appropriate responses in advance (ADPRIMA Instruction System, 2010).

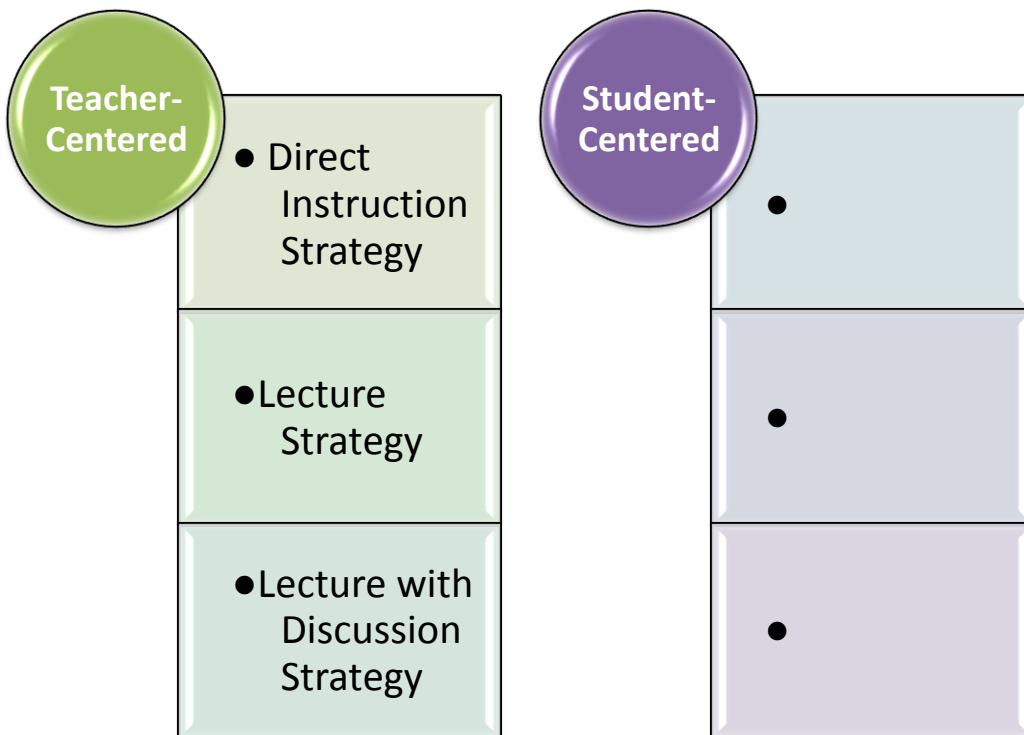
## Activating and Summarizing Activities

When beginning any type of lesson, especially direct instruction or lecture, it is good to begin with an activating activity or end with a summarizing activity. An *activating activity* is a tool used to activate prior knowledge that is essential for the mastery of the current instructional objectives. There are numerous types of activating activities. I used one type at the beginning of Chapter 6 (Information Processing Theory). During math class, I would present a group of problems that required previously learned material to complete. Sometimes, this material was learned in my class or in a previous class. There are many types of activating activities. Here are a few examples presented on the following pages:

- **Anticipation Guide**
- **KWL Chart**
- **Cloze Activity**
- **Story Impressions**

A *summarizing activity* is a tool used to bring closure to a lesson by writing critical concepts or other pieces of content that was presented with the daily lesson. These tools are presented at the end of the lesson, and it allows the teacher and students to bring closure and "summarize" the daily lesson. Again, there are numerous options. Here are a few examples for your review on the following pages:

- **Inside Outside Circle**
- **Summary Star**
- **Somebody Wanted But So (SWBS)**
- **Think Pair Share (& graphic organizer)**



## Anticipation Guide

# Miss Rumphius

by Barbara Cooney

**Directions:** Before we read this story, please put a check next to those statements that you agree with in the **BEFORE** column. Compare your opinions with a partner's opinions and discuss your reasons for checking or not checking each statement. After we have read this book, please go back and check those statements you now agree with under the **AFTER** column.

BEFORE    AFTER

\_\_\_\_\_

\_\_\_\_\_

Older people can't do anything to help others because they need help themselves.

\_\_\_\_\_

\_\_\_\_\_

The more things you have the happier you are.

\_\_\_\_\_

\_\_\_\_\_

People can make the world more beautiful by doing simple things in nature.

\_\_\_\_\_

\_\_\_\_\_

If you have a lot of money, you will be happy.

\_\_\_\_\_

\_\_\_\_\_

We can learn many lessons from our elders.



## KWL Chart

What I KNOW	What I WANT to Know	What I LEARNED

### Sample Cloze Activity

Read the following passage and fill in the blanks so that the passage makes sense.

As American colonists got word of the battles in Lexington, Concord, and Bunker Hill, they faced a major decision. Should they join the \_\_\_\_\_ or remain loyal to \_\_\_\_\_? Those who chose to \_\_\_\_\_ with Britain, the Loyalists, \_\_\_\_\_ not consider unfair taxes \_\_\_\_\_ regulations good reason for \_\_\_\_\_. Some remained faithful to \_\_\_\_\_ king because they were \_\_\_\_\_ who would lose their \_\_\_\_\_ as a result of \_\_\_\_\_ Revolution. Others were people \_\_\_\_\_ had not been part \_\_\_\_\_ the movement of discontent \_\_\_\_\_ turned so many Colonists \_\_\_\_\_ Britain. The Patriots were determined to battle the British to the end – until American Independence was won!

(Answers)

rebels	rebellion	who
Britain	the	of
stay	officeholders	that
did	positions	against
and	the	

Retrieved from West Virginia Department of Education  
<http://wvde.state.wv.us/strategybank/activating.html>



# Story Impressions Before Reading Strategy

[www.allamericareads.org](http://www.allamericareads.org)

## Reading Skills

- Establishing a purpose for reading
- Forming an overall impression of the text through predictions

## Overview of the "Story Impressions" Strategy

- The teacher chooses key words, phrases, or concepts from several chapters and lists them in the order in which they appear in the chapters.
- The list will normally consist of 10 to 15 items.
- Students should be given enough words to form an impression of the chapters but not so many that they are able to create entire episodes that they will encounter in reading.

## Activity for the "Story Impressions" Strategy

1. Make a list of words or phrases.
2. Now present the words in a linked order by displaying the words in a vertical line with arrows connecting one word to the next. The students should see that the words must be used in a particular order. This strategy will help them when they encounter words or terms that are unfamiliar.
3. After the initial discussion, have each student write a paragraph, using all the words in the given order and summarizing what he or she thinks the chapters will be about, thus creating a Story Impression.
4. Place the students in groups of 4 to 5, and allow the group members time to share their Story Impressions so they can compare their predictions.

## Important Tips to Remember

1. Students need to write down all their Story Impressions so that they will have something to reference once they read the text.
2. Have students discuss the key words so they are given the opportunity to figure out words that they do not know before they begin reading.

3. In order to prevent giving away the ending, give the students only words that suggest the main idea. Finalizing your list with an event found earlier in the selection rather than at its conclusion will solve this problem.
4. Once the students have written their Story Impressions, have them immediately begin reading the chapters. You should decide how much discussion your students need prior to reading. Some students can complete this assignment at home and return to the next class meeting prepared to read the next chapters.
5. While the "Story Impressions" strategy is similar to the "Probable Passage" strategy, it is less structured.

### Assessment

Students can be assessed on the quality of their participation in their groups and receive a class-work grade according to the following rubric:

- EXCELLENT participation (Score 4)
- ABOVE AVERAGE participation (Score 3)
- ADEQUATE participation (Score 2)
- BELOW AVERAGE participation (Score 1)
- NO participation (Score 0)

Below are some specific features for evaluating the paragraph.

	Revise	Accept	Superior
Topic sentence is clear and correctly placed.	1 2 3 4	5 6 7	8 9 10
Mechanics are correct.	1 2 3 4	5 6 7	8 9 10
Vocabulary and word choices are interesting.	1 2 3 4	5 6 7	8 9 10
Sentences are clear and related to topic.	1 2 3 4	5 6 7	8 9 10
Sentences vary in length (8 to 15 words).	1 2 3 4	5 6 7	8 9 10
Agreement is correct.	1 2 3 4	5 6 7	8 9 10
Typing is neat with no mark-outs or whiteout.	1 2 3 4	5 6 7	8 9 10
Paragraph focuses on a single, unified idea.	1 2 3 4	5 6 7	8 9 10
Paragraph achieves its intended purpose.	1 2 3 4	5 6 7	8 9 10
Paragraph is interesting and appealing.	1 2 3 4	5 6 7	8 9 10

# Inside Outside Circle

## Description

Inside Outside Circle is a kinesthetic activity that involves all students in the class and that facilitates short exchanges between students. Inside Outside Circle engages all students simultaneously, pairs students briefly with classmates with whom they may rarely work, and allows the teacher to spontaneously increase or decrease the number of different student pairings that occur.

## Method

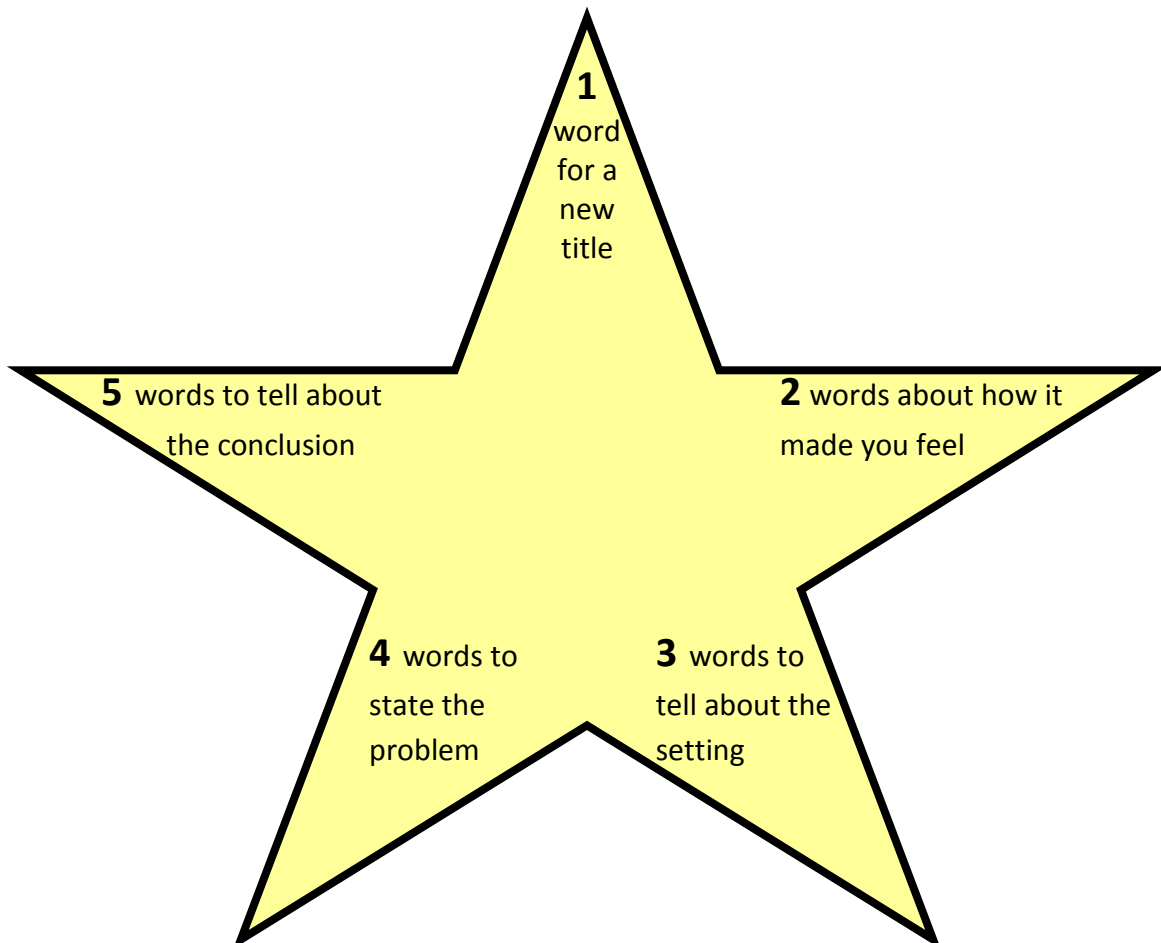
The teacher:

1. forms two concentric circles containing the same number of students. Students in the inside circle face a partner standing in the outside circle.
2. asks students from the inside circle to share something with their partner in timed activity.
3. has students reverse roles. The students on the outside circle share with their partner, controls the timing, e.g., "Outside circle, it's your turn to share for one minute."
4. has the inside circle rotate and the students turn to face their new partner. Repeat steps 2 and 3.

TIPS: Section 4 – TIPS for Teachers (page 14)

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## Summary Star



Retrieved from West Virginia Department of Education  
<http://wvde.state.wv.us/strategybank/summarization.html>

Title: \_\_\_\_\_

Author: \_\_\_\_\_ Illustrator: \_\_\_\_\_



**Somebody**  
(Character)

Three horizontal pink lines for writing the character's name and details.

**Wanted**  
(Goal)



Three horizontal purple lines for writing the goal.

**But...**  
(Problem)

Three horizontal light green lines for writing the problem.



**So...**  
(Solution)

Three horizontal light orange lines for writing the solution.

Student's Name: \_\_\_\_\_

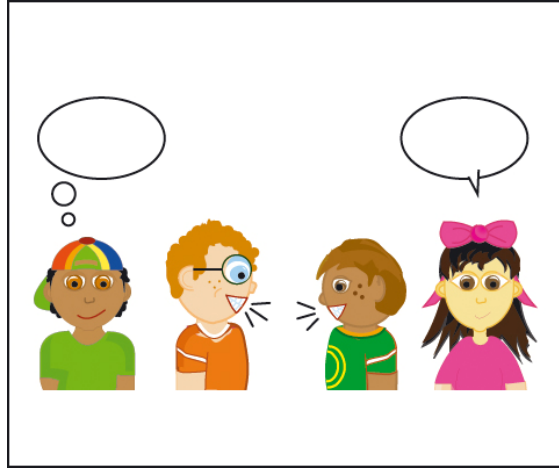




## Think-Pair-Share

### Overview

Think-Pair-Share is a cooperative learning strategy that can promote and support higher-level thinking. The teacher asks students to think about a specific topic, then pair with another student to discuss their thinking and, after that, share their ideas with the group.



### Steps

1. Decide on how to organize students into pairs (counting heads, ABAB, male/female, etc.).
2. Pose a discussion topic or a question.
3. Give students at least 10 seconds to think on their own ("think time").
4. Ask students to pair with their partner and share their thinking.
5. Call on a few students to share their ideas with the rest of the class.

### Hints and Management Ideas

- *Pre-assign partners.* Rather than waiting until the discussion time, indicate in advance who students' partners will be. Otherwise, the focus might be on finding a partner rather than on thinking about the topic at hand.
- *Change partners.* Students should be given an opportunity to think with a variety of partners.
- *Monitor the discussions* for common misconceptions and unique ideas to address later with the whole group.

### Benefits of Think-Pair-Share

- When students have appropriate "think time", the quality of their responses improves.
- Students are actively engaged in thinking.
- Thinking becomes more focused when it is discussed with a partner.
- More critical thinking is retained after a lesson in which students have had an opportunity to discuss and reflect on the topic.
- Many students find it easier or safer to enter into a discussion with another classmate, rather than with a large group.
- No specific materials are needed for this strategy, so it can be easily incorporated into lessons.
- Building on the ideas of others is an important skill for students to learn.

For more detailed information, refer to Kagan, Spencer. Cooperative Learning. San Juan Capistrano: Kagan Cooperative Learning, 1994.



# Think-Pair-Share

Question or Prompt	What I thought	What my partner thought	What we will share



My Name: \_\_\_\_\_ Partner's Name: \_\_\_\_\_ Date: \_\_\_\_\_

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This link to Western Kentucky University's *The Three Kinds of Writing Go Online*. You can select it or copy and paste it into your internet browser. It will provide you with a few examples of admittance (i.e., activating) and exit (i.e., summarizing) slips.

<http://www.wku.edu/3kinds/dmaesexamples.html>

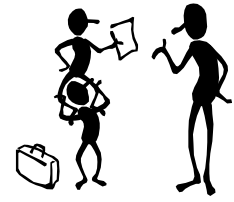
## Conclusion

The teacher-centered instructional strategies that were discussed in this chapter are one of many tools available for classroom use. As a teacher, I tend to use all of the strategies in my toolbox. Some topics require direct instruction or lecture with discussion while other topics require more student-centered instruction, which we will discuss in the next chapter. In addition, there will be more information regarding the activating and summarizing activities when we discuss formative assessments in Chapter 11.

# Chapter 9: Student-Centered Instructional Model



## LEARNING OBJECTIVES



1. Develop a cooperative learning lesson plan or activity.
2. Describe the characteristics of discovery learning
3. Outline a lesson plan idea that utilizes the role-playing instructional strategy.

Research has shown that the retention rates from instructional methods vary. According to William Glasser, nearly 90% of learning is retained when the students teach others the content. The figure to the right presents a pyramid of learning strategies. By examining these percentages of retention rates, the need for student-centered instructional strategies (e.g., teach other and immediate use) arises. The model of student-centered instruction derives from cognitive learning and information processing theories, which we discussed in Chapters 5 and 6. The student-centered instructional model is defined as instruction that revolves around the student instead of the

teacher. The previously discussed strategies tended to have one-way communication that was delivered from the teacher and absorbed by the students. With student-centered strategies, the students are actively involved with each other while they communicate about the content. Student-centered strategies include cooperative learning, discovery learning, and role playing (Lang & McBeath; Sashatchewan Education, 1994).

### Cooperative Learning

*Cooperative learning* is a set of instructional methods where students work with other students of mixed abilities in groups of three or four to achieve a common goal (Slavin, 1987). There are advantages and disadvantages with this strategy as with the other instructional strategies. The advantages include the strategy

### Learning Pyramid



Print the notetaking guide on pages 272 - 275!

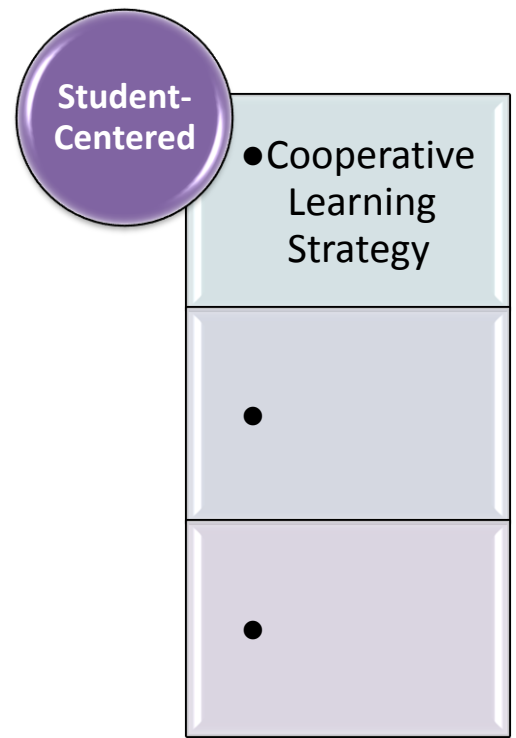
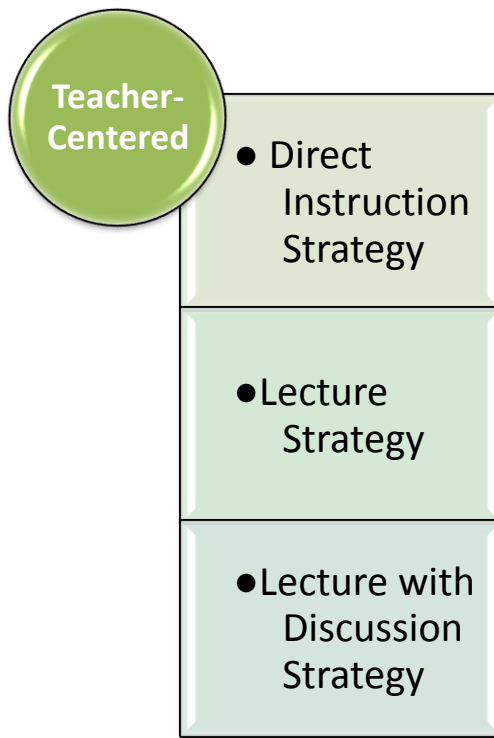




helps to foster mutual responsibility and teaches social skills, such as patience with others and compassion for others. The disadvantages include students who like to work alone find it difficult to share answers and dominant students try to take over the situation (ADPRIMA Instruction System, 2010).

### Organizing Cooperative Learning Groups

When high, medium, and low achieving students are grouped together, high-achieving students can explain material to low-achieving students. Students who are gifted report frustration when working in mixed-ability groups because there are team members who are not willing to contribute to the group's goal. For one solution, consider placing students who are similar in achievement together, but group heterogeneously by ethnicity and gender (Robinson, 1991). Mixed-ability cooperative learning should be used sparingly for students who are gifted and talented. Offer the learning opportunities as social skill development because the students who are gifted will need to be able to work with all types of people in the real world (Rogers, 1991). It is important that the students are aware of the procedures and responsibilities of each role. When I taught high school math, I created Co-Op Groups. The posters that I placed in my classroom to outline my expectations are presented on the next page. These groups were long-term, usually for a nine-week period. Every four weeks, I would use the Co-Op Skill Evaluation sheet (at the bottom of the next page) to assess their cooperative learning skills. Also, I provided a Peer Contribution Assessment, on the following page, which I have used with other classes for students to assess themselves and other group members.

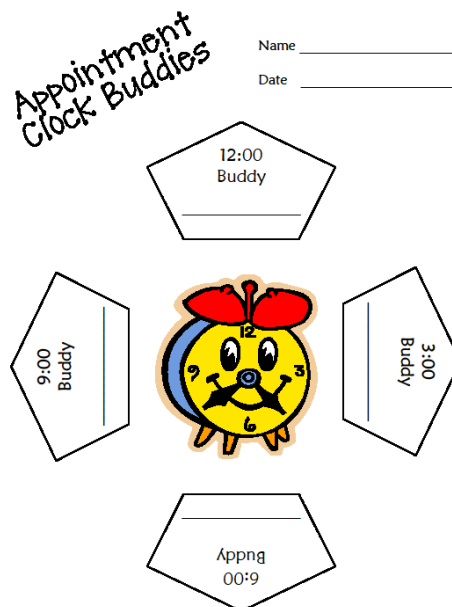


### Roles and Responsibilities of Group Members

To explain the roles and responsibilities of group members, read the following article by Julie Siciliano. When the activity did not require multiple roles, I tended to use buddies to increase the accountability. If the project has many components, I would assign three to four people to a group. I used various methods for grouping (e.g., elbow buddies, student choice, random selection,

homogenous, and heterogeneous). Each year, my different classes responded differently to cooperative groups. Some methods are more successful with certain classes.

Here is an excellent idea by Laura Candler ([www.lauracandler.com](http://www.lauracandler.com)) for grouping and for reinforcing how to tell time with analog clocks. To create the clock buddies, she distributes a sheet of paper with the appointment clock buddies (shown to the left). After standing up and moving quietly around the classroom, the teacher rings a bell. Then, they are instructed to find their 3 o'clock buddy and have him or her sign the sheet. She repeats the same process for 12:00, 6:00, and 9:00. The students keep the partner assignment sheet for a set amount of time. Each time the teacher needs the students to find a buddy, she will say, "Today, you will meet with your 9 o'clock appointment to complete your graphic organizer." This activity would be excellent for an elementary school classroom.



**ORGANIZER:**

- Identify group goals.
- Monitor progress.



**SUMMARIZER:**

- Records ideas.
- States final conclusions.

**RESEARCHER:**

- Gathers outside resources.
- Share resources with the group.

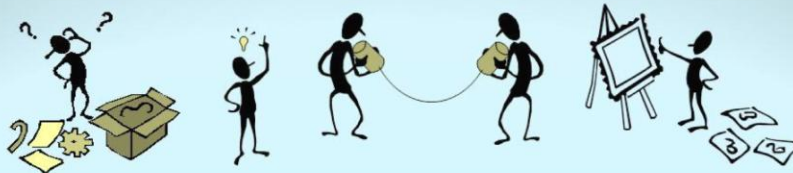


**INVESTIGATOR:**

- Records data.
- Collects & returns all equipment.

## Co-Op Skill Evaluation

- Fulfill individual co-op expectations.
- Share ideas and/or opinions.
- Listen to other co-op members.
- Persist with task despite difficulties.



### Co-Op Skill Evaluation #1

Group name \_\_\_\_\_ Name \_\_\_\_\_

**Directions:** Rate yourself and each Co-Op group member on each of the four Co-Op skills on a scale of 1 to 5. Dr. Bell reserves the right to make the final decision.

**1 = poor    2 = fair    3 = good    4 = excellent    5 = superior**




Co-Op Skills	Self	_____	_____	_____
1. Fulfill individual Co-Op expectations.				
1. Share ideas and/or opinions.				
1. Listen to other Co-Op members.				
1. Persist with task despite difficulties.				

Name \_\_\_\_\_

## Peer Contribution Assessment

Directions: Write the names of your peers in the space provided below. Rate yourself and each group member using a scale of 1 to 3 to best describe how you feel about your/his/her contribution to the group.

### Rating Scale

<p>1</p>  <p><b>Needs Improvement</b></p>	<p>2</p>  <p><b>Acceptable</b></p>	<p>3</p>  <p><b>Excellent</b></p>
--	---	--

### Evaluation Form

Statement	Self	_____ (name)	_____ (name)	_____ (name)
<b>Timeliness</b>				
Completed tasks thoroughly in a timely manner.				
<b>Participation</b>				
Actively collaborated with other members to achieve group objectives.				
Finished assigned task without any prodding from his/her group members.				
<b>Communication</b>				
Listened attentively to others.				
Shared many ideas related to the goals.				
Encouraged all members to share ideas.				
Accepted the ideas of others as they were presented.				
<b>TOTAL</b>				

I understand that for peer evaluation to be fair and helpful to all group members, I need to be honest in completing this evaluation and will not discuss scores with anyone in my class.

\_\_\_\_\_  
(your signature)

## HOW TO INCORPORATE COOPERATIVE LEARNING PRINCIPLES IN THE CLASSROOM: IT'S MORE THAN JUST PUTTING STUDENTS IN TEAMS

---

Julie I. Siciliano  
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In business organizations today, teams are a popular form of job design, and work teams represent a major change in the management of organizations. The traditional organizational model where managers think, supervisors push, and workers work is counterproductive in today's business environment. Self-directed work teams are seen as an important mechanism for dealing with today's complex and rapidly changing environment (Hitchcock & Willard, 1995). Similarly, the traditional model of business education, where professors lecture and students work individually with little interdependence with respect to their performance and grades is not in line with the business community's needs. As a result, businesses recommend that curriculum and teaching methods be modified to better develop student cognitive, communication, and interpersonal skills through the use of student groups in the learning process (Kunkel & Shafer, 1997). Group learning is an attempt to develop self-directed learning skills and to introduce students to real-world experiences before graduation.

One approach to group learning at the college level that has gained in popularity is cooperative (team-based) learning, where students work together in small groups that are structured to achieve positive interdependence (mutual goals and group rewards) and individual accountability (each student's respon-

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sibility for doing his or her share of the work and for mastery of all of the material to be learned). Although the effectiveness of cooperative learning in higher education has been documented (e.g., Astin, 1993; Cooper, Prescott, Cook, Smith, Mueck, and Cuseo, 1990; Goodsell, Maher, & Tinto, 1992), its use is not widespread across college campuses. One explanation, according to Manera and Glockhamer (1989) is that many college faculty actually believe they are using cooperative learning when they include a team component in the course design. Yet, according to these authors, most of the team activities exclusively emphasize the task, demand no interdependence among team members, and include no way to assess individual performance.

Johnson, Johnson, and Smith (1991) caution faculty:

Simply placing students in groups and telling them to work together does not mean that they know how to cooperate or that they will do so even if they know how. Many instructors believe that they are implementing cooperative learning when in fact they are missing its essence. Putting students into groups to learn is not the same as structuring cooperation among students. (p. 6)

Thus, this article describes a structure or model for designing team assignments using a cooperative learning framework wherein students help each other learn material from the course. It begins with a review of cooperative learning principles and then provides examples of how team assignments were structured in an undergraduate-level principles of management course.

### **The Cooperative Learning Concept**

The approaches to cooperative learning can be divided into two categories: direct and conceptual (Johnson et al., 1991). The direct approach consists of training faculty to use specific cooperative activities such as the jigsaw method (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978), where teams in class have critical information based on one aspect of the problem in question and must share their information to complete the task. This approach calls for the exact duplication of specific exercises. The conceptual approach, on the other hand, is the basis for this article and involves training faculty to apply general principles on how to structure cooperative learning activities in the faculty's subject area. Once the principles are understood, faculty have the flexibility to design cooperative lessons that can accommodate undergraduate, graduate, and adult learning classes and achieve course goals.

In the literature, the cooperative learning framework has five elements or principles: (a) positive interdependence, (b) face-to-face promotive interaction, (c) individual accountability, (d) social skills, and (e) group processing

(Johnson, Johnson, & Holubec, 1990). The first element, positive interdependence, is present when students must rely on one another to achieve a specific outcome. To increase the likelihood of an interdependent effort, the faculty member structures several interdependency mechanisms: (a) a mutually shared team goal that requires team members to agree on the answer and strategies for solving each problem or task at hand; (b) positive role interdependence in which each member is assigned a role, such as a leader who gets members involved in the learning activity quickly, an encourager of participation who encourages all team members to participate in the discussion, a record keeper who completes all team forms and study sheets, and a checker of understanding who makes sure all members understand the task at hand; (c) shared resources, such as one copy of the problem or task per team; and, lastly, (d) joint rewards, such as giving each team five points if all members score above 80% on a quiz associated with the material.

The second component of the framework is face-to-face promotive interaction among students. It exists when students help, assist, encourage, and support each other's efforts to learn. Team members explain to each other how to solve problems by discussing the nature of the concepts being learned, by teaching their knowledge to each other, and by explaining the connections between present and past learning. During in-class exercises in particular, the faculty member must provide the time, face-to-face seating arrangement, and encouragement for students to exchange ideas and help each other learn. The goal, role, and resource interdependence elements described earlier facilitate this process as well.

The third component of the cooperative learning framework is individual accountability, which exists when each student's performance is assessed and the results are given back to the team and the individual. The team must know who needs more support, encouragement, and assistance in completing the assignment. Members must know that they cannot seek a free ride or hitchhike on the work of others. Individual accountability can be structured by keeping the size of the team small, giving individual quizzes or tests to each student, and observing each team and recording the frequency with which each member contributes.

Social skills, such as interpersonal and small-group skills, are essential for cooperative learning, and it is important to spend some time describing the skills needed for each role. Providing bonus points when each member of the cooperative learning team demonstrates a high percentage of the social skills reviewed in class increases the likelihood of those skills being utilized (Johnson et al., 1991). Peer evaluations also provide a form of feedback to team members regarding their role performance.

The final component of the cooperative learning structure is group processing, to determine if the goals are achieved and to maintain effective working relationships among members. At the end of the cooperative learning exercise, teams identify something that each member did that helped the team and what each member could do to make the team even better during the next exercise.

Figure 1 shows the relationship between the five components described above. The shadowed boxes indicate key faculty responsibilities in creating the cooperative learning framework.

### **Application of Cooperative Learning Principles**

The cooperative learning framework was used in a principles of management course made up of 30 students meeting twice weekly (80-minute sessions). Typically, in-class team exercises have been a mechanism for having students apply the theories and concepts taught in this survey course. However, in previous semesters, team members did not stay on task, particularly during early morning course sessions. For example, in some teams, students would not focus entirely on the task assignment but instead discussed last week's sports event. In other teams, a member would not participate and would shrug off any attempts to involve him or her in the team exercise. Little attempt was made by the other members to assist those who did not understand the theory or concept being demonstrated, no matter how often the teams were instructed to do so.

Thus, a cooperative learning framework was developed to improve the team process, specifically, to keep student attention focused on the task and to provide incentive for students to assist one another in understanding the course concepts or theories. Five in-class exercises were designed using cooperative learning principles. The exercises totaled 10% of the course grade (each worth 2%). In addition, a 5% peer evaluation component was part of the course grade. Students developed criteria for team member performance and then rated members on how well they met the criteria.

#### **FORMING TEAMS AND ASSIGNING ROLES**

Practitioners in cooperative learning prefer to construct cooperative learning teams in a heterogeneous manner using achievement measures, such as GPA or test performance, or some other characteristic, such as class standing or gender. Random assignment of students or student self-selection of teammates is not recommended because these methods historically are less effective than when the instructor determines groupings (Cooper et al., 1990;

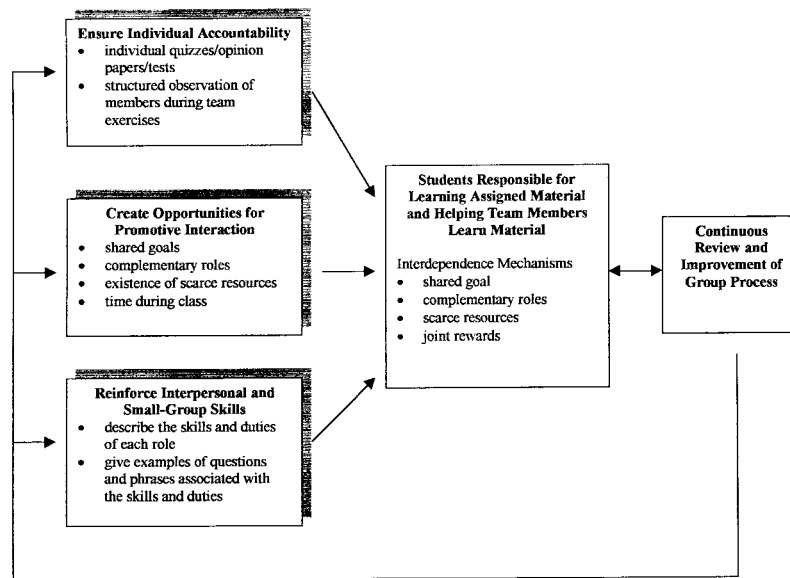


Figure 1: Relationship Among the Elements of Cooperative Learning

Fiechtner & Davis, 1990). For the principles of management class, team roles were first briefly reviewed. Then, students were surveyed for their preferences regarding roles (see Appendix A for a copy of the survey) and placed in groups of four (or three, depending on class size) based as closely as possible on their indicated role preferences. There is quite a bit of flexibility in assigning roles that accommodate student preferences, because students typically rate their interest in two or three of the roles with a score from 6 to 10 on the scale. Students were told that other factors would be taken into consideration as well when forming heterogeneous teams, such as class standing (freshmen, sophomore, or upperclassmen), gender, and academic major. GPA data was not available, because the students in this section were primarily first-semester freshmen.

Once teams were formed, a listing of all of the teams that showed the role assignment for each member was distributed to the class. At the start of the team exercises, skills and duties associated with each role were discussed in greater detail, as shown in Appendix B.



### IN-CLASS TEAM EXERCISES

With the teams in place and team members given some background about the role assignments, the in-class exercises began. Three of the five exercises are described in this section to demonstrate the cooperative learning framework in action. The first exercise dealt with a chapter on the history of management. At the start of class, a short multiple-choice quiz about the topics was given to ensure that students read the material beforehand. After the quiz, two copies of an exercise were given to each group. The exercise asked students to specify the perspective or theory of management that was being used in various scenarios. The team's goal was to answer the exercise questions. As the teams worked, the quiz was corrected and returned to the students. Team members shared the results and reviewed questions that were answered incorrectly. Five minutes before the end of the period, a member from each team was picked at random, and he or she stayed to answer several questions about the exercise. The team received the 2 percentage points for the exercise if the designated individual received an 80% or higher score on the end-of-the-class assessment. At the beginning of the next class, each team prepared a critique of its group process during the previous period and suggested improvements. For example, one team asked that more examples of the leader's skills be reviewed. Another team noted that the individual who answered the questions on the end-of-the-class assessment should be able to use his or her notes taken during the in-class exercise. That way, the team pointed out, there was less stress on members to memorize the team's decisions, particularly when the exercise involved a lot of variables. The professor agreed, and this became a new rule in the cooperative learning format.

A second exercise was designed to help students study for an upcoming test. On an individual basis, students brought to class expanded outlines of the chapters that would be included on the test, and the professor checked these for individual accountability purposes. Each team was assigned two chapters and given six blank index cards on which they developed questions about key concepts or theories on one side and the answers on the other side (similar to flash cards). All the teams shared their questions with the entire class, thus identifying key points from the chapters. Team members were encouraged to study for the exam together outside of class, and individuals were told they would receive a bonus of 10 points on the next test if all members of the group received a 75 or better on that test. This exercise demonstrated for students a technique for group study and provided a strong incentive for them to study as a group. Another incentive for active involvement in the exercise would be to inform students that a portion of the exam questions

would be taken directly from those questions generated by the teams as part of the in-class exercise.

A third exercise that dealt with organizational structure material consisted of a scenario where an organization changed its strategy and required a new structure. First, students were given 10 minutes to work on the problem individually. Then the teams drew charts on overhead transparencies of the organization before and after the strategy change, which the class reviewed together. At the end of the exercise, the letters A, B, C, and D, representing each of the roles, were written on separate pieces of paper, folded, and placed in an envelope. A student from the class randomly selected one of the papers from the envelope, which turned out to be marked C, and all of the record keepers stayed to answer short questions about their team decision. The exercise was worth 2 percentage points: one point for the team's in-class work and the other point for team member C's explanation of why that structure was chosen. This process helped to ensure that students who were not clear about organizational structure were helped by the other team members. It also provided an incentive for members to assist one another. Appendix C outlines the three exercises described above in terms of the cooperative learning framework.

#### **OTHER APPLICATIONS**

Cooperative learning principles can be applied to courses and team assignments involving advanced undergraduate and adult learners. Some professors may assume these audiences need less structure than first-semester freshmen and want more freedom and less direction. However, according to Simpson (1995), who observed adult learners assigned to groups in which cooperation was not structured, members engaged in competitive behavior within the teams, complained about the free-rider problem, and stated preferences for individual-based assignments. Structuring cooperation can improve the team experiences of these students who in the past were most likely given team assignments that lacked individual accountability, positive interdependence, and incentives to help one another learn.

For example, structured cooperation was used in a senior-level undergraduate strategy course where student teams operated a computer-simulated company for the entire semester. Part of the course goal was to expose students to team leadership and follower experiences, so team roles were changed three times during the semester, and feedback regarding team member performance

in each of the roles was part of the grade. Also, to encourage better understanding of the simulation details in the weekly decision rounds, two quizzes about simulation information and the team's performance were part of the course grading system. The quizzes were taken on an individual basis. For both quizzes, teams in which all members individually scored an 80 or better received bonus points on the team's final paper.

Cooperative lessons were also incorporated in an evening session consisting of full-time working students who were given a team project to complete outside of class. At the start of the project, students were quizzed individually on the course material. When the teams met outside of class, the recorders kept minutes that documented the questions and comments by team members in fulfilling their specific roles. The group reward was as follows: Teams were given in advance a set of essay questions about the content of their group project. Then, during class, individuals were randomly assigned one of the questions to answer. A portion of the team's grade was calculated based on the results of the individual answers.

In summary, exercises and projects, both inside and outside of the classroom, can be designed to enhance the group experience for a wide variety of student learners. For classes of upper-level and adult learners, incorporating structured assignments and explaining the rationale for them can help to offset some of the negative experiences students may have had in the past. Structured team assignments also can provide valuable practice for students who are increasingly being asked to participate in shared governance in organizational settings.

## **Discussion**

This article reported on a technique for structuring cooperation so that teams work together meaningfully during in-class exercises. The purpose of incorporating a cooperative learning framework was to keep team members focused on the task during each exercise and to provide motivation for students to assist one another in understanding course concepts and theories. Based on observation of the teams during the exercises, members stayed on task and more frequently assisted one another in understanding the material than was the case in past semesters when cooperation was not structured.

Students rated the cooperative learning exercises high (4.5 out of 5 in semester evaluations). Although there was one student who wrote on the

course evaluation and noted in class that he'd prefer to work independently, most of the student feedback regarding the format was positive. For example, the following comment was typical: "The group activities definitely helped me understand the chapter. We made sure each person knew the material. If they didn't, they would let the other team members down." Also, students wrote that the experience of team interdependence would be useful in the work place, a point that was emphasized throughout the semester by the professor, particularly when team member skills were reviewed and when teams discussed continuous improvement of group processes.

With regard to future research involving cooperative learning, opportunities for additional study are numerous. Although the evidence to date suggests that "the most successful activities are always highly structured and have very clear directions and expectations for how team members are to contribute and interact" (Cooper et al., 1990, p. 28), few empirical studies have documented the effects of structured team cooperation, particularly in business schools. Do students learn course material better and is there a difference in group satisfaction when cooperation among team members is structured? Is team learning more effective if there is consistent application of learning techniques over many classes in a student's curriculum?

With regard to teaching, structured cooperation, although still in its infancy in college classrooms, represents a technique for faculty to continuously improve the group component of their courses and for students to experience the interdependence of teams as part of their learning process.

### **Appendix A** **Team Role Survey**

---

Your name: \_\_\_\_\_

Please circle the number that best describes your level of interest in the following activities:

1. How would you rate your interest/motivation to work in teams?

1	2	3	4	5	6	7	8	9	10
very low		somewhat low			somewhat high			very high	



2. How interested are you in being a team leader (whose role is to get team members involved in activities and keep the team on track)?

1	2	3	4	5	6	7	8	9	10
very little interest			some interest				strong interest		

3. Would you be interested in completing forms and other records for the team?

1	2	3	4	5	6	7	8	9	10
very little interest			some interest				strong interest		

4. How interested are you in taking the role of encouraging others in your team to participate?

1	2	3	4	5	6	7	8	9	10
very little interest			some interest				strong interest		

5. Describe your interest in taking the role of checking other members' understanding of the exercise or problem the team is solving.

1	2	3	4	5	6	7	8	9	10
very little interest			some interest				strong interest		

6. How often have you worked in a team or group?

1	2	3	4
never	very rarely	occasionally	several times over the past year

### Appendix B Skills and Duties of Team Member Roles

<i>Team Member Role<sup>a</sup></i>	<i>Skills/Duties</i>	<i>Examples of Questions and Comments</i>
A. Leader	Direct team's activities to ensure all parts of the assignment are completed on time. Direct team members to stay on task. Encourage team dialogue about its processes.	"We are getting off of the topic and have 10 minutes left." "We have not answered the question but instead are reviewing another part of the chapter." "Team Member B, are you

*(continued)*

### Appendix B: Continued

<i>Team Member Role<sup>a</sup></i>	<i>Skills/Duties</i>	<i>Examples of Questions and Comments</i>
B. Encourager of Participation (may assume leader duties if necessary)	Encourage team members to fulfill their roles.	happy with the way we are all participating?"
	Encourage all team members to participate in the discussion.	"Team Member C, what is your opinion of our answer?"
	Make sure no team members dominate the discussion.	"Everyone, write your opinion on a piece of paper. I'll collect them and write them on the board. We'll discuss them (with or) without identifying who had what opinion."
	Ask for team member opinions.	
C. Recorder	Complete all team exercise material.	"Our performance to date is as follows . . ."
	Keep copies of all team forms and study sheets.	"Here is what we will submit as our response to the exercise question. Do we all agree that it represents our discussion?"
	Provide copies of information the team developed if a team member is absent.	
D. Checker of Understanding	Develop mechanisms to check the understanding of each member prior to the end of the exercise.	"Let's take a minute and separately write down why we chose option 3 and then compare our answers."
	Make sure each member can verbalize the reasoning behind the team's decision.	"Team Member A, will you repeat what our team's solution is?" "Team Member C, will you summarize for us why we decided to eliminate the third option?"

a. Team roles can be combined to accommodate three or four-person teams. For example, in three-person teams, the recorder may also assume the role of checker of understanding, or the checker of understanding might perform the duties of the encourager of participation.

## Appendix C Summary of In-Class Exercises and Cooperative Learning Principles

<i>Cooperative Learning Principles</i>	<i>Management History Exercise</i>	<i>Study for Exam Exercise</i>	<i>Organizational Structure Exercise</i>
1. Positive interdependence Goal interdependence	Answer all parts of the exercise	Identify key concepts for each chapter and put in question/answer format	Develop two organizational charts (before and after strategy change)
Role interdependence	Leader, checker of participation, record keeper, checker of understanding		
Resource interdependence	Two copies of exercise given to students	One set of index cards for each team	Two overhead transparencies per team
Reward interdependence	All team members receive 2 points for the exercise if the randomly chosen team member scores at a certain level (at the end of the Exercise)	All team members receive a 10-point bonus on the test if all members individually score 75 or better on the test	2-point exercise: 1 point = team charts; 1 point = randomly chosen member explains why the team chose its chart design
2. Face-to-face promotive interaction	Students teach and encourage one another during the exercise to ensure that the randomly chosen team member will be prepared to answer for the group		
3. Individual accountability	Quiz on chapter material before class exercise	Students tested individually on chapter material	Students prepare organizational charts before meeting in the team
4. Social skills		Behaviors and phrases described for each role	
5. Group processing		After each exercise, students brainstorm for improvements in team learning	

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I have included a lesson plan for cooperative learning that I used for my geometry class. There are some information components to recognize in addition to the learning objectives and assessment procedures. First, I describe how the groups will be formed. *Students will be placed in their Co-Op groups (i.e., Alpha, Beta, Delta, Gamma, Sigma, and Theta) for this nine week period. Students are placed in these groups by drawing random numbers from a hat.* Also, I provided a task rotation chart. With this high school group, I did not want all of the students working on the same task for behavioral and honesty reasons. Second, I outlined the policies and procedures for the students within the lesson plan. If you were to give this lesson plan to another teacher, would he or she have enough detailed information to implement the lesson without your assistance? If you can answer Yes, then you have a sequentially detailed instructional procedures. The cooperative learning template will be posted in CougarView. Below is a video link for “Examples of Cooperative Learning Activities” by Dr. Andrew Johnson. You can select the link or copy and paste it into your internet browser.

[www.bugforteachers.com/cooperative.html](http://www.bugforteachers.com/cooperative.html)

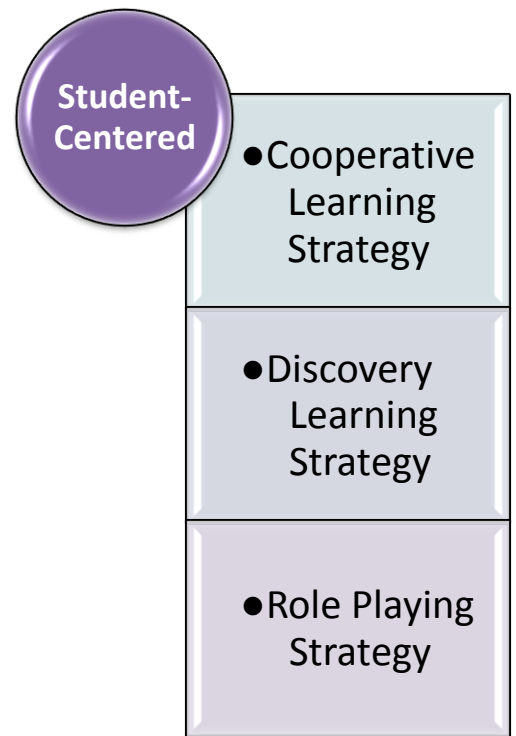
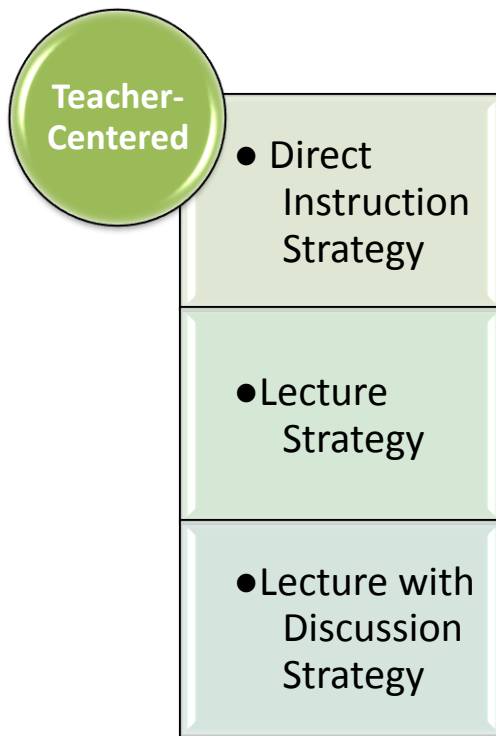
Retrieved from youtube.com.

### Discovery Learning

Read the Discovery Learning Overview on the following pages. At the end of the overview, there is a wonderful example of a magnet lesson using the discovery learning approach.

### Advantages and Disadvantages

A major advantage of discovery learning is student motivation. When



the natural curiosity of the students is stimulated, it creates a more engaging learning environment. Other advantages include increased student achievement and higher retention rates. There are some disadvantages. The amount of time needed for discovery learning is a major concern for this approach. Another concern is class size. If the class is too large, it is difficult to have the important one-to-one interactions. If the class is too small, then the shared experiences among the students are limited (Castronova, 2002).

### Role Playing

Role playing is a method for students to experience and participate with the lesson content in an active format instead of a passive format. Students tend to learn 80% of the material when they personally experience the content. Hence, role playing can improve student retention of material (Mohanna, 2008). While this student-centered strategy may be time consuming for the teacher, it is highly effective for actively engaging the students in learning. Role playing can foster an understanding of multiple perspectives, which is

essential in social studies classes, for example (Lyons, Kysilka, & Pawlas, 1998). When creating this type of learning activity, the teacher must define the problem and clearly define the roles. It is imperative for the teacher to give clear directions to the students. Some examples of role play activities were presented in Chapter 6 (Information Processing Theory).

The advantages of this instructional strategy are student motivation increases dramatically when the problem situation is introduced, opportunities for the student to assume different roles and see other points of view, and the activity allows the student to practice previously learned skills and explore other solutions. The disadvantages include some students may be too self-conscious and the activity may not be appropriate for large groups (ADPRIMA Instruction System, 2010).

### Practical Example

Here is a video of Joyce Evans, a kindergarten teacher in West Virginia. She is taking her class on to a pond. All of her lessons are connected with the scenario of “Life at the Pond”. At each learning center, the students

## COOPERATIVE LEARNING LESSON PLAN

**Lesson Title: Holiday Hunt**

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**Lesson Author: Dr. Jennifer L. Brown**

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**Grade Level: 10th grade**

**Subject Area: Geometry**

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### Time Allotted for the Lesson:

90 minutes (1 class block)

### Short Description of Lesson:

In this lesson, the students will apply the geometric concepts that have been learned in class (i.e., surface area, Pythagorean Theorem, and volume) while completing a scavenger-type hunt to collect data.

### Classroom Layout and Grouping of Students:

Students will be placed in their Co-op groups (i.e., Alpha, Beta, Delta, Gamma, Sigma, and Theta) for this nine week period. Students are placed in these groups by drawing random numbers from a hat.

Groups and Task Rotation

Group	Task A	Task B	Task C
Alpha	1	2	3
Beta	2	3	1
Delta	3	1	2
Gamma	1	2	3
Sigma	2	3	1
Theta	3	1	2

### State Curriculum Standards met in this lesson:

**MCC9-12.A.CED.1** Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

**MCC9-12.A.REI.1** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

**MCC9-12.G.SRT.8** Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.

**MCC9-12.G.GMD.3** Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.

**MCC9-12.G.MG.3** Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).

(Note: This lesson was created and implemented prior to the CCGPS.)

### Instructional Objective(s):

1. Collect data using a tape measure.
2. Apply the formulas for surface area and volume to solve a mathematical problem.
3. Apply the Pythagorean Theorem to solve a mathematical problem.

### Materials, Resources and Technology:

Materials needed for this lesson

1. three task sheets for each group
2. direction sheet for each group
3. tape measure for each group
4. scientific calculator for each student
5. clipboard or notebook

### Student's Present level of Performance and Knowledge:

Students should be familiar with the formulas for surface area and volume and for the Pythagorean Theorem. In addition, the students should be familiar with collecting data with a measure tape and with the rules for rounding to the nearest inch and nearest foot. Lastly, the students should be familiar solving equations and utilizing the scientific calculator.

### Instructional Procedures

#### Lesson Set:

The purpose of this activity is to apply the geometric concepts that have been learned in class. Do not be afraid to think outside the box! Successful completion of this activity requires problem-solving ability.

## Techniques and Activities:

1. Review policies and procedures listed on the Directions Sheet.
2. Allow one hour for the students to collect the required data.
3. Allow 30 minutes after lunch for the students to complete calculations.
4. Teacher will assess each task using the rubric.
5. Teacher will announce the winning group.

### *Procedures*

You and your group will complete three tasks within 1 hour. The entire group must complete the following check-ins (+/- 5 minutes) to receive full point value:

- Initial check-in with Dr. Bell (Room 502) 11:04 AM to collect first task.
- Checkpoint #1 with Mrs. Green (Room 208) at 11:30 AM to collect second task.
- Checkpoint #2 with Mrs. Skinner (Room 515) at 11:50 AM to collect third task.
- Final check-in with Dr. Bell (Room 502) at 12:11 PM.

You and your group may use the time after lunch to finish calculations. For the sake of time, you are encouraged to use the time to develop a plan and to gather necessary measurements/information. Final submission should include all work and the final answer in the appropriate box. Your final submission for all three tasks, along with assigned materials, is due to Dr. Bell in Room 502 by 1:06 PM on Tuesday, November 25, 2008. In the event of a point tie, the group that submitted their final submission first will be awarded the winning prize. Each member of the group with the highest score will receive an "Off-Campus Lunch" pass.

### *Policies*

1. The number of members in each group cannot exceed three.
2. Groups may not collaborate.
3. Remember... all school and classroom rules must be followed throughout this activity. Disrespectful and irresponsible behavior will result in disciplinary action!

### *Task A*

Ms. Sally Sue has decided to decorate her mobile unit for the holidays. Determine the surface area of the Mobile Unit #15 so she can purchase enough wrapping paper to cover the outside of the mobile unit. Assume there will not be any overlap with the wrapping paper. There will not be any paper on the white underpinning or underneath the mobile unit. Disregard the a/c unit and outside lights. HINT: You only need 4 measurements!

Your final sheet should contain measurements collected to the nearest inch, measurements calculated to the nearest foot, and your final answer.

*Task B*

Mr. Jim Bob, the county building inspector, wants to determine if the wall and floor on the first floor of the Vocational Building at LaGrange High School are “plumb” or “square”. He wants to use measurements only.

Your final sheet should contain measurements collected to the nearest inch, measurements calculated to the nearest foot, and your final answer.

*Task C*

Mr. Billy Bob wants to build a shipping box to send a LHS artifact to the soldiers in the Middle East. The box must be a polyhedron. What would be the dimensions of the shipping box to have the maximum efficiency? HINT: Remember the penny coke can activity! Think volume!

Your final sheet should contain a sketch of the LHS artifact, measurements collected to the nearest inch, measurements calculated to the nearest foot, and your final answer.

**Lesson Closure:**

Review the final answers for each group and compare them to the teacher’s measurements, calculations, and final answers. Announce the winning group.

**Modifications for Special Needs:**

- Teacher will walk around to the designated data collection sites to monitor student progress and answer any questions.
- Prompts will be given within each task to activate the students’ prior knowledge.
- Peers within the group will assist fellow students with reading task sheets.
- The teacher will read and explain the policies and procedures at the beginning of the class.
- Students can choose which Co-op roles they will fulfill.

**Supplemental Activities: Extension and Remediation:**

Teacher will demonstrate a similar problem using surface area, volume, and/or Pythagorean Theorem if students need remediation.

Teacher will allow the students to create their own mathematical problem that requires data collection and the use of surface area, volume, and/or Pythagorean Theorem as an extension activity.



## Assessment/Evaluation:

For each of the three tasks, the student groups will be evaluated using the following rubric. The total score will determine the winning group, and the total score will serve as a Class 2 assignment grade.

### Task Evaluation

- Completed (10 pts)
  - Collected all necessary measurements/data (5 pts)
  - Used mathematical procedure(s) to determine a final answer (5 pts)
- Application of correct concept (15 pts)
  - Evidence of geometric concepts (5 pts)
  - Evidence of algebraic concepts (5 pts)
  - Evidence of measurement concepts (5 pts)
- Accuracy (5 pts)
  - Correct answer (5 pts)

### Check-in Evaluation

- For each minute after the 5-minute window, 0.5 points will be deducted.
- No credit or task will be awarded until all group members check-in at the same time.

Point Tally Sheet for Holiday Hunt

	Initial Check-in	Check-point #1	Check-Point #2	Final Check-in	Task #1	Task #2	Task #3	Total
maximum	2.5	2.5	2.5	2.5	30	30	30	100

## Student Products:

Each group will submit a final report on the task sheet provided by the teacher and/or check-in supervisor for each of the three tasks. The final report should contain the measurements collected, measurements calculated, and the final answer.

# Discovery Learning Overview

## **Steps for Using Discovery Learning to Differentiate**

Discovery learning is an inquiry-based learning method. It takes place when a teacher sets up an experiment, acts as a coach, and provides clues along the way to help students come to solutions. In this way, teachers provide students with certain tools for learning a concept, and the students make sense of the tools.

Discovery learning is used mostly while students problem solve. It produces students who are constructivists as they work with others and learn from firsthand experiences. New information and skills are discovered as students use prior knowledge and past experiences. Students find problems, gather information, develop hypotheses, and prove their solutions.

Benefits of discovery learning include students having a role in their own learning and developing their creativity as they work on problems. Students develop problem-solving strategies when they encounter unfamiliar territory.

Discovery learning is largely attributed to Jerome Bruner. During the 1960s and 1970s, Bruner worked with the National Science Foundation, developing science curriculum. It was his beliefs that led to the promotion of discovery learning. Bruner believed that science curriculum should help students to become problem solvers by using discovery and inquiry. He said real learning takes place when students become problem solvers. As students test hypotheses and develop generalizations, they interact with the environment around them and discover solutions. When they discover their own solutions, they will better remember what was taught (Bruner 2004).

Bruner went against the thought that science was merely the accumulation of wisdom from textbooks. He believed that knowing was a process. When students are given structured problems, they learn concepts and problem-solving skills. The desire to know motivates students to solve the problems. Bruner's theory of instruction has four parts: curiosity and uncertainty; structure of knowledge; sequencing; and motivation.

### **Curiosity and Uncertainty**

The first part of Bruner's theory was that classes should offer experiences to make students want to learn or be predisposed to learning. The problem being explored must offer alternative solutions. This experience must have an amount of uncertainty, which in turn would peak students' interest and curiosity to solve the problem.

# Discovery Learning Overview *(cont.)*

## **Structure of Knowledge**

Bruner’s second (and some say the most important) point states that the teacher “must specify the ways in which a body of knowledge should be structured so that it can be most readily grasped” by students (Bruner 2004). He believed that teachers could present any problem to students as long as they simplify it so students can understand it. Whether the topic is chemistry or physics, or the concept is atomic structure or Newton’s laws, Bruner thought it could be taught to any level of students. To do this, it must be represented by either enactive representation (a set of actions), iconic representation (a set of pictures), or symbolic representation (logical statements).

## **Sequencing**

Bruner’s third principle states that the learner should be led through content sequentially. This will help students to understand and transfer the knowledge that is learned. First, students should complete hands-on activities that are concrete. Next, they should have a visual representation of the concept. Finally, students should move to using vocabulary or symbols having to do with the concept. He notes that this progression depends on individual learning styles.

## **Motivation**

Bruner’s final principle is that rewards from the teacher should gradually decrease until students are wholly satisfied with their inward abilities to solve problems. It is important that students receive feedback so they can develop knowledge and understanding.

# Discovery Learning Overview *(cont.)*

## Steps for Using Discovery Learning to Differentiate

1. Begin discovery learning by presenting students with a scenario that has a problem that they can solve. This scenario should be read aloud. You can place a copy of this on the overhead to allow all students to read it at the same time or make copies of it and distribute to students.
2. Depending on the class, you might have students work individually or with partners.
3. Next, distribute copies of the task to students. Read the task aloud and discuss any questions students might have.
  - ▶ **English Language Learners**—Meet with these learners to make sure they understand the scenario before beginning their projects. Because discovery learning is usually hands-on, English language learners will have a better understanding once the actual activity begins.
4. Address the necessary vocabulary by using graphic organizers. Have students fill in the graphic organizers using dictionaries and other reference materials. Tell them that they can consult someone nearby if they have a question about the vocabulary. If there is other information that students need to know, present it at this time.
  - ▶ **Below Grade Level and English Language Learners**—Meet with these students and work on the graphic organizers as a group to make sure they understand the activity. As these students see you model the right way to fill in their organizers, their understanding of the content will increase. Modify their definitions to be one or two words long. Another alteration is to have students play a game of role-play vocabulary, where they act out the vocabulary terms for better understanding.
5. Distribute materials and provide students time to work on the solutions to the problem.
6. For the final activity, have students present their final projects to the class. If applicable, have students enter a competition showcasing their solutions.

# Magical Magnets

Inquiry-Based Learning—Magical Magnets Student Reproducible

Name \_\_\_\_\_

**Metals or Nonmetals**

Directions: Write or draw each item in the first column. Will a magnet move the item? Put an "X" in the column you think is correct.

Item	Magnet will move it	Magnet will not move it

#50638 (i2270)—Applying Differentiation Strategies © Shell Education

## Skills Summary

### Science

Forces and motion

### Literacy Skill

Gathering information

### Differentiation Strategy

Inquiry-based learning  
(See page 204 for more information.)

## Classroom Management Tip

With very young students, it is best to work in a large group with discovery learning. This way, you can guide students to the core knowledge that they need to discover during the lesson.

## Overview of Activity

- ▶ In this activity, students will use magnets to help them classify objects as either nonmetals or metals.
- ▶ The teacher will set up a box in the front of the room containing metal and nonmetal objects.
- ▶ Students will make predictions about what items will move with the help of a magnet and then they will perform experiments to find out which items are metals and which items are nonmetals.

## How This Strategy Benefits Students

- ▶ Discovery learning benefits **above-grade-level** students because it is open-ended and provides these students with challenges not normally offered in regular classrooms.
- ▶ **On-grade-level** students benefit from discovery learning because it offers them the chance to learn about difficult concepts in a kid-friendly way by not only experimenting, but by comparing the results of their work.
- ▶ Students **below grade level** can benefit from discovery learning by doing activities instead of learning from textbooks. This increases the chance for knowledge to be stored in long-term memories.
- ▶ Discovery learning benefits **English language learners** because it provides a way for them to do hands-on activities, therefore showing what they know without having to use language skills.

## Learning Standards

- ▶ Students know that magnets can be used to make some things move without being touched.
- ▶ Students use a variety of sources to gather information.



# Magical Magnets *(cont.)*



## Preparation

Place various items in a big box at the front of the room. Include a set of metal materials such as paper clips, nuts, bolts, and washers. Also, place a set of nonmetals in the front of the room such as feathers, plastic, wood, marbles, rocks, string, etc. Have a large magnet or group of magnets at the front of the room.

## Whole-Class Activity

1. Tell your students that it is possible for them to make some of these objects move using a magnet. Distribute copies of the *Metals or Nonmetals activity sheet* (page 220) to students.
2. Ask students to predict if they think each item is moved by magnets or not moved by magnets. They should record these predictions on their activity sheets. Model this for your students.
3. Have different students come up to the box, choose an item, and then test the item using a magnet.
4. Students will see that the magnets make the metal items move. They will also see that magnets do not have any affect on nonmetal items in the box.
5. When students have finished experimenting, discuss their findings. Explain that not all of the items have the same properties. Depending on these properties, the items moved or did not move when placed near the magnet. Ask students if they know the property in an item that determines whether or not it can be moved by a magnet. (Magnets only move metal objects.) Ask students to talk about their predictions and what they found out as a result of the experiments.
6. Make a master list on the board, showing the metals and nonmetals.

## Assessment

Pay close attention to students as they respond to your questions. It might be helpful to use a popsicle-stick question method where students' names are written on sticks. During the discussion, you choose a stick from your hand and ask that student a question about the experiment. This way all students have the chance to respond verbally and you can assess what they have comprehended during the experiment.

Name \_\_\_\_\_

## Metals or Nonmetals

**Directions:** Write or draw each item in the first column. Will a magnet move the item? Put an “X” in the column you think is correct.

Item	Magnet will move it	Magnet will not move it

**Title:** Life at the Pond

**Creator:** Joyce L. Evans

**Grade Levels:** Pre-K and K- Math and Science

**Big Idea:** Collecting, counting and analyzing data

**Essential Question:** Why do we count and how do we find out how many?

**21<sup>st</sup> Century Content Standards and Objectives:**

- M.O.K.1.2 read, write, order, and compare numbers to 20 using multiple strategies (e.g. manipulatives, number line).
- M.O.K.1.10 create grade-appropriate picture and story problems, solve using a variety of strategies, present solutions and justify results.
- M.O.K.2.2 create, describe, and extend a repeating pattern using common objects, sound, and movement.
- M.O.K.5.1 collect, organize, display, and interpret data using a pictograph and bar graph (with and without technology)

**Materials:**

Books: The Hidden Life of the Pond, In the Small, Small Pond, Jump, Frog. Jump

“Question of Day Chart” and clothespins

Story board mats

Frog game made from paper, straws and tape

Writing Boards/markers

Manipulatives: frogs, bugs, fish

Venn circles or plastic plates on table or floor and small clear cups

Poster board strips for patterns and bucket of frogs

Clipboards and student names for formative assessment

Numberline and frog on magnet for counting, adding, counting on (*optional*)

Puppets - fish, frog, bug, snake used for brain stimulation and for telling stories at storyboard center (*optional*)

Rhyme- One Little Speckled Frog sitting on speckled log eating the most delicious bugs (*optional*)

Container for pond (e.g., small plastic pool) (*optional*)

Camera and Laptop for taking snapshots for assessment or sharing with parents (*optional*)

**Launch/Introduction (15-20 minutes)**

What is a pond?

Use The Hidden life of the Pond by David M. Schwartz and real photos by Dwight Kuhn to get the students excited.

What could you collect and count from a pond?

How could a mathematician count what is in the pond?

Finding out “How many” is something all of us need to be able to do.

When we go to the pond, what will we need to take with us?

Should we collect some animals from the pond?

What might we see by of the pond? In the pond?

Sing “Going on a Pond Hunt” by Joyce L. Evans.

Teacher: Going on a pond hunt.

Students: Going on a pond hunt.

Teacher: Wonder what we’ll see?

Students: Wonder what we’ll see?

Teacher: I think we’ll see some pond water.

Students: I think we’ll see some pond water.

Teacher: That is what we’ll see!

Students: That is what we’ll see!

Teacher: Going on a pond hunt.  
 Students: Going on a pond hunt.  
 Teacher: Wonder what we'll see?  
 Students: Wonder what we'll see?  
 Teacher: I think we'll see some fish.  
 Students: I think we'll see some fish.  
 Teacher: That is what we'll see!  
 Students: That is what we'll see!

*Song continues and teacher lets students fill in the blanks for what they will see.*

(optional) Write student responses on chart.

**Activity-Large Group**

Do you want to go? Use your clothespin to mark yes or no.  
 Use Question of the Day Chart and student clothespins to collect data.  
 Use clothespins with student names to collect information and analyze data.

**Activating Prior Knowledge**

If you remember reading this book In the Small, Small Pond by Denise Fleming, clap your hands. Who can tell me something they remember?  
 We are going on a pretend trip to the pond.  
 On our pretend trip we will look for living things and for patterns.  
 (Teacher asks good questions.) Who can find a pattern in our room?  
 Can anyone count the number of students who are going on our pretend trip?  
 What do we do to find out how many frogs? turtles? fish?  
 Let's count. Let's touch and count. Let's find out how many.

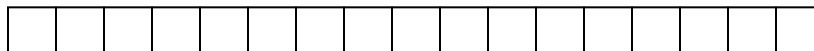
**Vocabulary—Can be on a word wall or writing board**

Pond	Frog	How many more?
Turtles	Bugs	How many?
Snakes	Sort	Same as
Fish	More	Equal to
Pattern	Less	

**Investigate/Explore (60 minutes)**

Create Centers for student discourse.

- Create Patterns** with frog manipulatives on pattern strips made from poster board



- Count Fish** using 1-1 correspondence and fish manipulatives (fish crackers)K students can group in sets of 5 and 10 using small clear cups or plastic plates.
- Sort Bugs** - Use Venn circles or sorting plates for students to sort variety of bugs (flies, butterflies, caterpillars, etc,) Teacher asks good questions such as: How did you sort? Can you tell me about your set or group of (flies) ? How many in the blue circle? How many in the yellow circle?
- Counting Jar with Turtles** – record in pictures, numbers or words. This is a one or two student center where they count what is in the jar and then show how many on a writing board or paper, using pictures, numbers and/or words.

5. **Frog Game** – numeral recognition (You will need: a straw for each student, small paper frog taped on a thinner straw and lily pads with numerals placed on floor.)

Directions:

Lily pads with numerals 1-10 or 1-20 are placed in a line in front of the student. The lily pads go from smallest to largest numeral. Frogs on small straws will fit inside the students' individual bigger straw. Student will blow to make frog jump. Students take turns making their frog jump by blowing through their own straw and watching how far and on what lily pad their frog lands. Identify the numeral or count up to that numeral. Student must then find that numeral on the vertical number line and a tally mark is placed there with the help of an adult.

6. **Frogs and Story Boards** -Student places frogs on the story board and creates a picture story and story problems with his/her board. This is problem solving and the teacher encourages use of math vocabulary and one to one correspondence when counting.

**Summarize/Debrief the Lesson (15 minutes)**

\* Sing "Went on a pond hunt!".

Teacher: Went on a pond hunt.

Students: Went on a pond hunt.

Teacher: Guess what we saw?

Students: Guess what we saw?

Teacher: We saw some \_\_\_\_\_.

*Let students fill in blank. ( fish, frogs, bugs, water, cattails, snakes)*

Students: We saw some \_\_\_\_\_.

Teacher: That is what we saw!

Students: That is what we saw!

Teacher: Went on a pond hunt.

Students: Went on a pond hunt.

Teacher: Guess what we saw?

Students: Guess what we saw?

Teacher: We saw some \_\_\_\_\_.

*Let students fill in blank. ( fish, frogs, bugs, water, cattails, snakes)*

Students: We saw some \_\_\_\_\_.

\* Return to the essential question, "Why do we count and how do we find out how many?"

\* Graph favorite animal from the pond – using a picture graph and analyze data. Did we find out how many in our class like the frog best?

\* Ask for a pattern created with the colored frogs in Center 1 and clap it out. (A,B,A,B,A,B) or (A,B,C,A,B,C)

\* Analyze the 1-20 vertical numberline to tally how far each frog jumped in Center 5. Which jumped the least? Which jumped the farthest? How did you find out how many? Did you do it the same way as your friend?

***Teacher Notes:***

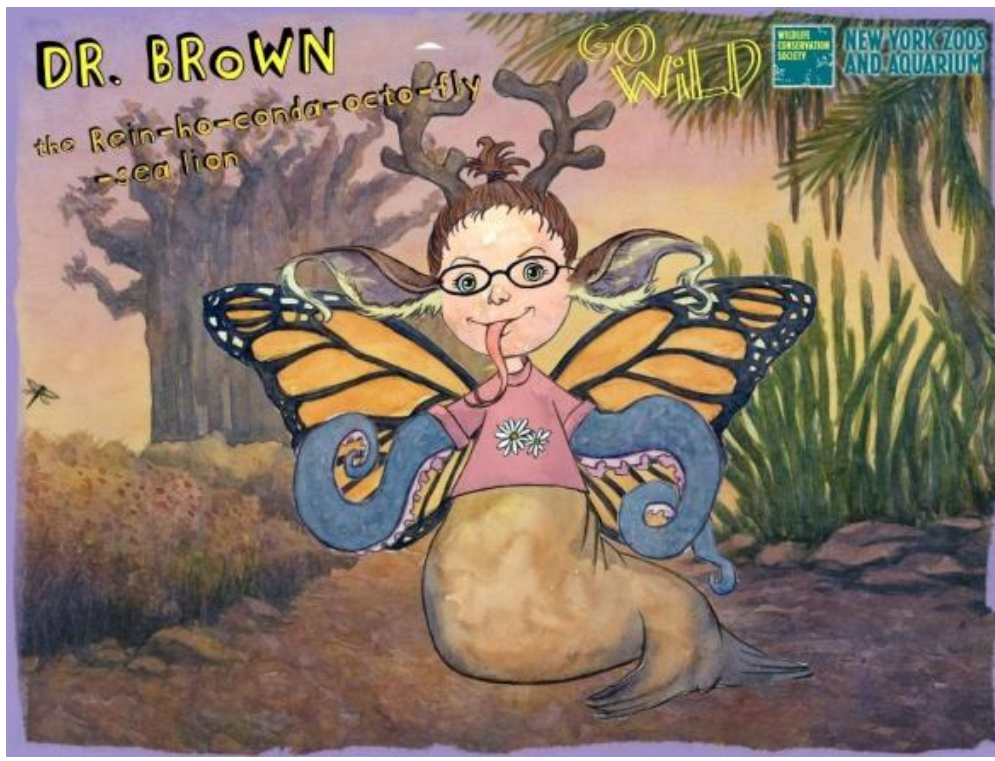
The teacher, teacher's aide, and parent volunteers facilitate centers, ask good questions, take pictures, and keep observations on clipboard using formative assessment. Room size and adult assistance determines the number of centers, but the first three centers are necessary to complete the objectives.

**Helpful Websites:**

<http://allaboutfrogs.org>

<http://jellyfishfun.com>





assume different roles while they acquire and/or practice their curriculum content. Her lesson plan is on the previous pages if you would like to try it. After watching her, I was excited about life at the pond. Notice how she lets the students know that it is okay to think for themselves and change their minds.

[www.bugforteachers.com/roleplay.html](http://www.bugforteachers.com/roleplay.html)

Retrieved from the West Virginia Department of Education.

Here is another activity that will excite the imagination of your students. Build your Wild Self, by the New York Zoo and Aquarium, allows the students to create a creature and learn about animals and their habitats ([www.buildyourwildself.com](http://www.buildyourwildself.com)). Take a look at my "wild" self!

### Conclusion

To review the student-centered strategies that were discussed in this chapter and to see practical applications of each strategy in a history classroom, read the Maloy and LaRoche article on the following pages.

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## Student-Centered Teaching Methods in the History Classroom: Ideas, Issues, and Insights for New Teachers

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*Using student-centered teaching methods presents a great challenge to many new middle and high school history teachers. Having experienced mostly teacher-centered instructional approaches (such as lectures and teacher-led discussions) in secondary school and college classes, they begin student teaching with few models for how to teach using less traditional forms of instruction. This paper discusses “Ideas, Issues, and Insights,” a strategy for prospective history teachers, as they explore the use of student-centered teaching methods with middle and high school students. It analyzes written reflection papers where history teacher candidates identify their ideas for three student-centered instructional methods — small group work, primary source analysis, and historical role-plays and simulations — as well as issues that arise when these student-centered methods are implemented in the classroom. As history teacher candidates respond to their ideas and issues, they generate insights about how they can best use student-centered teaching methods in their future classrooms. The first-person perspectives of history teacher candidates are highlighted to show how college students in one university-based teacher preparation program think about their student teaching experiences and their choice of instructional methods to use with students.*

Key Words: Group Work, Instructional Methods, New Teacher Preparation, Primary Sources, Role Plays, Simulations, Student-Centered Teaching

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### Introduction

New teachers tend to teach as they have been taught, basing classroom lessons and instructional methods on the styles and strategies they have experienced in their own schooling, or observed in the schools where they are teaching (Lortie, 1975; McCann, Johannessen, Kahn, & Flanagan, 2006; Smagorinsky & Whiting, 1995). Even when college or university teacher education courses present alternative instructional

approaches, the familiar outweighs the new (Britzman, 2003).

In middle and high school classrooms, teaching history and social studies as one has been taught typically featuring lectures by the teacher, whole class discussions, memorization of facts, content drawn primarily from textbooks, an emphasis on the histories of the majority White culture, and multiple-choice tests (Zemelman, Daniels, & Hyde, 2005). These methods reflect a more than a century-long tradition of teacher-centered instruction in American education (Cuban, 1993, 2009;

Evans, 2004), heightened by an education reform movement in which “test-based accountability — not standards — became our national education policy” (Ravitch, 2010, p. 21).

Tight budgets, larger class sizes, and a standards-based educational reform movement that includes mandatory statewide competency tests have further entrenched traditional modes of teaching (Grant, 2003, 2007; Wiersma, 2008). Many history and social studies teachers who might otherwise use student-centered instructional practices now view teacher-centered instruction as the best way to teach students the large amounts of material needed for the test.

At the same time, college teacher education programs (Doppen, 2007), professional organizations including the National Council for the Social Studies (1994), and social studies educators (Cornbleth, 2002; Dunn, 2000) strongly advocate the use of student-centered teaching methods such as interactive discussions, small group work, cooperative learning, primary source analysis, creative writing, dramatic read alouds, children’s and adolescent literature, democratic dialog/debate about historical issues, civic participation/community service learning, and performance-based assessments. In this view, student-centered methods prepare middle and high schoolers to become critical thinkers and decision-makers who can use the decisions and choices of people in the past to understand the issues of present and the future.

*Teaching methods are what teachers make of them.*

For college students preparing to become middle and high school teachers, these differing emphases between teacher-centered and student-centered instructional methods create conflict and confusion. Most attended secondary schools and college history classes where teacher-centered history instruction was the primary mode of instruction. Their teacher preparation programs now urge them to employ student-centered teaching methods that are outside the norm of how they have seen history taught in schools. Teacher candidates find themselves “hugging the middle,” in historian Larry Cuban’s (2009) succinct phrase, between the promise of student-centered and the reality of teacher-centered instructional approaches.

In this paper, we discuss a new teacher preparation strategy called “Ideas, Issues, and Insights” that asks history and social studies teacher candidates to thoughtfully consider the “hows” and “whys” of using student-centered instructional methods with middle and high school students. “Ideas, Issues, and Insights” is a central feature of the history/social studies teacher education program at the University of Massachusetts Amherst. To illustrate this approach, we present a summary of written reflections from teacher candidates about their use of three prominent student-centered teaching methods; small group work, primary source analysis, and role plays/simulations. Our analysis of these teacher reflections illustrates both the possibilities and complexities of incorporating student-centered methods into the instructional repertoires of new history teachers.

### **Ideas, Issues, and Insights in a History Teaching Methods Course**

“Ideas,” “Issues,” and “Insights” encapsulate dynamics that occur whenever a teacher uses a teaching method in the classroom.

- **Ideas** are the academic gains and learning accomplishments that teachers believe will result from using an instructional method with students. Teachers choose teaching methods because they believe that such methods will promote student engagement, inquiry learning, individual problem solving, thoughtful analysis, individual decision-making, or some other skill or competency essential to successful history and social studies education.
- **Issues** are the interpersonal dynamics and instructional complexities that accompany a teaching method when it is used in actual classroom settings. Real world uses of teaching methods can produce outcomes different from those presented in teaching theory. Since no teaching approach is without potential complications, teachers must be aware of what happens — positively and negatively — when using an instructional method with students. Negative experiences, left unaddressed, may make new teachers reluctant to continue using various teaching methods with students in the future.
- **Insights** are the strategies that occur when teachers thoughtfully reflect about the “Ideas” and “Issues” of a teaching method **and** make plans for how they will use that method differently in the future. By synthesizing ideas and issues into insights, teachers envision new ways to use a teaching method, while discovering the essential ingredients that must be in place for that method to succeed in classroom settings. Insights generate future-focused strategies for improving how teaching and learning will happen in the future.

We have used “Ideas, Issues, and Insights” with more than 250 new history/social studies teacher candidates over the past ten years. These middle and high school level teacher candidates, all enrolled in a history teaching methods and school-based pre-practicum course, are required to teach five lessons in schools using different student-centered history teaching methods drawn from the list presented in Table 1. Candidates are then asked to obtain student feedback about at least two of these teaching methods when they use them again during the student teaching component of their program.

*Teacher candidates find themselves “hugging the middle,” in historian Larry Cuban’s (2009) succinct phrase, between the promise of student-centered and the reality of teacher-centered instructional approaches.*



Table 1. Student-Centered History Teaching Methods

<b>Group work or Cooperative Learning</b> (includes students working in pairs, trios, and small groups; cooperative learning using a specific cooperative learning structure).	<b>Technology and Research</b> (includes using primary, secondary, and Internet sources correctly to analyze historical and contemporary events).
<b>Multicultural Histories and Herstories</b> (the experiences of people of color, women, working classes, non-western societies and cultures, and others typically excluded from the school curriculum).	<b>Primary Sources</b> (using first person narratives, photographs, newspaper articles, speeches, artwork, or other documents as part of lessons).
<b>Writing</b> (incorporating students' own creative writing and self-expression).	<b>Literature</b> (children's and adolescent fiction and nonfiction, adult fiction and nonfiction, and poetry)
<b>Civic Ideals and Community Service Learning</b> (involvement in social issues and community life, citizen involvement in politics)	<b>Controversy, Dialog, Debate</b> (focus on controversial issues, current events, social problems, origins and problems of democracy, resistance to oppression)
<b>Art/Music</b> (focus on student involvement through dramatic or artistic self-expression).	<b>Drama, Role-Play, Simulation</b> (engagement through historical re-creations, plays, and social simulations)

**Note:** All Student-Centered Teaching Methods are based on **Active Learning** includes strategies for engaging students including large and small group discussions, active note taking, visuals, materials other than the voice of the teacher, and other student involvement strategies.

After each teaching experience, our students write a two to four page reflection paper focusing on the “Ideas,” “Issues,” and “Insights” raised by one of the methods, explaining:

- **Ideas** gained about this teaching method for promoting student learning.
- **Issues** that arose from the lesson.
- **Insights** about future lessons that resulted from using this method.

Although we require six reflection papers, we encourage teacher candidates to teach and reflect at least ten times during their school-based prepracticum, and many more times during student teaching. As a result, candidates are constantly thinking about the “Ideas,” “Issues,” and “Insights” presented by student-centered teaching methods. In addition, we spend time in our methods classes on what are called “I-Team” presentations. Candidates

share the “Ideas,” “Issues,” and “Insights” they have as they use different methods with their students.

“Ideas, Issues, and Insights” assume that no teaching method is automatically student-centered or teacher-centered. Teaching methods are what teachers make of them. Discussing the methods in Table 1, we emphasize that teachers create student-centeredness by doing some or all of the following activities every time they teach:

- Creating opportunities for meaningful interactions and conversations among teachers and students throughout a class period.
- Using materials beyond one’s own voice as a teacher such as videos, photographs, audio recordings, primary and secondary sources, and interactive websites.
- Changing the mode of instructional delivery regularly during a class period



so that there is small group and individual work time as well as large group teacher presentations.

- Incorporating student ideas and suggestions about how classes are organized and delivered as a way to promote greater student engagement and commitment to learning.

A focus on teaching and reflection differentiates “Ideas, Issues, and Insights” as a teacher preparation approach. Candidates must use different teaching methods with students, even methods they are not always comfortable with from past personal experiences. In so doing, they become a *teacher of students* and a *student of teaching*. They perform the role of teacher by designing and delivering lessons to middle and high school students. They learn about teaching by analyzing the possible advantages and potential issues associated with every instructional method, and then formulating action plans for how they will use those methods in the future with students. History/social studies teacher preparation is thus defined as a process of continual growth and development where college students learn about different instructional methods and how to make them a sub-

stantive part of their daily work in the classroom.

We have seen history and social studies teacher candidates grow as professionals as they thoughtfully consider what worked, what did not work, and what they might do differently when using student-centered teaching methods. We share that growth in the following summaries and analysis of candidate comments about small group work, primary source analysis, and role-plays and simulations.

### Small Group Work

Small group work is the first student-centered teaching method we ask teacher candidates to explore in our history teaching methods course (Table 2). In theory, small group work reduces the size of the classroom for middle and high school students, making it easier for individuals to express their ideas, while becoming actively engaged in a topic of study. It offers opportunities to share ideas and information, deepening everyone’s understanding of historical content. Small group work breaks the one-way flow of teacher lectures and it promotes teamwork among students, many of whom might not otherwise work and learn together (Cohen, 1994).

Table 2. Ideas, Issues, and Insights for Small Group Work

Student-Centered Teaching Method	Ideas (benefits and accomplishments)	Issues (complexities and tensions)	Insights (future plans and strategies)
Small Group Work	Groups gain the attention of students and get them to start thinking about ideas, whereas lecturing may lose their interest.	Students refuse to participate, do not get along, or one person does all the work for the group.	Groups need clearly focused academic activities that can be finished in a reasonable amount of time.
	Group work activity can ground abstract ideas in more concrete terms that are easier for students to understand.	Teachers are unsure how to assign students to groups, how long to let groups work together, and how to let groups share what they have done with the rest of the class.	Make each member of the group responsible for a portion of the group activity.

	Group work simulates the roles of citizens in a democratic society where collective action is essential to effective government.	Students may be loud and animated and spend time talking about unrelated topics, possibly distracting classmates (Build “down time” into activities).	Develop methods for moving students from large group to small groups and back to large groups.
		Standing in the front of the room and urging students to stay focused on group work is usually not sufficient to keep students on task.	Assign grades to students for group participation to focus energy on their common activity.
			Develop extension activities to give to individuals or groups who finish an activity before others.

Our teacher candidates see multiple benefits to small group work. One high school student teacher noted that, *“not only can students benefit from other students work, but . . . it is more fun to learn by talking and sharing ideas with other people.”* A middle school candidate found that group work increased student involvement as they analyzed the text of The Mayflower Compact:

*I found these methods of teaching to be very helpful in gaining the attention of the students and getting them to start thinking about the ideas, whereas lecturing on a subject may lose the interest of many people. The activity grounded the abstract ideas that we were talking about in concrete and current terms that are easy for students to understand.*

Teacher candidates commented how group work changes the classroom experience for students, sometimes in dramatic ways. One noted that group work, *“helps to promote equity in the classroom, and allows all my students to have an opportunity to learn because this method teaches students to take control of the conversation, encourages respect of other opinions, and promotes debate and critical*

*thinking.”* Another candidate noted how *“some students who are normally shy and non-participatory in class opened up and excelled as group leaders,”* although there were others who *“did not enjoy group work, felt uncomfortable and participated minimally.”* Reading feedback from students after small groups completed a geography lesson on Southeast Asia, a middle school candidate was surprised by the impact of group work on student attitudes. One of this teacher’s students wrote: *“I was so shy to work with people, but Mr. L. helped me to talk to people and I made new friends.”*

Our teacher candidates also tell us that small group work increases student understanding of history. Historical events become seen as more nuanced and complex when small groups consider the perspectives and actions of different societal groups. Students begin thinking about the power of ideas as well as the choices that individuals and groups make in various situations and circumstances.

Initially, teacher candidates see group work as a straightforward process; divide the class up into smaller units and conduct a planned activity. In practice, group work does not work that way, as one high school candidate stated: *“I thought that working in a group would be easy; what I learned was for some students it*



was quite difficult coming up with a consensus about classroom protocols with other students.” Teacher candidates found they were unsure how to assign students to groups, how many students to put together at one time, how long students should spend in groups, and how to let groups share their work with the class. Noted one middle school student teacher:

*I asked the students to break into groups of four, which I thought would be an easy task. Some dragged their feet while others were in groups of four or five. I could have given them a number or devised a different way to get them into groups.*

Another candidate observed that many times, “when you allow students to choose their own groups, students who are already marginalized become even more marginalized and humiliated because no one wants to work with them.”

Once underway, group activities do not always proceed smoothly or quietly. Students often become quite animated and loud. They spend group time talking about friends, fashion, and food rather than academic topics. Some individuals do most of the assigned work, while others do little but free ride on the efforts of peers. Some groups finish ahead of others and sit, awaiting instructions for what to do next. Some students refuse to participate, creating a potential clash of authority between the teacher and class members.

Reflecting on how to make group work succeed, teacher candidates offer four main insights. First, they recognize the importance of managing the flow of group activities, seamlessly moving students from a whole class to small groups and back to a whole class. This means that teachers need many different ways to group students, rather than relying on students to choose groups on their own. “One way I have attempted to address this issue during larger projects that take more than one or two days,” noted one high school teacher

candidate, is to ask “students to write on paper who they want to work with.” Taking into account student requests, the teacher tried to “form the groups based on who I think will work best together.” Students could switch groups once, but everyone received a daily grade based on how they contributed to the success of group work.

Second, new teacher candidates recognize they face regular decisions about how much to let students engage in conversation and socializing during group time. Noted one teacher candidate:

*Students who were finished with the spreadsheet began talking about unrelated topics, possibly distracting their classmates. Through this insight, I was able to further understand student differentiation and that it is alright for certain students to have a minute or two of “down time” if they have finished an assignment early.*

Third, comparing their students’ responses to small group activities versus whole class lectures, teacher candidates tell us that student passivity, not student activity, is a significant barrier to effective instruction. It is easier to re-focus students engaged in conversation and a learning activity than to try to motivate youngsters disengaged by lectures or teacher-led question/answer sessions. It is also essential to have extension or independent activities ready for student group members who finish first so no one is sitting idly waiting for their peers to complete the assignment.

*“Ideas,” “Issues,” and “Insights” encapsulate dynamics that occur whenever a teacher uses a teaching method in the classroom.*

Finally, teacher candidates are struck by how important it is to give middle and high school students' meaningful academic work to complete during small group time. Without activities that students find interesting and relevant, all the teacher-made rules, regulations, and routines in the world are not likely to produce learning results. One high school student teacher created a 5-4-3-2-1 activity where small groups analyzed the distribution of wealth in the world. Students were asked to list five countries they deemed rich or poor, and then place a sticky note on a large world map for each one. Once all the group choices were displayed, the students were asked to generate four observations about the map and three questions about their observations. The students then had to offer two possible explanations for one of the questions before deciding on one explanation that best explained their observation. The students responded positively to this activity, demonstrating for this teacher candidate that students will do small group work that they consider purposeful and meaningful.

### Primary Source Analysis

Primary source material is the second student-centered instructional method we discuss

in our history teaching methods class (Table 3). Written by real people dealing with complex issues and problems of their times, primary sources have a unique capacity to engage students in the study of the past (Schur, 2007; Veccia, 2003). Some sources are essential documents of American democracy such as the Magna Carta, Declaration of Independence, Constitution, Bill of Rights, and Declaration of Sentiments. Students gain an understanding of the principles of our society by reading and discussing these materials. Other sources (Abraham Lincoln's "Gettysburg Address" or Martin Luther King's "Letter From a Birmingham Jail") present history as it was lived, from a first-person point of view that invites interpretation and analysis. As one history teacher candidate concluded:

*Teaching the 'agreed upon' history presented by textbooks is boring and often times unfaithful to history, whether deliberate or not. Primary source documents allow us to give the students the sense of 'being there,' as well as to teach them that there are many different viewpoints of history that must be taken into consideration.*

*..., comparing their students' responses to small group activities versus whole class lectures, teacher candidates tell us that student passivity, not student activity, is a significant barrier to effective instruction.*

Table 3. Ideas, Issues, and Insights for Primary Sources

<b>Student-Centered Teaching Method</b>	<b>Ideas</b> (benefits & accomplishments)	<b>Issues</b> (complexities & tensions)	<b>Insights</b> (future plans & strategies)
<b>Primary Sources</b>	First-hand accounts give a more enriched understanding of how life was lived in the past. They give students the sense of “being there” as events happened	Language in sources can be difficult for students to read; students become bogged down and frustrated by not just individual words, but syntax as well.	Provide primary source texts in larger fonts with plenty of space for students to write comments and responses.
	Primary sources teach students that there are many different viewpoints that must be taken into consideration when analyzing events.	Students may not have developed their abilities to draw conclusions, think critically, and carry on a conversation about what they are reading or watching. (When students struggle with terms in a reading, stop the activity and engage in a class-wide discussion).	Use stimulating openers to get students engaged with sources; for example, use the Peters Projection Map as a way to start looking at historic maps.
	Visual primary sources (maps, photos, political cartoons, art, drawings) engage the interest of many students.		Have specific questions for students to answer while reading or after reading a primary source.
	Sources offer useful ways to connect modern day events to historical ones; for example Prohibition and marijuana repeal or the wars in Vietnam and Iraq.		Develop an ongoing vocabulary list of unfamiliar terms and concepts from sources.
	As students read primary sources more frequently, their level of comfort increases, as does their ability to interpret the material and draw out important information.		
			Preview sources before handing them to the students as a way to set the context for the material and to identify potentially confusing language and concepts.
			When students struggle with primary source material, stop a reading activity and discuss the source as a whole class.
			Invite students to create modern everyday language translations of sources.



Repeatedly in their reflections, teacher candidates described how primary sources make history meaningful for students. “*Students do not get the full impact of any event when they read history textbooks,*” stated one candidate. “*All they get are the facts. When a student reads the firsthand account of someone during any time period, they get a much more enriching understanding of how life was during the time being studied.*” Primary sources also bring historical events alive in uniquely compelling ways as one candidate found when she taught about the Lowell Mill Girls during the early industrial period in Massachusetts:

*Students can read the factual information about a time period, but they can also get the feelings that some people had during the time. . . Students will learn that some women went to work in order to get a male family member through school. They get this fact, but they also get the feelings of the women.*

Still, using primary source materials in class raises significant issues for new teacher candidates, and for their students as well. The language of primary source documents can be difficult to read, as one new teacher candidate recalled after asking his students to interpret World War I propaganda posters. He found these documents “*bold and exciting, much more colorful and emotional than text reading,*” but some students found “*the language of images, symbols, etc. on the posters challenging to the point of frustration.*” Another candidate put her students in groups of three to read and explain the first five paragraphs from Thomas Jefferson’s First Inaugural Address: “*I discovered that the students got caught up too much in the language and became bogged down and frustrated by not just the individual words, but by the syntax the address was written in.*”

Other candidates noted that many important primary sources are lengthy documents so there is never enough time in a 45- or even 90-minute

class period for students to read one entirely. Candidates found themselves unsure how to decide which parts of a document they should ask their students to read.

Developing strategies for reading and analyzing primary sources proved to be a puzzling issue for teacher candidates. Asking individual students to read dense text silently was generally ineffective. Students became bored and did not finish the assignment. Having not read or understood the material, the students were unable to discuss these documents, creating even more boredom and frustration. As one candidate noted after having his students read Martin Luther King, Jr’s “I Have a Dream” Speech:

*I expected students to understand the material without any insight from me. I thought the document was easy to understand, but I don’t think that is reasonable anymore. In the future, I will analyze each document so every student has a good foundation and starting point.*

Putting students in small groups to help each other interpret a document after it has been read aloud can also be problematic. Middle and high school students often have not developed their abilities to draw conclusions, think critically, and carry on a nuanced conversation about what they are reading. Groups become stymied by the task of interpretation and efforts to discuss the material and may end up in arguments about personal opinions or beliefs.

Despite problems, teacher candidates offered the following insights about using primary sources in the classroom. First, continued exposure to primary source material generates improvements in students’ analytical and interpretive skills. Noted one high school student teacher, as “*students read primary sources more frequently, their level of comfort and their ability to interpret and draw out important information will increase.*”



Second, middle and high school students need specific questions to answer as they read primary documents. One teacher candidate had his class, “*keep a running vocabulary list so the next time they read a source they will be familiar with the words.*” Another suggested, “*when students are struggling, stop the reading activity and begin a class-wide interpretation of the source.*” A third teacher used group work and a real-world scenario to focus on historical comprehension and understanding of primary sources related to Prohibition:

*I explained to the students that it was 1925 and they are going to have a meeting with their Congressional representatives to try to influence their vote for or against the following proposition: ‘Should the production, sale, and consumption of alcohol continue to be prohibited under the law?’ I split the room so that half of the students were on the pro side of prohibition and half of the students were on the con side of prohibition. I selected five students to be our Congressional representatives. I then gave the students a selection of primary source readings that I compiled along with a document analysis sheet and told them to take time to read through and mine the documents for three stellar points they could use for their debate to emphasize their position.*

Third, middle and high school students enjoy creating everyday language translations of primary sources. When students re-state key terms and ideas in their own words, they gain a greater sense of ownership of the material. One middle school teacher candidate displayed a copy of the Declaration of Independence on an interactive whiteboard in the front of the classroom. As his students discussed the document and proposed everyday words as synonyms for 18<sup>th</sup> century language, he added

them above the text on the board for everyone to see. The result was lively class participation and a broadened understanding of the document by the students.

Finally, students respond when teachers use primary sources that are not just text-based documents, as one candidate after:

*Musical lyrics and artistic images are great ways to foster critical thinking. When listening to music and looking at images, the information is not always there for the taking, you have to dig a little deeper to really understand it. By looking closely at each line and asking, ‘Why do you think this one was written?’ ‘What is behind it?’ ‘What do they mean when they sing this?’ It forces the students to look in-depth and make an interpretation. Just like when I spoke about having to listen and dissect what an artist is singing, the same is true when having to create a political cartoon or political poster.*

Another candidate saw the importance of combining multiple primary sources as part of a lesson on the Vietnam War:

*After reviewing counter-culture and mainstream movements, the students had to interpret them and demonstrate their interpretations by creating “hawk/silent majority” or “dove/hippie” political cartoons or political posters. . . We read an excerpt from [President Richard M.] Nixon’s Silent Majority speech, looked at cartoons from a counter-cultural perspective, and listened and read the lyrics of protest song.*

### **Role Plays and Simulations**

Role-plays and simulations are a third student-centered teaching method highlighted in our history instructional methods class (Table

4). As a teaching strategy, role-plays and simulations encompass a wide range of activities from dramatizing pivotal moments (Constitutional Convention of 1787), to re-enacting key events (1955 Montgomery Bus Boycott), to conducting mock trials (famous Supreme Court

cases). Such activities can be highly engaging instructional methods in history classrooms. Many students like to perform in front of an audience and the opportunity of playing a role produces greater involvement and discussion than when teachers lecture and ask questions.

Table 4. Issues, Insights, and Ideas for Role Plays & Simulations

<b>Student-Centered Teaching Method</b>	<b>Ideas</b> (benefits and accomplishments)	<b>Issues</b> (complexities and tensions)	<b>Insights</b> (future plans and strategies)
<b>Role Plays &amp; Simulations</b>	Role-Plays and simulations provide fun-filled and informative ways to illustrate the multiple perspectives that are part of any historical event.	Some students are shy or experience stage fright in front of the class.	Give students sources and information about people and events so everyone has information on which to base their roles.
	Use role-plays to recreate historical situations (for example, factory labor for children in English factories can be defended or opposed as part of the study of the Factory Act).	Students may overact their parts, or become silly or disruptive, and the role-play thus presents a classroom management problem.	Go over rules for appropriate behavior and conduct before beginning a role-play or simulation activity.
	Students become invested in what they are learning since it is from the point of view of historical individuals or groups.	Students find it difficult to role-play a famous historical figure.	Assess preparation as well as performance in giving grades for students. Some students may have understood their roles, but not performed them well in class.
	Use role-plays to teach otherwise abstract ideas or concepts (for example, having students create skits and songs about the economic and taxation policies that contributed to the start of the Revolutionary War).		Give roles to groups, not just individuals, to broaden the activity.
			Debrief after a role-play to restate key points and clarify any historical misunderstandings or misinformation.
			Establish more concrete way of evaluating role-plays than asking one person to speak on behalf of the group, such as a combination of oral and written responses by all members of the group.
			Use short (one to five minute long) role-plays and simulations to illustrate a particular concept or event.



Teacher candidates find that role-plays and simulations bring historical moments alive for students. As one high school candidate stated, *“as a student I preferred lectures and reading to more interactive methods. However, using the role-play methods showed me how much students want to interact with the content when the content allows students to express themselves creatively.* A middle school teacher asked his students for their feedback after a role-play activity and found he *“was encouraged by responses that said they enjoyed being part of the history. More than one student liked role playing because they could ‘visualize what happened back then’.”*

Names, dates, facts, and places are made memorable by theater-like experiences, staying in for students’ memories longer because they are personally attached to the activity. More importantly, the factors and forces that motivate historical people to take certain actions are rendered more understandable. Participating in a role-play or simulation, students connect immediately and emotionally to historical situations, asking, for example, why Rosa Parks refused to give up her seat on a segregated city bus, why Abraham Lincoln issued the Emancipation Proclamation, or why President Truman chose to drop the atomic bomb on Japan.

*..., middle and high school students need specific questions to answer as they read primary documents.*

Role-plays and simulations make abstract ideas real to students. As a middle school student teacher noted, *“I taught ‘no taxation without representation’ by having the students create skits or songs to illustrate the economic and taxation policies that contributed to the start of the Revolutionary War.”* The students were then able to explain the concepts of taxation and the government’s role in individual lives. Another middle school candidate created a geography-based role-play lesson, and said

*by putting the students in the shoes of countries such as Argentina, Brazil, and Ecuador, I had them think about what they would need and what they would try to take advantage of in order to create the most successful economy possible.*

At the same time, role-plays and simulations are complex instructional methods for teacher candidates. Students sometimes overact their parts, resulting in everyone losing focus on historical information and themes. In other cases, students have not learned enough about their historical roles, resulting in inaccuracies and misrepresentations that take additional class time to explain and correct. Some middle and high school students, despite sincere effort, are not able to step outside their modern-day frame of reference to imagine what an historical person might say or do and why. Noted one student teacher: *“I have found it challenging to get students to interact with material where they are truly stepping into a different perspective than their own, when there is not a drawn out activity to encourage thinking from an alternative frame of reference.”*

After reflection, teacher candidates offer the following insights about using role-plays and simulations. First, role-plays and simulations do not have to be lengthy, time-consuming activities. When one high school student teacher taught the political and economic events leading to the American Revolution, he pre-

tended to arrest a student for not having a stamp on a piece of paper (to illustrate the Stamp Act), and then asked the students in the last two rows in the room to stand during part of the class (to illustrate the Quartering Act). His short (less than 30 seconds-long) role-plays memorably established the impact of the Stamp Act and the Quartering Act in the minds of students.

Second, teacher candidates understood the importance of giving students sufficient information about the individuals or groups they will play in a role-play or simulation. As one candidate observed, *“It should be customary to consider the multiple perspectives that are a part of understanding any historical event/person, and simulations make taking on that role fun and informative.”* Other candidates remarked about the usefulness of letting student role-players base their performances on primary source material. One student teacher used oral histories from the book *Voices of Freedom* (Hampton, Fayer, & Flynn, 1991) to recreate the Montgomery Bus Boycott in her class.

*..., teacher candidates understood the importance of giving students sufficient information about the individuals or groups they will play in a role-play or simulation.*

Multiple ways for students to discuss and process a role-play or simulation was a third insight of our teacher candidates. Role-plays are not ends in themselves, but ways to engage students more deeply in questioning historical material. One candidate remarked that in the future he would ask his students to comment directly about what motivated different historical figures to act as they did, noting that *“simulations provide the space for learning to take on a more first-person perspective with the material, rather than seeing the information from a ‘birds-eye’ view.”*

### Conclusion

For a decade in our teaching methods classes, we have asked history and social studies teacher candidates to use student-centered teaching methods with middle and high school students, and then identify specific “Ideas, Issues, and Insights” based on their experiences. Analyzing their written reflections, we found important professional learning happening in two key areas of teaching practice. First, the reality of designing and teaching classes to include student-centered teaching methods pushes teacher candidates outside their comfort levels, asking them, in most cases, to venture beyond the familiar experiences of how they were taught. Such journeys are not easy, and our candidates report that they feel considerable anxiety, especially before using student-centered methods with their classes. Yet, when student-centered methods succeed, and middle and high school students become actively and thoughtfully engaged in academic work, future teachers see new possibilities for using these methods to promote learning in history and social studies classes.

Second, the opportunity to reflect and write about teaching experiences, framed by the “Ideas, Issues, and Insights” assignment, becomes particularly revealing for these aspiring teachers. Putting feeling and thoughts on paper helped reveal the surprises and



impressions that happen when teaching history and social studies for the first time. Over and over again, candidates use the word “surprise” in their written reflections; “*one thing that surprised me*” or “*what surprised me most*” appeared often as they grappled with how the realities of teaching differed from their beginning assumptions. Our students were recognizing first-hand how there are no problem-free, guaranteed successful teaching methods for the history classroom. Every instructional strategy has strengths that can be maximized and limitations that can be minimized by the actions of a teacher.

The idea that teachers can control the outcomes of their teaching is especially important for new teachers. Instead of concluding after a frustrating experience that a student-centered teaching method is not useful for them or does not fit their style, our candidates saw that teachers can adjust and adapt their instruction to make a method work for students. What works in one class, however, may not work the same way in another class with another group of students. In that class, a different set of adjustments may be needed, as one candidate noted after using music from different countries and cultures as a primary source:

*One class enjoyed the reading of lyrics and hearing the music and identifying the songs, while the other class seemed to want nothing to do with it. This was helpful because it showed to me how I can approach the classes and what I can do to improve the classes.*

We conclude that beginning teachers can continually improve their practice by making explicit the “Ideas, Issues, and Insights” that underlie different teaching methods. It shows that success in using student-centered teaching methods comes from how those lessons are designed and implemented by teachers. “Ideas, Issues, and Insights” gives new teachers a powerful framework for continually designing,

expanding, and improving their practice in the history and social studies classroom.



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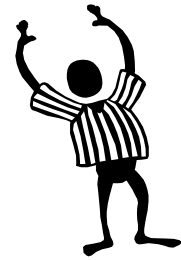
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## LEARNING OBJECTIVES



1. Identify common mistakes in classroom management.



2. Identify examples of daily classroom procedures.



## The heart of effective teaching is Classroom management.

A teacher could create the greatest lessons, but, if the students are not engaged in learning, the students will not benefit from the lesson preparation and implementation.

### What is classroom management?

Classroom management is the practice and procedures used by a teacher to maintain a learning environment. Classroom management can be divided into three sections: daily classroom procedures, behavior management, and high expectations (Wong & Wong, 2005).

Print the notetaking guide on pages 276 - 279!

### Daily Classroom Procedures

As a math teacher, in my classroom, I expected the students to enter the classroom and get their calculators along with any handouts off the tables. Once seated, they were to place their homework on their desks and begin the bellringer. An example of my bellringer sheet is presented on the next two pages. After moving around the room to

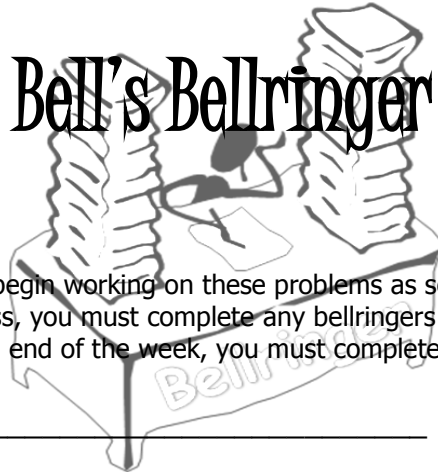
check homework completion, I reviewed the bellringer and homework. Afterwards, I began my lesson for the day. I used the same routine every day. In addition, I began the semester with procedural instruction. I usually spent three days of embedding the procedural instruction into the daily lesson. If the students are younger, you will need to give more instructional time. It is also important to provide review opportunities throughout the school



Today's Agenda Board from my high school classroom.



# Dr. Bell's Bellringer Sheet



- It is your responsibility to begin working on these problems as soon as the warning bell rings.
- If you are absent from class, you must complete any bellringers that you missed.
- To receive full credit at the end of the week, you must complete all components of the bellringer.

Name \_\_\_\_\_ Period/Block \_\_\_\_\_

<p>M</p> <p>Date: _____</p>		<p>Essential Question</p>
<p>T</p> <p>Date: _____</p>		<p>Essential Question</p>

<p>W</p> <p>Date: _____</p>		<p>Essential Question</p>
<p>R</p> <p>Date: _____</p>		<p>Essential Question</p>
<p>F</p> <p>Date: _____</p>		<p>Essential Question</p>



year and immediately preceding the particular activity. Eventually, if used in a continuous manner, the procedures will become second nature for the students.

Another procedure that needs to be discussed with the students is daily agenda and missing assignments. I listed "Today's Agenda" on the markerboard so the students can see "What are we going to do today?". On this markerboard, I would list the bellringer, lesson topics and/or activities, and the homework assignment. (See picture on page 151.) Missed assignments is another major issue for students who are absent from your class. I used a "While you were out" memo to list the lesson topic and homework assignment. I also stapled any handouts to the memo. I placed the memo in a folder by class period for the students to retrieve upon returning to class. The students did not have to ask me, "What did I miss yesterday?"

With routines and procedures, the students must receive daily instruction about how the procedure works and who to contact if the procedure does not work. Some teachers tell their students to ask two people before asking the teacher. I told my high school students to ask me if their handouts or calculator was missing but see a fellow classmate for the class notes.



Pictured Left: The Missing Assignments box where the memos were filed. Pictured Below: "While you were out" memo that was completed by me when a student missed class.

**"While you were out" MEMO**

To: \_\_\_\_\_

From: Dr. Bell

Date: \_\_\_\_\_

YES       NO  
Did I check HW?

YES       NO  
Did you miss a test or quiz?

YES       NO  
Did I hand back a test?

Today's Lesson: \_\_\_\_\_

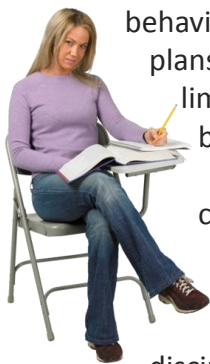
\_\_\_\_\_

Homework: \_\_\_\_\_

\_\_\_\_\_

### Discipline Procedures

As a class, we could discuss discipline procedures for the entire semester. There are a variety of behavior management plans, including, but not limited to, behaviorism, choice theory, cooperative discipline, and positive classroom discipline. The following



article gives you a user-friendly overview of 12 common classroom management mistakes and how to remedy them within the classroom.

### High Expectations

Lastly, the key to success with all students is high expectations. If you expect the worst, then you will see the worst behavior. No matter what the day before held, begin each day with a positive attitude and high

expectations for your students. "My students will pass the test! My students will master multiplication tables! My students will write a paragraph!" There will be disappointments, but we are human. We are working with other humans who live in the real world. At every age, the students are perceptive of the teacher's feelings for them. The students will rise to your expectations.

# Classroom Behavior Management: A Dozen Common Mistakes and What to Do Instead

PATRICIA M. BARBETTA, KATHLEEN LEONG NORONA, AND DAVID F. BICARD

**ABSTRACT:** This article presents a dozen common classroom management mistakes that teachers make, followed by suggestions as to what we should do instead. The mistakes presented are committed frequently at many grade levels and in all types of learning environments. The recommended suggestions are relatively easy to implement and useful for all types of learners.

**KEY WORDS:** behavior, classroom management, functional assessment

One of our primary responsibilities as teachers is to help our students learn. It is difficult for learning to take place in chaotic environments. Subsequently, we are challenged daily to create and maintain a positive, productive classroom atmosphere conducive to learning. On any given day, this can be quite a challenge. In our attempts to face this challenge, we find ourselves making common classroom behavior management mistakes. This article is designed to present some of these common mistakes followed by suggestions as to what we should do instead. The mistakes presented are committed frequently, at many grade levels and in all types of learning environments. Each suggestion is relatively easy to implement and useful for all types of learners.

We have based our suggestions on several assumptions and beliefs. First and foremost, teachers have considerable influence over student behavior. This is particularly true if interventions begin early and are supported at home. Next, most student misbehaviors are learned and occur for a reason. It is our job to determine those reasons and teach appropriate behaviors to replace those misbehaviors. We believe that prevention is the most effective form of behavior management. That is, the most efficient way to eliminate misbehaviors is to prevent their occurrence or escalation from the beginning. Using a proactive approach also allows us to focus more on teaching appropriate behaviors rather than eliminating negative behaviors. Our experience tells us that management systems should be flexible enough to meet the changing needs of our classrooms. Finally, students, parents, and other professionals can be effective partners in behavior management.

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## Mistake #1: Defining Misbehavior By How It Looks

When attempting to change misbehavior, we often describe it by only how it looks (e.g., calling out, hitting, getting out of seat). Defining misbehavior by how it looks only provides us with an incomplete picture of the behavior; it tells us little about why it occurred and doesn't help much in our behavior-change efforts. For example, a student who is off task is a common classroom problem. If two of our students are off task regularly, they may or may not be off task for the same reason. If they are off task for different reasons, our approaches to change their behaviors may need to differ. Actually, a strategy that will eliminate the off-task behavior of one student might worsen the off-task behavior of the other. Defining a misbehavior by how it looks tells us nothing about why it occurred and often doesn't help in our behavior-change efforts. Just because two behaviors look the same, doesn't mean they are the same.

### *Instead: Define Misbehavior By Its Function*

To develop a better strategy to manage misbehaviors, we need to ask ourselves, "What was the function of this misbehavior?" Or more simply, "What did the student gain from the misbehavior?" Though our students' misbehaviors appear to occur for no reason, they do serve a purpose, otherwise they would not occur. Although some behavior problems are the result of organic issues (e.g., hyperactivity) most misbehaviors function for one of two following reasons: (a) to get something (e.g., attention from another student or teacher, gain a privilege, get a toy) or (b) to avoid something (e.g., schoolwork, teacher demands). For example, the two off-task students mentioned previously—one student might be off task to get our attention, whereas the other might be off task because his or her assignment was too difficult. For the attention-seeking student, we could ignore his or her off-task behavior and only give him our attention when he is behaving appropriately. For the academically frustrated student, a change in his or her assignment (e.g., fewer problems to solve, clearer directions) might elimi-

nate the off-task behaviors. Clearly, these misbehaviors serve dissimilar functions and need to be solved differently.

## Mistake #2: Asking, "Why Did You Do That?"

Although we are tempted, it is not a good idea to ask our students, "Why did you do that?" First, many times our students will not know the reasons why they misbehaved. Second, we often will not like their answers. For example, if Victor is playing at his desk during our lesson and we ask him why, he may very well say, "Because this lesson is so boring." We are not likely to be pleased with that response.

### *Instead: Assess the Behavior Directly to Determine its Function*

The function of a behavior is the purpose it serves the student (i.e., what the student gets from it). As stated previously, most misbehaviors serve a getting or an avoiding function. To determine a behavior's function, we need to study what is happening in the classroom before and after it occurs. This information-gathering procedure is called a *functional assessment*. An Antecedent-Behavior-Consequence (ABC) chart can be used as a functional assessment tool. An ABC chart has three columns on which we record the behavior and what happened before and after it. The standard way to make this chart is to separate a sheet of paper into three columns and label the first *Antecedent*, the second *Behavior*, and the third *Consequence*. When the misbehavior occurs, it is written down in the behavior column, then the observer records what happened immediately before (recorded in the antecedent column) and after its occurrence (recorded in the consequence column). To make data collection simpler, a modified ABC chart can be used that contains several predetermined categories of teacher or peer antecedent behavior, student responses, and consequential events (See Figure 1).

A functional assessment gives us a more complete picture of the misbehavior by including the environmental antecedents and consequences in its description (Alberto & Troutman, 2003). Once we determine the function of a misbehavior ("why" it occurs), we need to teach and reinforce an appropriate replacement behavior that serves the same function as

the misbehavior. For instance, if a functional assessment reveals that Olivia teases her friends at recess because it is the only time that she gets their attention, we need to teach Olivia appropriate methods to get peer attention, such as sharing or asking to be invited to join in a game. A functional assessment might reveal that changes in our teaching methods are needed. For instance, if Ricardo tends to act out during math class, a change in how or what we are teaching may be in order. The problem might be that Ricardo is missing some prerequisite math skills. By reviewing those prerequisite math skills, we could reduce his frustrations and acting out, and maximize his learning.

Many times, an ABC analysis is all that is needed to determine a functional assessment. For complex behavior problems, a more detailed, multifaceted functional assessment may be needed. At those times, we should contact a behavior-management specialist, school psychologist, or other trained professional for a more thorough assessment. Conducting a functional assessment can be time consuming. However, research shows that behavior-change programs designed from this process tend to be more effective than those begun without the comprehensive information provided by this assessment (Kamps, 2002). For additional information on conducting a functional assessment, we recommend visiting the Center for Effective Collaboration and Practice Web site at <http://cecp.air.org/fba/>.

## Mistake #3: When an Approach Isn't Working, Try Harder

When a management approach isn't working, our first tendency is to try harder. The problem is that we most often try harder negatively. We make loud, disapproving statements, increase negative consequences, or remove more privileges. This does not do anything to teach appropriate behavior. Instead, our increased negativity results in impaired student-teacher relationships and increases the likelihood of our students feeling defeated.

### *Instead: Try Another Way*

When an approach is not working, instead of trying harder, we should try another way. Some examples include ver-



Student's Name: \_\_\_\_\_ Date(s): \_\_\_\_\_

Check all that apply each time the student engages in the inappropriate behavior.

What Happened Before?	Behavior	What Happened After?
<input type="checkbox"/> Academic Task requested <input type="checkbox"/> Academic task too easy <input type="checkbox"/> Academic task too hard <input type="checkbox"/> Academic task unmotivating <input type="checkbox"/> Academic task long <input type="checkbox"/> Academic task unclear <input type="checkbox"/> Teacher reprimand <input type="checkbox"/> Asked to go somewhere <input type="checkbox"/> Peer teasing <input type="checkbox"/> Peer encouragement  Other: _____ _____ _____	<input type="checkbox"/> 1. Talk-outs in class <input type="checkbox"/> 2. Noncompliance <input type="checkbox"/> 3. Verbal aggression <input type="checkbox"/> 4. Inappropriate language <input type="checkbox"/> 5. Disruptive <input type="checkbox"/> 6. Not completing work <input type="checkbox"/> 7. Fidgeting  <input type="checkbox"/> 8. _____ <input type="checkbox"/> 9. _____	<b>Get/obtain</b> <input type="checkbox"/> Adult attention <input type="checkbox"/> Desired activity/item <input type="checkbox"/> Peer attention  <b>Avoid/escape</b> <input type="checkbox"/> Academic task <input type="checkbox"/> Teacher request/demands <input type="checkbox"/> Teacher correction <input type="checkbox"/> Classroom <input type="checkbox"/> Peer social contact  Other: _____ _____

*Note.* This is only a partial functional assessment form. The complete form would include several opportunities to record ABC assessments.

**FIGURE 1. Antecedent-Behavior-Consequence (ABC) functional assessment form.**

bal redirecting, proximity control, reinforcing incompatible behaviors, changing the academic tasks and providing additional cues or prompts. These approaches are more effective, simpler to use, and create a more positive classroom climate than trying harder. If two of our students, Danny and Sara, are talking in class, instead of reprimanding them, we could walk in their direction (use proximity control), make eye contact, and provide a nonverbal cue to get on task. This approach allows Danny and Sara to save face with their peers and promotes teacher respect.

Instead of increasing negative consequences, we should increase the frequency of contingent praise for appropriate student behavior. Teacher praise is easy to deliver and is one of the most powerful tools available to us. In fact, praise (or some type of reinforcement) should be included in all approaches to behavior change. For example, when Jamal is off task, instead of reprimanding, we should find another student who is on-task and praise that student. This will reinforce the on task student and has the added benefit of notifying Jamal of his misbehavior,

without singling him out. When using praise, we should remember that it is effective when it is provided immediately (minimally before the next opportunity to perform the behavior again), specifically (by identifying the behavior as we praise), and frequently.

Our most challenging students, such as students with severe emotional and behavioral problems, often need the most reinforcement, yet they often receive the least. Descriptive research of classrooms for children with behavior disorders shows low praise rates of only 1.2 to 4.5 times per hour (Gable, Hendrickson, Young, Shores, & Stowitschek, 1983; Shores et al., 1993; Van Acker, Grant, & Henry, 1996; Wehby, Symons, & Shores, 1995). This trend needs to be changed.

Finally, when we find ourselves making more stop than start requests, we need to reverse our behavior. For example, instead of asking Sam to stop talking, ask him to work on his assignment. When he complies, provide praise. For excellent resources on practical, positive classroom management techniques, see Rhode, Jenson, and Reavis (1992) and Kerr and Nelson (2002) in the appendix.

#### **Mistake #4: Violating the Principles of Good Classroom Rules**

Classroom rules play a vital role in effective classroom management. However, rules alone exert little influence over student behavior. Too often, rules are posted at the beginning of the year, briefly reviewed once, and then attended to minimally. When this is the case, they have little to no effect on student behavior.

*Instead: Follow the Guidelines for Classroom Rules*

There are several rules for rule setting that, when followed, help create orderly, productive classrooms that teach appropriate social skills along with the academic curriculum. To be more effective, our classrooms should have four-to-six rules that could govern most classroom situations. Too many rules can make it difficult for students to comply and for teachers to enforce. Along with other professionals (e.g., Gathercoal, 1997; Paine, Radicchi, Rosellini, Deutchman, & Darch, 1983), we see benefits to students actively participating in rule setting. When students play an



active role, they begin to learn the rules, and they are more inclined to have rule ownership. The rules become their rules, not our rules. To include students, conduct several short rule-setting meetings the first few days of school. For these meetings to be effective, we need to share with our students the rule-making guidelines (e.g., the rules need to be stated positively, they have to be observable and measurable, consequences need to be realistic). With guidelines in place, students often select rules similar to the ones we would have selected. Without guidelines, students are inclined to make too many rules, make rules that are too stringent, and make those that are not specific enough.

Classroom rules should be simple, specific, clear, and measurable. The degree of rule simplicity depends on the age and ability levels of our students. For younger students, we may want to include pictures in the rule posters. Rules are specific when they are clear and unambiguous. For example, the rule “bring books, paper, and pencils to class” is much clearer than the rule “be ready to learn.” Clearly stated rules are easily observed and measured. The classroom rules should be posted.

Another characteristic of effective rules is that they are stated positively. Positively stated rules are “do” rules. Do rules provide information as to how to behave and set the occasion for teacher praise. An example is “Raise your hand for permission to talk.” Conversely, negatively stated rules or “don’t” rules tell students what not to do and encourage us to attend to student rule breaking. An example of a don’t rule is “Don’t call out.”

Some teachers develop subrules that correspond with each of the major classroom rules. For example, a classroom rule might be, “Follow classroom expectations.” One of the corresponding subrules for line behavior could be “Keep your hands and feet to yourself.” Once the subrules are set, we need to teach or role play appropriate behavior by having mini-lessons (3–5 minutes) several times a day for the first few weeks of school. Some teachers continue to review subrules prior to each activity or periodically, depending on their students’ needs. A simple, quick way to review is to have a student volunteer to read the posted subrules prior to each major activity.

We consistently need to carry out the consequences and noncompliance of our classroom rules or they will mean very little. If our students follow the rules for group work at the learning center, we should verbally praise them and provide additional reinforcement as needed (e.g., stickers, extra free time). On the other hand, if the classroom consequence for fighting with a peer is the loss of recess, then we must make certain that we follow through. We need to make clear the consequences for following and not following the rules (Babyak, Luze, & Kamps, 2000).

We often need reminders to praise our students throughout the school day. One way is to place a sign in the back of the room that says, “Have you praised your students lately?” Each time we notice the sign, we should praise a student or the group for following one of the classroom rules. Another way is to keep a running tally of our praise comments on an index card or on a card clipped to a string that hangs from our necks (similar to those used with many school identification cards).

To summarize, the guidelines for classroom rules include the following: (a) develop 4–6 measurable, observable, positive classroom rules and include students in rule development; (b) teach the rules and subrules directly; (c) post the rules and review them frequently; and, (d) be sure to carry out the consequences for rule compliance and noncompliance.

### **Mistake #5: Treating All Misbehaviors as “Won’t Dos”**

When students misbehave, it often seems as though it is exclusively a motivational issue. At times, this is true. On those occasions, we need to increase the reinforcement for appropriate behavior and eliminate it for inappropriate behavior. However, several misbehaviors are due to a lack of appropriate skills not a lack of motivation. We call these behaviors “can’t dos.”

*Instead: Treat Some Behaviors as Can’t Dos*

Can’t dos occur because of lack of skills not lack of motivation or reinforcement. We should deal with can’t do misbehaviors the same way that we deal with

student’s academic mistakes. When students make repeated errors during our lessons, we make changes in how we teach (e.g., provide more examples, allow students to practice more), and provide more intensive instruction. Our improved lessons make us more proactive teachers, decreasing the likelihood of chronic, academic errors being repeated. This preventative approach is referred to as precorrection (Colvin, Sugai, & Patching, 1993). In contrast, when students chronically misbehave, we are more inclined to remain reactive, provide only correction procedures (simply tell them that they are misbehaving), and increase the intensity of our negative consequences. We would be more effective in solving chronic misbehaviors if we moved into the precorrection mode.

The following are seven major precorrection steps:

- Step 1. Identify the context and the predictable behavior (where and when the misbehavior occurs);
- Step 2. Specify expected behavior (what we want instead);
- Step 3. Systematically modify the context (e.g., changes in instruction, tasks, schedules, seating arrangements);
- Step 4. Conduct behavior rehearsals (have students practice the appropriate behavior);
- Step 5. Provide strong reinforcement such as frequent and immediate teacher praise;
- Step 6. Prompt expected behaviors; and
- Step 7. Monitor the plan (collect data on student performance).

Let’s apply this step to a traditional classroom behavior problem—calling out during teacher-led instruction. The misbehavior occurs during guided instruction (Step 1). The behavior that we want instead is for our students to raise their hands and wait to be called on (Step 2). To accomplish this goal, we could verbally remind our students to raise their hands prior to each question and no longer respond to our students’ call outs. Also, we could model hand-raising as we ask the question to prompt students to do the same (Steps 3 and 6). Before our teacher-led lessons, we could have a short review of the rules for appropriate hand-raising (Step 4). When our students raise





their hands appropriately, we should praise immediately and frequently and perhaps give them bonus points on the classroom management system (Step 5). Finally, to determine if our plan is effective, we should tally how often students appropriately raise their hands (Step 7).

Although initially more time consuming, precorrection procedures allow us to be more proactive than reactive and to reduce or eliminate behavior problems before they become well established. This, in turn, increases the amount of time that we have to reinforce appropriate behavior.

### **Mistake #6: Lack of Planning for Transition Time**

When planning our teaching day, planning for transitions often gets overlooked. Yet, a significant amount of class time is spent transitioning from one subject to another or from one place to another. Without proper planning, transitioning can be one of the most frustrating times of the day for teachers. These times seem to invite behavior problems. Why? At times students are not ready for the transition. Inconsistent expectations cause transition problems. Furthermore, because we are often transitioning with the students, our attention is diverted away from them, making transitions longer and inviting even more misbehavior.

#### *Instead: Appropriately Plan for Transition Time*

Successful transitioning requires just as much planning as effective academic instruction, but the time is worth it. When transitions are done quickly and quietly, it allows lessons to start on time and can set a positive tone for the lesson, whereas unplanned, poorly done transitions can waste valuable time and cause negative student–teacher interactions.

Transition problems can be reduced significantly by following a few practical procedures. First, it is best that our transition expectations are consistent, meaning the same rules apply for each type of transition. Consistency begins by developing transition rules with our students (e.g., quietly put materials away, keep your hands and feet to yourself.)

Once we have developed our transition rules, we should teach them to our stu-

dents. We can do this by having brief lessons at the beginning of the school year followed by frequent reviews. It is a good idea to post the transition rules, and have a student volunteer to read them before transitioning. We should consistently provide readiness signals or cues for pending transitions. We can do this by letting our students know that in 5 minutes the next activity will begin and that it is time to finish the task at hand. We need to follow that statement by praising students as we see them finishing their tasks. It is important not to move to the next step of the transitioning process until everyone has followed the previous steps. For example, if we ask our students to return to their seats and get out their math books, everyone needs to have followed those directions before we begin our math lesson. For groups that have a difficult time switching gears, such as many students with learning disabilities or behavior disorders, providing a 30-second group silence at their seats prior to beginning the next activity promotes calmness before moving on. This is particularly useful when students are returning from a highly stimulating activity, such as physical education.

Many students respond positively to transition timing games. To do this, first set a time goal (e.g., everyone should be in line within 20 seconds). Using a stopwatch, time their transition and then praise individual students or the group for meeting the goal. When transitions involve leaving the classroom, prior to leaving, we should have our students take out the materials for the lesson that is going to be conducted on their return. This will facilitate getting started when they return to the classroom.

Our role as teachers during transitions should be to monitor students' performance and to praise appropriate behavior. To do this, we must have our materials prepared ahead of time. When needed, we should use students or aides to gather materials or equipment, allowing us to better attend to our students and provide praise.

### **Mistake #7: Ignoring All or Nothing at All**

Ignoring can be a valuable tool in reducing misbehaviors when used with

behavior-building strategies. However, it's difficult for many of us to determine which behaviors to ignore and which to give attention. We tend to take ignoring to extremes by ignoring almost all misbehaviors or none at all. Neither approach is effective.

#### *Instead: Ignore Wisely*

First, not all behaviors should be ignored. We should only ignore the behaviors motivated for our attention. For example, if Larry is playing his favorite computer game instead of doing math, ignoring him will not work because his behavior is not motivated by our attention. His motivation is playing on the computer. However, when behaviors are attention seeking we need to ignore continuously (every single time). As soon as we begin to ignore our student's misbehavior, he or she will seek it elsewhere, most likely from peers. It can be difficult for peers to ignore misbehaviors. Therefore, ignoring misbehavior should be a classroom rule that receives powerful reinforcement. Also, we need to plan for the misbehavior to get worse (happen more often and more intensely) before it improves. When this happens, we must continue to ignore.

Ignoring must be used in combination with behavior-building strategies, such as reinforcement of appropriate behaviors, teaching replacement behaviors, and reinforcing peers. Ignoring teaches students what not to do, but does not teach them what they should do instead. For example, a preschool student, Monica, has a tendency to tug at our clothing or yell to get our attention. In this scenario, we should ignore these misbehaviors. In addition, we need to teach Monica appropriate ways to gain our attention (e.g., raising her hand, saying "excuse me") and praise her each time she uses these replacement behaviors. To add to the effectiveness, we could also praise peers who, in her presence, appropriately seek our attention.

There are occasions when ignoring is inappropriate. These include when there are concerns for observational learning of misbehaviors, when our students are engaging in extreme or dangerous behaviors, and, as stated earlier, when the misbehavior is not attention seeking.



## **Mistake #8: Overuse and Misuse of Time Out**

Time out occurs when a teacher removes a student for a specific time from a chance to receive reinforcement. There are several time-out strategies ranging from brief in-class ignoring to placing a student in a secluded area. We are tempted to overuse time out because it results in a reprieve from problematic students. At times, we misuse time out by inadvertently reinforcing misbehaviors while using the procedure.

*Instead: Follow the Principles of Effective Time Out*

Time out can be an effective tool but only when used appropriately (Turner & Watson, 1999). First, we must remember that time out is not a place. Instead it is a process whereby all opportunities to get reinforced are withdrawn. Consequently, for it to work, the time-in area (the activity) must be more reinforcing than the time-out area. Ways to make the time-in area more reinforcing include changing the activity, our instructional techniques, and increasing our praise. For example, Trevor constantly disrupts the language arts lesson by throwing paper or talking to peers, resulting in frequent time outs in the hall. Time out would only be effective if the language-arts lesson is more stimulating than what is going on in the hall, which often is not the case. A better method would be to make the language-arts lesson highly stimulating by using cooperative learning, hands-on activities, and frequent student responding. If we still need to use time out with Trevor, we need to find a less stimulating, designated time-out area, such as a partitioned corner of the room.

For mildly disruptive misbehavior, time outs should be done in class. In-class time out involves the removal of all forms of reinforcement for a brief period of time. One type of in-class time out is *planned ignoring*, which involves the brief removal of social reinforcers, such as attention or verbal interaction. This involves looking away from the student, refraining from any interaction, or remaining quiet. A second form of in-class time out is the brief removal of the student from an activity by being placed

on the outskirts (i.e., a few steps back) but still able to “look” into the more reinforcing time-in setting.

When misbehaviors are more severe, we may need to send our students to out-of-class time out. The out-of-class time out area should be a quiet, nonintimidating, reinforcement-free room with no other purpose. It should not be a highly stimulating, reinforcing place like the office area, other classrooms, or the hallway. If possible, we should use the same place for each time out. Despite our frustrations, we should administer time out with a calm, neutral tone of voice. We should also give our students a brief explanation for the time out to help build an association between the misbehavior and the time-out consequence. Time outs should last for only brief, reasonable periods of time (from a few seconds for in-class to several minutes for out-of-class time outs) and should be monitored occasionally to make certain the student is not receiving reinforcement. We should collect data to assess the overall effectiveness of time out. Finally, time out should always be used with precorrective, behavior-building strategies and reinforcement.

## **Mistake #9: Inconsistent Expectations and Consequences**

Students are often given mixed signals as to what is expected and what will happen if they do not meet these expectations. Inconsistent expectations cause student confusion and frustration. Inconsistent consequences maintain misbehaviors and can even cause the behavior to occur more frequently or intensely. In addition, we find ourselves constantly reminding and threatening which, in turn, enhances our frustration.

*Instead: Have Clear Expectations That Are Enforced and Reinforced Consistently*

Expectations are clear when they are identifiable and consistent. Reviewing expectations and rehearsing rules help build routines and minimize the potential for problems. We can do this by asking our students to read the expectations prior to each activity. When we have temporary expectation changes (e.g., changes in rules due to a guest being present or spe-

cial school event), we must inform our students.

Expectations are pointless if they are not backed up with reinforcement for compliance and reasonable negative consequences for noncompliance. For rule compliance, positive consequences should be applied continuously at first (every time the student is appropriate) and then intermittently (every so often). For example, if “following teacher’s directions” is the classroom rule, then we should provide some form of positive consequence, perhaps praising the students for following directions quickly and appropriately. At first, praise should be delivered each time the student follows teacher directions. Once the teacher establishes the behavior (in this case, following teacher directions), we can move to an intermittent praise schedule. On the other hand, negative consequences (punishment procedures) are most effective when applied continuously. For instance, if our classroom consequence for verbal aggression toward a peer is the loss of recess privileges, then each time one of our students is verbally aggressive we should apply that negative consequence. Of course, to effectively deal with this verbal aggression, we also need to implement additional precorrective methods, such as teaching appropriate expressions of anger, peer mediation, prompting and providing praise for socially, appropriate interactions.

## **Mistake #10: Viewing Ourselves as the Only Classroom Manager**

Managing classroom behavior may be more challenging today than ever before. Many teachers face larger class sizes, more students who come from stressful, chaotic homes, and increased diversity in students’ abilities and cultures (Grossman, 2004). Yet, many of us are determined to manage classroom behavior ourselves. After all, collaborating with others takes time and energy to build rapport and come to a consensus on behavior-change priorities and strategies. It’s tempting just to forge ahead. Although, going at it alone may seem like a good idea in the short-run, in the long run, we are more likely to burn out and lose our effectiveness.



*Instead: Include Students, Parents, and Others in Management Efforts*

Fortunately, there are many others who can assist in our behavior management efforts, including students, their peers, fellow teachers, administrators, parents, and other school personnel. One effective way to include students in their own behavior change programs is the use of self-monitoring. With self-monitoring, a student helps regulate his or her own behavior by recording its occurrence on a self-monitoring form. To help ensure accuracy of self-monitoring, we should occasionally collect the data ourselves and compare our recordings with those of our student. If our student accurately self-monitored, we should reinforce his or her accuracy. In addition, we should hold brief, occasional student–teacher conferences to review the student’s progress. For more information on self-monitoring, see Alberto and Troutman (2003) or Webber, Scheuerman, McCall, and Coleman (1993). Also, go to <http://www.coe.missouri.edu/~vrcbd> to learn about KidTools, a computer-based program used to help students create and use a variety of self-monitoring materials. KidTools contains easy-to-use templates used to create personalized self-monitoring forms, including point cards, cartoons, self management cards, make-a-plan cards, and contracts. To use this program, students enter information about target behaviors into a template and print out the card for immediate use in the classroom.

The power of the peer group can be used to produce positive changes in student behavior. Peers can serve as academic tutors and can monitor and reinforce each other’s behaviors. Also, group-process, conflict resolution, or peer mediation meetings can be used in which students provide each other with behavior management suggestions (e.g., “Ignore him when he calls you names”), praise each other for behaving appropriately, and help each other resolve a current classroom behavior problem (Barbetta, 1990; Smith & Daunic, 2002). To help facilitate group cohesiveness, we can use group-oriented contingencies in which the class earns its level of privileges and reinforcers as a group.

We should also include other adults in

behavior management. Fellow teachers can provide support in several ways. One way is to schedule regular meetings where we share behavior management solutions. Occasionally, we may need some extra support from a colleague, particularly if we work with students with emotional disorders. During those days, we shouldn’t hesitate to ask a colleague to stop by during his or her planning period and provide us with some additional support or a short break. If we find ourselves in a teaching situation with one or more volatile students, we should develop a support plan with a teacher in a classroom nearby (Lindberg & Swick, 2002). This plan could include an agreement that our colleague will cover our room in the event we have to escort a disruptive student out of the room or contact the principal or school security. Another example of how we can support each other is by playing an active role in school-wide behavior management (Lindberg & Swick). As we move throughout the school grounds (e.g., hallway, cafeteria, auditorium, playground), we should be aware of all students’ behaviors (not just our own students) and prompt and provide praise or negative consequences as appropriate.

When including administrators in behavior management, we tend to make two mistakes that are at opposite ends of the support spectrum (Lindberg & Swick, 2002). We either send students to them too frequently or we wait too long to get them involved. It is best to resolve as many behavior problems in our class and only involve administrators for more serious situations, such as physical aggression.

Parents and teachers who work actively together make a powerful team. Most parents can provide useful information about their child (i.e., medications, allergies, issues at home). Some parents can assist in our behavior management efforts at home by providing their child additional prompting and reinforcement. Although, there are many benefits to working with parents, some teachers are reluctant due to the challenges that often exist. The potential benefits, however, make it worthwhile in most situations, and there are many ways to increase parent–teacher team effectiveness (See Jones & Jones, 2002 in appendix). As

teachers, it is our responsibility to build productive and positive parent–teacher partnerships. We can do this by contacting parents when their child does well, treating them with respect during conferences, maintaining positive and on-going communication, and validating any concerns they may have.

School counselors, psychologists, and other professionals can be invaluable resources. We should seek out their assistance when needed for support, guidance, and additional strategies.

### **Mistake #11: Missing the Link Between Instruction and Behavior**

At times there is a direct link between our lessons and student misbehavior. Perhaps our lesson is too easy or difficult, ineffective, or nonstimulating, which can lead to student misbehavior (Center, Deitz, & Kaufman, 1982).

*Instead: Use Academic Instruction as a Behavior Management Tool*

The first line of defense in managing student behavior is effective instruction. Good teachers have always known this and research supports this notion (Evertson & Harris, 1992). Jones (1991) found that when teachers demystify learning, achievement and behavior improve dramatically. Examples of how to demystify learning include students establishing his or her learning goals, students monitoring his or her own learning, involving students in developing classroom rules and procedures, and relating lessons to students’ own lives and interests.

Effective teaching practices include (but are not limited to) instruction that is fast paced, includes high rates of active student responding, involves modeling new behaviors, and provides guided practice and positive and corrective feedback (Evertson & Harris 1992; Sugai & Tindal, 1993). Effective instructional strategies include the use of response cards, guided notes, and peer tutoring (Heward, 2003; Heward et al., 1996; Miller, Barbetta, & Heron, 1994). Consistent use of these strategies, and others that share the characteristics of effective instruction, helps create highly effective learning environments, which, in turn, reduces the likelihood of behavior problems.



## Mistake #12: Taking Student Behavior Too Personally

When students misbehave, it often feels like a personal attack, and for good reason. Some of our students are very good at making it feel personal. When we take students' misbehavior personally, we tend to lose our objectivity, look for quick management fixes that rarely work, and get emotionally upset, which takes time and energy away from our teaching.

*Instead: Take Student Misbehavior Professionally, Not Personally*

When we take misbehavior professionally, we view behavior management as our responsibility. Professionals know the importance of having a sound management system in place that deals with classwide issues and individual student problems. Professionals have realistic expectations for improvement in behavior and know that there are no quick fixes with lasting effects. Most importantly, confident professionals ask for assistance when it is needed.

Although handling misbehaviors may be more challenging than teaching academics, there are many effective strategies we can use that will make our classroom days more pleasant and less chaotic. When we are more effective, we're calmer and less likely to react personally to student misbehavior. Although some student misbehavior may appear to be targeted toward us, these behaviors may be an outcome of their own wants and needs, lack of skills, or emotional difficulties and frustrations. The time and energy wasted being upset at our students' misbehavior is better spent celebrating our students' success.

## Conclusion

This article briefly reviewed common behavior management mistakes that we make as teachers and provided numerous strategies as to what to do instead. We believe these suggestions will be useful in the context of developing and implementing a comprehensive behavior management plan. By no means do these suggestions represent a complete list of effective strategies. For more thorough information on some of the recommended strategies, refer to the reference list.

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- Van Acker, R., Grant, S. H., & Henry, D. (1996). Teacher and student behavior as a function of risk for aggression. *Education and Treatment of Children, 19*, 316–334.
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- Wehby, J. H., Symons, F. J., & Shores, R. E. (1995). A descriptive analysis of aggressive behavior in classrooms for children with emotional and behavioral disorders. *Behavioral Disorders, 24*, 51–56.

## APPENDIX

### Recommended Resources

#### Mistake #1: Defining Misbehavior by How it Looks and Mistake #2: Asking, "Why Did You Do That?"

Center for Effective Collaboration and Practice. (2003). *Functional behavior assessment*. Retrieved October 10, 2003, from <http://cecp.air.org/fba/>

O'Neil, R. E., Horner, R. H., Albin, R. W., Sprague, J. R., Storey, K., & Newton, J. S. (1997). *Functional assessment and program development for problem behavior: A practical handbook*. Pacific Grove, CA: Brooks/Cole. ISBN: 0534260225.

#### Mistake #3: When an Approach Isn't Working, Try Harder

Jones, V., & Jones, L. S. (2001). *Comprehensive classroom management: Creating communities of support and solving problems*. Boston: Allyn & Bacon. ISBN: 0-205-31850-9

Kerr, J. M., & Nelson, C. M. (2002). *Strategies for addressing behavior problems in the classroom* (4th ed.). Englewood Cliffs, NJ: Merrill/Prentice-Hall. ISBN: 0-13-041541-3

Rhode, G., Jenson, W. R., & Reavis, H. K. (1992). *The tough kid book: Practical classroom management strategies*. Longmont, CO: Sopris West. ISBN: 0-944584-54-3

#### Mistake #4: Violating the Principles of Good Classroom Rules

Paine, S. C., Radicchi, J., Rosellini, L. C., Deutchman, L., & Darch, C. B. (1983). *Structuring your classroom for academic success*. Champaign, IL: Research Press. ISBN: 0-87822-228-6

#### Mistake #5: Treating All Misbehaviors as "Won't Dos"

Colvin, G., Sugai, G., & Patching, B. (1993). Pre-correction: An instructional approach for managing predictable problem behaviors. *Intervention in School and Clinic, 28*(3), 143–150.

Darch, C. B., & Kameenu, E. J. (2004). *Instructional classroom management: A proactive approach to behavior management*. Upper Saddle River, NJ: Pearson Prentice Hall. ISBN: 0801306361

#### Mistake #6: Lack of Planning for Transition Time

Lindberg, J. A., & Swick, A. M. (2002). *Common-sense classroom management: Surviving Septem-*



ber and beyond in the elementary classroom. Thousand Oaks, CA: Corwin Press. ISBN: 0761978860

**Mistake #7: Ignoring All or Nothing at All, Mistake #8: Overuse and Misuse of Time Out, and Mistake #9: Inconsistent Expectations and Consequences**

Alberto, P. A., & Troutman, A. C. (2003). *Applied behavior analysis for teachers*. Upper Saddle River, NJ: Pearson Prentice Hall. ISBN: 0130993875

Grossman, H. (2004). *Classroom behavior management for diverse and inclusive schools*. Lanham, MD: Rowman & Littlefield. ISBN: 0742526550

**Mistake #10: Viewing Ourselves as the Only Classroom Manager**

Alberto, P. A., & Troutman, A. C. (2003). *Applied behavior analysis for teachers*. Upper Saddle River, NJ: Pearson Prentice Hall.

Barbetta, P. M. (1990). Goals: Group-oriented adapted levels system for children with behavior disorders. *Academic Therapy*, 25, 645-656.

Heward, W. L. (2003). *Exceptional children: An introduction to special education* (7th ed). Englewood Cliffs, NJ: Merrill/Prentice-Hall. ISBN: 0-13-099344-1

Jones, V. F., & Jones, L. S. (2001). *Comprehensive classroom management: Creating communities of support and solving problems* (6th ed.). Boston: Allyn & Bacon. ISBN: 0-205-31850-9

Lovitt, T. C. (1995). *Tactics for teaching* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall. ISBN: 0-02-371813-7

Webber, J., Scheuerman, B., McCall, C., & Cole-

man, M. (1993). Research on self-monitoring as a behavior management technique in special education classrooms: A descriptive review. *Remedial and Special Education*, 14(2), 38-56.

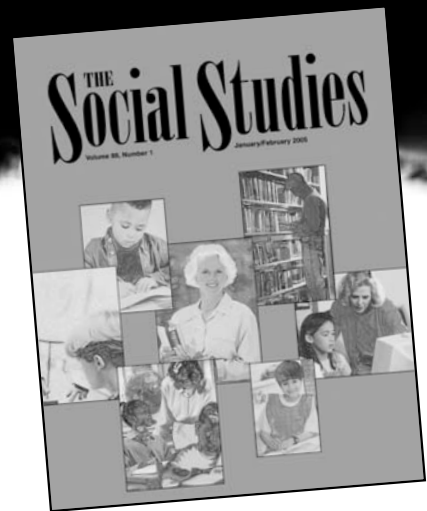
Wright, D. B. (2002). Pit crews: Utilizing peers to cue and shape positive behaviors. *NASP Communiqué*, 29(2). Retrieved February 24, 2002, from <http://www.nasponline.org/publications/cq292pitcrews.html>

**Mistake #11: Missing the Link Between Instruction and Behavior**

Heward, W. L., Gardner III, R., Cavanaugh, R. A., Courson, F. H., Grossi, T. A., & Barbetta, P. M. (1996). Everyone participates in this class. *Teaching Exceptional Children*, 28, 4-10.

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Here is a great example of high expectations . You could use this procedure with an elementary school class or maybe middle school class. It is called "I'm Watching Someone!". It looks like it would keep the students guessing.

**Submitted by:**

***I Love That Teaching Idea! Staff***

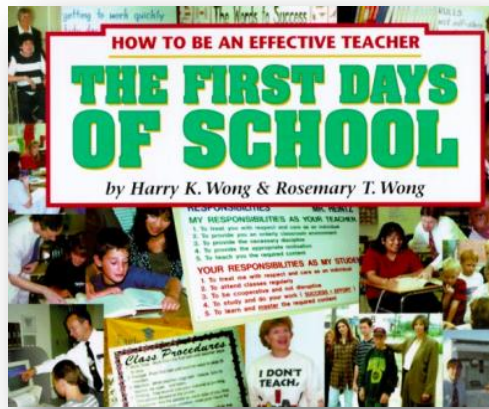
**From: SLC, Utah**

**Date: August 23, 2001**

Right before my class leaves for an assembly or a field trip, I tell my students that I am going to be watching two students in particular to see how their behavior is. I do not tell them who those two students I have chosen will be. I tell them that, if these two students are behaving well and doing what they are supposed to, the entire class will be given a special treat on our return back to the classroom (e.g., 10 minutes extra recess, free reading time, or a math game). This activity really helps ALL of my students behave because no one knows who I am going to have my eye on! If the result is a positive one, I let everyone know at the end who was responsible for the class privilege. High "fives" go up everywhere! If the result is negative, I do not mention the names but let my students know that we will try again the next time.

Retrieved from

[http://www.ilovethatteachingidea.com/ideas/010823\\_i%27m\\_watching\\_someone.htm](http://www.ilovethatteachingidea.com/ideas/010823_i%27m_watching_someone.htm)



**Harry Wong was a high school science teacher from Menlo Park, California. He left the classroom to help teachers improve their Classroom management skills.**

Decide if the following statements are True or False.

1. It is more efficient to have your students pass their papers across the rows than up the aisles.
2. Scatter questions throughout the lesson or chapter rather than place at the end.
3. An assignment must be posted and in a consistent location before the students enter the class.
4. To increase assignment completion, give structured, precise assignments.
5. The number of students in a group is determined by the size of your class.
6. Begin each day or period by taking roll as quickly and efficiently as possible.
7. Tests must be given when enough material has been covered.
8. An excellent way to get class attention is to flick the lights.
9. The assignment and the test should be written at the same time.
10. The number one problem in the classroom is discipline.
11. To increase student learning and achievement, tell the students what to do.
12. The main purpose of a seating arrangement is to keep students quiet..
13. The number of questions on a test is governed by the number of objectives on the assignment.
14. Learning is more effective when it takes place as a solitary activity.

Answers and scoring rubric are located at the end of the Chapter .



The classroom rules poster from my high school classroom.

### Watch the Virtual Tour of my Classroom.

Think about what effective teaching strategies are illustrated within my classroom. List them in your notetaking guide.

[www.bugforteachers.com/Classroom4.html](http://www.bugforteachers.com/Classroom4.html)

### Watch an Interview with Me.

Think about what strategies you could implement into your future classroom. List them in your notetaking guide.

[www.bugforteachers.com/Classroom5.html](http://www.bugforteachers.com/Classroom5.html)

### Conclusion

This chapter has offered many suggestions for establishing an effective classroom management. Do not be afraid to change procedures and routines if they appear unsuccessful. As a high school teacher, I used the one-semester rule of thumb. I would try the procedure for one semester. If I felt that it was not successful, I would adjust it at the beginning of the next semester. (Note: For each of the video and game links, you can select it or copy and paste it into your internet browser.)

### References

Barbetta, P. M., Norona, K. L., & Bicard, D. F. (2005). Classroom behavior management: A dozen common mistakes and what to do instead. *Preventing School Failure, 49*(3), 11-19.

Wong, H. K., & Wong, R. T. (2005). *The first days of school: How to be an effective teacher*. Mountain View, CA: Harry K. Wong Publications, Inc.

### Complete the "Fling the Teacher" Review Game.

[www.bugforteachers.com/FlingTheTeacher.html](http://www.bugforteachers.com/FlingTheTeacher.html)

Software available from [www.contentgenerator.net](http://www.contentgenerator.net).

## Check your True /False Answers.

1. True
2. True
3. True
4. True
5. False. The number of students is determined by the number of jobs.
6. False. Begin with an assignment.
7. False. Tests are given to assess student learning.
8. False. There are more effective procedures that keep you in control.
9. True
10. False. It is the lack of procedures and routines.
11. False. Tell the students how to do it.
12. False. The main purpose is communication.
13. True
14. False. It is more effective within a supportive community of learners.

COUNT THE NUMBER OF TRUE/FALSE ITEMS THAT YOU ANSWERED CORRECTLY. USE THE SCORING RUBRIC TO ASSESS YOUR FUTURE CLASSROOM MANAGEMENT ABILITIES.

**13 – 14**

*You should be fabulous!*

**10 – 12**

*You have potential to be a master!*

**8 – 9**

*You would just survive, but you can improve!*

**0 – 7**

*Do not fret because you are still learning!*

Adapted from <http://www.effectiveteaching.com/teacherquiz.php>

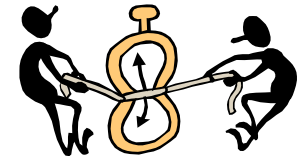


Plastic circles created for the PE classroom used in an elementary drama classroom for seating. As you can see, they allow the teacher endless possibilities for grouping according to colors and numbers.





## LEARNING OBJECTIVES



1. Define a formative assessment.
2. Explain the purpose of a formative assessment.
3. Compare and contrast different kinds of classroom assessment and their appropriate use.
4. Identify the error and correct test items with a variety of selected response test items.

Since the beginning of this course, we have discussed many instructional strategies and classroom management techniques.

Formative and summative assessments are yet another instructional tool for your toolbox. This week, we will discuss how to assess the students using formative assessments. Then, we will discuss summative assessments and their purpose. Lastly, we will discuss guidelines for writing test items.

Print the notetaking guide on pages 280 - 283!

### Formative Assessments

Formative assessments are evaluations of student learning for the purpose of instructional planning (Parkway & Stanford, 2010). By assessing the students during the learning process, the teacher is able to correct misconceptions and/or inaccurate skills before they are stored in long-term memory.

Formative assessments can take various forms, ranging from informal questioning to teacher-administered quizzes. When I am teaching, I tend to ask many informal questions of students. As I am moving through the lesson, the feedback from the questioning allows me to monitor student learning. If the majority of the students are unable to answer the questions, then I need to reteach the material using a different method.

An important component of informal questioning is wait time. What is wait time? *Wait time* is the amount of time that has elapsed between the teacher's question and the student's response. The tendency

is for the teacher to ask a question, then expect an immediate response. Teachers should give approximately three seconds of wait time to their students. To increase student engagement, the teacher should ask the question, then call on a student for a response (Slavin, 2006). Depending on students' ability, some students need more wait time than others so they can process the question and formulate their response. If you have a student with slow processing skills, you may want to ask that student a question, move onto another question for another student, then return to that student for the answer. Using this process, the class is not "waiting" for a student to respond, and you are not embarrassing anyone.

In addition to informal questioning, I would walk around and observe the students' progress during guided practice. Also, when I was checking for homework completion, I would review their scratch work to look for common mistakes. Another strategy is error analysis on quizzes and tests. As you grade, look for

common mistakes. On the day after a quiz or test, I would return their graded papers and comment on common mistakes as well as show the students how to solve any of the problems. Then, the students completed a quiz or test correction sheet that included the correct answer, scratch work, and a rationale for why they missed that particular question.

### Examples

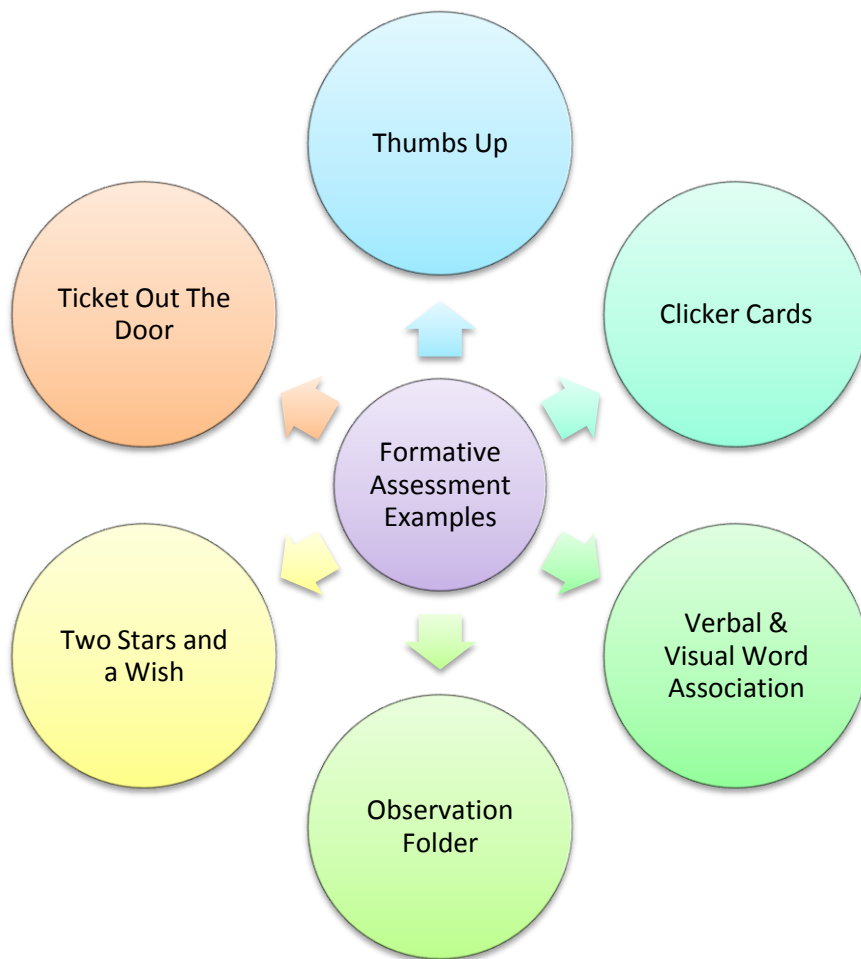
We briefly discussed formative assessments along with activating and summarizing activities in Chapter 8. Depending on how they are implemented, activating and summarizing activities can serve as formative assessments. Here are more ideas for you to review on the following pages. (See the graphic organizer to the right.)

### Summative Assessments

Summative assessments are evaluations that determine the student's mastery of the given material at the end of an instructional period. Summative assessment can be divided into two categories: Selected Response and Constructed Response. A *selected response item* provides a list of possible answer choices for the student to select, and a *constructed response* requires the student to create the answer based on a given prompt.

### Selected Response

There are three main types of selected response assessment: multiple-choice, true/false, and matching. In general, when writing any test item, the items need to be clearly written and focused. Other helpful hints include writing the items at the lowest possible reading level, removing irrelevant clues, and double checking the scoring key. In addition, if possible, ask a fellow teacher to review the test items. Another set of eyes could never hurt. The guidelines to the right offer specific information for writing multiple choice, true/false, and matching items (Slavin, 2006).



### Guidelines for Multiple-Choice

- Item stem poses a direct question.
- Repetition eliminated from response options.
- One best or correct answer.
- Response options are brief and parallel.
- Number of response options offered fits item context.

### Guidelines for True/False

- Statement is entirely true or false as presented.
- Use only one central idea in each item.

### Guidelines for Matching

- Clear directions given.
- List of items to be matched is brief.
- List consists of homogenous entries.
- Response options are brief and parallel.
- Extra response options offered.



## Formative Assessments: Thumbs Up – Side - Down

Thumbs up allows the teacher to gauge the understanding of the students quickly. During or after a lesson, the teacher asks students to use their hand to signal their depth of understanding.

- A thumb up means “I have a good understanding.”
- A thumb to the side means “I still have some questions.”
- A thumb down means “I do not understand.”



To hold students more accountable for their “truthfulness”, the teacher can call on someone who signaled a thumb up to explain the concept to the class, or partner students who understand with those students who did not understand so they can teach each other for a few minutes.

Another variation of this method is colored cups. Green means “thumbs up”. Yellow means “thumbs to the side”. Red means “thumbs down”. In addition, It can be used for classroom management. Whenever groups of students are talking quietly, they may have the green cup displayed. If they begin to get too loud, the teacher can walk over and place the green cup at the bottom and the yellow cup will signal that they have a warning for their noise level. If they correct their behavior, they get their green cup back on top. If, however, they do not correct their noise level, the red cup moves to the top. Red signals that they go to silence. Using this method, the teacher can simply walk by a group, silently move cups, and communicate exactly what students should be doing.



Retrieved from <http://wvde.state.wv.us/teach21/ExamplesofFormativeAssessment.html>  
and The Mailbox’s Top Teaching Tips of the Week (Veronica Chase).

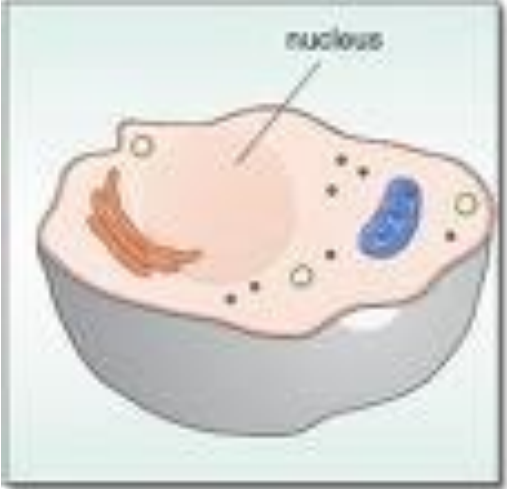
## Formative Assessments: Clicker Cards



These cards are a low technology method for assessing students' understanding. As you can see, I used different colors with different responses (i.e., true/false, A – E, and yes/maybe/no). You can have the students put their heads on their desks or place the clicker cards at their chest so other cannot see their response. You can see from the picture that some of the students do not understand the presented concept.



## Verbal and Visual Word Association (VVWA)

Word	Visual Representation
<p><b>cell</b></p>	
<p><b>Definition</b></p> <p>It is a very tiny structure that makes up all plants and animals.</p>	<p><b>Personal Association or Characteristic</b></p> <p>It reminds me of the rooms in a house. They have different uses, but together they make a home.</p>

# Observation Folder

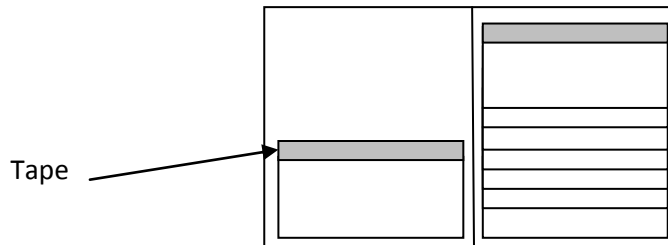
An ideal way to create an observation notebook is through the use of a folder and index cards which allows for organization for multiple classes. It can be used to document classroom behavior, too.

## Materials:

standard manila file folder, tape, and enough 5" x 7" index cards for students in your largest class plus a few extras for transfer students.

## Procedures:

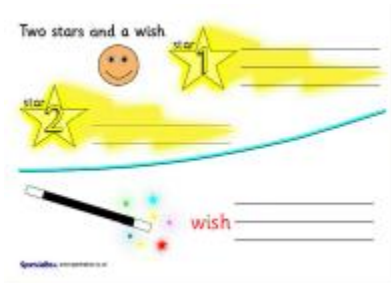
1. Place the file folder on a flat surface and beginning at the bottom of the folder.
2. Tape (not glue) each index card above the next. Leave about ½ inch to write the student's name.



## Example for finished observation folder

<p>9/4 – uses correct subject-verb agreement 9/10 – some confusion about using commas correctly in a series – 9/11 -Mini lesson on commas in a series 9/14 – did not use the writing process to prepare the My Dream essay</p>	<p>9/3 – lacks knowledge of subject-verb agreement (uses "we was" in conversation) 9/10 – can use commas correctly in a series 9/12 – knows and uses the steps in the writing process as evidenced through the My Dream essay</p>	English 1
Mary Baker	Carol Neil	
Sam Barker	Laura Palmer	
Beth Glass	Bobby Quinn	
Bill Gwinn	Monica Robinson	
Kate Hadson	Benjie Russell	
Mike Jefferson	Rvan Smith	
Lynn Justice	Britney Spencer	
Jane Kemp	Tv Taylor	
Roger Lett	Paige Turner	
Freddv Mollohan	Kelcey Varner	
Alice Mullins	Carla Williams	

## Formative Assessments: Two Stars and a Wish



This formative assessment is a peer assessment tool. It is particularly useful for the writing process but can be used with any subject area. Students are paired and asked to read each other's written work or review their created material. The evaluator must identify two things the author did well (stars) and one specific suggestion for improvement (the wish).

Note: Before implementing this strategy, students must be trained on the process of providing appropriate feedback to their peers. While the students are evaluating, the teacher should circulate around the classroom and monitor the conversations among the partners.



## Formative Assessments: Ticket Out the Door

Tickets out the door are a wonderful way to assess student knowledge and to summarize the daily lesson at one time. They take many different forms (e.g., 3-2-1 exit slips, math question prompts, and stickie note answers placed on the door). Often, I placed the students in buddy groups to complete the Ticket Out the Door.

### 3 - 2 -1 Exit Slip Example:

<b>3</b>	Things I Learned Today ...
<b>2</b>	Things I Found Interesting ...
<b>1</b>	Question I Still Have ...

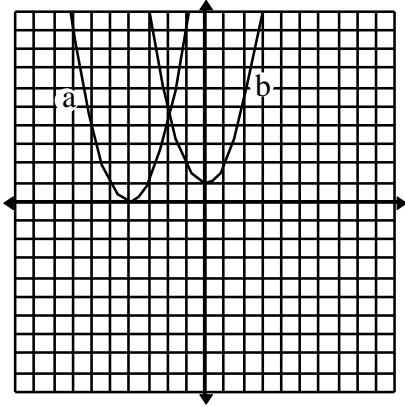
Retrieved from West Virginia Department of Education (<http://wvde.state.wv.us/strategybank/summarization.html>)

## Math Ticket Out the Door Example:



Describe ALL translations for each parabola.

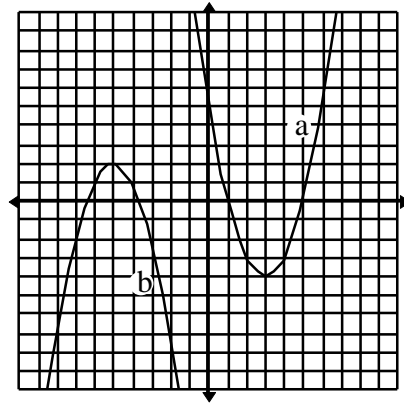
1.



a. \_\_\_\_\_

b. \_\_\_\_\_

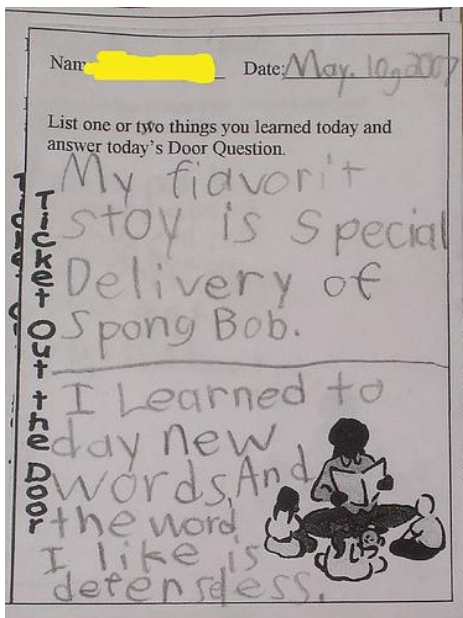
2.



a. \_\_\_\_\_

b. \_\_\_\_\_

## Other "Ticket Out the Door" Examples:



One-Minute Paper



Stickie Notes on the Door

## Constructed Response

Short answer, or fill-in the blank, and essay questions are considered constructed response items. You will find that some students prefer this type of test item because it gives them the opportunity to reveal their knowledge. Guidelines for writing short answer and essay items are listed at the bottom of this page (Slavin, 2006).

## Authentic Assessments

Instead of paper-pencil assessment, an authentic assessment is another way to complete a summative assessment. *Authentic assessments* are a method for assessing students' learning by asking them to perform a task that demonstrates their knowledge through application. For more information about authentic assessment and to view some examples, use the following link for the Authentic Assessment Toolbox (<http://jfmuller.faculty.noctrl.edu/toolbox/>). You can select it or copy and paste it into your internet browser. While in the high school classroom and in the college classroom, I tend to utilize various authentic and performance-type assessments. I would always tell my students that the real world will not give you a "Ms. Bell worksheet" to solve the problem. Our job as educators is to create a critical thinker. To nurture these critical thinking skills, we must incorporate higher levels in Bloom's Taxonomy, which we discussed in Chapter 7. This type of assessment gives us a perfect opportunity to develop those necessary critical thinking skills.



Dr. Brown teaching quadratic transformations to a high school mathematics class.

## Conclusion

There are advantages and disadvantages to the various methods of summative assessments. The handout on the next page will compare the assessment methods. On the following page, you will be given a sample of selected response items, indicate whether the items are written according to the guidelines that were presented in this chapter. If not, correct the item to reflect the guidelines. This activity will be needed for this week's classroom discussion.

### Guidelines for Short Answer

- A direct question is posed.
- One blank is needed to respond.
- Length of blank is not a clue.

### Guidelines for Essays





- Provide reasonable time limits for thinking and writing.
- Give definitive task to student (e.g., compare, analyze, or evaluate).



## References

- Parkway, F. W., & Stanford, B. H. (2010). *Becoming a teacher* (8th ed.). Upper Saddle River, NJ: Merrill.
- Slavin, R. E. (2006). *Educational psychology: Theory and practice* (8th ed.). Boston, MA: Allyn and Bacon.

## COMPARISON OF VARIOUS ASSESSMENT METHODS

	Objective Test	Essay Test	Oral Questioning	Performance Assessment
<b>Icon</b>				
<b>Purpose</b>	Sample knowledge with maximum efficiency & reliability	Assess thinking skills & /or mastery of a structure of knowledge	Assess knowledge during instruction	Assess ability to translate knowledge & understanding into action
<b>Typical Exercise</b>	Test items: Multiple choice; True-false; Fill-in & Matching	Writing task	Open-ended question	Written prompt or natural event stating the kind of performance required
<b>Student Response</b>	Read, evaluate, select	Organize, compose	Oral answer	Plan, construct and deliver original response
<b>Scoring</b>	Count correct answers	Judge quality or level of understanding via rubric	Determine if response is correct	Check attributes present, rate proficiency demonstrated or describe performance via anecdote
<b>Major Advantage</b>	Efficiency-can give many items per unit of testing time	Can measure complex cognitive outcomes	Joins instruction with assessment	Provides rich evidence of performance skills
<b>Potential Sources of Inaccuracies</b>	Poorly written items; overemphasis on recall of facts; poor test-taking skills; failure to sample content representatively	Poorly written exercises; writing skill confounded with knowledge of content; poor scoring procedures	Poor questions; students' lack of willingness to respond; to few questions	Poor exercises, too few samples of performance; vague criteria; poor rating procedures; poor test conditions
<b>Influence On Learning</b>	Overemphasis on recall encourages memorization; can encourage thinking skills if properly constructed	Encourages thinking & development of writing skills	Stimulates involvement in instruction; gives teacher immediate feedback on teaching effectiveness	Emphasizes use of available skill & knowledge in relevant problem contexts
<b>Keys to Success</b>	Clear test blueprints or specification that match instruction, skill in the writing of items, sufficient time to write items	Carefully prepared writing tasks; preparation of model answers, time to read, ponder & score	Clear questions, representative sample of questions to each pupil; ample time given for students to respond	Carefully prepared performance exercises; clear performance expectations; careful thoughtful rating, time to rate performance

Assessment Unit: Strom's Adaptation of -ITEMS\* Instructional Topics in Educational Measurement: Fall 1987, page 61, Table 1

## Selected Response Items Summative Assessments

**Directions:** Read each of the following test questions. Indicate the error made by the test developer. Correct the test item to reflect the guidelines discussed in class.

1. Find the error(s) in this sentence: Apples is good.

- A. Apples are good.
- B. An apple is good.
- C. This sentence is correct. Apples is good.
- D. An apple a day keeps the doctor away.
- E. I like my dog.

2. Rainfall data gleaned, from ancient cypress trees shows that the regions worst drought in 800 years peaked in 1587, the year the 120 men, women and children of the Roanoke colony were last seen by Europeans.

What does peaked mean.

- A. was sharp
- B. was at its height
- C. was hot
- D. was beautiful

3. The scrub jay's numbers are dwindling so rapidly that some fear it soon may be found nowhere at all.

What does the word *dwindling* mean.

- A. multiplying
- B. dividing
- C. growing smaller
- D. it means the scrub jays are disappearing

4. One of the largest black sea bass ever caught in Florida weighed 5 pounds, 1 ounce. Which of the following shows the weight of the black sea bass in ounces?

- A. 91 ounces
- B. 81 ounces
- C. 96 ounces
- D. 86 ounces



5. Match the following equations (place corresponding letter in the blank).

- |                           |                  |
|---------------------------|------------------|
| _____ Area of triangle    | A. $A=1/2(bh)$   |
| _____ Pythagorean theorem | B. $I=prt$       |
| _____ Interest            | C. $a^2+b^2=c^2$ |
| _____ Area of circle      | D. 2 kilometers  |
| _____ One gallon          | E. 4 quarts      |

6. Match the following.

- |                 |  |
|-----------------|--|
| _____ Botany    | A. Science of all living organisms   |
| _____ Zoology   | B. A child's playpen   |
| _____ Biology   | C. Plants  |
| _____ Chemistry | D. Study of the composition, structure, properties, and reactions of matter, especially of atomic and molecular systems. |
|                 | E. Animals   |

7. Match the following equations (place corresponding letter in the blank).

- |                  |   |
|------------------|---|
| _____ Austria    | A. Red background with white cross                      |
| _____ Denmark    | B. Green background with large red circle               |
| _____ Hungary    | C. Two red strips and one white stripe (in center)      |
| _____ Bangladesh | D. Red strip (top); white stripe; green stripe (bottom) |
|                  | E. Blue background with large white star                |

8. Mark the following question as True or False.

The metric system is used consistently in Canada, France, Germany, and the United States.

- True  
 False

9. Mark the following question as True or False.

Botany is the study of plants as sources of food, (cereals, millets, pulses oilseeds) fodder, forage, fatty acids, essential oils, wood, timber, fibre, paper rubber beverages, spices and condiments, drugs, narcotics Resins and gums, dyes and tannings, insecticides and pesticides, ornamental and medicina.

- True
- False

10. Mark the following question as True or False.

There is nothing illegal about staying home from school.

- True
- False

11. Mark the following question as True or False.

The news and information posted on the CNN website is always accurate.

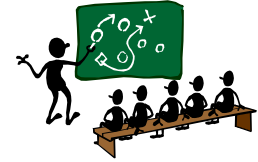
- True
- False

# Chapter 12: Technology in the Classroom

## LEARNING OBJECTIVES



1. Describe possible uses of technological tools in the classroom.



2. Discuss guidelines for the use of online social networking in the classroom.



Technology is on a continuum from low to high. *Low technology* is a description for tools or crafts that predate the Industrial Revolution. In the classroom, these low-tech strategies are inexpensive and often teacher-created. *High technology* is the latest and greatest, cutting edge technology. Unfortunately, choosing the most advanced technology available can be expensive and becomes out of date quickly. As teachers, we must utilize both low and high technology within the classroom.

### Low Technology

There are numerous options for supporting students with low technology. For example, the simple use of color can focus a student's attention and assist him or her with organization (e.g., highlighters, markers, colored pencils, colored folders, and colored paper). Another idea is a word wall or personal dictionary using the vocabulary from the course. We discussed the use of clicker cards last chapter. They are another great way to engage the students using low technology.

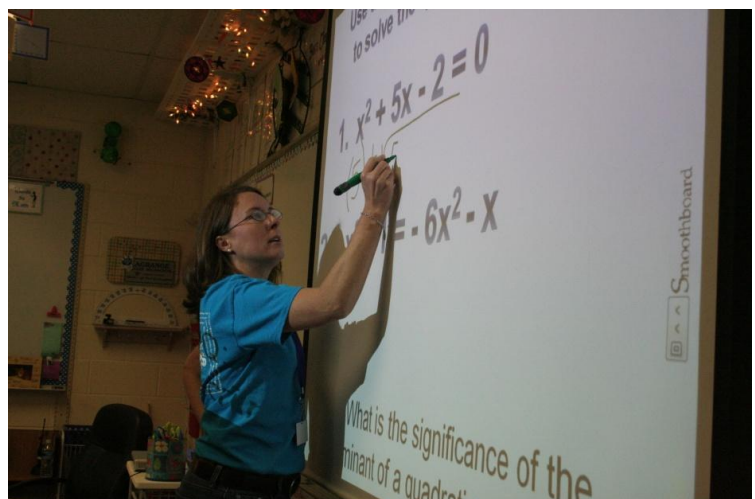
### High Technology

Created by Johnny Chung Lee, who earned his Ph.D. from Carnegie Mellon University, the Wiimote offers high technology in the classroom without the large expense. The initial software and concept was given free of charge so teachers could have low-cost technology in the classroom. Using an infrared (IR) light pen and reconfigured Wiimote, you can create a low-cost interactive whiteboard similar to the Smart board or Promethean board. I purchased my software from Smoothboard ([www.smoothboard.net](http://www.smoothboard.net)). You can make your

Print the notetaking guide on pages 284 - 285!



Dr. Brown, who is using the Wiimote whiteboard, demonstrates the quadratic formula.



Retrieved from youtube.com.

own pen using parts from Radio Shack, but I purchased mine from Wiiteachers.com. I bought my Wiimote used from amazon.com. Altogether, it cost me about \$70. In addition, you will need a computer with a Bluetooth adapter, projector screen, and LCD projector. The simple set-up has many advantages. It allowed me to write on my PowerPoint slides and other programs, navigate the internet and my computer, and have interactive software, such as TI Smartview graphing calculator. Basically, it works when you turn on the infrared light via the pen, and the Wiimote tracks your movement. Thus, it serves as a mouse or pen on the computer screen, which is displayed by the LCD projector.

The creative aspect of teaching is to develop a lesson around a standard or instructional objective. It is not necessary to reinvent the wheel. The creative teacher looks at other teachers' materials and lesson plans. Then, he or she creates a lesson with the same idea but using his or her classroom resources and focusing on a particular standard or instructional objective. Not every classroom has access to high technology. Watch the "Top Ten Tips for Using Technology in the classroom" video by selecting the link at the top of the page or copying and pasting it into your internet browser.

Creative Educator is a website that is published by Tech4Learning, Inc in San Diego, California. They focus on using

technology tools to engage students in learning the curriculum and to foster creativity. There are numerous creative ideas. Use this following link to access this website. Select one of the Creative Educator lesson plans from their Lesson Plan Archive. Then, modify it for use in your classroom using the available low and high technological resources.

[Creativeeducator.tech4learning.com/main/lessons\\_archive](http://Creativeeducator.tech4learning.com/main/lessons_archive)

Read, Write, Think ([www.readwritethink.org](http://www.readwritethink.org)) is a nonprofit website maintained by the International Reading Association (IRA) and the National Council of Teachers of English (NCTE), with support from the Verizon Foundation through the Thinkfinity Consortium. The site contains lesson plans and many writing tools for pre-writing, revising, editing, and publishing. The interactive publishing tools are user-friendly and often numerous formats, such as flipbooks, letter generators, printing press, and stapleless books. While in the classroom, I found it quite useful since it eliminates the design and formatting aspect of such projects.





There are many websites that can help you and your students write and publish digital stories. An example from Zooburst is provided below. You can select the link or copy and paste it into your internet browser. See the following pages for more internet tools for digital stories. Also, you can search the internet for more ideas about how to incorporate cell phones, digital cameras, podcasts, wikis, e-portfolios, twitter, and other internet applications.

[www.bugforteachers.com/technology.html](http://www.bugforteachers.com/technology.html)

"Hola" created at  
[www.zooburst.com](http://www.zooburst.com).

Other digital story tools  
include [www.kerpoof.com](http://www.kerpoof.com) &  
[www.carnegielibrary.org/kids/storymaker](http://www.carnegielibrary.org/kids/storymaker)

## Social Media in the Classroom

Another current issue with technology is the use of social media among teachers and students. First, think about our discussion in Chapter 3 about professional ethics and dispositions. Then, imagine that you are in your second year of teaching. You have been asked by your principal to create a set of teacher guidelines for using social networking sites on the Internet. The principal has asked for a list of ten specific things teachers should consider before posting information on their Facebook or other social networking pages. After making the list, think about if teachers should be reprimanded for information they post on their social networking pages? Why or why not? If so, how should they be reprimanded?



## Conclusion

As technology continues to change, it will affect the classroom in many ways. For the teacher, he or she must decide when and how to incorporate the technology into the classroom so that the students master the instructional objectives. The bells and whistles are cute, but, if the students are not learning the curriculum content, other options should be explored.

## References

- Parkway, F. W., & Stanford, B. H. (2010). *Becoming a teacher* (8th ed.). Upper Saddle River, NJ: Merrill.
- Slavin, R. E. (2006). *Educational psychology: Theory and practice* (8th ed.). Boston, MA: Allyn and Bacon.





# A WESOME FREE DIGITAL STORY TOOLS

PRESENTED BY  
MARILYN WESTERN  
[MWESTERN@EDZONE.NET](mailto:MWESTERN@EDZONE.NET)

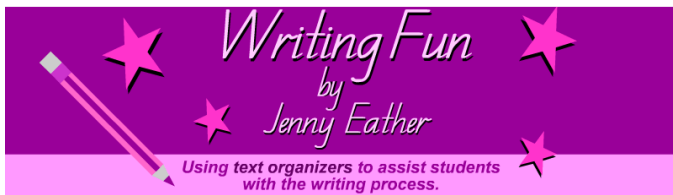
PREZI FOR THIS SESSION:

[http://prezi.com/-yr\\_kwk7c1ey/macul2011-awesome-digital-story-tools/](http://prezi.com/-yr_kwk7c1ey/macul2011-awesome-digital-story-tools/)

## A GOOD STORY:

- MEETS CURRICULUM STANDARDS
- PROMOTES HIGHER LEVEL THINKING
- ADDRESSES STUDENT NEEDS AND INTERESTS

# A WESOME FREE DIGITAL STORY TOOLS



<http://www.writingfun.com/writingfun2010.html>

## Description:

### Perfect for grades 2-6

Interactive text organizers to help students with the writing process.

Printable organizers available in Word format so you can write your own.

Multiple examples for each type of writing. Very user-friendly and intuitive.

## Tutorials can be found:

This site IS the tutorial! For use as whole group intro to organizing writing or for individuals to explore and use for their own writing.

## Curriculum ties:

Writing Narratives, Response, Description, Persuasion, Explanation, Recount, Procedure, Information Report, Letters, Invitations, Email, News

Also covers nouns, verbs, adjectives, adverbs, tense, and Style of Writing *Cross-curriculum* Can also be used in all curriculum areas – whenever writing is encouraged. Example, science reports, how to make or do something, reading responses, debates, and more.



# readwritethink

<http://www.readwritethink.org/classroom-resources/student-interactives/story-30008.html>

## Description:

### Perfect for grades K-12

Graphic organizers for use in prewriting and post-reading activities.

Focus on character, setting, conflict, & resolution.

Students are able to print out final versions for feedback & assessment.

## Tutorials can be found:

This site IS the tutorial! For use as whole group intro to organizing writing or for individuals to explore and use for their own writing.

Related lesson plans by grade level, and similar student interactive are listed & linked on main page.

## Curriculum ties:

Writing/Reading Character map, conflict map, resolution map, & setting map

**Note:** You are not able to save and return tomorrow to finish.

**Work Around:** Print each graphic organizer with prompts for students to fill in on hard copy.



# A WESOME FREE DIGITAL STORY TOOLS

## Google maps

<http://maps.google.com/>

### Description:

#### Perfect for grades K-12

Google Maps allow the user to put place marks on the map that include text. Try it for story-telling if *place* is important in the narrative.

### Tutorials can be found:

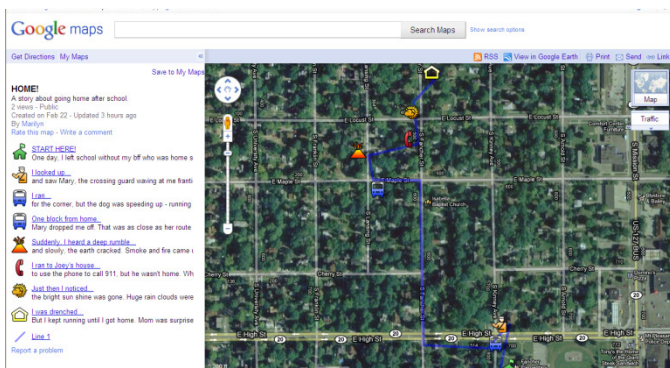
<http://bit.ly/9wV4OP> gives detailed directions for creating place marks, drawing lines, and sharing with others.

### Curriculum ties:

*Writing/Reading* Great for 'All About Me' and 'My Neighborhood/City' narratives. Try writing a story in an unfamiliar setting (e.g. downtown London) and go from landmark to landmark with your adventure.

**Note:** You must have a Google Account to use Google Maps. Gmail hack does not work as a Google account.

**Work Around:** Set up a classroom account for students to use.



Example: <http://bit.ly/gtej20>

## Google Lit Trips!

<http://www.googlelittrips.org/>

### Description:

#### Perfect for grades K-12

Lit trips are files that can be freely downloaded and viewed in Google Earth. Lit trips show the setting(s) of a story and can contain extra information, images, videos, and links to sites.

### Tutorials can be found:

[http://www.googlelittrips.com/GoogleLit/Getting\\_Started.html](http://www.googlelittrips.com/GoogleLit/Getting_Started.html) gives What IS A Google Lit Trip podcast, software & hardware requirements, and Getting Started video tutorial

### Curriculum ties:

*Reading/Social Studies/Science* Download lit trips of current stories you are studying. Also, let kids make their own lit trips for stories they are reading!

**Note:** You must have Google Earth to use Google Lit Trips. No account needed.



# A WESOME FREE DIGITAL STORY TOOLS

## Blabberize

<http://blabberize.com/>

### Description:

#### Perfect for grades 3-12

Upload an image, highlight the mouth, record your voice, and your image will 'talk' with your voice (once Premium starts, free version will be limited to 90 seconds). Can link to or embed

### Tutorials can be found:

<http://vimeo.com/11111216> Step by step directions for creating a Blabber.

### Curriculum ties:

*Cross Curriculum* Create Blabbers for any curriculum:

Story characters tell their 'side' of the story  
Explorer or President, etc. tell about their life

Water drop talks about the water cycle  
Animals give information about their habitat, food, predators, etc.

**Note:** You must have a classroom account to save Blabbers. Also need a microphone (or put the headphone jack in the microphone slot and talk into the earpiece!)



## [PIC·LITS] Inspired Picture Writing

<http://piclits.com>

### Description:

#### Perfect for grades 3-12

Choose an image. Drag and drop words to capture the meaning of the picture.

### Tutorials can be found:

<http://piclits.com/help.aspx> This site is pretty intuitive.

### Curriculum ties:

*Poetry* Great images for Haiku and other forms of (short) poetry

*Grammar* Pay attention to the types of words offered (nouns, adverbs, etc.)

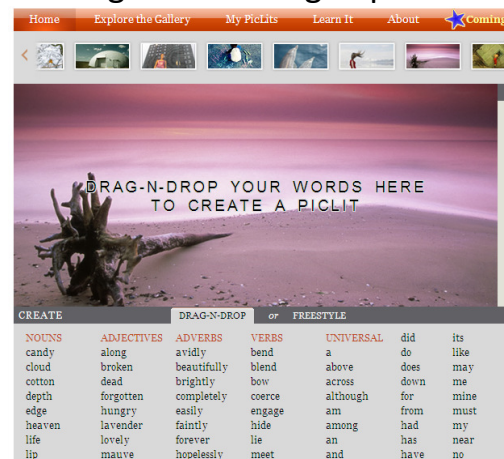
*Whole group extension:* Choose an image from <http://www.fotopedia.com> and have students brainstorm 10 nouns, 10 verbs, etc. to create their own PicLit.

### Note:

No registration is necessary.

\*Introduce via a whole group PicLit

\*Assign a picture, or give 2-3 options to choose from, or students will spend the whole writing time looking at pictures!





# A WESOME FREE DIGITAL STORY TOOLS



<http://www.carnegielibrary.org/kids/storymaker/>

## Description:

### Perfect for grades 1-4

Click & drag characters, add emotions and actions while My StoryMaker creates sentences for you. No account needed.

## Tutorials can be found:

by clicking the Story Helper at the bottom of the page.



## Curriculum ties:

*Writing/Reading* Small variety of characters, settings, and interactions are available. Best for simple fictional stories based on goals of defeat, find, love, making friends, rescue, travel, and want.

**Note:** You cannot go back and edit a story once you have ended/saved it, so if you want a longer story, have students storyboard before accessing site. Saved stories will be deleted after one month. You are able to print it.



# ZooBurst

<http://zooburst.com/>

## Description:

### Perfect for grades 2-12

Create your own 3D pop-up books online which can be shared via link or embedding. Webcam mode gives Augmented Reality (shows you + 3D book).

## Tutorial can be found:

[http://www.zooburst.com/zb\\_support.php](http://www.zooburst.com/zb_support.php) under *Can I build my own ZooBurst book?* or by clicking *Show Instructions on Build your book* page.

## Curriculum ties:

*Writing/Reading* Use uploaded artwork or built-in database of images. Write a story, poem, conversation.

*Cross curriculum* Write a report, explain a concept, etc.

Characters can have chat bubbles for more information about topic.

**Note:** For free version, students should be at least 13 to create a *personal account* (need email).

10 books allowed per account.

**Premium account:** \$50/year for teacher + 250 students (no email) + unlimited books + classroom management





# A WESOME FREE DIGITAL STORY TOOLS



<http://goanimate4schools.com>

## Description:

### Perfect for grades 4-12

Online animation tool that allows students to build animated movies with characters, music & voice. Embeddable.

### Tutorial can be found:

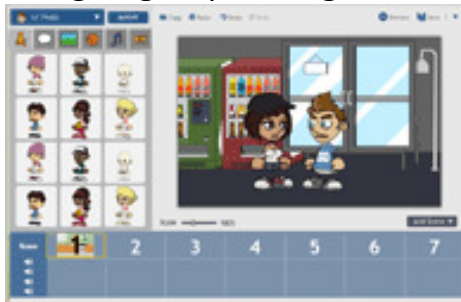
Tutorial available the 1<sup>st</sup> time you use GoAnimate.

### Curriculum ties:

*Cross curriculum* Practice writing dialogue. Spelling/grammar important in text-to-speech!  
Great for collaboration.  
Share research, tell a story, use as assessment, or introduce a new unit.

**Note:** Free version for 1 teacher + up to 100 students. Make animations up to 2 minutes long, upload own music, text-to-voice & voice recording. Takes up to 1 week to get free account.

**SchoolPlus account:** \$12/account/year for unlimited teachers + students, unlimited cartoon length, group management.



<http://www.makebeliefscomix.com/>

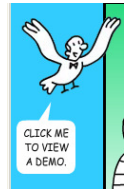
## Description:

### Perfect for grades 2-8

Choose characters and fill in the talk balloons to create a 2,3, or 4 panel comic.

### Tutorials can be found:

Click on the demo 'bird' on the main page for directions.



### Curriculum ties:

*Cross curriculum* Tell a story, write what you've learned about a topic, discuss problems + solutions  
If 4 panels are not enough, add the *To Be Continued* panel prompt and write another 4 panel 'chapter'!

**Note:** You are not able to save and return tomorrow to finish.

**Work Around:** Storyboard before going to web site.

When finished, print a copy and email to teacher for digital copy.



# A WESOME FREE DIGITAL STORY TOOLS



<http://littlebirdtales.com/>

## Description:

### Perfect for grades K-3

Story building tool for pictures you draw, recording your voice, and adding text. Available in digital format only – no print.

### Tutorial can be found:

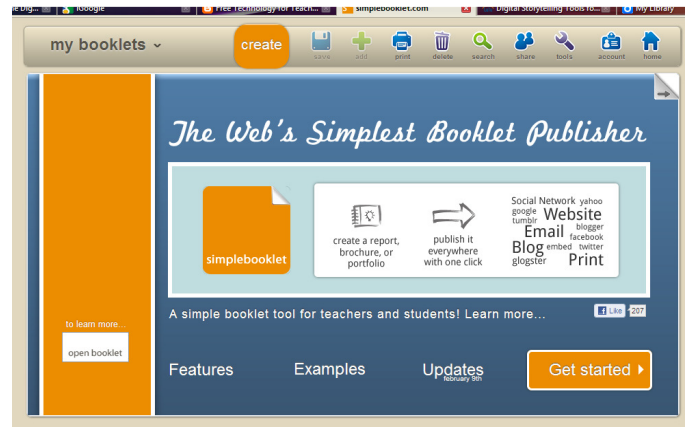
Recording instructions available on the Create a Tale page. Very intuitive.

### Curriculum ties:

*Cross curriculum* Students can create their own stories using images or drawings. Use as a whole group story (e.g. 100<sup>th</sup> day). Teachers can also use to intro a unit, show field trip pictures, or give a series of images that students discuss (are these fact or opinion?)

**Note:** Registration requires email

**Work Around:** Set up a classroom account for students to use or use gmail hack.



<http://simplebooklet.com/index.php#wpKey=JPaEFACGjoQJil8Ujhh1lu#page=0>

## Description:

### Perfect for grades 3-12

Simple Booklet allows students to quickly upload, drag, drop, resize, and layer almost anything to their booklet page (text, images, web pages, video, music, files). Create a report, brochure, or portfolio. Can link or embed.

### Tutorial can be found:

No tutorials available – extremely intuitive!

### Curriculum ties:

*Cross curriculum* Present a story, research, or tutorial. Easy to use!

**Note:** Registration requires email

**Work Around:** Set up a classroom account for students.



# A WESOME FREE DIGITAL STORY TOOLS



<http://youblisher.com/>

## Description:

### Perfect for grades K-12

Publish your stories in a realistic page-turner format. Share via link or embed.

## Tutorial can be found:

No tutorials available – extremely intuitive!

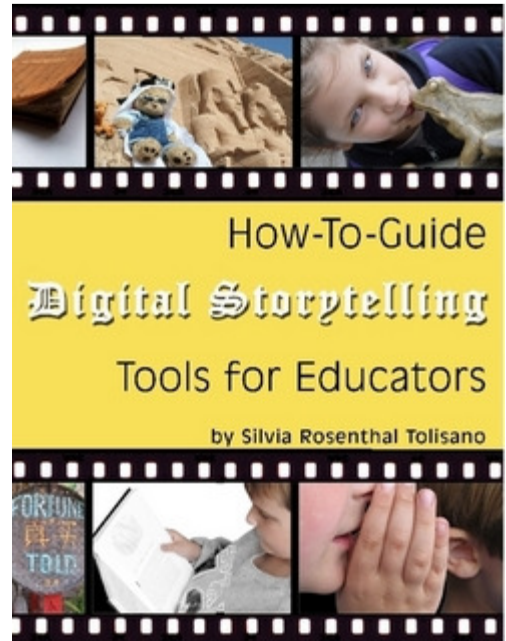
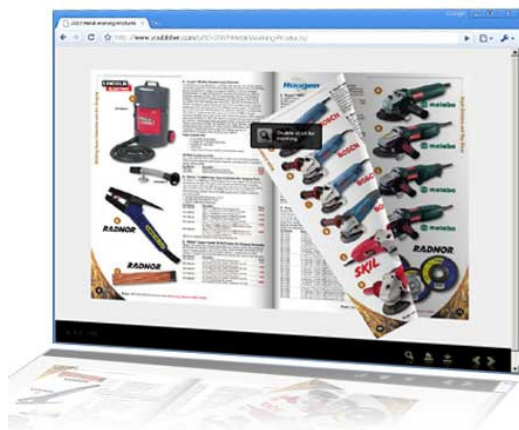
## Curriculum ties:

*Cross curriculum* Write a report. PDF it. Upload. Save the link. FREE!

**Note:** Document must be pdf'ed for this to work. Free download *Cutepdf* from <http://www.cutepdf.com>. Allows you to pdf just about any printable document. Unfortunately, links do not work in Youblisher.

**Note:** Registration requires email

**Work Around:** Set up a classroom account for students.



<http://www.lulu.com/product/file-download/digital-storytelling-tools-for-educators/6257308>

Free eBook that contains:

- 7 in-depth web resources with step-by-step directions for using
- Curriculum suggestions for each resource
- Links to student-created examples
- A 1-page short list of steps (great when planning how long this project will take!).
- 2-1/2 pages of additional resources



## LEARNING OBJECTIVES



1. Create a differentiated lesson plan for use in your classroom.
2. Develop a task analysis.
3. Describe your learning style preference.
4. Create a foldable for use in your classroom.
5. Compare and contrast preferred learning styles and multiple intelligence theories.

**Differentiation is defined as the teacher adjusting to the individualized, yet unique, needs of the student.** A common analogy used to describe the need for differentiation is that everyone does not wear the same size clothing. In reality, it would be impossible for everyone to wear the same size clothing. Unfortunately, in education, students are expected to learn the same material in the same manner and to produce the same product. Within a differentiated classroom, a teacher can adjust content, process, and product to meet the students' needs. The lesson material presented

in the classroom is considered the content. How the students interpret the content is considered the process. What the student creates and the knowledge demonstrated by the student is considered the product. In this chapter, methods for adapting the classroom content will be presented, including the six-step planning model and task analyses. In addition, learning styles will be presented and methods for using learning style preferences to adapt the process of learning and using Howard Gardner's Multiple Intelligence Theory. Choiceboards, dinner menus, tiered activities, and learning contracts for differentiating the final product will be presented with classroom examples.

### What is Differentiation?

To answer that question, read the Kapusnick and Hauslein article.

### The Six-Step Planning Model

Teachers adapt the content with the complexity and depth of the standards based on the strengths, weaknesses, and needs of the students. In addition, the teacher can

differentiate tasks by simplifying the skill components and differentiate the thinking skills by using Bloom's Taxonomy, which we discussed in Chapter 7. According to Gregory and Chapman (2007), when planning for differentiated learning, the teacher should use the six-step planning model to guide the planning.

1. **Standards:** What will the students know or be able to do at the end of this lesson?
2. **Content:** What concepts, facts, or vocabulary will the students acquire?
3. **Activate:** What activity will be used to engage the learners and activate prior knowledge?
4. **Acquire:** What activity will be used to deliver the instruction?
5. **Grouping Decisions:** How will you group the students to practice the material?
6. **Assess:** How will you assess whether the students gained the knowledge or skill?

Print the notetaking guide on pages 286 - 293!



# The 'Silver Cup' of Differentiated Instruction

by Regina A. Kapusnick and Christine M. Hauslein

*In an inclusive environment, students at all levels of understanding can learn more effectively if teachers adjust instruction for individual learning styles and needs.*

*"Don't give up until you drink from the silver cup, you'll never know until you try."*

—Dan Peek and  
Catherine L. Peek (1974)

**T**his line from a popular '70s song described our determination at the beginning of a new school year. As elementary teachers committed to meeting students' individual needs, we were convinced that Dewey's (1915; 1916) vision of school as a caring community, actively engaging students in optimal learning experiences, was achievable. We planned to reach our goal through the "silver cup" of differentiated instruction. Our conviction and enthusiasm were tempered with the knowledge that most teachers who struggle with differentiated in-

struction eventually abandon it. They face tremendous pressure to teach an unwieldy curriculum in a relatively short time and an over-emphasis on test-performance results. It is difficult to devote much class time to individual student interests and learning styles—critical components of successfully differentiating instruction (Gardner 1991). So how can primary and middle school teachers implement differentiated instruction based on brain research principles combined with best practices?

## Why Differentiated Instruction?

Although no one in the education field would openly state that all children are the same, this assumption is embedded in the way schools are structured, leaving individual teachers the responsibility of adjusting the curriculum to accommodate individual learning styles and differences (Nehring 1992). Teacher responsiveness to individual student levels of readiness, interests, and learning profiles mandates the use of a differentiated model of instruction (Tomlinson 1999). Recent studies in the physiological workings of the human brain corroborate this assertion. When a student experiences a learning situation, the brain responds with the release of the chemical noradrenaline. Students who feel intimidated and rejected because their level of readi-

ness is over-challenged experience an overproduction of noradrenaline, causing the brain to be overstimulated. Attention is diverted from learning and focused on self-protection, resulting in misbehavior or withdrawal, with more time being spent on learning to cope rather than learning concepts. Conversely, if student readiness is beyond what is needed for a particular task, the brain is, quite literally, not engaged, releasing fewer neurochemicals. The advanced student often feels apathetic because his or her brain is understimulated (Tomlinson 1999). Diverse learning styles, interests, and abilities act as filters for student experiences, while emotional safety, challenges, and self-constructed meaning determine how students make sense of information.

## Instruction Principles

The principles of differentiated instruction are based on Howard Gardner's Theory of Multiple Intelligences. Gardner (1991; 1993) asserted that students learn better and more easily when teachers use a variety of delivery methods, providing students with learning experiences that maximize their strengths. Vygotsky's Zone of Proximal Development theory supports the notion that effective education facilitates development by assisting the progression to each stage through student-teacher interactions and opportunities to discuss





and share ideas. In Vygotskian classrooms, teachers accommodate diverse student abilities by stretching students just beyond their comfort zone but not to the point of frustration (Morelock and Morrison 1998).

The following principles char-

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*Regina A. Kapusnick teaches sixth-grade science and integrated communication skills in Mount Laurel, New Jersey. Her research interests include brain-based learning styles and differentiated instruction. Christine M. Hauslein is a reading specialist in Perkasio, Pennsylvania. She is interested in using a differentiated instruction model to address the needs of English-as-a-Second-Language students.*

acterize the differentiated classroom (Tomlinson 1995, 1999; Callahan 1999):

1. Students are appreciated for the variety of abilities and experiences they bring to the group.
2. Teachers recognize asynchronous development of their students and use information about readiness, interests, and learning styles as the basis of instruction.
3. Learning options in content, process, and product are devised based on the gathered data, with materials varied according to challenge and purpose.
4. All students participate in purposeful, valued learning activities.
5. Essential skills are used to make sense of open-ended problems designed to teach key con-

cepts and principles.

6. Teachers present information in a variety of modalities to address individual needs.
  7. Students may have some choice of topics or modes of expression based on their own interests and learning styles.
  8. Homework extends individual understanding and skill level.
  9. There is flexibility in grouping and pacing.
  10. Assessment is varied and balanced, with grades reflecting individual growth.
- Differentiated instruction is an effective model for heterogeneous or homogeneous grouping and is not dependent solely on Piaget's (1950) developmental stages. Differentiation assists teachers in ef-

fectively engaging more students through acceptance of student diversity and use of this diversity to create better instruction.

### **Instruction Strategies**

The following eight strategies are the most common.

#### ***Acceleration***

Students who demonstrate mastery of instructional material through pre-testing may be offered the option to proceed, on their own, at an accelerated pace. For example, in September, students take the first spelling pre-test and those scoring 100 percent would go on to the next spelling list, proceeding to master each lesson at their own pace. Ideally, the flexible pacing of the acceleration process provides a steady challenge to the advanced learner. Spelling contracts are often used as a tool for managing the student lists.

#### ***Curriculum Compacting***

The process of curriculum compacting, which compresses essential learning, allows students to progress beyond material already mastered while remaining on grade level. Gifted children choose activities extending material covered in class that particularly interests them or uses their talents. The hallmark of curriculum compacting may take the form of either having elementary students spend time studying a curriculum topic in more depth and breadth than is normally available in the classroom or challenging talented gifted students to delve into an unrelated aspect of a course. Curriculum compacting might occur in the elementary math class in which a student masters all math facts relating to addition before the rest of

her class. She would then independently investigate addition's relationship to multiplication or perhaps research a real-life application, such as how math is used in the school cafeteria. It is important to work with the individual student to establish a timeline to measure progress and to give a post-test to ensure mastery of content.

#### ***Independent Study***

Independent study unites the teacher and the self-motivated individual student in identifying a problem or topic of interest for the student and developing a plan for independent investigation. The student proceeds at his or her own pace once the completion date is agreed upon and the outcome (product) is identified. For example, an independent study program might allow a student to research an ancestor's Civil War unit, mapping battles fought, obtaining copies of military records, and interviewing family members for stories that have been passed through the generations about the war. An outcome product might be a scrapbook. During independent study, the teacher provides structure and pacing guidance through regular conferencing; the student must meet established benchmarks to ensure success.

#### ***Flexible Grouping***

Flexible-grouping assignments ensure that all students have the opportunity to work with students that have both similar and different abilities and interest levels. Teachers can implement flexible grouping by task, outcome, interest level, background knowledge, or social readiness. In language arts, flexible grouping could be used when reading short stories,

especially at the middle school level. Each group of four students (teacher selected) with mixed abilities has the task of reading a short story, answering 3–4 questions, and then presenting their story to the class. When using flexible grouping, the teacher must provide and continually reinforce clear guidelines covering intragroup dynamics, outcome products, and time frames.

#### ***Independent-Learning Centers***

Independent-learning centers can provide enrichment and reinforcement by offering opportunities to explore topics in more depth. Through learning centers, students can engage in meaningful activities that enhance understanding of curricular topics and constructively use time when assigned classwork is completed. The centers also encourage development of reflective, self-monitoring students capable of independent problem solving. Each center should entice the learners' multiple intelligences through curiosity, varying levels of complexity, and choices for end products. Primary-grade teachers might use *The Polar Express* (VanAllsburg 1995) as a learning center by focusing on the author. Four stations would be set up for students to read or listen to *The Polar Express* and one other book by Chris VanAllsburg. Students could then construct a graphic organizer comparing and contrasting the books, write personal reflections on the comparison of the books, and complete a judgment sheet telling which book the student preferred and why. With checklists, the teacher periodically records student progress through the stations. These checklists might require students to read the book(s) or listen to the tape(s),

draw a picture, write a comment, and put all their work in a language folder. Once learning centers are established, the teacher's role is to monitor student accomplishments, understanding, and record keeping, and to adjust the complexity as required.

### **Complex Questions**

In a differentiated classroom, the teacher asks complex questions that are open-ended, appeal to higher-order thinking skills, allow adequate wait time for answers (more than the traditional 1–3 seconds), and provide opportunities for peer discussions and follow-up questions. For example, while reading *Maniac Magee* (1990), the teacher might ask students to judge the best decision for the title character regarding a home. Students would be required to justify their decision using examples from the book. This activity engages students in lively discussion and exchange of ideas while demonstrating story analysis and synthesis, both higher-order thinking skills.

### **Tiered Activities**

Tiered activities promote success because the student chooses his or her own level of accomplishment. The teacher develops a tiered activity by first focusing on a curricular concept that must be understood by all students. Once the concept is identified, the teacher describes tasks of varied complexity, number of steps, and outcome products. Students are encouraged to select the outcome product they wish to reach from rubrics delineating product requirements at each task level. In celebration of the Olympic Games, language arts teachers at any level could design a decathlon that in-

cludes reading, writing, art, research, and grammar skills. Students could work for a bronze (5 tasks completed), silver (7 tasks), or gold (all 10 tasks) medal, earning certificates at the end of the Games.

### **Contracts**

Essentially agreements between teachers and students, contracts are useful in giving students both the freedom to choose how they will complete tasks and the responsibility for completing them. Acting as a mentor, the teacher should ensure that the contract describes both skills and content, is appropriately challenging based on the skills and readiness of the student, and has a realistic time frame. In an upper elementary science class, for instance, a contract could be developed for a student to explore the human genome project. The project could include research on DNA and its ramifications with an outcome of an oral report.

### **Successfully Using Differentiated Instruction**

Reforms in teaching have shifted the instructional paradigm from adult-dominated pedagogy to child-centered, constructivist theories and methodologies. School administrators implementing differentiated instruction recognize that considerable time and combined efforts with teachers and parents are essential for success. Classroom teachers must reconcile the demands of curriculum, pacing, and readiness with cultural diversity, high-pressure testing, and accountability. Tomlinson (1998) noted that teachers are generally positive about the feasibility of providing instructional adaptations but are unlikely to make them due to lack of training and support.

To organize learning opportunities effectively, teachers must be comfortable with the framework for differentiation and confident in their abilities to manage the individual processes, content, and products of students. Preservice and inservice instruction in the principles of differentiation and continuous support and commitment of administrators is essential. The most influential factors for student success are the importance teachers place on meeting individual needs and their attitudes toward changing traditional teaching practices. For us, the "silver cup" is reaching all our students through differentiated instruction.

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The example on the following page is a differentiation planning sheet for a burnished clay bowl lesson. In the first entry, the standards according to the Georgia Performance Standards for Visual Arts are listed. From the listed standards, an essential question was written to guide the instruction. Underneath content section, the concepts of the lessons are listed. In this lesson, the students will *describe, discuss, and compare burnished ceramic bowls that are made for decorative and functional purposes*. Also, there is a list of vocabulary associated with this lesson. Lastly, the skills for this lesson are listed. Specifically, the students will create a small clay bowl and use a burnishing treatment for the surface. In section #3, the activating activities are listed. Activating activities are strategies that engage the students, activate prior knowledge related to the lesson topic, and focus the students on the topic of the lesson. (We discussed them in Chapter 8.) Sometimes, it is referred to as the "hook and link" because it hooks the students' attention and links the lesson to prior learning. Other possible activating activities include carousel brainstorming, anticipation guides, mind maps, journal entries, and K-W-L charts. With this lesson, an activating activity will be used as a pre-assessment to determine the

extent of prior knowledge about pottery. "Give Me, Get One, Move On" is a pre-assessment sheet for the students to list ideas about a particular topic then share their ideas with other students in exchange for another idea. After the pre-assessment, the students will view images of functional and decorative burnished pottery, including the work of Kerry Moosman. In addition, they will watch a short video clip about Maria Martinez and her traditional Native American pottery. Afterwards, the students will brainstorm the major differences between decorative and functional pottery.

In the acquire section, the procedures of the instruction are listed. Possible instructional strategies include direct instruction, lecture, and cooperative learning. For this lesson, I choose the direct instruction with demonstration strategy. The acquisition begins with an historical overview and classroom discussion of the differences between burnishing and glazing. After the discussion, the teacher will demonstrate the burnishing technique on pottery at three stages of the drying process: as it begins to harden, when it is leather-hard, and when it is air-dry. At this point in the lesson, every student has been given the same content. When the students break into groups, the content will be adapted depending on the students' experience with ceramics. In section #5, the grouping decisions are made based on the students' experience and/or interests. For the first guided practice activity, the students will be grouped based on their experience with ceramics. The beginning students will create a pinch bowl. The immediate students will create a coil pot. For the second guided practice activity,

the students will be grouped randomly to practice the different burnishing techniques. Students could be grouped by interest, which would allow the students to choose a burnishing technique to practice. In the sixth section, the students' final product will be assessed using the rubric. The students could have been assessed with a quiz, test, writing prompt, portfolio, or performance task (Gregory & Chapman, 2007). I choose a performance task for this lesson. This differentiated instruction planning sheet template will be posted in CougarView.

## Content

### Task Analysis

When students with varying abilities are included into a general education classroom, the teacher could have different objectives for the students. One method for differentiating the content is the use of a task analysis. A *task analysis* is the sequential steps necessary to perform a specific task. By breaking out the task into sequential steps, the teacher can provide instruction for the student at his or her instructional level. For example, if the student with special needs exhibits delayed fine motor skills, then that student could work on cutting paper in a straight line with scissors while the other students are cutting out individual shapes.

In general, it is a good idea to complete the task yourself to determine all of the sequential steps. After performing the task, list the skill components. It may be necessary to perform the task again to determine the correct order of the steps. Avoid using extraneous skill components. Instead, only use the necessary ones to master the task. The following task analysis provides an example of sequential

# Planning for Differentiated Learning

**Lesson:** Burnished Clay Bowl

**Grade:** 6

## 1. STANDARDS:

VA6PR.1 Understands and applies media, techniques, and processes.

c. Produces three-dimensional artworks (e.g. ceramics, assemblage, carving, mask, installation, and other forms) using selected materials (e.g., clay, papier-mâché, cardboard, paper, plaster, wood, wire, found objects, fiber, textile and/or combinations of these media) and techniques.

d. Develops awareness of the properties of art materials in preparation for art making.

g. Uses tools and materials with craftsmanship (e.g., with care in a safe and appropriate manner).

VA6C.1 Applies information from other disciplines to enhance the understanding and production of artworks.

Essential Question: How is pottery used for decorative and functional purposes?

## 2. CONTENT:

- Concepts: Describe, discuss, and compare burnished ceramic bowls that are made for decorative and functional purposes.
- Vocabulary: clay, burnished, symmetry, sagger-fired

## SKILLS:

- Create a small, three-dimensional clay bowl using water-based clay and burnishing techniques for the surface treatment.

## 3. ACTIVATE:

- Pre-assessment strategy – Give Me, Get One, Move On for pottery
- Focus Activity
  1. Show pictures of Idaho artist Kerry Mossman’s burnished terra cotta coil built pots and pictures of burnished terra cotta vessels created by West Mexicans, Ancient Egyptians, and Native Americans.
  2. Show the MPEG-4 video about Maria Martinez or other images about Native American artists.
  3. Brainstorm “What are the major differences between decorative and functional pottery?”.

## 4. ACQUIRE:

1. Present a historical overview of basic clay pottery (including the uses by ancient Greece, ancient China, Japan, England, and the Americas. (Source: [www.depauw.edu/acad/art/faculty/dherroldweb/pages/histp1.html](http://www.depauw.edu/acad/art/faculty/dherroldweb/pages/histp1.html))
2. Discuss the differences between burnished and glazed pottery. (Source: Low Firing and Burnishing by Sumi von Dassow available at the [ceramicartsdaily.org](http://ceramicartsdaily.org) bookstore)
3. Discuss the following topics with the students:
  - Why burnish?
  - How is burnishing different from other methods?
  - When is glazing a better option?
  - When is glazing not necessary?
4. Using pre-made clay bowls, demonstrate burnishing with a polished stone in three stages:
  - Stage 1: Just as the bowl begins to harden.
  - Stage 2: When the bowl is leather-hard.
  - Stage 3: When the bowl is air-dry.

## 5. GROUPING DECISIONS:

**Activity #1:** Create a small, three-dimensional clay bowl using water-based clay.

Group A - Beginning ceramic students (pinch pot)

Group B - Immediate ceramic students (coil pot)

**Activity #2:** Use burnishing techniques for a surface treatment of an air-dry bowl.

Group A – light water mist and polished stone (random assignment)

Group B – vegetable oil mist and sandpaper (random assignment)

Group C – paste wax shoe polish and soft cloth (random assignment)

## 6. ASSESS:

Grade final product using the “Burnished Clay Bowl” rubric.



# Give One, Get One, Move On

Objective: Fill all boxes with different concepts/terms.

1. Think about 3 concepts/terms for pottery.
2. Write one concept/term in each of the first 3 boxes.
3. Move around the room.
4. **Give** one idea from your sheet to someone.
5. **Get** another different from his/her sheet.
6. Write it in a box with his/her name.
7. **Move** on to another person.
8. Repeat until all boxes are filled.

Concept/term #1	Concept/term #2	Concept/term #3
#4 from _____	#5 from _____	#6 from _____
#7 from _____	#8 from _____	#9 from _____
#10 from _____	#11 from _____	#12 from _____

# RUBRIC

Project: Burnished Clay Bowl

Name \_\_\_\_\_

<p style="text-align: center;"><b><u>Functional Art</u></b></p> <p>__My clay bowl has a smooth lip.</p> <p>__My clay bowl has a stable base.</p> <p>__I do not have any holes or BIG cracks in my clay bowl.</p>	<p style="text-align: center;"><b>I have three checks.</b></p> <p style="text-align: center;"><b>(10)</b></p>	<p style="text-align: center;"><b>I have two checks.</b></p> <p style="text-align: center;"><b>(7)</b></p>	<p style="text-align: center;"><b>I have one check.</b></p> <p style="text-align: center;"><b>(4)</b></p>	<p style="text-align: center;"><b>I have NO checks.</b></p> <p style="text-align: center;"><b>(0)</b></p>
<p style="text-align: center;"><b><u>Construction</u></b></p> <p>__I created a pinch pot that is smooth and even on the top and bottom.</p> <p>__I rolled even coils and added them to my clay bowl.</p> <p>__I used the slip and score technique to stick <b>all</b> of my pieces together.</p> <p>__I used my finger, a paint brush, or a wet rag to smooth and even out my clay bowl.</p>	<p style="text-align: center;"><b>I have three checks.</b></p> <p style="text-align: center;"><b>(10)</b></p>	<p style="text-align: center;"><b>I have two checks.</b></p> <p style="text-align: center;"><b>(7)</b></p>	<p style="text-align: center;"><b>I have one check.</b></p> <p style="text-align: center;"><b>(4)</b></p>	<p style="text-align: center;"><b>I have NO checks.</b></p> <p style="text-align: center;"><b>(0)</b></p>
<p style="text-align: center;"><b><u>Burnishing</u></b></p> <p>__I used my designated materials to burnish my clay bowl.</p> <p>__I completed the entire process of burnishing.</p> <p>__My clay bowl has smooth or glossing finish created by burnishing.</p>	<p style="text-align: center;"><b>I have three checks.</b></p> <p style="text-align: center;"><b>(10)</b></p>	<p style="text-align: center;"><b>I have two checks.</b></p> <p style="text-align: center;"><b>(7)</b></p>	<p style="text-align: center;"><b>I have one check.</b></p> <p style="text-align: center;"><b>(4)</b></p>	<p style="text-align: center;"><b>I have NO checks.</b></p> <p style="text-align: center;"><b>(0)</b></p>
<p style="text-align: center;"><b><u>Craftsmanship</u></b></p> <p>__ I followed all directions.</p> <p>__I used my time wisely.</p> <p>__I used art supplies correctly.</p> <p>__I put my name on my work.</p> <p>__I cleaned up my work area.</p>	<p style="text-align: center;"><b>I have five checks.</b></p> <p style="text-align: center;"><b>(3)</b></p>	<p style="text-align: center;"><b>I have three or four checks.</b></p> <p style="text-align: center;"><b>(2)</b></p>	<p style="text-align: center;"><b>I have one or two checks.</b></p> <p style="text-align: center;"><b>(1)</b></p>	<p style="text-align: center;"><b>I have NO checks.</b></p> <p style="text-align: center;"><b>(0)</b></p>

TOTAL POINTS \_\_\_\_\_ out of 33

steps for using scissors to cut paper (Siegel & Siegel, 1975).

**Objective: Given a pair of scissors and a 10 cm x 10 cm sheet of paper, the student will cut the paper in half on three out of three attempts.**

1. Picks up scissors with non-dominant hand.
2. Puts dominant hand thumb in small hole.
3. Puts dominant hand middle finger in large hole.
4. Positions dominant hand thumb up.
5. Picks up paper.
6. Orientates paper so line is parallel to scissors.
7. Snips on line.
8. Stops before scissors fully closed.
9. Opens scissors and moves forward.
10. Repeats steps 7, 8, and 9 until paper is cut in half.

After creating the task analysis, the teacher needs to assess which step the student can function independently. For example, if the student can pick up the scissors, position them correctly, and pick up the paper independently, then the student needs to have instruction for aligning the paper and scissors for cutting. Another consideration before beginning instruction is the prerequisites for this skill. For example, the prerequisites for this skill are the ability to bring hands to the middle of the body, to hold objects, to reach and grasp objects,

and to bring thumb and finger together in order to pick up and release an object (i.e., pincher grasp) (Carter & Kemp, 1996). This process can be generalized to all content areas. Ask yourself, "What must the student be able to do in order to complete this task?"

### Process

#### Learning Styles

You walk into a classroom, and the teacher offers you a choice of assignments. Would you choose working by yourself or working with a small group? Would you choose to write an essay, draw a diagram, or create a skit? Would you prefer the teacher to tell you the information? Would you prefer the teacher to demonstrate the information? Each of these decisions should be made by a classroom teacher while he or she is developing the daily lesson plans. Within a classroom, the students' learning preferences vary immensely.

*Learning styles* are preferred methods of learning information and preferred methods of producing. It does not mean that the preferred method is the only method for learning or producing.

There are various learning style theories and inventories available. A common learning style inventory is the Visual, Aural, Read/Write, and Kinesthetic Questionnaire (VARK). The VARK, which was developed by Neil Fleming and Colleen Mills of Lincoln University in New Zealand, assesses the preferred sensory modalities for learning information. Fleming has developed a variety of questionnaires for young children, athletes, and students who speak languages other than English. The survey was made available via the internet in 2001. The VARK questionnaire results indicate the preferred learning style(s), whether Visual, Aural, Read/Write, Kinesthetic, or Multimodal.

**Visual.** This learning style preference includes the depiction of information visually. Figure 1 depicts some of the visual inputs of information, such as pictures, videos, posters, slides, graphs, flowcharts, and textbooks with diagrams and pictures. A visual student prefers teachers who use gestures and picturesque language. These students like symbols and often write in the white space. They tend to underline information, to use different colors, and to

Input



How do you absorb the information?

Output



How do you communicate your knowledge?

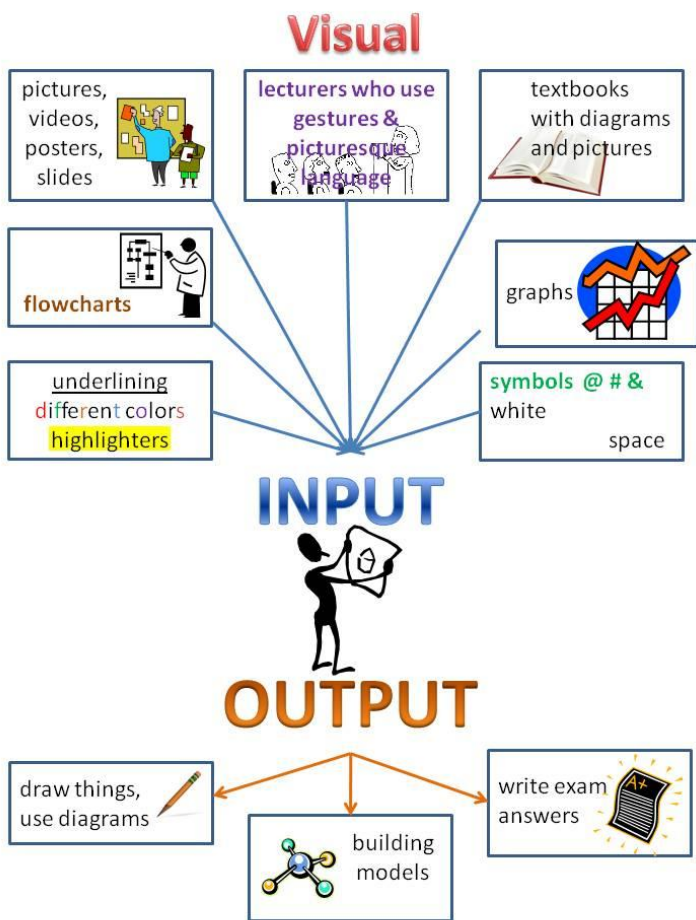


Figure 1

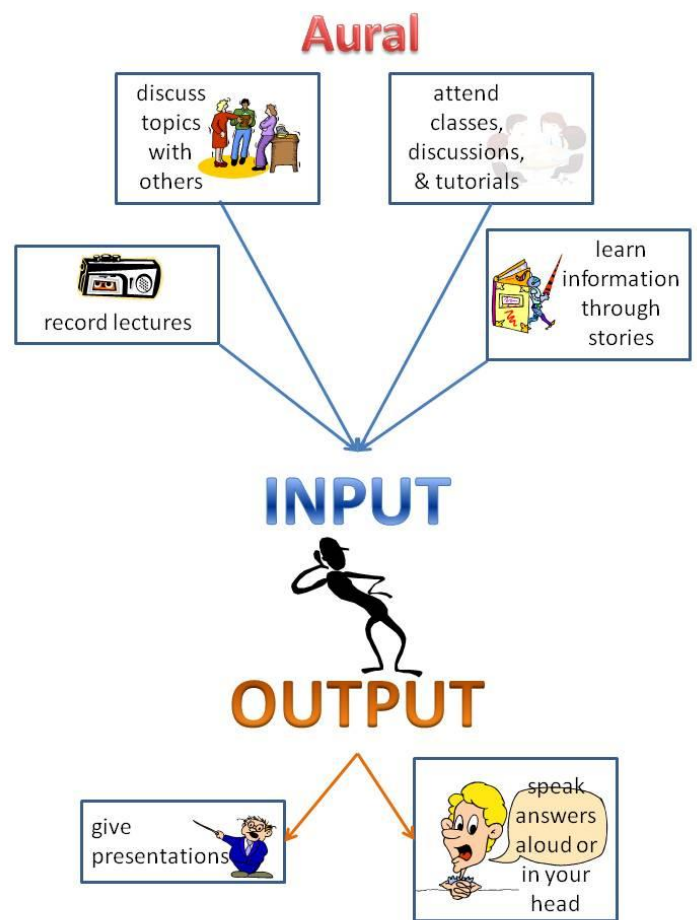


Figure 2

highlight important information. Figure 1 presents some of the visual outputs of information, such as drawing things, using diagrams, writing exam answers, and building models.

**Aural or Auditory.** This perceptual mode describes a preference for information that is heard or spoken. Students with this preferred modality report that they learn best from lectures, tutorials, group discussion, and recorded lectures. In addition, they learn information when presented in a story format. As a method of output, these students prefer to talk out loud as well as talking to themselves and give presentations. Figure 2 provides a diagram of the inputs and outputs for auditory students.

**Read/Write.** This preferred modality involves reading and writing words. Figure 3 on the next

page shows some examples of inputting information using the read/write modality. Students who prefer this modality like to learn information by reading textbooks and handouts, writing notes, and reading "how to" manuals. These students prefer teachers who use words well. Figure 3 displays preferences for outputting information, such as writing essays, writing lists, using creative writing, and participating in debates.

**Kinesthetic.** By definition, this modality refers to the preference of movement, activity, and practice, real or simulated. Although such a kinesthetic experience may invoke other modalities, the key is that people who prefer this mode are connected with the real world through concrete experiences. Figure 4 on the next page illustrates kinesthetic input methods, such as

Complete the Learning Styles Activating Activity. The answers will be presented at the end of the chapter.

1. **True or False.** Students must have one preferred modality
2. **True or False.** Multimodal learners match their preferences with the presented instructional method.
3. **True or False.** Boys tend to prefer the kinesthetic modality.



lab activities, field trips, simulations, hands on approaches, and manipulatives. These students prefer teachers who give real world examples. They use all five senses (i.e., see, hear, smell, touch, and taste). Figure 4 shows methods for outputting information using a kinesthetic modality. These methods include practicing computation, participating in activities with movement, and demonstrating knowledge.

**Multimodal.** According to Fleming, life is multimodal because there are seldom instances where one mode is used. Approximately 60% of any population is multimodality or has multiple learning style preferences. Some students who are context specific prefer a single modality to suit the occasion or situation. This type of student chooses to match or align his or her modality to the significant others around them. For example, if a teacher preferred a Read/Write mode for presenting information, the student would switch to that modality for his or her learning and producing. Other students are not satisfied until they have had input or output in all of their preferred modes, whether it is two, three, or four modalities. If a student is multimodality, it may be necessary for him or her to use more than one modality for learning and communicating the information. According to Fleming, these students feel insecure when they use only one modality.

**VARK Scores for Dr. Brown:  
V - 7; A - 0; R - 4; K - 5**

I am a mild visual learner, meaning I prefer to input and output information visually. I am also a visual teacher as you can see from my classroom and this

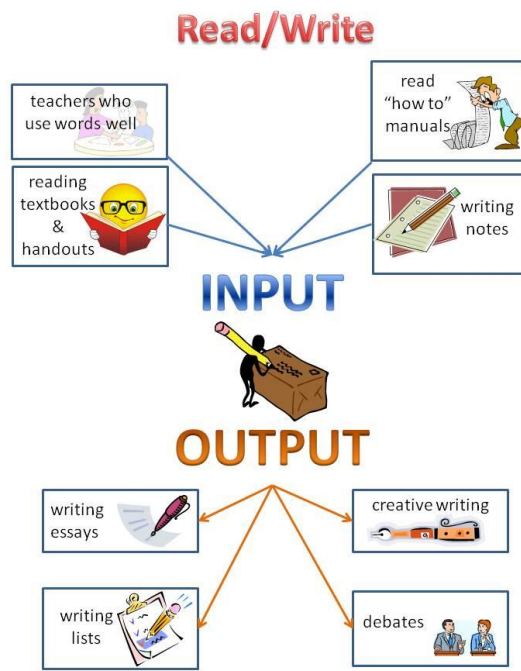


Figure 3

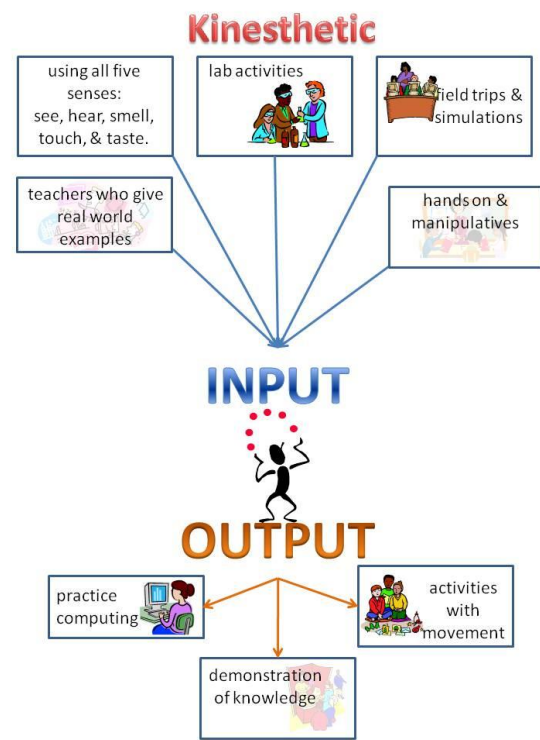


Figure 4

etextbook. It is said that you teach using your preferred modality. Complete the online VARK ([www.vark-learn.com](http://www.vark-learn.com)) to determine your preferred mode of inputting and outputting information. You can print the various versions from this website, too.

**Foldables**

While in the classroom, I used foldables for a variety of lessons to adapt the process of learning new material. What are foldables? *Foldables* are three-dimensional graphic organizers, which were popularized by Dinah Zike. There are many benefits for using these graphic organizers. They included student-centered instruction, and visual-kinesthetic learning. Also, the foldables assist the students with organization and engage the students in active learning. Watch the Animoto "Examples of Foldables" video to see examples of foldables from my classroom. You can select the link or copy and paste it into your internet browser.

[www.bugforteachers.com/technology.html](http://www.bugforteachers.com/technology.html)

Created at animoto.com.



I used a Christmas card holder in my classroom to post all of the foldables so I could reference previous lessons.



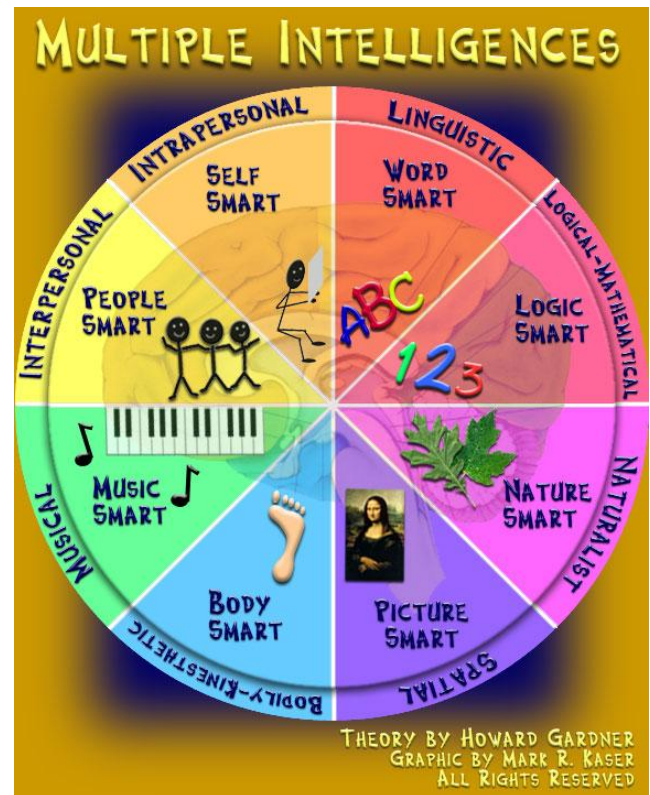


## Howard Gardner's Multiple Intelligences Theory

Howard Gardner believes that all humans possess cognitive competence described as a set of abilities, talents, or mental skills. This intelligence is manifested by differing degrees of skill for each individual. Gardner stresses that the general faculty of intelligence does not change much with age, training, or experience. To help the teacher understand the intellectual functioning of any student, one may find it beneficial to review and understand Gardner's multiple intelligences because it assists in seeing that each individual student may have a different intellectual functioning. See the eight intelligences according to Gardner in the figure to the right. For example, many students in special education are identified as having a specific learning disability. However, no two students identified with a specific learning disability are the same. One student may have a processing deficit in phonological awareness that may affect his or her ability to recognize and apply letter sounds to the deciphering of words necessary for success in reading. Another student may be able to understand and comprehend any material read orally and discussed in class and not be able to read the written word

successfully enough to comprehend what is being read due to a slow, meticulous rate of reading.

When an individual intelligence test is given to a student, it should be remembered that the intelligence score does not change, except for a few points up or down, because, as a student grows, he or she achieves more knowledge. If the intelligence scores on two different intelligence tests change a great deal, then it is very likely that one of the tests is inaccurate and not a good indicator of the student's intellectual



**Musical Intelligence** consists of intelligence in the area of music (referred to as "music smart").

**Bodily kinesthetic** Intelligence is displayed by many of the superb athletes in the world today (referred to as "body smart").

**Spatial** Intelligence involves dealing with space and meeting the constraints of working within that space to complete the project (referred to as "picture smart").

**Logical-mathematical** Intelligence can be noted in many Nobel Prize winners, especially those dealing with economics, science, and/or mathematics (referred to as "logic smart").

**Linguistic** Intelligence is best displayed by people who write books or poems or can easily translate numerous languages (referred to as "word smart").

**Intrapersonal** Intelligence is best noted in psychologists who understand the inner person (referred to as "self smart").

**Interpersonal** Intelligence is often displayed by teachers who can get children to learn by group work successfully or by people who can get a group of others to talk and solve their problems (referred to as "people smart").

**Naturalist** Intelligence involves the enjoyment of the outdoors, including recreation, plants, and animals (referred to as "nature smart").

# How SMART are YOU?

Name \_\_\_\_\_

## Part 1

Complete each section by placing a "1" next to each statement you feel accurately describes you. If you do not identify or agree with a statement, leave the space blank. Go with your first instinct. Do not analyze each statement. At the end of each section total the column.

### Section 1

- \_\_\_\_\_ I enjoy putting things that have common traits into categories
- \_\_\_\_\_ Issues about the health or ecology of our planet are important to me
- \_\_\_\_\_ Hiking and camping are enjoyable activities
- \_\_\_\_\_ I enjoy working in a garden
- \_\_\_\_\_ I believe preserving our National Parks is important
- \_\_\_\_\_ Putting things in hierarchies (order of importance) makes sense to me
- \_\_\_\_\_ Animals are important in my life
- \_\_\_\_\_ My home has a recycling system in place
- \_\_\_\_\_ I enjoy studying biology (animals) and botany (plants)
- \_\_\_\_\_ I spend a great deal of time outdoors

\_\_\_\_\_ TOTAL for Section 1

### Section 2

- \_\_\_\_\_ I easily pick up on patterns of sound or rhythms
- \_\_\_\_\_ I focus in on noise and sounds
- \_\_\_\_\_ Moving to a beat or rhythm is easy for me
- \_\_\_\_\_ I've always been interested in playing an instrument
- \_\_\_\_\_ The rhythm or cadence of poetry really interests me
- \_\_\_\_\_ I remember things by putting them in a rhyme
- \_\_\_\_\_ Concentration is difficult if I am listening to a radio or TV
- \_\_\_\_\_ I enjoy many kinds of music
- \_\_\_\_\_ Musical plays are more interesting to me than dramatic or serious plays
- \_\_\_\_\_ Remembering song lyrics is easy for me

\_\_\_\_\_ TOTAL for Section 2

### Section 3

- \_\_\_\_\_ I keep my things neat and orderly
- \_\_\_\_\_ Step-by-step directions are a big help
- \_\_\_\_\_ Solving problems comes easily to me
- \_\_\_\_\_ I am easily frustrated with disorganized people
- \_\_\_\_\_ I can complete math calculations quickly in my head
- \_\_\_\_\_ Puzzles requiring reasoning are fun
- \_\_\_\_\_ I can't begin an assignment until all of my questions are answered
- \_\_\_\_\_ Structure and clear direction helps me be more successful
- \_\_\_\_\_ I find working on a computer spreadsheet or database rewarding
- \_\_\_\_\_ Things have to make sense to me or I am dissatisfied

\_\_\_\_\_ TOTAL for Section 3

**Section 4**

- \_\_\_\_\_ It is important to see my role in the "big picture" of things
- \_\_\_\_\_ I enjoy discussing questions about life
- \_\_\_\_\_ Religion is important to me
- \_\_\_\_\_ If I have the opportunity, I enjoy viewing art masterpieces
- \_\_\_\_\_ Relaxation and meditation exercises are rewarding
- \_\_\_\_\_ I like visiting breathtaking sites in nature
- \_\_\_\_\_ I enjoy reading about the ideas of ancient and modern philosophers
- \_\_\_\_\_ Learning new things is easier when I understand their importance
- \_\_\_\_\_ I wonder if there are other forms of intelligent life in the universe
- \_\_\_\_\_ Studying history/ancient culture helps give me perspective or understanding about our world

\_\_\_\_\_ **TOTAL for Section 4**

**Section 5**

- \_\_\_\_\_ I learn best interacting or working with others
- \_\_\_\_\_ The more people involved in a project or work, the better I like it
- \_\_\_\_\_ Study groups are very good and productive for me
- \_\_\_\_\_ I enjoy on-line chat rooms
- \_\_\_\_\_ Participating in politics is important to me
- \_\_\_\_\_ TV and radio talk shows are enjoyable
- \_\_\_\_\_ I am a "team player"
- \_\_\_\_\_ I dislike working alone
- \_\_\_\_\_ Clubs and co-curricular activities are fun
- \_\_\_\_\_ I pay attention to social issues and causes

\_\_\_\_\_ **TOTAL for Section 5**

**Section 6**

- \_\_\_\_\_ I enjoy making things with my hands
- \_\_\_\_\_ Sitting still for long periods of time is difficult for me
- \_\_\_\_\_ I enjoy outdoor games and sports
- \_\_\_\_\_ I value non-verbal communication such as sign language or body language
- \_\_\_\_\_ A fit body is important for a fit mind
- \_\_\_\_\_ Arts and crafts are enjoyable pastimes
- \_\_\_\_\_ Expression through dance is beautiful
- \_\_\_\_\_ I like working with tools
- \_\_\_\_\_ I live an active lifestyle
- \_\_\_\_\_ I learn best by doing or "hands-on" activities

\_\_\_\_\_ **TOTAL for Section 6**

**Section 7**

- \_\_\_\_\_ I enjoy reading all kinds of materials
- \_\_\_\_\_ Taking notes helps me remember and understand things better
- \_\_\_\_\_ I faithfully contact friends through letters and/or e-mail
- \_\_\_\_\_ It is easy for me to explain my ideas to others
- \_\_\_\_\_ I like to keep a journal
- \_\_\_\_\_ Word puzzles like crosswords and jumbles are fun
- \_\_\_\_\_ I write for pleasure
- \_\_\_\_\_ I enjoy playing with words like puns and anagrams
- \_\_\_\_\_ Foreign languages interest me
- \_\_\_\_\_ Debates and public speaking are activities that I would like to participate in

\_\_\_\_\_ **TOTAL for Section 7**

**Section 8**

- \_\_\_\_\_ I am keenly aware of my moral beliefs and values
- \_\_\_\_\_ I learn best when I have an emotional attachment to the subject
- \_\_\_\_\_ Fairness is important to me
- \_\_\_\_\_ My attitudes can have an effect on how well I learn
- \_\_\_\_\_ Social justice and equality issues concern me
- \_\_\_\_\_ Working alone can be just as productive as working in a group
- \_\_\_\_\_ I need to know why I should do something before I agree to do it
- \_\_\_\_\_ When I believe in something I will give 100% of my effort to it
- \_\_\_\_\_ I like to be involved in causes and projects that help other people
- \_\_\_\_\_ I am willing to protest or sign a petition to right a wrong

\_\_\_\_\_ **TOTAL for Section 8**

**Section 9**

- \_\_\_\_\_ I can imagine ideas in my mind
- \_\_\_\_\_ Rearranging a room is fun for me
- \_\_\_\_\_ I enjoy creating art using a variety of materials and ideas
- \_\_\_\_\_ I remember things better when I use graphic or visual organizers
- \_\_\_\_\_ Performance art(such as singing, dancing, acting) can be very satisfying
- \_\_\_\_\_ Spreadsheets are great for making charts, graphs, and tables
- \_\_\_\_\_ Three dimensional puzzles bring me much enjoyment
- \_\_\_\_\_ Music videos are very stimulating
- \_\_\_\_\_ I can recall things in mental pictures
- \_\_\_\_\_ I am good at reading maps and blueprints

\_\_\_\_\_ **TOTAL for Section 9**

**Part II**

Record your total from each section in Part I in the table below and multiply by 10.

Section	Total	Multiply	Score
1: Nature Smart		X 10	
2: Music Smart		X 10	
3: Math Smart		X 10	
4: Wondering Smart		X 10	
5: People Smart		X 10	
6: Body Smart		X 10	
7: Word Smart		X 10	
8: Self Smart		X 10	
9: Picture Smart		X 10	

**Part III**

Plot your scores from Part II on the bar graph below to see your strengths.

100									
90									
80									
70									
60									
50									
40									
30									
20									
10									
0	Sec 1	Sec 2	Sec 3	Sec 4	Sec 5	Sec 6	Sec 7	Sec 8	Sec 9

**Part IV**

List your top 2 "Smarts" according to results in Part III.

1. \_\_\_\_\_
2. \_\_\_\_\_



ability. Gardner proposes the existence of eight intelligences. These intelligences are called musical intelligence, bodily kinesthetic intelligence, logical-mathematical intelligence, linguistic intelligence, spatial intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalist intelligence. Over the years, he has added to the list, such as wondering smart.

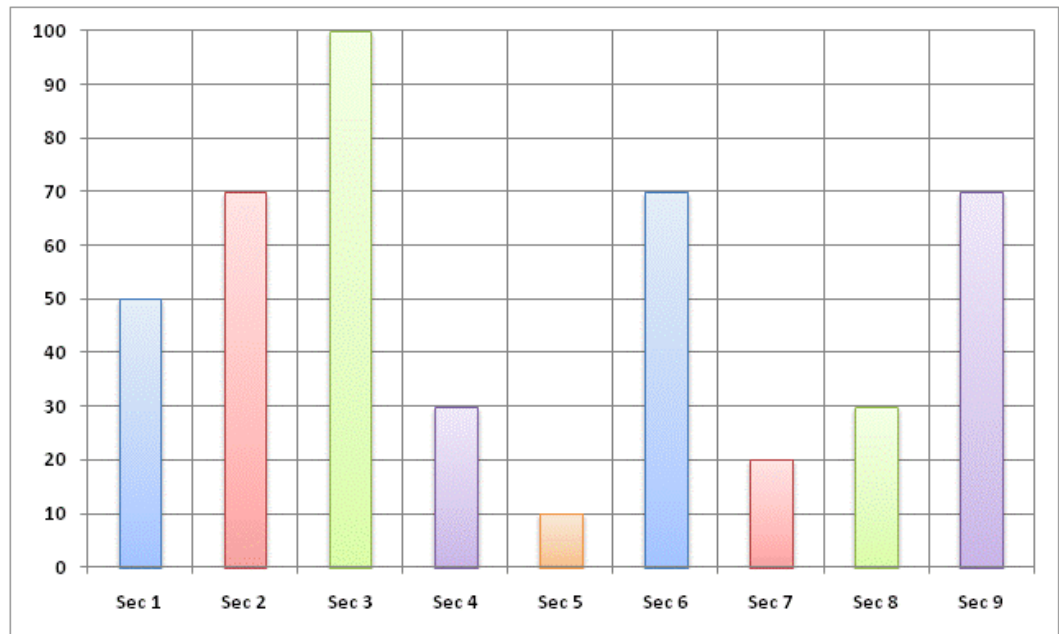
### Practical Application

Complete the printable Multiple Intelligence Inventory, “How smart are you?”, on the previous pages. As a general rule, any score higher than 60 tends to be your preferred intelligence. My multiple intelligence inventory results are displayed to the right. I am a logic smart person; however, I am also music, body, and picture smart.

### Final Product

Preferred learning styles and multiple intelligences affect the output of knowledge as well as the input of information. It is important for the teachers to offer students options for differentiating the final product by readiness, interest, and learning profile just as they differentiate content and process activities.

Differentiation of the final product refers to the methods in which students demonstrate what they have learned. For example, to demonstrate understanding of the principles of photography, one student may choose to create a skit, and another student may choose to write a report. The key element with differentiation is offering students the option to choose their preferred method of demonstrating the knowledge and its assessment.



When teachers differentiate, they differentiate based on a student's readiness, interest, and/or learning profile. *Readiness* refers to the skill level and background knowledge of the particular student. To determine a student's readiness, teachers can use diagnostic assessments, including standardized tests, pre-test assessments, and informal assessments. *Interest* refers to topics that the student may want to explore or tasks that will motivate the student. Teachers can ask students about their outside interests and their favorite tasks using classroom dialogue or other interest inventories. Finally, the student's *learning profile* includes learning style (i.e., visual, auditory, read/write, or kinesthetic), grouping preferences (i.e., individually, with a partner, or in a large group), and multiple intelligences (e.g., music smart, word smart, picture smart, or logic smart). This learning profile can be determined using multiple intelligence surveys and learning style questionnaires.

When developing a differentiated lesson, a teacher

should consider all of these factors individually or in combination (Tomlinson, 1999). There are various methods for differentiating final products in the classroom. A teacher could choose to use a choiceboard, tiered activity, or learning contract. Each of these final products can be developed using the student's readiness, interest, and/or learning profile.

### Choiceboards

Choiceboards are organizers that contain a variety of activities. Students can choose one or several activities to complete in order to demonstrate their knowledge of a specific concept or skill. These organizers can be created based on the readiness, interest, and learning profile of the student. When designing a choiceboard, the teacher should include a range of interests and learning styles and guide the students to choose challenging, but not frustrating, activities. For example, if the student must select three activities in a row, design at least one challenging activity for all of the possible rows. It is essential for the teacher to provide clear instructions for using the choiceboard so the

students understand the expectations. Within the category of choiceboards, there are different types of choiceboards with a variety of shapes and formats, such as tic-tac-toe choiceboards and dinner menus (Gregory & Chapman, 2007).

### Tic-Tac-Toe Choiceboards.

Tic-tac-toe choiceboards are a differentiation tool that offers a collection of activities where the students can choose to demonstrate their understanding. It is presented in the form of a three by three square grid similar to a tic-tac-toe game board, and students are expected to complete "three in a row". The activities vary in content, process, and product and can be tailored to address different levels of student's readiness, interests, and/or learning profiles. The center square may be left open for the student to select an activity of their own similar to a wild card option.

Tic-tac-toe activities may be given to every student in the class (i.e., higher ability students for extension activities or lower students for review and practice). Involvement in this strategy encourages independent learning. Teachers should check in with students periodically and require students to keep a log of their progress. In place of lengthy activities, the tic-tac-toe choiceboard may also be used with shorter, open-ended questions posed at varying levels of Bloom's Taxonomy. The example, and rubric, that are presented on the

Next pages, is a tic-toe-toe choiceboard from my classroom. With this choiceboard, the student chooses three in a row, whether vertically, horizontally, or diagonally, but the student must use the center block. This choiceboard was developed based on the multiple intelligences of Howard Gardner. The arrangement requires the student to choose at least one challenging activities, whether it is creating a word game with vocabulary, creating gestures or actions, or planning an interview. A student may prefer to interact with various people because he or she is "people smart", but he or she may not prefer the "word smart" task of creating a vocabulary game.

**Dinner Menus.** The purpose of a dinner menu is to give students structured choices in four categories: appetizers, entrées, side dishes, and desserts. The structure can be modified to include only three options (i.e., appetizers, entrées, and desserts) for younger students. To begin the meal or activities, a small, but rich, "appetizer" warms up the students and generally is required of all students to complete. The hearty "entrees" require the students to dig into the meat and potatoes of the concept or skill. These entrées can be differentiated by readiness, interests, and/or learning profiles. The "side dishes" allow the students to expand their entrée with more applications of concept and/or skill. To conclude the meal, the entrée course is followed by a sweet and satisfying "dessert" to finish the unit with a little fun. Often, the dessert is optional for extra credit because it requires higher order thinking or skill levels to complete.



This example on the following pages provides a dinner menu for a Lewis W. Hine photography project. For the Appetizer course, the students will *view and discuss photographs that are representative of the late 19th and early 20th century immigration by Lewis W. Hine*. After the students view and discuss the photographs as a group, they will *take a neighborhood photo walk*. While walking through the neighborhood, the students will be instructed to *take four pictures from different angles with interesting subject matter*. The goal is to collect photographs that have similar subject matter to the Hine photographs. The appetizer course will appeal to the visual, auditory, and kinesthetic learners.

Once returning from the photo walk, the students will begin the Entrée course. The individual student should choose one of the two entrée options. The activities are developed based on the learning profile of the students. In addition, both entrées require the students to use their photographs, which were taken on the photo walk during the appetizer course. The first option requires the students to use a Venn diagram to compare and contrast the pictures, which were taken on the photo walk, to the photographs by Lewis



# Unit Choice Board

<p><b>Create a skit to summarize the concepts from the unit.</b></p>	<p><b>Use a Venn Diagram to compare &amp; contrast two concepts.</b></p>	<p><b>Interpret in your own words and illustrate the concepts from the unit.</b></p>
<p><b>Explain in a flowchart the concepts from the unit.</b></p>	<p><b>Free Space</b> <b>You may choose from these options or create your own.</b></p>	<p><b>List a concept that could appeal to each of the five senses. Include rationale.</b></p>
<p><b>Compare &amp; contrast two concepts by writing a jingle for each.</b></p>	<p><b>Summarize concepts from the unit.</b></p>	<p><b>Design an activity to teach the important concepts.</b></p>



# Unit Choiceboard Assessment Rubric

Name \_\_\_\_\_

Category	Exceeds (3)	Meets (2)	Does not meet (1)	Not attempted (0)
<b>Middle Block</b> Concepts are accurate.				
<b>Middle Block</b> Concepts are complete.				
<b>Middle Block</b> Concepts are original.				
<b>Middle Block</b> Concepts are creative.				
<b>Second Block</b> Concepts are accurate.				
<b>Second Block</b> Concepts are complete.				
<b>Second Block</b> Concepts are original.				
<b>Second Block</b> Concepts are creative.				
<b>Third Block</b> Concepts are accurate.				
<b>Third Block</b> Concepts are complete.				
<b>Third Block</b> Concepts are original.				
<b>Third Block</b> Concepts are creative.				



# Today's Menu

## Appetizer (Everyone shares.)

1. View and discuss photographs that are representative of the late 19<sup>th</sup> and early 20<sup>th</sup> century immigration by Lewis W. Hine, such as:
  - *New York tenement family gets fresh air on a hot day* (1910)
  - *Italian family looking for lost baggage* (1905)
  - *Midnight at the Brooklyn Bridge* (1906)
  - *Street play in the early days - N.Y.* (1910)
2. Take a neighborhood photo walk.
3. Take four pictures from different angles with interesting subject matter during the photo walk.

## Entrée (Choose one.)

- Use a Venn diagram to compare and contrast the neighborhood in your pictures, which were taken on the photo walk, to the photographs by Lewis W. Hine, which were viewed previously. Focus on the following elements: clothing, transportation, streets, housing, recreation, facial expressions, and occupations.
- Read “You, Whoever You Are” by Walt Whitman. Interpret the message of the poem regarding American immigration and the opportunities awaiting immigrants. Describe how the poem, viewed photographs by Hine, and your pictures taken from the neighborhood walk connect.

## Side Dishes (Choose at least 2.)

- Sort the historical photographs by Hine chronologically. Use them to make a timeline.
- List the types of photos that could be included in a time capsule.
- Discuss the aspects of the quality of the past and present photographs, including lighting, angle, color, and subject. It should be at least 300 words.
- Using words, pictures, or drawings, suggest a method for showing future generations what your life is like today.

## Dessert (Optional)

- Create a time capsule by decorating an appropriately sized container. Place objects and photos in the time capsule. Compose a letter to be included in the capsule, which explains the time capsule’s contents and how each item relates to your life. Possible categories of contents may include technology, recreation, education, occupation, fashion, transportation, housing, and food.

# ¡Bon appétit!

original idea by Rebecca Haden ([artsedge.kennedy\\_center.org](https://artsedge.kennedy_center.org))



Name \_\_\_\_\_

**Grading Rubric for the Photography Project Dinner Menu**

Category	4 points	3 points	2 points	1 point	0 points
<b>Appetizer</b>	Viewed and discussed the photographs Participated in the photo walk with appropriate behavior. Four photographs were taken from different angles with interesting subject matter during the photo walk.	The photographs were not viewed and discussed <b>OR</b> Participated in the photo walk with inappropriate behavior <b>OR</b> Less than four photographs were taken <b>OR</b> the photographs were not from different angles <b>OR</b> without interesting subject matter.	The photographs were not viewed and discussed <b>AND</b> Participated in the photo walk with inappropriate behavior <b>AND</b> Less than four photographs were taken <b>AND</b> the photographs were not from different angles <b>OR</b> without interesting subject matter.	The photographs were not viewed and discussed <b>AND</b> Participated in the photo walk with inappropriate behavior <b>AND</b> Less than four photographs were taken <b>AND</b> the photographs were not from different angles <b>AND</b> without interesting subject matter.	Photographs were not taken <b>AND/OR</b> the appetizer was not completed.
<b>Entrée 1: Venn Diagram</b>	Appropriate steps were followed to create the Venn Diagram <b>AND</b> all of the focus elements were included.	Appropriate steps were followed to create the Venn Diagram <b>BUT</b> less than 5 focus elements were included.	Appropriate steps were not followed to create the Venn Diagram <b>BUT</b> at least 5 focus elements were included.	Appropriate steps were not followed to create the Venn Diagram <b>AND</b> less than 5 focus elements were included.	The entrée was not completed.
<b>Entrée 2: Poem Interpretation</b>	The poem’s interpretation was appropriate <b>AND</b> the connection between the poem, Hine photographs, and the taken photographs was appropriate.	The poem’s interpretation was appropriate <b>BUT</b> the connection between the poem, Hine photographs, and the taken photographs was inappropriate <b>OR</b> missing a part.	The poem’s interpretation was inappropriate <b>BUT</b> the connection between the poem, Hine photographs, and the taken photographs was appropriate.	The poem’s interpretation was inappropriate <b>AND</b> the connection between the poem, Hine photographs, and the taken photographs was inappropriate.	The entrée was not completed.
<b>Side Dish 1: Sort &amp; Timeline</b>	The photographs were sorted chronically <b>AND</b> were used to create a timeline.	The photographs were sorted chronically <b>BUT</b> were not used to create a timeline.	The photographs were not sorted chronically <b>BUT</b> were used to create a timeline.	The photographs were not sorted chronically <b>AND</b> were not used to create a timeline.	Did not include Side Dish 1.
<b>Side Dish 2: Types of Photos for a Time Capsule</b>	At least ten photographs were listed for inclusion in a time capsule.	Between nine and seven photographs were listed for inclusion in a time capsule.	Between six and four photographs were listed for inclusion in a time capsule.	Between three and one photograph(s) were/was listed for inclusion in a time capsule.	Did not include Side Dish 2.
<b>Side Dish 3: Qualities of Past and Present Photographs</b>	The quality of past and present photographs was discussed <b>AND</b> included lighting, angle, color, and subject <b>AND</b> was at least 300 words in length.	The quality of past and present photographs was discussed <b>BUT</b> did not include lighting, angle, color, and subject <b>OR</b> was less than 300 words in length.	The quality of past and present photographs was discussed, <b>BUT</b> did not include lighting, angle, color, and subject <b>AND</b> was less than 300 words in length.	The quality of past and present photographs was not discussed <b>AND</b> did not include lighting, angle, color, and subject <b>AND</b> was less than 300 words in length.	Did not include Side Dish 3.
<b>Side Dish 4: Method for Showing Future Generations</b>	Suggested a method for showing future generations what life is like today <b>AND</b> included sufficient detail.	Suggested a method for showing future generations what life is like today <b>BUT</b> did not include sufficient detail.	Did not suggest a valid method for showing future generations what life is like today <b>BUT</b> included sufficient detail.	Did not suggest a valid method for showing future generations what life is like today <b>AND</b> did not include sufficient detail.	Did not include Side Dish 4.
<b>Dessert</b>	A time capsule was created in an appropriately decorated container <b>AND</b> contained appropriate objects and pictures <b>AND</b> composed a letter explaining the contents and their connections <b>AND</b> represented a variety of categories.	A time capsule was created in an appropriately decorated container <b>BUT</b> it did not contain appropriate objects and pictures <b>OR</b> did not compose a letter explaining the contents and their connections <b>OR</b> did not represent a variety of categories.	A time capsule was created in an appropriately decorated container <b>BUT</b> it did not contain appropriate objects and pictures <b>AND</b> did not compose a letter explaining the contents and their connections <b>AND</b> did not represent a variety of categories.	A time capsule was not created in an appropriately decorated container <b>AND</b> it did not contain appropriate objects and pictures <b>AND</b> did not compose a letter explaining the contents and their connections <b>AND</b> did not represent a variety of categories.	The dessert was not completed.

<b>GRADE:</b>	
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W. Hine, which were viewed and discussed previously. To assist the students who may struggle with readiness, the following prompt is given to focus the student's diagram:

*Focus on the following elements: clothing, transportation, streets, housing, recreation, facial expressions, and occupations.*

The second option requires the students to read "You, Whoever You Are" by Walt Whitman. After reading the poem, the students must interpret the message of the poem regarding American immigration and the opportunities awaiting immigrants. Once the message of poem has been interpreted, the students will need to describe how the Whitman poem, viewed photographs by Hine, and their four pictures taken from the neighborhood walk connect. This entrée option requires higher cognitive levels than the other Venn Diagram selection. Within the directions, prompts or other scaffolded assistance were not included with this entrée. The directions are more open-ended for the students.

For the side dishes, the students will need to select at least two side dishes. Each of the choices is based on different learning profiles from Howard Gardner's multiple intelligences. The first side dish requires the students to *sort the historical photographs by Hine chronologically and use them to make a timeline*. This type of activity would appeal to the "logic smart" student. The second side dish requires the students to *list the types of photographs that could be included in a time capsule*. This type of activity would appeal to the

"picture smart" student. The third option requires the student to *discuss the aspects of the quality of the past and present photographs, including lighting, angle, color, and subject*. By giving the guidelines of "It should be at least 300 words," the students are given an expectation to fulfill in order to receive full credit. This type of activity would appeal to the "word smart" student. Lastly, the fourth option requires the student to *suggest a method for showing future generations what your life is like today using words, pictures, or drawings*. Depending on the learning style of the student, he or she can present his or her ideas. This type of activity would appeal to various students, such as "logic smart", "picture smart", "word smart", or "music smart".

For the dessert course, the students have the option to create a time capsule by decorating an appropriately sized container then placing objects and photos, which represent life today in the time capsule. The student must compose

a letter to be included in the capsule, which explains the time capsule's contents and how each item relates to his or her life. As a guidance tool, a list of possible categories of contents was included: technology, recreation, education, occupation, fashion, transportation, housing, and food.

This photograph project should be evaluated using a menu rubric that was presented on the previous page. Each rating lists the expectations in various combinations and correlates them to a point value. By providing this rubric to the students when the project is assigned, the students are aware of the required expectations in order to earn the desired grade.

### Practical Application

Review this article on the following pages about differentiated instruction in a foreign language classroom by Toni Theisen. Select one idea from the article and think about how you could use it in your classroom.



## Differentiated Instruction in the Foreign Language Classroom: Meeting the Diverse Needs of All Learners

Toni Theisen, Loveland, CO

*The real voyage of discovery lies not in seeking new landscapes but in having new eyes. (Petras, 1995)*

How can this profound quote by Marcel Proust help all of us metaphorically understand the powerful relationship of our minds, emotions, and bodies to our different ways of knowing; the varied paces at which we learn; and the input we need for motivation and success? As teachers, we continue to search and explore new ways to design and deliver instruction in order for our students to reach their learning potential, starting them from where they are and moving them forward on a learning continuum. But for many students, the traditional approaches to learning seem limiting, and many of them feel frustrated and discouraged. With the advent of studies in cognitive science and brain-based learning research along with the powerful advancement of technologies, we are beginning to unlock the mysteries of the human brain and its possibilities. Educational research also enables us to better identify learner variables that can affect a student's performance (Gregory & Chapman, 2002). We are starting to open our "new" eyes.

Our language classrooms are tapestries of the world around us. Students come to us with varying ability levels, a myriad of language and cultural backgrounds, an abundance of interests, and an assortment of learning profiles. These students need inspiring, engaging lessons that will permit them to reach their highest potential and meaningful tasks that are relevant both to them and to the world in which they live. They desire a supportive learning environment which promotes diversity, nurtures creativity, acknowledges that they learn at varied rates and in different ways, recognizes their strengths, and honors everyone's work. These students need variety, choices, challenges, complexity, and opportunities to demonstrate their capabilities. They need to experience differentiated instructional opportunities (Heacox, 2002).

### **What is Differentiated Instruction?**

In a level one Spanish class, students want to find out more about the countries where Spanish is spoken, so the teacher provides a variety of resources (including sample texts, authentic documents, and Internet sites) that students can choose from in order to gather more in-depth information. In a level three Spanish class, students read and create a graphic representation (mind map) of an Aztec legend. Each student then chooses one other Aztec or Mayan legend to read and study from the four provided by the teacher. Grouped according to the legend each has chosen, students read and interpret it, then demonstrate their understanding of the legend and its connection to their own lives by creating a skit, designing a children's book, or inventing a product of their choice that will be presented to the class.

German II students are studying the weather. The teacher creates seven learning centers where students can practice various aspects of the weather unit, including listening activities, a video clip of a TV weather report, and German weather maps from a newspaper. Students then choose four of the seven centers that best help them use the weather unit and complete the activities at their chosen centers. After evaluating students' progress, the teacher determines that one third of the class knows the vocabulary, structure and culture for this unit very well and could easily perform the appropriate real world functions like helping a friend pack clothes for a trip to Austria. One third of the class understands *most* of the unit and has performed most of the interpersonal and interpretive tasks with just some difficulty. One third of the class is experiencing a considerable degree of difficulty and needs

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more direct instruction and concrete examples. In order to provide challenging practice to all, the teacher tiers three different homework assignments from the book and ancillaries. Students do the assignment that best matches their readiness level.

All of the preceding activities and strategies are examples of differentiation. Differentiated instruction is a philosophy of teaching and learning which recognizes that each learner is unique. Rigorous, relevant, complex and flexible, differentiated instruction is a response to that uniqueness. Consequently, in a differentiated classroom, not every student is doing exactly the same thing in exactly the same way at exactly the same time. However, differentiated instruction is not merely a set of strategies and activities that challenges the learner in a variety of ways, but rather a belief system that proclaims that learners—with all their diversity—come to our classes with potential ready to be tapped. Differentiation is an effective way for teachers to offer meaningful instruction delivered around challenging content and designed to meet the needs of students at their appropriate levels and to help them achieve maximum growth (Center for Advanced Student Learning, 2001).

A differentiated classroom offers a variety of learning options to tap into different readiness levels, interests and learning profiles. In a differentiated classroom the teacher uses (1) a variety of ways for students to explore curriculum content, (2) a variety of sense-making activities or processes through which students can come to understand or “own” information and ideas, and (3) a variety of options through which students can demonstrate or exhibit what they have learned (Tomlinson, 1995, p. 1).

When differentiated instructional strategies are used, there is more access to learning by more students, more effective use of time, and more evidence of motivated students. The art and science of teaching emerge (Tomlinson, 1999).

### ***The Core of Differentiated Instruction***

In order to prepare for differentiation, sound teaching principles must be honored and a quality curriculum must be in place. Applying standards while designing and organizing instruction, a teacher must be clear on what all students need to know, understand, and be able to do at the end of the unit. The teacher is familiar with student differences that affect the unit and builds on these differences, making adjustments in the *content* of the unit, the multiple ways students *process* the content, and the various *products* they create in order to demonstrate what they have learned. For example, a pre-test or a questionnaire can be used to check for prior knowledge of the content, student reflective logs can be examined to check for previous challenges, past grades can be used to determine progress and

readiness levels, a multiple intelligences checklist can be administered to check for varied learning profiles, or an inventory can be taken to determine interests. To enhance learning for all students, the goals of differentiated instruction include: establishing a balance between a student-centered and teacher-facilitated classroom, providing opportunities for students to work in a variety of formats, developing instruction around the standards and the “big picture” concept of the unit, designing challenging and respectful tasks for all, and meeting curriculum standards and requirements while maximizing student growth and individual success. Differentiation is based on sound research. It puts the learning needs of students at the center of instructional design (Tomlinson, 1999).

### ***Differentiating Curricular Elements***

Differentiated instruction usually implies modifications or variations in response to student needs in one or more of the following areas: content, process or product.

#### ***Content***

Content refers to the “input” of the unit: ideas, concepts, information and facts. It is what the student must know and understand as a result of the lesson. Content is differentiated by focusing on the unit’s most relevant and essential components and varying them to meet learners’ needs by providing them choices. For example, if some students need more time to grasp the essential skills needed for the unit, the teacher might provide them more direct instruction, more concrete examples and practice. Other students may quickly understand the concepts and need to be challenged by more complex activities (Berger, 1991).

Content can also be modified by providing a *variety* of texts: simpler or more advanced, authentic documents or adapted ones, electronic or print—or simply a variety of text types such as brochures, music, film, field trips, guest speakers, Total Physical Response Storytelling, etc. A learning center—a classroom area containing a collection of materials or activities designed to teach, reinforce, or extend a particular concept or skill (Center for Advanced Student Learning, 2001)—can be used to differentiate for content. *Learning Centers for Exploring Literature* (Figure 1) is one such example in which students gain background knowledge of a story’s setting, the historical and cultural perspectives in which it takes place, and the biographical background of the author.

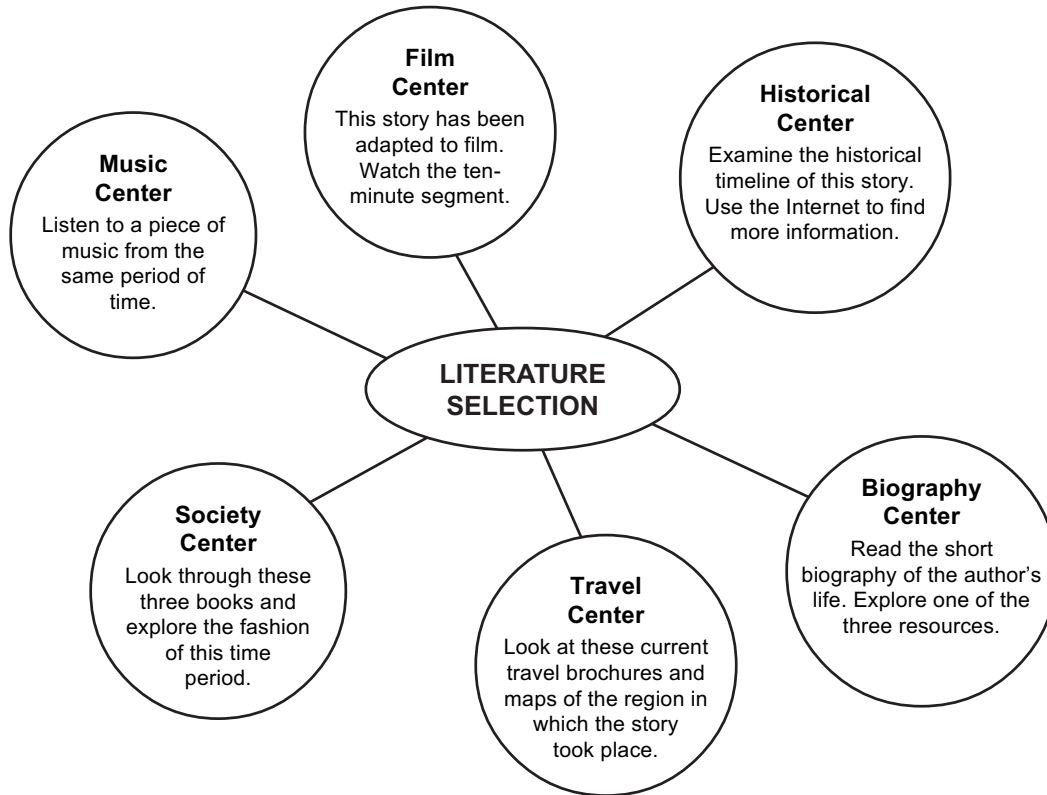
#### ***Process***

Process refers to the ways students make their own sense of the content or input. Process is the *how* of teaching. To modify the process, the teacher can apply a variety of flexible grouping strategies such as ability grouping, interest grouping, or grouping by learning profile. Gardner’s Multiple Intelligences Theory<sup>1</sup> (Lazear,





There are six learning centers that will help you gain perspective into the piece of literature that we are reading in class. Examine the choices and visit four of the centers that interest you. Do the assigned activity for each center you choose, and fill in your self-reflection log. After everyone has completed the center activities within the time frame, you will be assigned to groups of three to discuss your findings and how this background knowledge is helping you better understand the piece of literature.



### Self-Reflection Log

As you visit each center, respond to the following in the target language (only for the centers visited).

- **Music Center:** In three sentences describe how the music of this period sets the mood of the story. Include your impressions of the music and your reactions to the music.
- **Film Center:** In three sentences explain how this film segment helps you better understand the story. Include your observation of how that segment does or does not reflect the section you have already read.
- **History Center:** Identify three historical events that took place during this time period and tell how they might have impacted the author. You may include historical events such as discoveries, major events, famous people, scientific findings, etc. You may also identify other information you found on the Internet. Use a graphic organizer to represent your findings.
- **Society Corner:** In three sentences describe some of the clothing items and tell how they help you visualize the setting of the story. Draw one of the clothing items that most impressed you.
- **Travel Center:** If you were to visit this region, list three places you would go to and tell how they might influence your understanding of the story.
- **Biography Center:** Select three events in the life of the author and imagine how they may have influenced this story.

FIGURE 1: Learning Centers for Exploring Literature



2000), for example, can be used in designing instruction by attending to learners' different intelligences profiles. For example, in designing a unit around sports activities, a teacher could find reading selections about three different sports. In differentiating based on multiple intelligences theory, one group might practice demonstrating a sport from the target culture as a kinesthetic option, whereas another group could collaborate on designing a poster with the rules for the sport as a visual-spatial option. Yet another group could develop a presentation or report on a sport, thus touching on the verbal-linguistic intelligence (Theisen, 1997).

Process can also be differentiated by modifying the complexity or abstractness of tasks and by engaging students in critical and creative thinking. Other options include choice boards /menus, a differentiated strategy that provides options for learners to practice skills, try new products, and work with a variety of resources as they learn. The *Tic-Tac-Toe* menu (Figure 2) is an example of a skills-based set of practice options from which learners can choose in order to make sense of the structure section of a unit on the family. There are opportunities to practice questions, necessary verbs to enhance the topic, or vocabulary to support the unit. The students make three choices according to the contract. Having the autonomy to select what to do or how to do it gives them more responsibility and accountability for their learning because they must manage their time *and* select the options that will help

<b>1</b> <b>Verb Practice</b> Exercises 2 & 3 in the workbook.	<b>2</b> <b>Question Practice</b> Develop a survey to get information about number of brothers, sisters, etc. Ask 5 classmates.	<b>3</b> <b>Vocabulary Practice</b> Family tree activity, page 59 in book.
<b>4</b> <b>Question Practice</b> Create 10 questions you might ask someone in order to get details about her/his family.	<b>5</b> <b>Vocabulary Practice</b> Design a crossword puzzle using the family and quantity vocabulary.	<b>6</b> <b>Verb Practice</b> Design a quiz using the verbs in this unit.
<b>7</b> <b>Vocabulary Practice</b> Watch the family video clip and do comprehension exercises 5 & 6.	<b>8</b> <b>Verb Practice</b> Draw a picture to represent each one of the new verbs.	<b>9</b> <b>Verb Practice</b> Create a song that will help you remember the question words.
Choose 3 boxes to form a tic-tac-toe. Choose skill activities that will help you practice these new concepts. The boxes I chose are # _____, # _____, # _____ Signature _____ Class _____ Period _____		

**FIGURE 2: Tic-Tac-Toe Choice Board**

ROLE	AUDIENCE	FORMAT	TOPIC
Customer	Hotel employee	Letter	Make a reservation for several nights. Include all details.
Hotel employee	Customer	Reply letter	Confirm reservation details. Include changes.
Customer	Hotel manager	Complaint	Demand compensation for problems and poor service.
Parisian real estate agency	Prospective renters	Real estate ad	Describe details of the apartments available for rent.
Students who want to study abroad	Study abroad organization	Application form for the program	Apply for a rigorous study abroad program.
Students who stayed with a family	Family members	Thank you note	Thank the family for the home stay and tell them about your return trip.
Choose one R.A.F.T. assignment. Pick up task sheet from the teacher in order to complete this writing performance. Use the Internet and other texts to research information you need to make your work authentic.			

**FIGURE 3: R.A.F.T. Assignment**

them reach their full potential. From the teacher's perspective, the sophistication of menu creation follows a continuum from those that differentiate solely for *when* students choose to do the tasks to those that provide choices in the *what* and/or the *how* (Center for Advanced Student Learning, 2001).

### Product

A product is the output of the unit or the ways that students demonstrate or exhibit their understanding of the content. Both Bloom's Taxonomy<sup>2</sup> (Heacox, 2002) and Gardner's theory of Multiple Intelligences (Lazear, 2000) can be applied to the differentiation of products, providing greater challenge and variety in how students show what they have understood. Possibilities for varying products include role-plays, multimedia presentations, brochures, plays, songs, graphic organizers, posters, research papers, essays, news broadcasts, varied homework assignments and tests, stories, videos and *R.A.F.T.* (role, audience, format, topic) writing assignments, etc.

Figure 3, above, illustrates a *R.A.F.T.* assignment, a system for making sure students understand their role as writer, their audience, the format of their work, and the expected content of their writing. It is designed around unit objectives and standards and also provides an easy, meaningful way to incorporate writing into content-area instruction. Practically all *R.A.F.T.* assignments are written from a viewpoint other than that

of a student, to an audience other than the teacher, and in a form other than the standard essay. Four key ingredients are included in every *R.A.F.T.* writing assignment:

- R:** Role of Writer (Who are you?)
- A:** Audience (To whom is this written?)
- F:** Format (What form will it take?)
- T:** Topic + strong verb (What is your topic?)

Figure 3 provides samples of writing assignments students can choose from to demonstrate their understanding of the unit, *Traveling in France*. Learners select one row and create that written “product.” The teacher can set word limits or decide the format: word-processed, a hand-written card, student choice, etc.

What makes the *R.A.F.T.* such a popular activity with students is the variety and creativity involved. For each of these writing tasks the same scoring rubric can be used regardless of which row is selected, thus making it easier for the teacher.

***Differentiating for Student Traits***

Students connect better in their learning when their readiness level, interests, and/or learning profiles have been respected and valued (Gregory & Chapman, 2002).

***Readiness***

Teachers can differentiate for readiness by tiering or constructing tasks at varying degrees of difficulty and by making the task more or less familiar or complex based on the ability level of the learner (see Figure 4). A

<p><b>Topic:</b> Clothing</p> <p><b>Language and Level:</b> French III</p> <p><b>Key Concept(s):</b> Students use clothing vocabulary in real world contexts. They are able to describe in detail, suggest clothing items to friends and customers, persuade others, compare and contrast, and encourage. Students apply different social registers for friends and work situations. Students know about the impact of the French fashion industry and are aware of the styles of clothing in other Francophone countries. Students know how to use currency. Students are able to research information about the clothing industry using the Internet.</p> <p><b>Key Understanding:</b> Clothing is a form of expression in many cultures.</p>		<p><b>Targeted Standards:</b></p> <p>COMMUNICATION: Presentational Mode          CULTURES: Products and Perspectives          CONNECTIONS: Access to information, Other subject areas          COMPARISONS: Concept of culture          COMMUNITIES: Within and beyond the school</p> <p><b>Background:</b> Students have studied clothing vocabulary and descriptive adjectives. They can use direct and indirect object pronouns when identifying clothing. They can persuade, encourage and suggest using commands, conditional, and subjunctive. Students are aware of the Francophone countries and are aware of the different styles of clothing and the roles of clothing in the culture and can relate this information to a diversity perspective. They have done a variety of activities and assessments. They have also done web quest research activities on the Internet. Therefore, these activities are designed for the readiness level of the students.</p>	
<p align="center"><b>TIER 1 ASSIGNMENT</b> (Complex and Abstract)</p> <p>Your group works for a business training institute. Your task is to write two role-play scenarios for students to use as a practice when dealing with a variety of customers in a clothing store. You are to set up each scenario and for each one, write a practice conversation between a “challenging” client and a vendor. These conversations would be used by business school students to practice appropriate interactions between a challenging client and a vendor. The conversations should encourage and persuade. Submit a written copy and be ready to present one conversation, without notes, as a model for the class.</p>	<p align="center"><b>TIER 2 ASSIGNMENT</b> (Somewhat Complex &amp; Concrete)</p> <p>Your group comprises the “Rules Committee” for a high school in Montréal, Canada. You have been assigned to write a small section of the school handbook that explains the school’s dress code. For this handout, write a brief general statement about the dress policy. Then write 12 school rules discussing the do’s and don’t of school dress. Describe the clothes that are acceptable or those that are not. Turn in a typed copy of the descriptions and the dress code for publication in the school handbook. Also create a poster with the 12 guidelines, and be ready to present it to the class.</p>	<p align="center"><b>TIER 3 ASSIGNMENT</b> (Very Concrete)</p> <p>You work for an ad agency whose job is to create a mini catalog and a sales ad for one of the big department stores in Paris. Using magazine pictures, drawings and/or pictures from the Internet, create a mini-catalog with 12 clothing items. You decide on theme, age, or gender group. Describe each item using models from previous readings. Price the item in euros. Type the descriptions and neatly arrange the catalog to make it appealing to customers. Also create an ad promoting at least two of these items which are on sale. Be creative in your design, and be ready to present both the catalog and the ad to the class.</p>	

**FIGURE 4: Tiered Lesson Plan**

tiered lesson or set of activities is a differentiation strategy that addresses certain standards, key concepts, and generalizations but allows several pathways for students to arrive at an understanding of these components based on their interests, readiness, or learning profiles. Tiered assignments focus on the same essential skills and understandings for *all* students—but at different levels of complexity, abstractness, and open-endedness. The tiered assignment in Figure 4 demonstrates how a product can be tiered for readiness. After gauging learners' readiness based on previous activities, homework assignments, quizzes, and tests, the teacher assigns students to one of three groups that best matches their ability level. All three assignments are evaluated using the same set of rubrics, thus making the assignments equitable and appropriately challenging to all.

### *Interests*

In order to meet learners' diverse interests, the teacher can align key understandings of the unit with topics that intrigue students, encourage investigation, and give them a choice of products or tasks, including student-designed options. Figure 1, *Learning Centers for Exploring Literature*, demonstrates how content can be differentiated by interest. Each of the centers is designed so that students interact with different types of materials in order to explore and become more knowledgeable about a piece of literature. Students choose the centers that most interest them, therefore resulting in a more personal connection to the content.

### *Learning Profiles*

A number of variables comprise a student's learning profile including the desire to work alone or in groups, preferring hands-on activities over developing logical-sequencing activities such as an outline, learning better when listening over viewing, and demonstrating a strong musical-rhythmic intelligence. Teachers can address these variables and create positive learning environments with flexible learning options; a choice of both cooperative, independent, and competitive learning experiences; and modification of the content, process, or product to align with the different learning styles of the students in the class (Center for Advanced Student Learning, 2001, Gregory, G. & Chapman, C. 2002, and Tomlinson, C. 1995). In Figure 2, *Tic-Tac-Toe*, student variables are addressed by including visual and musical activities as well as logical/mathematical, verbal/linguistic and interpersonal activities among the choices. In *Learning Centers for Exploring Literature* (Figure 1) students visit four of the six centers in order to explore the content with a deeper sense of understanding. Here students can view, read, respond with a graphic organizer, or listen to music. When personal learning styles are addressed and more interests are acknowledged, children begin to flourish, find meaning

in their learning, and want to engage in the process (Sizer, 1999).

### **Challenges of Differentiated Instruction**

Differentiated instruction is a new way to look at each student as a truly unique individual whose talents, gifts, and abilities are important contributions to society. For this reason, it does require additional planning time in the beginning. Some teachers comment that differentiation takes too much time and, with so much to do in classrooms today, it is just much easier to have everybody doing the same thing (Willard-Holt, 1994). Other obstacles that hinder the implementation of differentiated instruction include colleagues and parents who may not understand why all learners are not doing the same thing at the same time in the classroom. Some may see the practice as being unfair and giving privileges and advantages to certain groups.

Moving towards the implementation of the philosophy of differentiation is a *long-term change process* which can be prepared for by examining the research and collecting anecdotal evidence from teachers who are implementing it (Tomlinson, 2000). Even though differentiating instruction *does* require some additional time and planning in the beginning, there are strategies for facilitating the effort.

- First, form partnerships and cohort groups with colleagues. Do a book study and/or try action research. These strategies offer participants opportunities to learn and apply new ideas in a professional, supportive setting. They promote an arena in which to problem-solve as a group, construct knowledge through research, and interact with new materials (Tomlinson & Allan, 2000).
- Another strategy for implementing differentiated instruction is by beginning to try one new strategy at a time. Start small and remember that it is not necessary to differentiate every unit and every lesson. Design two possible products based on students' interests or learning profiles to use as the final assessment of a unit. Find three different kinds of ancillary materials at varying challenge levels, and decide which students will do which assignment based on past performance in the classroom. For a literature discussion, create a series of questions to ask students based on Bloom's Taxonomy. For example, have some questions that ask for facts, some that ask for comprehension or analysis, and some that ask for evaluation of the piece. Engage all learners by choosing students at different readiness levels to respond to the different types of questions. Soon patterns emerge and differentiation becomes easier and more apparent.
- Inform administrators and parents about differentiation and invite them to observe or help.

- When organizing a differentiated lesson, reflect on these questions:
  - What are the key concepts that every student must know, understand, and be able to do?
  - What is being differentiated? (the content, the process, the product)
  - How is this lesson being differentiated? (readiness, interests, learning profile)
  - Why is this lesson being differentiated? (motivation, access, efficiency)

As one sees the results of all students learning to their full potential, it becomes harder and harder to turn back to a “one-size-fits-all” perspective. A sense of calm, accomplishment, and joy from any student is one of the greatest gifts for a teacher.

**Conclusion**

When it comes to teaching, one size does *not* fit all. Students have different backgrounds, a range of ability levels, a variety of learning profiles, and an abundance of needs. By responding to these needs with a sound philosophy of differentiation, teachers have more authentic interactions with their students, and students are able to experience opportunities that will help them

reach their potential. Differentiation puts *students* at the center of teaching and learning. It is a common-sense, as well as research-based, approach to meeting the diverse needs of learners while promoting equity and excellence. It promotes a curriculum centered on critical thinking and acknowledges the uniqueness of each learner. As Emma Goldman (Petras, 1995), said, “No one has yet realized the wealth of sympathy, the kindness and generosity hidden in the soul of a child. The effort of every true education should be to unlock that treasure.”

- <sup>1</sup> Gardner contends that there are several *intelligences* or ways of knowing besides the two that are most frequently represented in traditional educational settings: verbal/linguistic and mathematical/logical. The others include intrapersonal, interpersonal, visual/spatial, body/kinesthetic, and musical/rhythmic.
- <sup>2</sup> Bloom created a taxonomy for categorizing the level of abstraction of tasks that commonly occur in educational settings. From less abstract to more, categories are knowledge, comprehension, application, analysis, synthesis, and evaluation.

**For Reflection**

<p><b>Differentiate What?</b></p> <p>Content—The input of the unit          Process—How learners make sense of the content          Product—How learners demonstrate what they’ve learned</p>
<p><b>Differentiate Why?</b></p> <p>Readiness—Students don’t all learn/progress at the same rate          Interests—Learners, like teachers, have different interests          Learning Profiles—Students vary in how they best learn and interact with knowledge</p>

1. Reflect on your past practices in the classroom as they relate to the information in the chart above. Identify ways in which you are already differentiating.
2. Choose a lesson to examine by using two columns on a sheet of paper. In the left column indicate current strategies and activities. In the right-hand column, brainstorm how you could change or rearrange some of those activities and/or strategies in order to differentiate the lesson.
3. Develop a proposal for a school or departmental book study on differentiated instruction. Include a rationale and goals for the book study. Examine what you would include, what outcomes you would expect and the support you need to reach the group’s goals. Present this document to an administrator and see what happens.
4. Brainstorm a problem in your classrooms or school that might be solved by using differentiated instruction. After stating the problem, elaborate on what you need to do to respond to it. Explore how you might gather evidence of success and what you might reflect upon in order to improve the next time.



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### Tiered Activities

Tiering a lesson is one way to differentiate the curriculum for mixed ability classrooms. The primary purpose of tiered activities is to differentiate the final product based on the student's readiness. Students will be required to master the same objectives and content, but they will process the information and gain understanding at their ability level. There are six strategies for structuring a tiered lesson or unit.

- **By Challenge** Using Bloom's Taxonomy, the teacher writes questions at the knowledge, comprehension, application, analysis, evaluation, and synthesis levels. The questions could range from placing information learned on a chart, to comparing and contrasting, or to using the information learned to create something new.
- **By Complexity** The teacher creates activities from simple to complex. For example, activities could require the student to report information on a given issue, report different points of

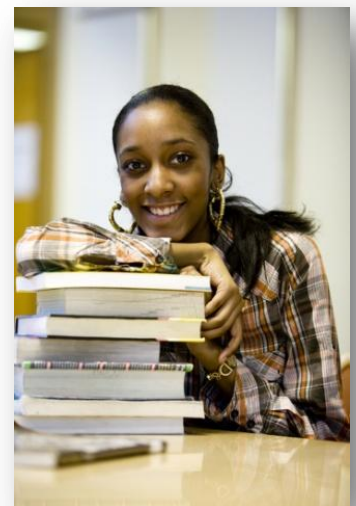
view on the given issue, or determine a position on an issue and present a persuasive argument to defend that position.

- **By Resources** The teacher developed activities with materials at various reading levels and complexity of content.
- **By Outcome** The teacher designs tasks from basic to the more advanced. For example, tasks could require the student to present what was learned about a given topic or to deliver a presentation that compares same topic to today's similar issues and looking at the impact and changes related to the topic.
- **By Process** The teacher plans instructional activities from the basic to the more advanced. For example, the students would be required to research information about a technique and report findings, to establish criteria for using the technique based on information learned through the research, or to interview three people about the given technique

and identify the criteria they used with the technique.

- **By Product** The teacher differentiates the activity based on the learning profiles of the students. For example, the students would create a final product that reflects their learning preferences and/or interests, such as word smart, picture smart, logic smart, body smart, or music smart.

It is important for the tiered activities to be parallel (i.e., the same essential understanding, key concepts, or skills) with varied levels of complexity, depth and abstractness and with various degrees of scaffolding or support. Make sure all tiered activities are introduced with the same level of enthusiasm and interest. One tier should not be copying definitions from a glossary, and the other tier has the students creating a Native American listening doll. The advantages of tiered activities are they allow students to work on tasks that are neither too easy nor too difficult. In addition, they are highly motivating because they allow students to be successful at their level of readiness, and they allow students to work in their preferred learning style.



The steps for creating a tiered assignment:

- 1. Select an essential skill or concept.**
- 2. Think about the readiness, interests, and learning profiles of your students and decide which of the six strategies will be used for developing the assignment.**
- 3. Create an interesting, high-level activity that requires the students to use the essential skill or concept to demonstrate understanding.**
- 4. Duplicate the activity along a continuum of the selected strategy.**
- 5. Match different levels of the assignment to the students based on their readiness, interests, and/or learning profiles.**

This tiered project on the following pages illustrates three levels for a 20th century mural. This tiered project is structured by resources, outcome, process, and product. Level 1 would be appropriate for the struggling learners. The research has been completed by the teacher for this level for a designated decade (the 1920s in this example). The writings, photographs, artwork, links for music, and overview information has been included for the student in a newspaper-type format. In addition, the mural that the students will create only

involves drawings and/or paintings. Level 2 would be appropriate for the immediate learners. At this level, the students are required to pick a decade during the 20th century and complete independent research regarding the themes (i.e., People & Culture, Political Events, and Science & Technology) related the selected decade. A link for an interactive website is included for the students to research their decade. The website does not required advanced research skills to locate information because it is a fairly intuitive website.

Level 3 is intended for the advanced learners. These students must choose two decades and select a different theme to depict each decade. A different website is given to this group of students. This website is less intuitive and requires more advanced research skills to navigate the website and to locate information. In addition, this level requires students to use printed materials, objects, images, and audio and multimedia

representations within the mural. A link for a three-dimensional mural is included to provide visual inspiration for the students. Paper mache, scissors, and magazines will be given as materials along with colored pencils, markers, paints, and markers, which will be given to the Level 1 and 2 students, so the students can create their individualized three-dimensional mural.

All tiers are allowed to work in small groups of two or three students, access the internet, choose how to depict the decade visually, select a theme to represent the decade, and create a mural. Depending on the level of the student, the given resources varied, the final outcomes differed, the process for creating the final product was modified, and the finished murals varied. Watch the "Bloom's Taxonomy Tiered Activities" video by Dr. Andrew Johnson for more examples of tiered activities. You can select the link or copy and paste it into your internet browser.

[www.bugforteachers.com/tiered.html](http://www.bugforteachers.com/tiered.html)

Retrieved from youtube.com.





**Objective:**

To create a mural using colored pencils, paints, markers, and/or colored chalk to depict the historical events and trends of the 1920s based on one theme: Political Events, People & Culture, and Science & Technology.

**Materials:**

- Large white paper
- Colored pencils
- Paints
- Markers
- Colored chalk

**Directions:**

1. Work in groups of two or three to discuss how to visually communicate the political events, people & culture, and science & technology of the 1920s using the following images and information.
2. Select one theme to be illustrated in the mural.
3. Create a responsibility list for each member of the group.
4. Fulfill each responsibility as the mural is created.

**Political Events**

- Stock Market Crash in 1929 devastated the economy and began the Great Depression.



- 18<sup>th</sup> Amendment went into effect on January 16, 1920 which made the manufacture, sale, and transportation of liquor illegal. Prohibition gave rise to gangsters and "speak-easies".



- Herbert Hoover was the controversial American president during the economic crash of the 1920's.



- St. Valentine's Day Massacre, which was orchestrated by Al Capone, occurred in 1929 when seven men were gunned down in a Chicago garage.



- 19<sup>th</sup> Amendment was ratified in 1920 and gave women the right to vote.



## People & Culture

- Writers from the Harlem Renaissance emerged, such as Langston Hughes.



### Jazzonia

By Langston Hughes

Oh, silver tree!  
Oh, shining rivers of the soul!

In a Harlem cabaret  
Six long-headed jazzers play.  
A dancing girl whose eyes  
are bold  
Lifts high a dress of silken  
gold.

Oh, singing tree!  
Oh, shining rivers of the soul!

Were Eve's eyes  
In the first garden  
Just a bit too bold?  
Was Cleopatra gorgeous  
In a gown of gold?

Oh, shining tree!  
Oh, silver rivers of the soul!

In a whirling cabaret  
Six long-headed jazzers play.

- Jazz music was born in the 1920s. Duke Ellington's orchestra began its 4-year residency at Harlem's famous Cotton Club in 1927.



“Jazz is a good barometer of freedom. In its beginnings, the United States spawned certain ideals of freedom and independent through which, eventually, jazz was evolved, and the music is so free that many people say it is the only unhampered, unhindered expression of complete freedom yet produced in this country.” – Duke Ellington.



Duke Ellington



Louis Armstrong

To listen to the music of Louis Armstrong, Bessie Smith, Duke Ellington, Ella Fitzgerald, George Gershwin, and others of the 1920's, click [faculty.pittstate.edu/~knichols/jazzpoems2.html](http://faculty.pittstate.edu/~knichols/jazzpoems2.html).



The Savoy Ballroom opened in Halem, NY in 1926.



Lindy Hop was a swing-type dance for jazz music.



Charleston became a popular dance in 1923.

- First Academy Awards was held in 1929.



- Flappers of the Roaring Twenties drastically changed the clothing, hair, and appearance of women.



- Charlie Chaplin was a well known comedian, actor, and musician during the decade.



- Harlem Renaissance had an effect on the visual arts, such as the work of Archibald Motley, Jr.



Cocktails (1926)

- Babe Ruth hit 60 home runs in a single season in 1928.



- The first publication of the children's book, *Winnie-the-Pooh*, occurred in 1926.



Blues (1929)

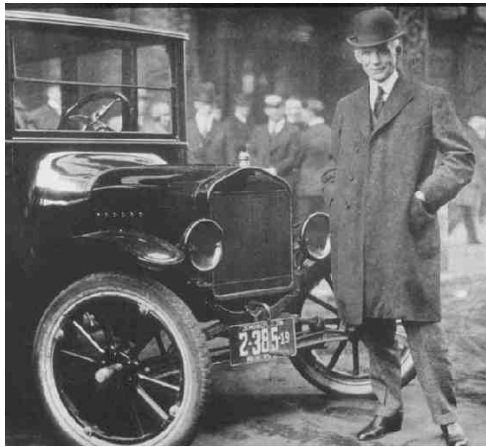


## Science & Technology

- Sound was added to movies. They were referred to as "talkies"

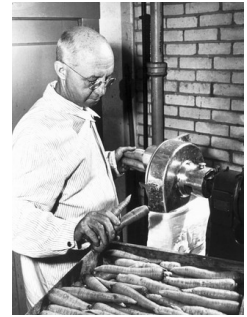


- Radio became the staple in people's home to provide information and entertainment.

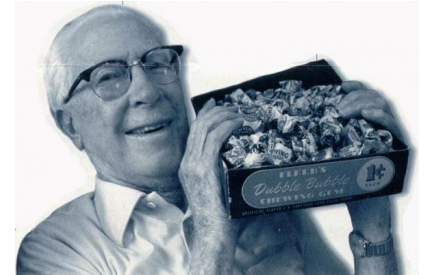


- Henry Ford designed the Model T for the common man and installed an assembly line to produce the car which made production cheaper and faster.

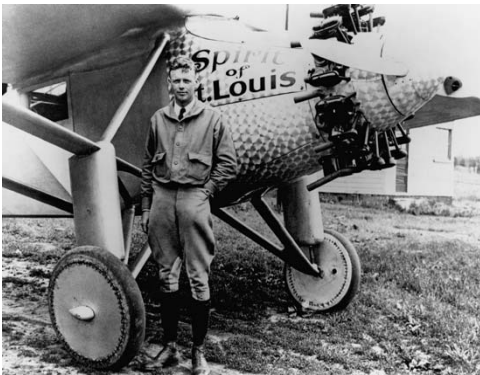
- Clarence Birdseye invented frozen food in 1924.



- Bubble gum was invented by Walter Diemer in 1928.



- Charles A. Lindbergh flew across the Atlantic Ocean by himself in the *Spirit of Louis*.



- Art Deco Design began in the 1920s. It affected architecture across the US, including New York skyscrapers and hotels in South Beach Miami.



- Alexander Fleming discovered penicillin in 1928.





## 20<sup>th</sup> Century Mural Tiered Project: Level 2

### Objective:

To create a mural using colored pencils, paints, markers, and/or colored chalk to depict the historical events and trends of one decade from the 20<sup>th</sup> century based on one theme: Political Events, People & Culture, and Science & Technology.

### Materials:

- Large white paper
- Colored pencils
- Paints
- Markers
- Colored chalk

### Directions:

1. Select one decade from the 20<sup>th</sup> century.
2. Research each theme for one decade of the 20<sup>th</sup> century using the following website:  
[kclibrary.lonestar.edu/decades.html](http://kclibrary.lonestar.edu/decades.html). (An interactive website that presents the American cultural history of the 20<sup>th</sup> century.)
  - **Political Events** - (elections, government, recessions/depressions, revolutions, wars, assassinations)
  - **People & Culture** - (U.S. presidents, world leaders, sports figures, artists, musicians, trends/developments in dance, literature, music, theater, visual arts, clothing, fads, food, modes of transportation)
  - **Science & Technology** - (inventions which made life easier, concepts, discoveries, experiments, scientists)
3. Work in groups of two or three to discuss how to visually communicate the political events, people & culture, and science & technology for the selected decade.
4. Select one theme to be illustrated in the mural.
5. Create a responsibility list for each member of the group.
6. Fulfill each responsibility as the mural is created.

**Objective:**

To create a mural using paper mache, magazine cut-outs, colored pencils, paints, markers, and/or colored chalk to depict the historical events and trends of at least two decades from the 20<sup>th</sup> century based on the following themes: Political Events, People & Culture, and Science & Technology. The mural must use multiple forms of media, and the representations must have cultural or historical significance.

**Materials:**

- Large white paper
- Paper mache
- Scissors
- Magazines
- Colored pencils
- Paints
- Markers
- Colored chalk

**Directions:**

1. Select at least two decades from the 20<sup>th</sup> century.
2. Research each theme for each decade of the 20<sup>th</sup> century. Be sure to use printed materials, objects, images, and audio. The following website can assist you with your research, [www.eyewitnesstohistory.com](http://www.eyewitnesstohistory.com). (It is an interactive website that presents history from the Ancient World to the present through the eyes of those who lived it.)
  - **Political Events** - (elections, government, recessions/depressions, revolutions, wars, assassinations)
  - **People & Culture** - (U.S. presidents, world leaders, sports figures, artists, musicians, trends/developments in dance, literature, music, theater, visual arts, clothing, fads, food, modes of transportation)
  - **Science & Technology** - (inventions which made life easier, concepts, discoveries, experiments, scientists)
3. Work in groups of two or three to discuss how to visually communicate the political events, people & culture, and science & technology for the selected decades. The following website can assist you with three-dimensional ideas, [www.wallofamerica.org](http://www.wallofamerica.org). (The mural is a three-dimensional painting that celebrates American ingenuity, productivity, and commitment to work.)
4. Select a different theme to be illustrated in the mural for each of the selected decades.
5. Create a responsibility list for each member of the group.
6. Fulfill each responsibility as the mural is created.

## Learning Contracts

*Learning contracts* provide a method of individualizing instruction and developing student responsibility. This method of differentiation is based on readiness and learning profile of the student. They permit individual pacing so students may learn at a pace that allows them to master the material. Learning contracts can be designed where students function at the academic levels most suitable to them and work with resource materials containing concepts and knowledge that are appropriate to their abilities and experiences. Although this method focuses on the individual, learning contracts also provide an opportunity for students to work in small groups. The teacher may select this option for some students who may need peer tutors to provide support as they learn to work independently.

When students are first beginning to use learning contracts, the teacher should provide specific learning objectives, identify a choice of resources, and assign a deadline for the project. Consider our discussion about classroom management and daily classroom procedures in Chapter 10. The students will need to be able to read the expectations and procedures in the learning contract document. As students become more experienced with learning contracts, the teacher may choose to involve them in setting the learning objectives. Learning contracts usually require students to demonstrate the new learning in some meaningful way, but students are provided choice in the selection of a method or activity. After the agreement between the teacher



and the student is confirmed, the student, parent/guardian, and teacher sign the learning contract.

Learning contracts can be highly motivating for students. As they become skillful in making appropriate choices and as they begin to assume more responsibility for their own learning, they become increasingly independent, learn to use resources to their advantage, and take pride in their ability to teach themselves and share their new learning with others. It allows for student choice in the way in which material is accessed and products are developed. Most learning contracts can be graded with a rubric. If you give the students a rubric during the assignment phase, they will be able to see the expectations that will be used for their grading once the assignment is submitted.

The learning contract on the following pages allows students to explore careers in the visual arts. The students will read through the three career descriptions and the assignment's requirements, then

they decide which career project they would like to complete. Once a selection is made, the due date will be assigned. The student, along with his or her parent/guardian, and the teacher will sign the agreed upon contract. For each career (i.e., Fashion Designer, Architect, and Graphic Artist), there is a different work sample that is indicative of that specific career. For example, the Fashion Designer will design four outfits for a special occasion or event. The Architect will design a building using different materials, size, and color. The Graphic Artist will design a cereal box for a new cereal. Once completed, the student will complete the "Self-Evaluation", and the teacher will complete the "Teacher Evaluation" of the student's performance and final product. The rubric allows the student and teacher to see differences between the perception and the reality of the student's work ethic and final products. In addition, the student can reflect upon his or her work to determine his or her strengths, weakness, and interests.

# Learning Contract for Careers in the Visual Arts

Objective: The student will use a variety of visual media to explore a career (i.e., Fashion Designer, Architect, and Graphic Artist) in visual arts.

Name \_\_\_\_\_

*Directions:* Read through the three career descriptions and their expected requirements. Select one career assignment to complete by placing a check mark in the appropriate box.

**Fashion Designer:** A fashion designer is an artist who designs all of the things that we wear, such as clothing, hats, and shoes. Fashion designers must know how to draw, illustrate, and sew. They should be very creative and aware of trends.

Materials:

- photocopied page with two simple children's figures representing one male and one female
- pencils and erasers
- crayons and/or colored pencils
- scissors
- colored construction paper
- pattern paper or wallpaper samples
- fashion ads from the Sunday newspaper

Directions:

1. Use the male and female figure copies to design two outfits for each figure. (They will be a total of four outfits). The clothing should be suitable for a very special day or occasion, such as a holiday party.
2. Cut and paste the clothing or draw it directly on the paper.
3. Print the name of the occasion on the back of each paper.

**Architect:** An architect is an artist who designs buildings. The architect studies all types of building styles, construction, and materials for the interior and exterior of buildings. Some architects also design landscapes around buildings and parks.

Materials:

- large white drawing paper
- pencils and erasers
- crayons and/or colored pencils
- Legos and/or building blocks
- photographs of buildings or architectural/picture books with photographs of various buildings and structures

Directions:

1. Choose a building to design or construct from the following list:
  - a new school
  - a new house for a family of 6
  - a house or apartment for your teacher
2. Look at some of the pictures of the buildings before beginning your design.
3. Consider the type of materials, size, and colors.
4. Draw or build your building.
5. If you draw a model, you should indicate materials, size, and colors on the drawing.
6. If you build a model, you can take a picture of the model or turn in the actual model.

**Graphic Artist:** A graphic artist is a broad category that includes many types of artists. For this assignment, the graphic artist designs the commercial packaging that is seen at stores and markets. Graphic artists study design, form, and marketing. The work of the graphic artist must grab the attention of the customer and sell the product.

Materials:

- large white drawing paper
- pencils, erasers
- crayons and/or colored pencils
- color markers
- rulers
- empty cereal boxes to be used as examples

Directions:

1. Look at the examples of cereal boxes before beginning to draw.
2. Consider what things you will put on the front of the box, what types of images will be included, and what colors will you use.
3. Create a drawing for the box front of the new cereal called "Bunches of Crunch". The design should include the name of the cereal.

Due \_\_\_\_\_

Student signature: \_\_\_\_\_

Parent/Guardian signature: \_\_\_\_\_

Teacher signature: \_\_\_\_\_



## Learning Contract Evaluation

### *Self-Evaluation*

criteria	1 (poor)	2 (fair)	3 (good)	4 (excellent)	5 (superior)
I used my time effectively.					
I planned my career project.					
I followed classroom policies and procedures.					
I followed directions.					
I created a work sample for a visual art career to the best of my ability.					

### QUESTIONS:

1. One area where I could improve on is \_\_\_\_\_.
2. One thing that I found frustrating was \_\_\_\_\_.
3. One thing that I really enjoyed was \_\_\_\_\_.

### *Teacher Evaluation*

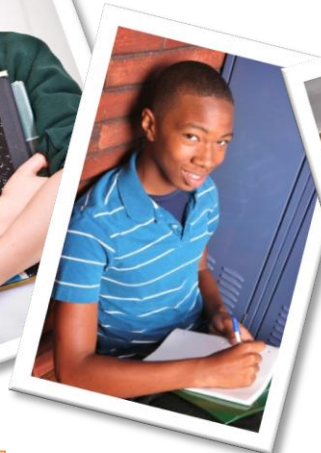
criteria	1 (poor)	2 (fair)	3 (good)	4 (excellent)	5 (superior)
Student used my time effectively.					
Student showed evidence of planning.					
Student followed classroom policies and procedures.					
Student followed directions.					
Student created a work sample for a visual art career.					

### COMMENTS:

Total: \_\_\_\_\_/50

## Conclusion

As teachers, we have little jurisdiction over content modifications. The CCGPS is the mandated curriculum for the state of Georgia. However, we have great influence over the processes and products within our classroom. After spending 8 years as a special education teacher, process and product differentiation became second nature for me. When I transitioned to high school math in a general education setting, I quickly found my “second nature” beneficial for all students, with and without disabilities. Every student is different! Even within the same family, siblings have different process and product preferences. For all students to be successful in your classroom, you will need to modify and vary the instructional process and assessment products.



## References

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- Theisen, T. (n.d.). Differentiated instruction in the foreign language classroom: Meeting the diverse needs of all learners. *Communiqué, 6*(6), 1 – 8.
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### Answers and explanations for the Learning Preferences Activating Strategy

1. **FALSE.** According to Neil Fleming, approximately 60% of any population prefer multiple modalities.
2. **FALSE.** Multimodal learners are able to match their preferred modalities with presented instructional methods; however, some multimodal learners need to have more than one of their modalities involved in learning before they understand the material.
3. **TRUE.** Boys have more kinesthetic responses, and girls more read/write responses.



As this semester approaches its end, you are finishing your educational philosophies. I am concluding this etextbook by including my educational philosophy entitled *The Game of Education*. As a side note, I have always wanted to be a teacher. Every Sunday afternoon, I would play school at my Nana’s house. My Daddy did not want me to be a teacher. He told me that I was too smart to be a teacher. I replied as a loving teenager that “They need smart teachers, too!”. I considered other careers, but I was certain that teaching was the place for me. As I talk with my husband now, I do not consider my current position as a job. I can work for hours without realizing that the day as passed. My husband says that I have found my true calling in life because I love what I do and have such passion for my profession. I completely agree with him, and, thankfully, I get paid for it, too. I hope that you will see the connections between my educational philosophy and teaching practice in the classroom. After all, the educational philosophy defines our purpose and perspective as teachers.

## The Game of Education

Growing up in a small rural community in South Georgia, everyone knew everyone, and the entire town attended the Friday night football games. Based on this childhood experience, I envision education as a Friday night football game. Each team has the goal of scoring the most points on the scoreboard. There are numerous options for reaching this highly anticipated goal. In a football game, the team acquires points through touchdowns, field goals, safeties, points after touchdowns, and two-point conversions. In the education arena, there are numerous methods to reach the students - whether it is visual, auditory, or kinesthetic learning strategies, emotional support, or daily living skills. Tossed among the players and coaches is the football, which symbolizes knowledge that students try to acquire. The football players apply different fundamentals, such as blocking, tackling, passing, or rushing, to gain possession the ball. In the classroom, students participate in

different learning opportunities and activities to obtain their ball of knowledge.

In every football game, there are two teams. To form the football team, the coaches strategically assign the football players to various offensive or defensive positions. Likewise, in school, our students play the game of education as they toil through courses, which are assigned by counselors and teachers, in pursuit of their high school diploma. On Friday night, the football players wear their protective gear and their school jerseys which are filled with pride and tradition. The players’ uniforms represent the school culture, which creates a protective and prideful learning environment for all students. This school culture does not have benchwarmers because everyone needs a chance to play the game.

On the sideline of the football game, there are head and assistant coaches. The head coach supervises and leads the assistant coaches and players to a winning season. At a school, a principal makes consistent decisions based on the best interests of the teachers and students to impact student learning positively, which results in a successful school year. The assistant coaches work endless hours throughout the week to cultivate strategic plays. As the plays are designed, the assistant coach keeps the team’s ultimate goal in mind – victory. As the assistant offensive coaches design these tactical plays and then instruct the players on how to implement them and gain the next first down during the game, teachers also create learning experiences for their students. These learning experiences teach the students how to solve real-world problems, connect new



concepts to prior knowledge, and apply these concepts to practical situations so they can master the next objective or standard.

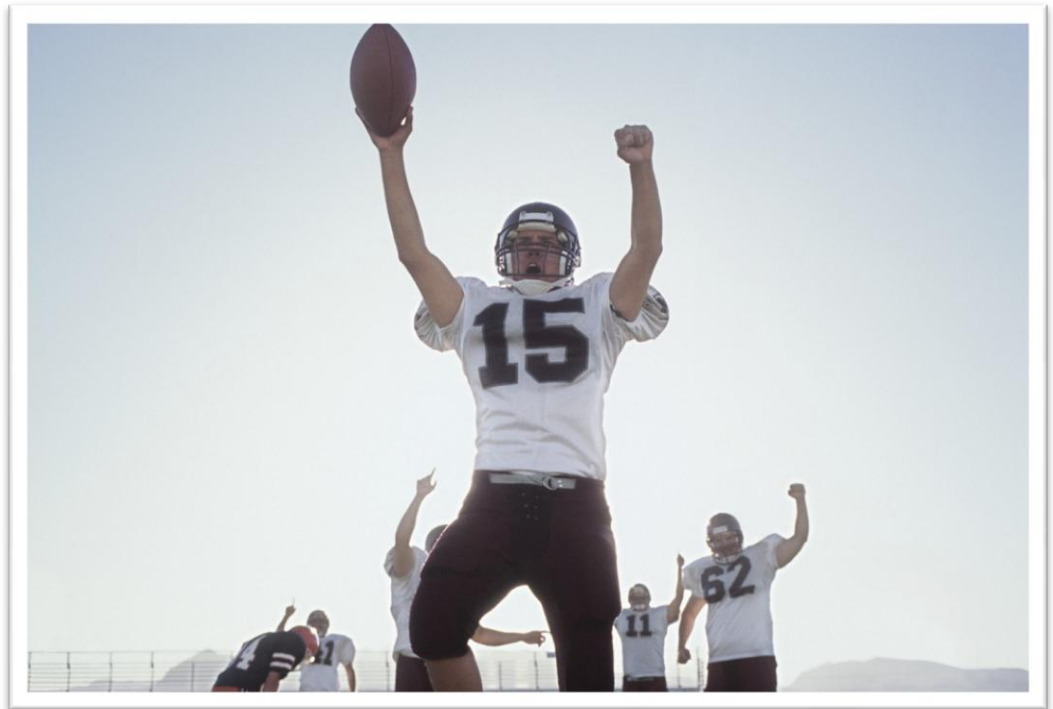
Sometimes, when the head coach calls a play, the football players fail to execute it correctly on the field, whether it is the center that dropped the snap, the defensive lineman who missed the tackle, or the punter who kicked the ball too far to the right. As a result, these players feel like failures. Players during the games of football and education make mistakes. It is the coach's responsibility to keep the morale high among his players and fellow coaches, and the faculty and staff has this same responsibility within a school. Similarly, when the quarterback throws the perfect pass to the hands of the tight end that is waiting on the five yard line and runs across the goal line to score those coveted six points, the players and coaches celebrate. Inside the gridiron of education, principals, teachers, support staff, and students rejoice when the students achieve their goals, whether it is passing a standardized test, understanding a difficult concept, or earning a high school diploma.

Most importantly, the residual effect of any game is the critical life lessons which extend beyond the boundaries and parameters of the curriculum. These life lessons are acquired on the football field and in the classroom, such as good sportsmanship, cooperation with others, and the value of hard work. Within the classroom, teachers utilize hidden curriculum to develop these valuable character traits within their students because life is a spectator sport. Each decision made in the game results in a consequence. That consequence may be a gain of seven yards or a loss of fifteen yards. Also,

that consequence may require the player to step back and punt or to run the ball into the end zone for the game-winning touchdown. Using these valuable character lessons, the players of the game learn that the more thought and effort put into each decision will result in greater yields. Using this insight gained on the field and in the classroom, the players manifest into a productive citizens in the community, which is ultimate victory in the game of education.

The comparison of a Friday night football game to education illustrates the interdependence that exists among the players of the game, the process of playing the game, and the supports needed to guide the game. The accomplishments and attitudes of each player mutually affect the other players within the game; therefore, the contact among the players must have mutual respect and open communication. It is critical to recognize this interdependence to impact student learning positively.

In order to claim victory in the game of education, all students should receive an appropriate and meaningful education that implements research-based practices. Often, the prescribed curriculum needs to be adapted or modified in order to meet the individualized strengths, needs, and interests of the students and community. Since education is the agent for social change, the curriculum involves a process of planning and guiding learning opportunities, which encompass all aspects of the school culture. The intent of these opportunities is to prepare students for future endeavors, whether they choose post-secondary education, military, or employment. I want to use my education and experience to create this metaphorical game. Thus, teachers will be able to prepare their students to be productive citizens in the community where life is a continuous spectator sport!





## Closing Thoughts

After using various textbooks and reviewing others, I found that I was supplementing the course content more often than utilizing the assigned textbook. When examining student course evaluations, I read comments like “The textbook wasn’t very engaging”. Such comments sparked the question of how could the content be restructured to capture all of the components that were necessary to build in the educational foundations for the 21st century classroom teacher.

Every year, the students who enter your classroom will be different. If you teach the same subject more than one period a day, you will find that what worked with first period will not work with third or even seventh period. My task is to equip you with as many “tools” as possible so you are

ready for any group of students during any given year. To equip this toolbox, teachers need a firm educational foundation, including history, philosophy, and ethics; however, these teachers also need a practical guide to apply the various theories of educational psychology, which benefitted me immensely while in the K-12 setting.

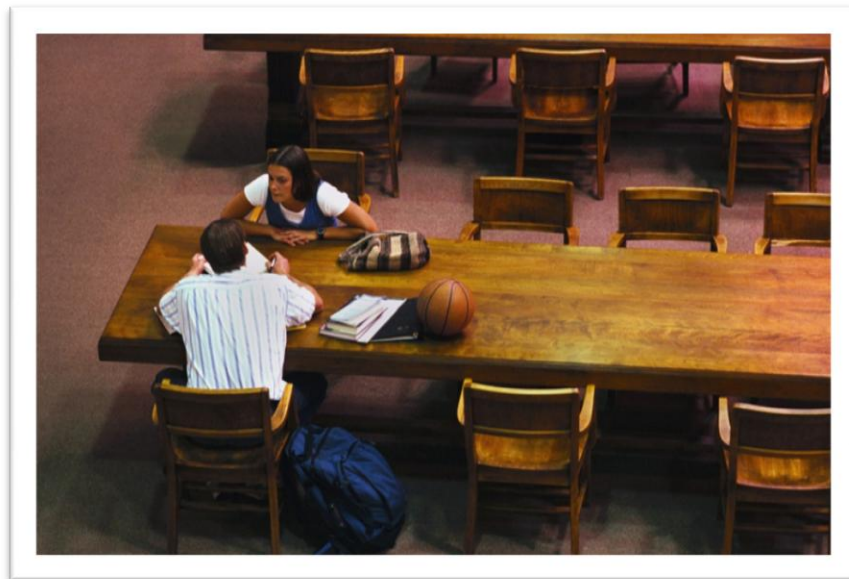
When beginning this endeavor, I had two goals. First, I wanted to provide educational foundations and educational psychology without the jargon. I decided to produce clear and concise reading with illustrations, short videos, and interactive activities so the content was understandable as well as came to life through visual appeal instead of overwhelming words on a page. Second, I wanted to create a “how to” book as if I were the mentor

teacher who would assist you with the day-to-day activities within the classroom. I intended to offer a first hand personal account of my knowledge and experience gained while in the classroom to facilitate your connection with the concepts. In addition, each topic has been accompanied by at least one concrete example or application for immediate use.

Throughout this etextbook, I have tried to present foundational topics and demonstrate an assortment of instructional ideas, examples, and “tools”. Hopefully, you have utilized or will utilize some of these “tools” in your classroom. In the future, please continue to use this practical guide as a resource. Do not forget to place these “tools” in your toolbox! You never know when you will need them.



# Notetaking Guides



## Chapter 1: History of American Education Notetaking Guide (Dr. J. Brown)

	Colonial Period	Early National Period	Common School Period	Progressive Period	Modern Period
Curriculum					
Teachers					
Students					

Colonial Period	Early National Period	Common School Period	Progressive Period	Modern Period
Schools				
Books				
Acts & Legislation				

	Colonial Period	Early National Period	Common School Period	Progressive Period	Modern Period
Influential People					
Influential Events					
Philosophy*					

\*You may want to complete this row after reading Chapter 2.

Chapter 2: Philosophy of Education Notetaking Guide (Dr. J. Brown)

	Perennialism	Essentialism	Progressivism	Existentialism	Social Reconstructionism	Yours
What should be taught?						
Why should it be taught?						



	Perennialism	Essentialism	Progressivism	Existentialism	Social Reconstructionism	Yours
How should it be taught?						
What should the teacher's role be?						



	Perennialism	Essentialism	Progressivism	Existentialism	Social Reconstructionism	Yours
What should the student's role be?						

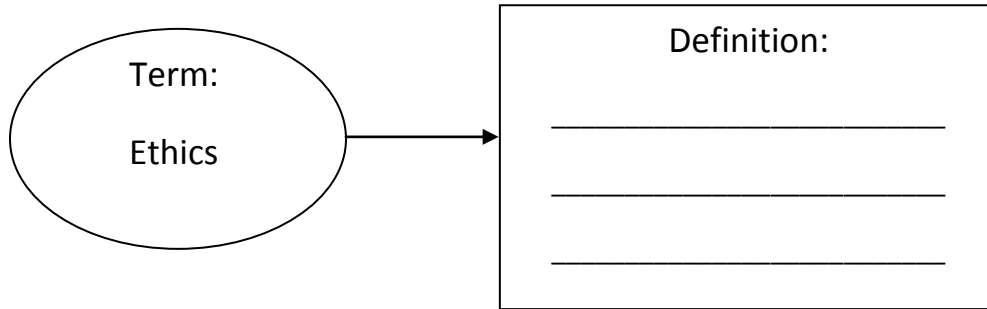
What is your anchor or primary philosophy of education? (Refer to the Philosophic Inventory if necessary.)

\_\_\_\_\_

Do you have a supporting or secondary philosophy of education? (Refer to the Philosophic Inventory if necessary.)

You have any more than one.) \_\_\_\_\_

Chapter 3: Law, Ethics, and Dispositions  
Notetaking Guide (Dr. J. Brown)



**Georgia Professional Standards Commission**  
**THE CODE OF ETHICS FOR GEORGIA EDUCATORS**

Standard 1: \_\_\_\_\_

Standard 2: \_\_\_\_\_

Standard 3: \_\_\_\_\_

Standard 4: \_\_\_\_\_

Standard 5: \_\_\_\_\_

Standard 6: \_\_\_\_\_

Standard 7: \_\_\_\_\_

Standard 8: \_\_\_\_\_

Standard 9: \_\_\_\_\_

Standard 10: \_\_\_\_\_

Standard 11: \_\_\_\_\_

### Scenarios

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_

What are the admission requirements for Teacher Education at CSU?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

What is the initial certification process for undergraduate students at CSU?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

What certification options do you have if you move to another state?

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## Teacher and the Law

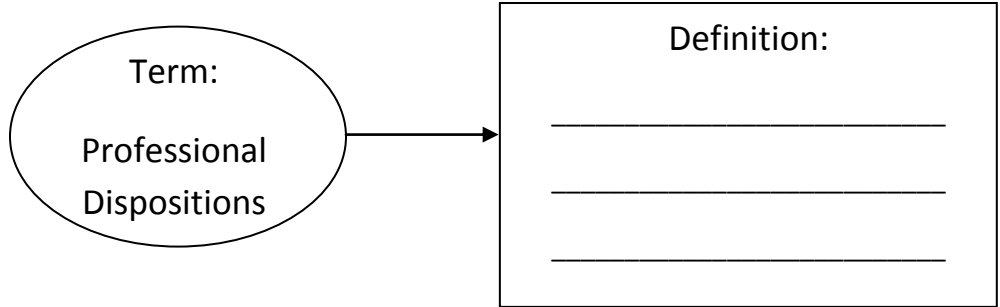
1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_

## Consider This...How Have Supreme Court Decisions Affected the Public Schools?

For each of the following practices, determine whether the Supreme Court has held that practice to be mandatory (MUST), permitted (MAY), or prohibited (MUST NOT).

1. A school district \_\_\_\_\_ require the posting in each classroom of a copy of the Ten Commandments that has been obtained via private contributions and is expressly labeled as nonreligious material.
2. A school district \_\_\_\_\_ provide classes to nonpublic school students in classrooms located in nonpublic schools.
3. A school district \_\_\_\_\_ dismiss a teacher for expressing criticism of school policies or practices that are not of public interest.
4. A school district \_\_\_\_\_ permit nonexcessive corporal punishment of students under the authorization or in the absence of a state statute.
5. A school district \_\_\_\_\_ conduct a search of a student, without the assistance of police, if the school authorities have reasonable suspicion that the student has violated or is violating the law or school rules.
6. A school district \_\_\_\_\_ refuse to provide clean-intermittent-catheterization for students with disabilities who need this service to attend school.
7. A school district \_\_\_\_\_ deny reenrollment in their public schools to children who are “illegal aliens” in the United States.

8. A school district \_\_\_\_\_ discipline students for using lewd and offensive language that does not cause a substantial disruption in the school.



What is the purpose of professional ethics and dispositions?

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# Chapter 4: Behavioral and Social Learning Theory

## Notetaking Guide (Dr. J. Brown)

### Behaviorism

Term:  
Classical  
Conditioning

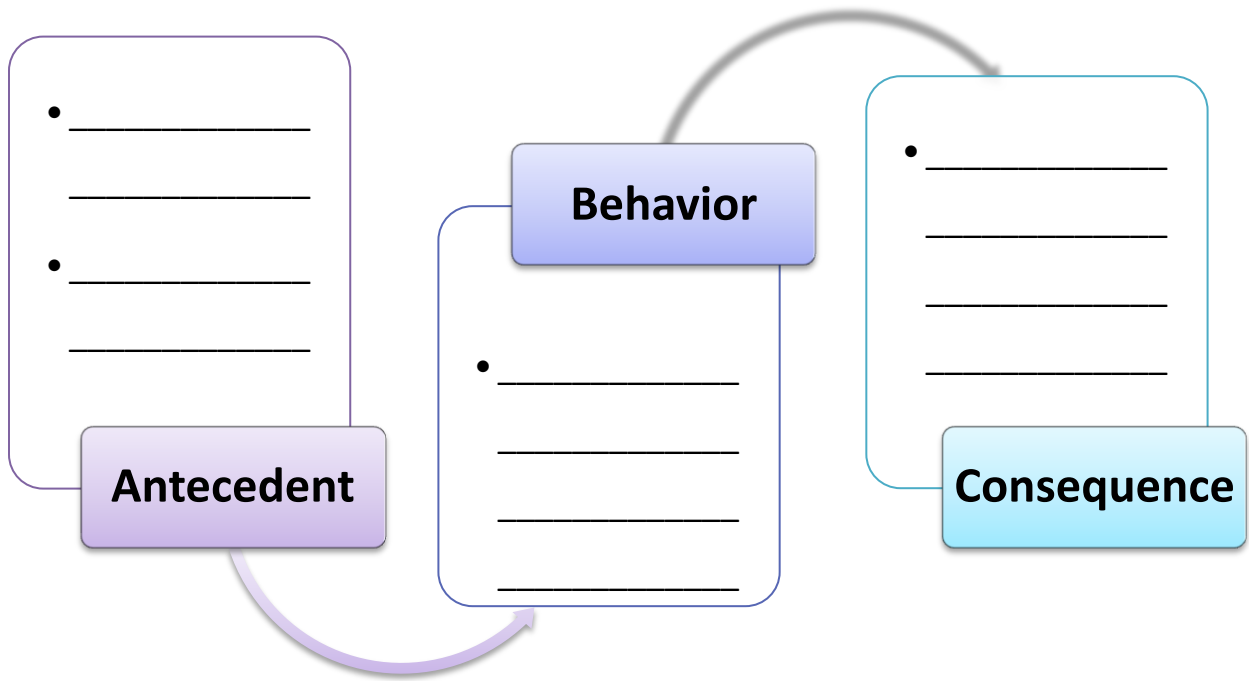
Definition:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Term:  
Operant  
Conditioning

Definition:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Principles associated with operant conditioning

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_



Student Peppermint Patty

#	Antecedent	Behavior	Consequence
1.			
2.			
3.			
4.			
5.			



Examples of a token economy or behavior management system for the classroom

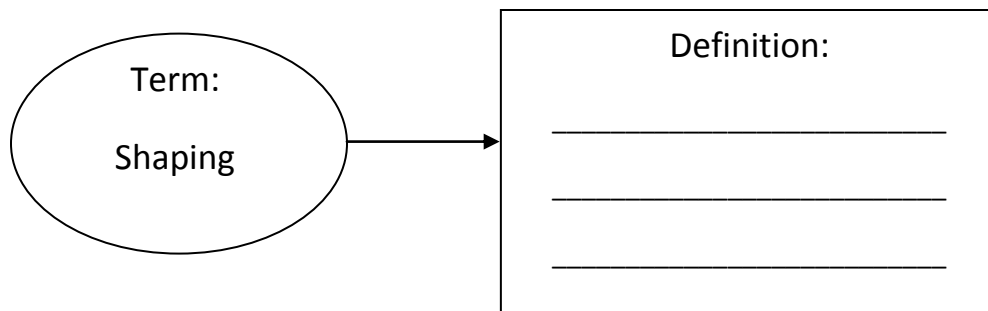
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

What is the difference between punishment and reinforcement?

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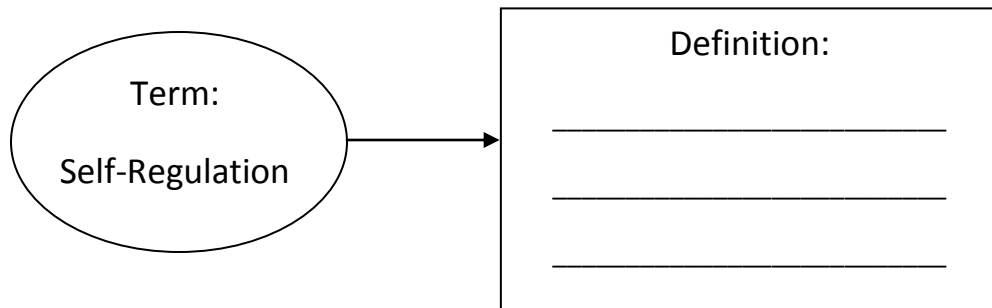
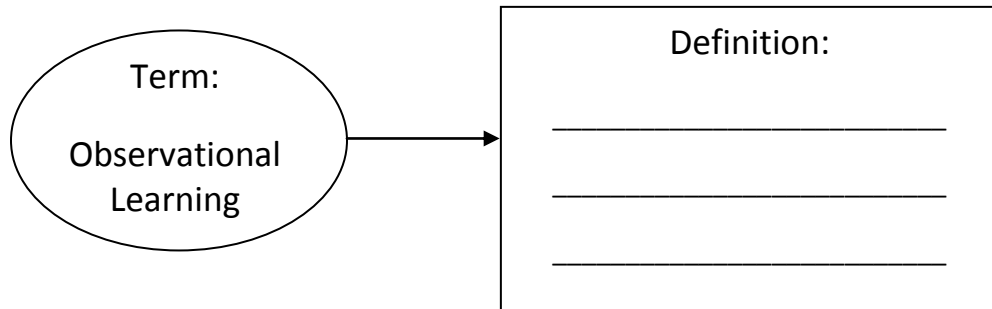


Advantages and Disadvantages for Behaviorism

Advantages
● _____
● _____
● _____

Disadvantages
● _____
● _____
● _____
● _____
● _____

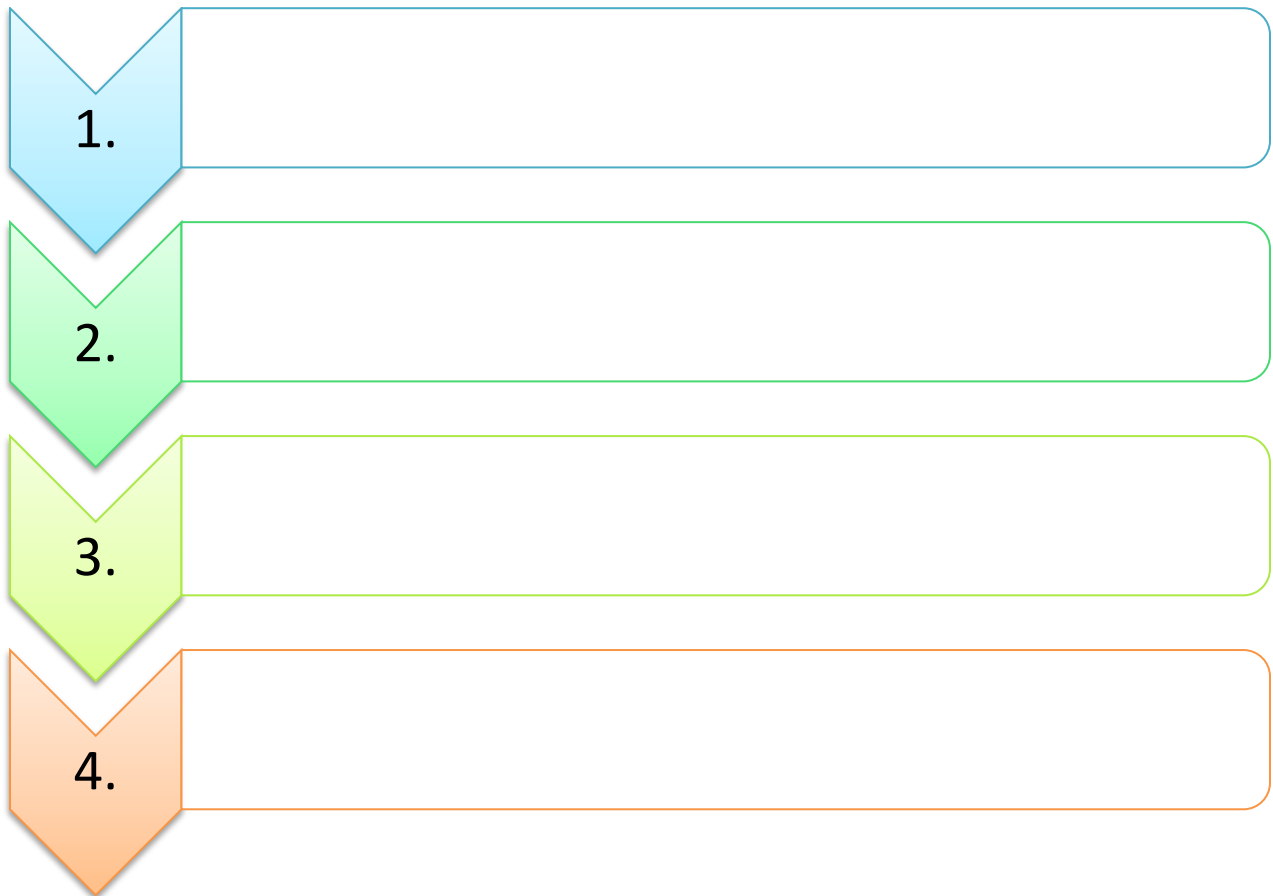
**Social Learning Theory**



### Three methods for regulating one's behavior

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_

### Observational Learning Modeling Steps



## Types of Motivation

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Advantages and Disadvantages for Social Learning Theory

### Advantages

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Disadvantages

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

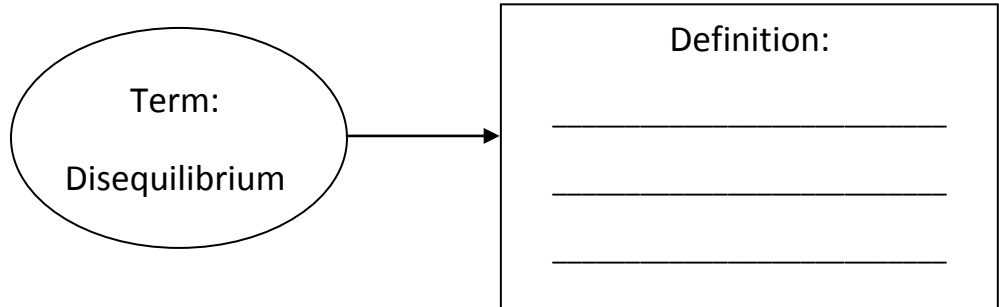
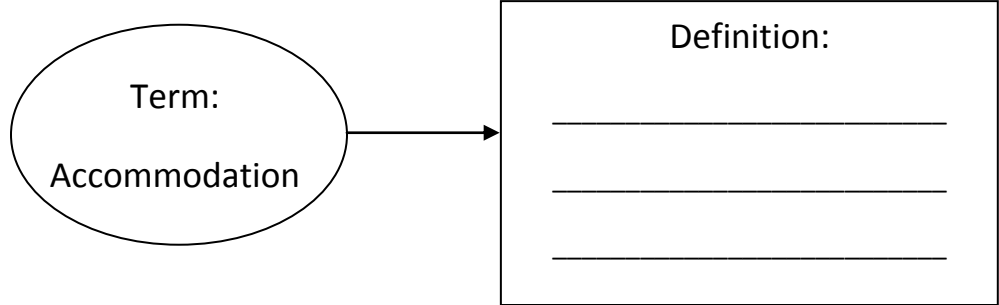
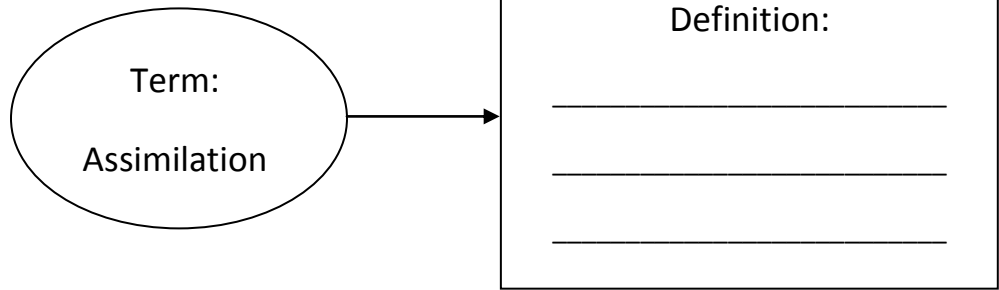
# Chapter 5: Cognitive Learning Theory

## Notetaking Guide (Dr. J. Brown)

### Piaget's Stages of Cognitive Development

Stage	Characteristics	Examples
Sensorimotor (Birth to 2 years)		
Preoperational (2 to 7 years)		
Concrete operational (7 to 11 years)		
Formal operational (11 + years)		





## Vygotsky's Zone of Proximal Development

Term:  
Actual Level

Definition:

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Term:  
Proximal Level

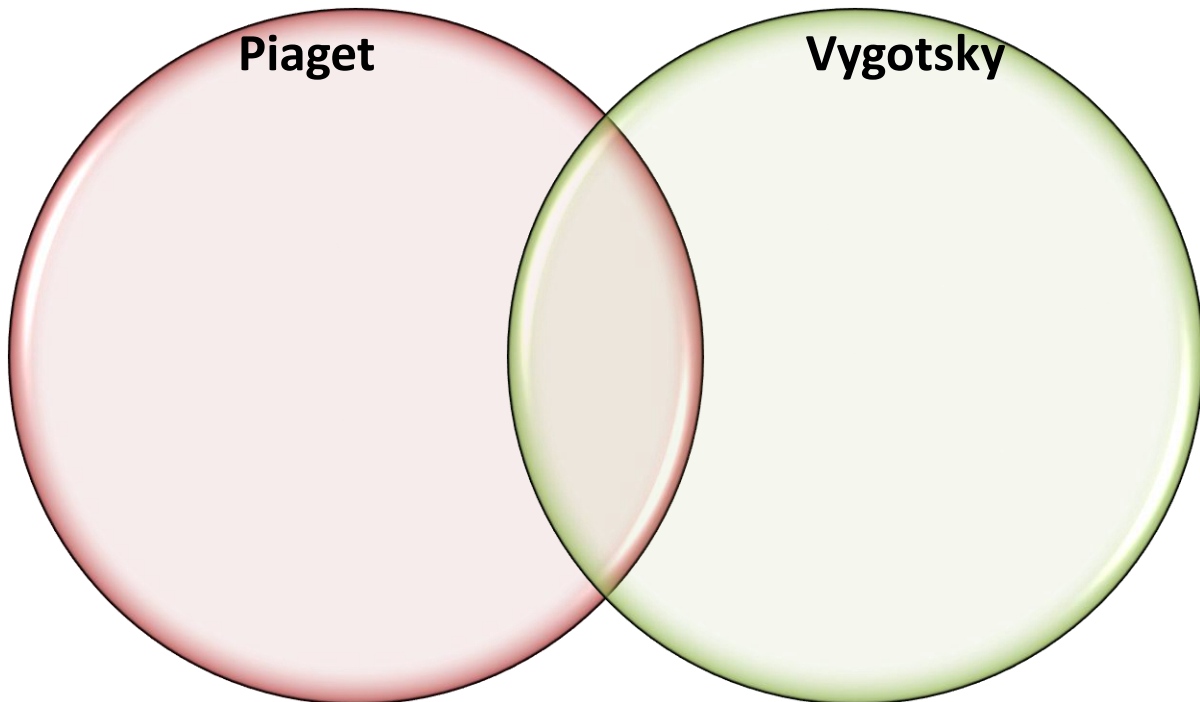
Definition:

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Compare and Contrast the ideas of Piaget and Vygotsky.



## Notes from Demonstration Activities

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**How can each of these theories benefit me in the classroom?**

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# Chapter 6: Information Processing Theory

## Notetaking Guide (Dr. J. Brown)

### **Activating Activity: Part 1**

### **Activating Activity: Part2**

### Phases of Information Processing Theory

Phase	Characteristics	Components
Sensory Memory “sponge”		
Working Memory “workbench”		
Long-term Memory “filing cabinet”		



## Advantages and Disadvantages for the Information Processing Theory

### Advantages

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

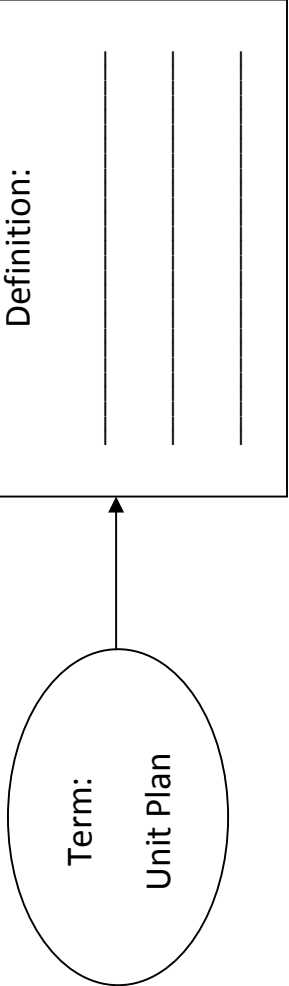
### Disadvantages

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

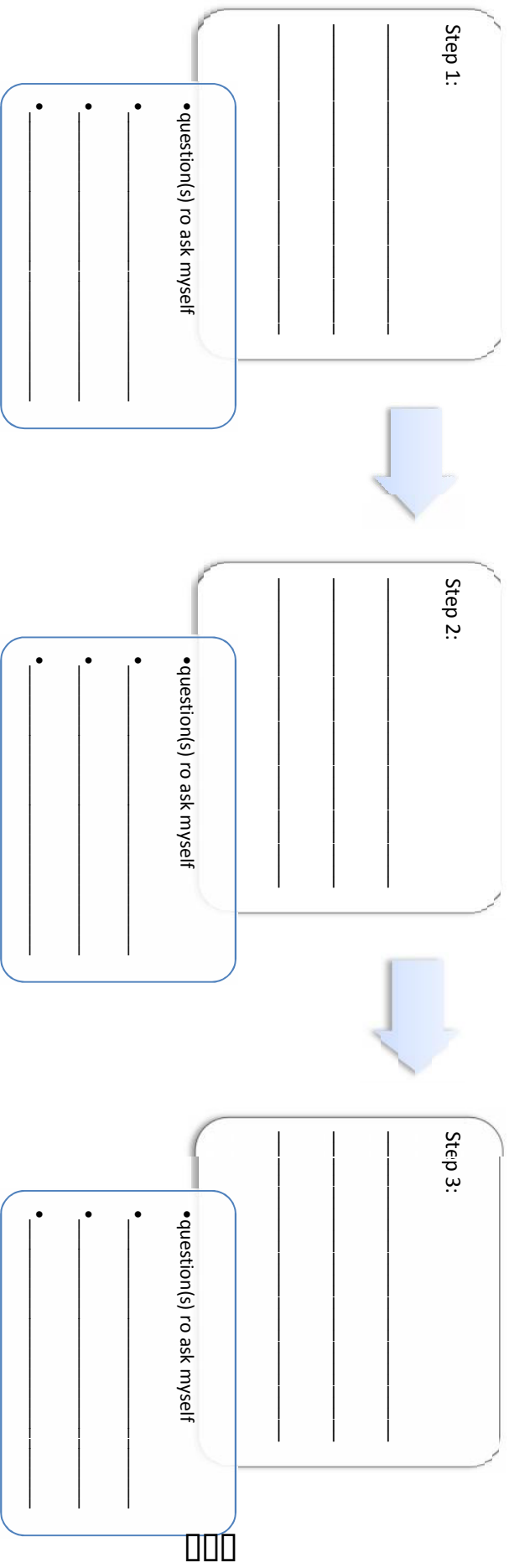
# Chapter 7: Instructional Design Notetaking Guide (Dr. J. Brown)

Why do we need to plan?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_



## Steps for Writing a Unit Plan using Backward Design

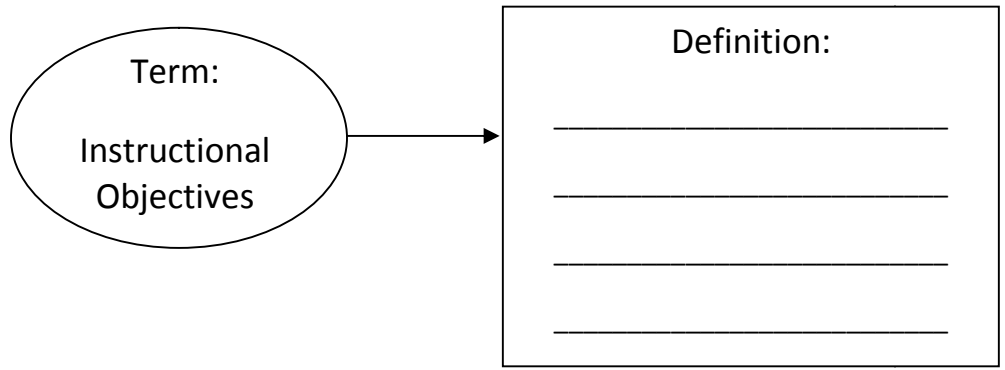


What is the purpose of essential questions?

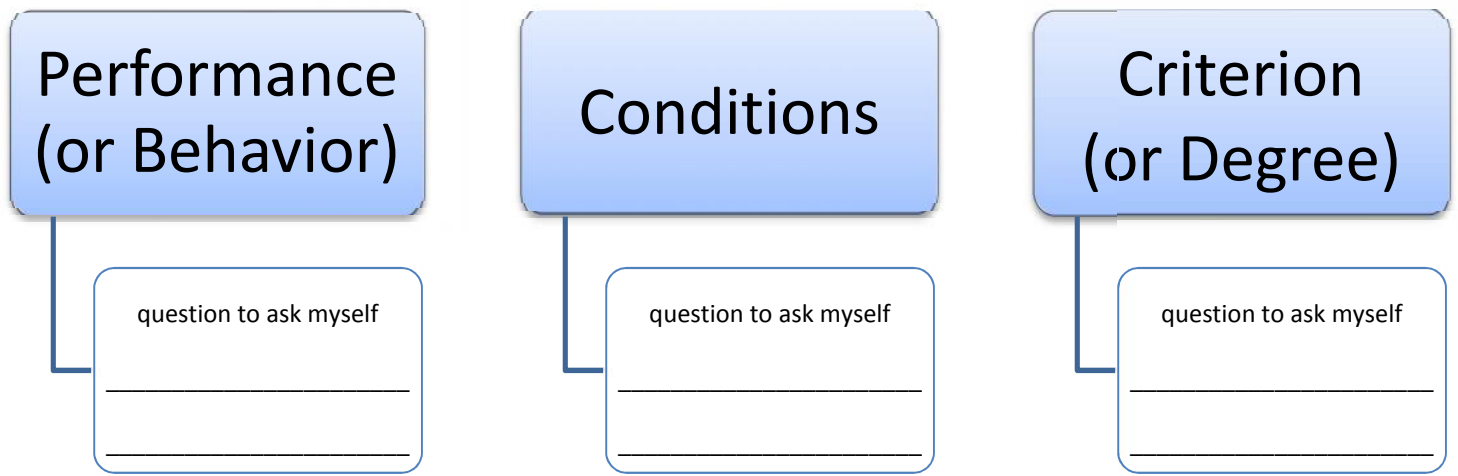
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What is the difference between unit objectives and instructional objectives?

- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- \_\_\_\_\_



### Three Parts of an Instructional Objective

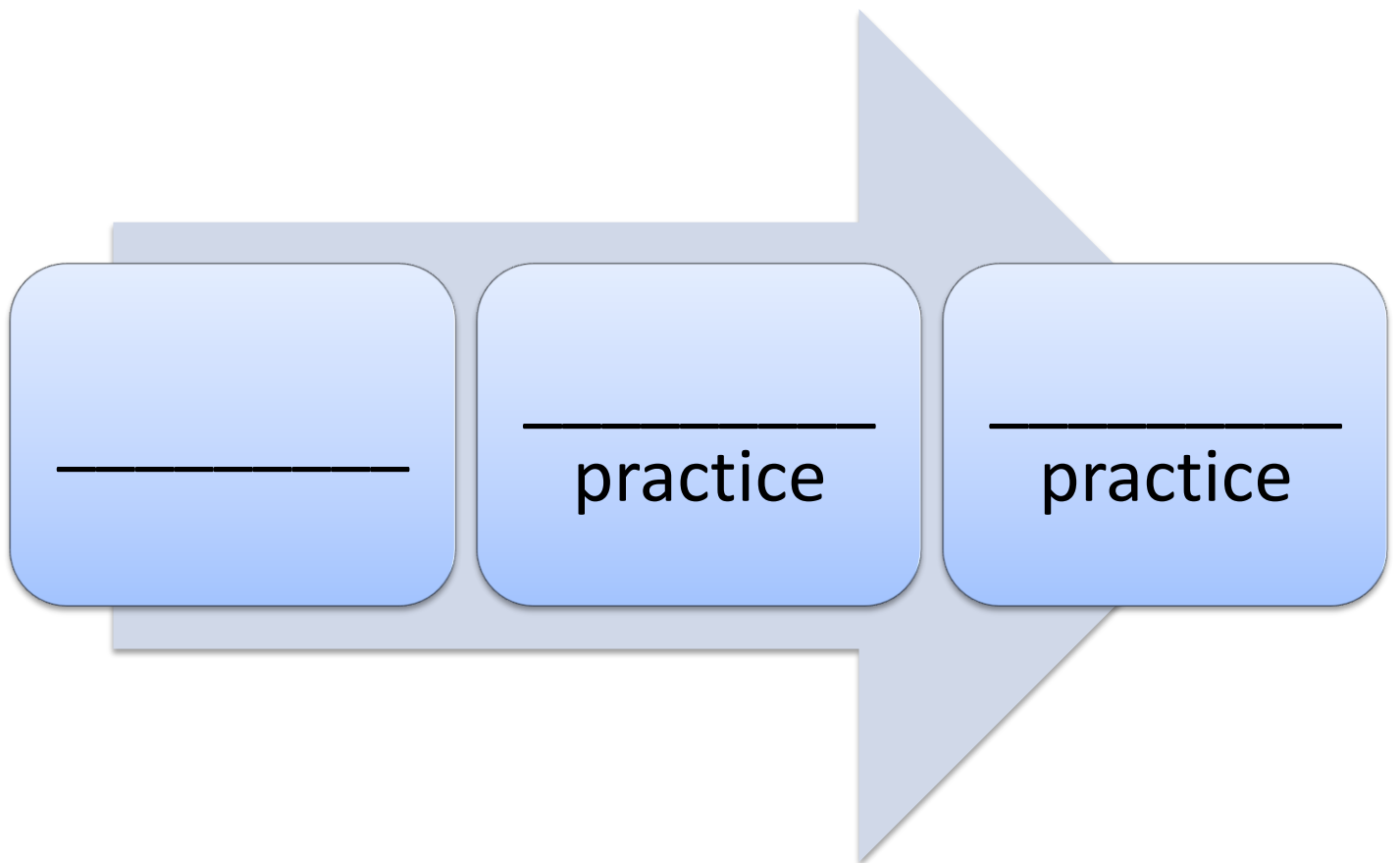


# Chapter 8: Teacher-Centered Instructional Model Notetaking Guide (Dr. J. Brown)

## 3 Teacher-Centered Strategies to Instruction

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## Basic Direct Instruction Strategy





## Advantages and Disadvantages for the Direct Instruction Strategy

### Advantages

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Disadvantages

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Why is lecturing the most commonly used instructional method?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Advantages and Disadvantages for the Lecture Strategy

Advantages
● _____
● _____

Disadvantages
● _____
● _____
● _____
● _____
● _____

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Advantages and Disadvantages for the Lecture with Discussion Strategy

Advantages
● _____
● _____
● _____

Disadvantages
● _____
● _____
● _____

Term:  
Activating  
Activity



Definition:

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Term:  
Summarizing  
Activity



Definition:

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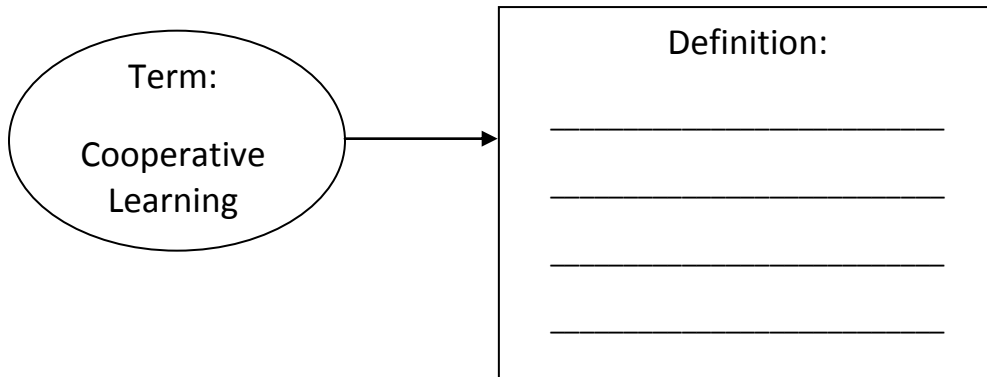
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# Chapter 9: Student-Centered Instructional Model Notetaking Guide (Dr. J. Brown)

## Student-Centered Strategies to Instruction

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_



## Advantages and Disadvantages for the Cooperative Learning Strategy

Advantages
● _____
● _____

Disadvantages
● _____
● _____

From the Siciliano article:

What is the recommended method for forming cooperative learning groups?

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Which methods are not recommended? Why?

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How should the teacher determine the students' roles within the cooperative learning group?

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At the beginning of a cooperative learning activity, the teacher should:

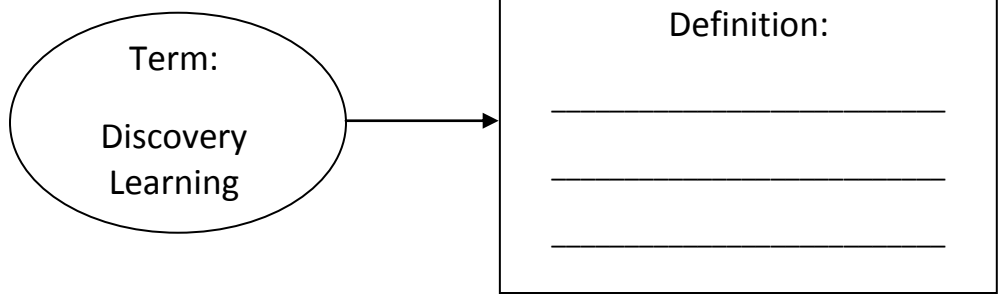
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What are the 3 roles of the teacher during a discovery learning activity?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

What are the four parts of Jerome Bruner's theory of instruction?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Advantages and Disadvantages for the Discovery Learning Strategy

Advantages
● _____
● _____
● _____

Disadvantages
● _____
● _____

Term:  
Role Playing



Definition:

\_\_\_\_\_

\_\_\_\_\_

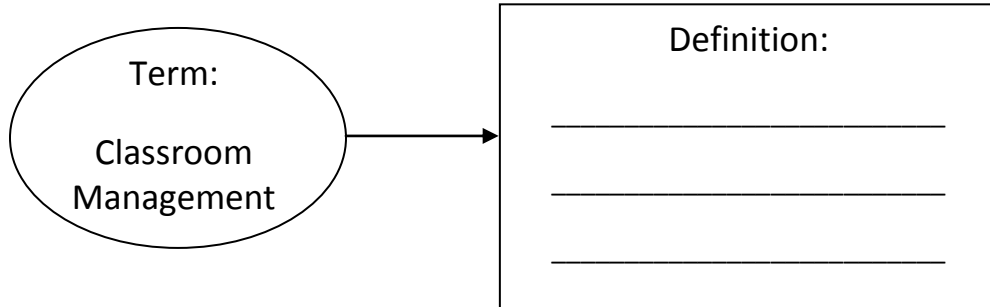
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Advantages and Disadvantages for the Role Playing Strategy

Advantages
● _____
● _____
● _____

Disadvantages
● _____
● _____

# Chapter 10: Classroom Management Notetaking Guide (Dr. J. Brown)



## Examples of Daily Classroom Procedures

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

From the article “Classroom Behavior Management: A Dozen Common Mistakes and What to Do Instead”, list each mistake and a suggestion for each mistake.

Mistake	Suggestion
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10	
11.	
12.	

## Assessment of Your Future Classroom Management Abilities

Decide if the following statements are **TRUE** or **FALSE**.

#	Statement	Your Answer	Correct Answer
1.	It is more efficient to have your students pass their papers across the rows than up the aisles.	_____	_____
2.	Scatter questions throughout the lesson or chapter rather than place at the end.	_____	_____
3.	An assignment must be posted and in a consistent location before the students enter the class.	_____	_____
4.	To increase assignment completion, give structured, precise assignments.	_____	_____
5.	The number of students in a group is determined by the size of your class.	_____	_____
6.	Begin each day or period by taking roll as quickly and efficiently as possible.	_____	_____
7.	Tests must be given when enough material has been covered.	_____	_____
8.	An excellent way to get class attention is to flick the lights.	_____	_____
9.	The assignment and the test should be written at the same time.	_____	_____
10.	The number one problem in the classroom is discipline.	_____	_____
11.	To increase student learning and achievement, tell the students what to do.	_____	_____
12.	The main purpose of a seating arrangement is to keep students quiet.	_____	_____
13.	The number of questions on a test is governed by the number of objectives on the assignment.	_____	_____
14.	Learning is more effective when it takes place as a solitary activity.	_____	_____



## VIRTUAL TOUR OF MY HIGH SCHOOL CLASSROOM

What effective teaching strategies were illustrated during the tour?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

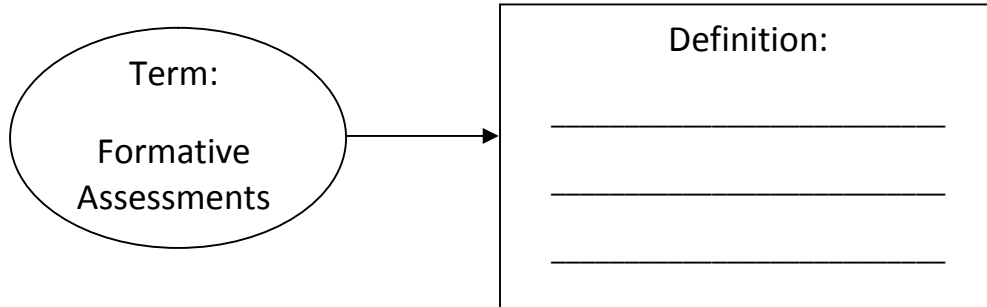
## INTERVIEW OF ME

What strategies could you implement into your future classroom?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

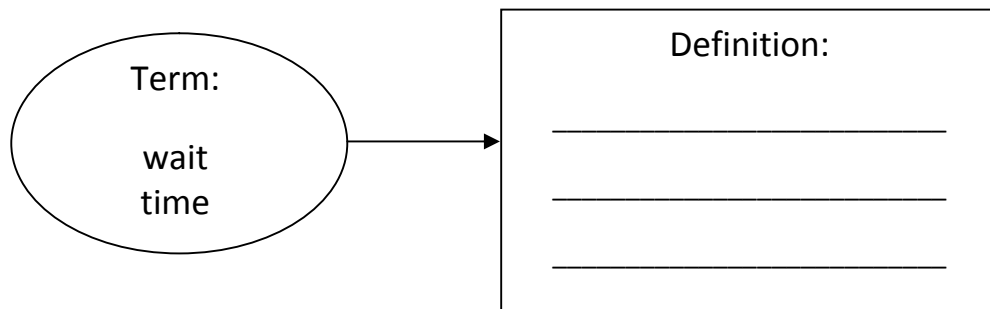
# Chapter 11: Assessment in the Classroom

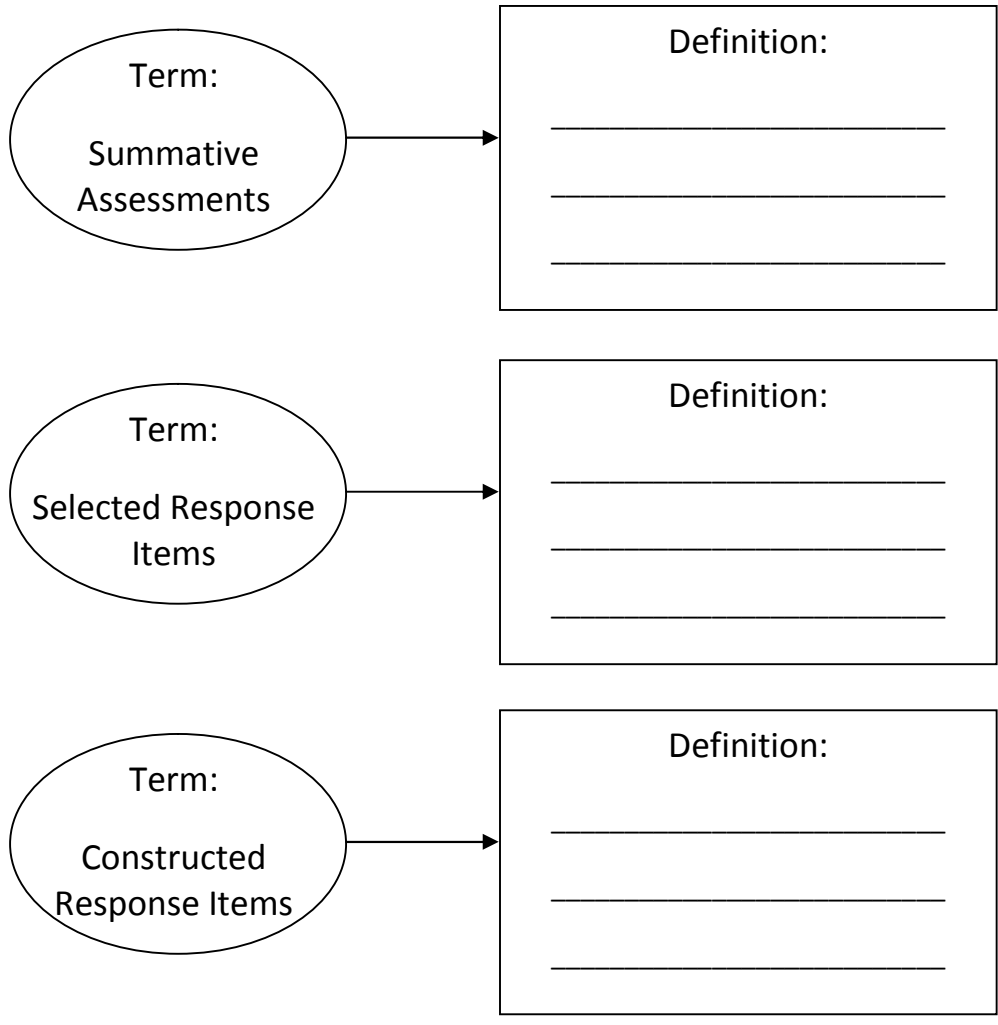
## Notetaking Guide (Dr. J. Brown)



Examples of formative assessments discussed in the readings

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_





### General Guidelines for Writing Test Items

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Guidelines for Writing Multiple-Choice Items

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Guidelines for Writing True/False Items

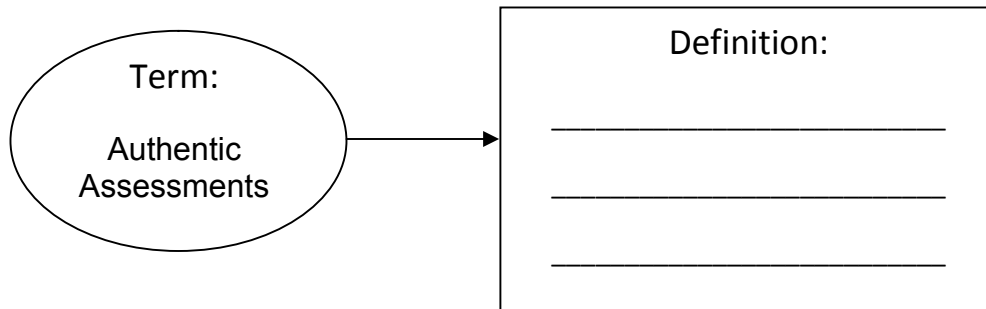
- \_\_\_\_\_

## Guidelines for Writing Matching Items

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Guidelines for Short Answer Items

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Practice with Selected Response Items Summative Assessments

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_

# Chapter 12: Technology in the Classroom

## Notetaking Guide (Dr. J. Brown)

Term:  
Low  
Technology

Definition:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Term:  
High  
Technology

Definition:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Top Ten Tips for Using Technology in the Classroom:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_



7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

Possible websites to utilize in the classroom:

• \_\_\_\_\_

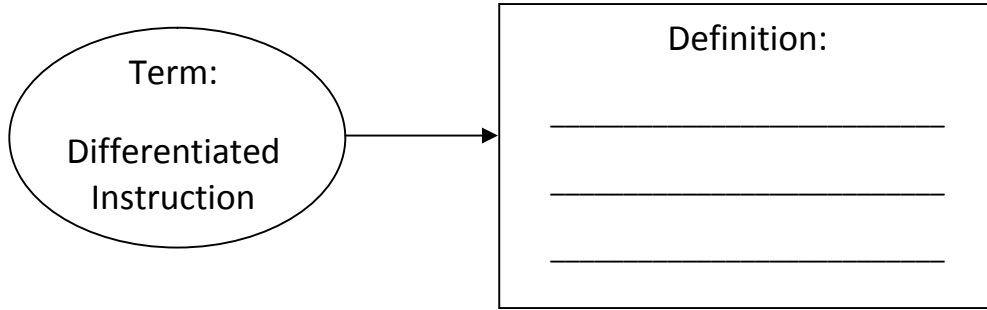
• \_\_\_\_\_

• \_\_\_\_\_

• \_\_\_\_\_

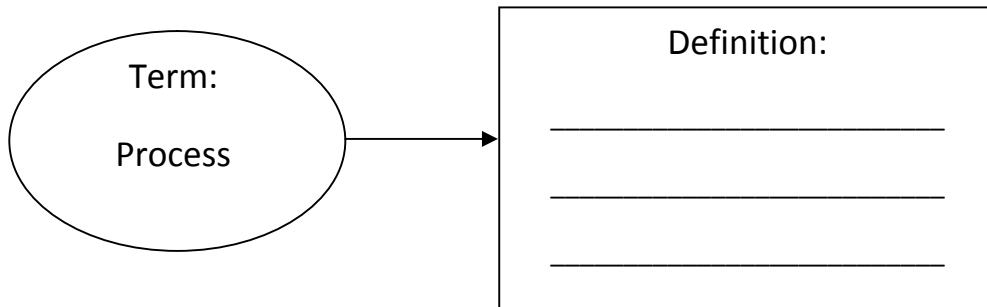
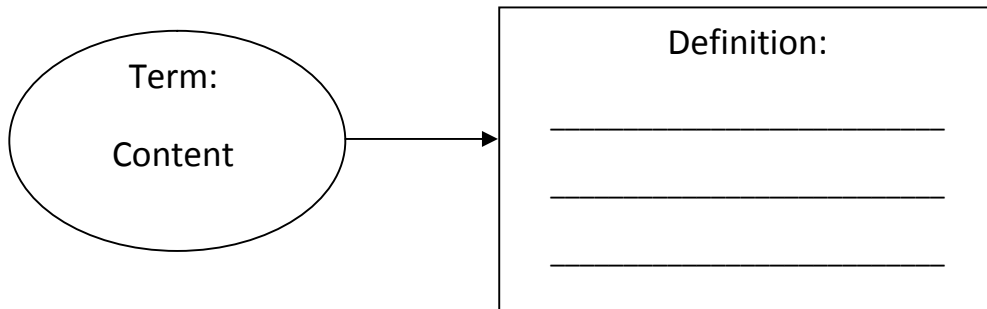
• \_\_\_\_\_

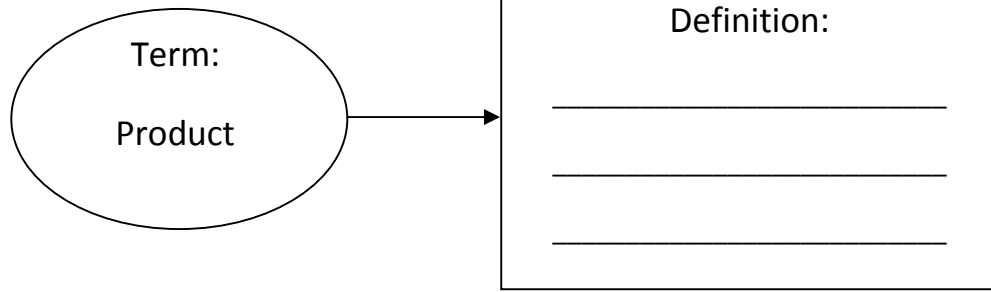
# Chapter 13: Differentiation Notetaking Guide (Dr. J. Brown)



Teachers can adjust the following to meet students' needs:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_





### Why Differentiated Instruction?

Teacher responsiveness to individual student levels of:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Instruction Principles (3 guiding theories)

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

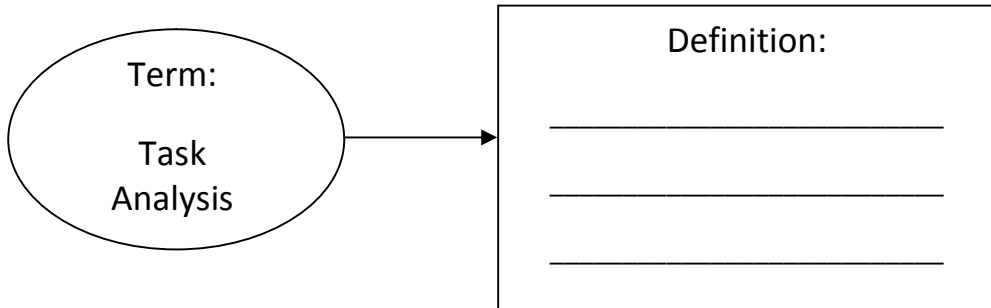
### Ten Characteristics of Differentiated Classroom

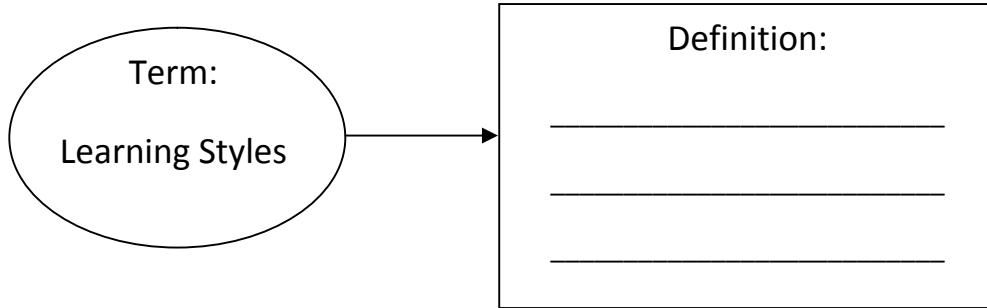
1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_

### Instruction Strategies

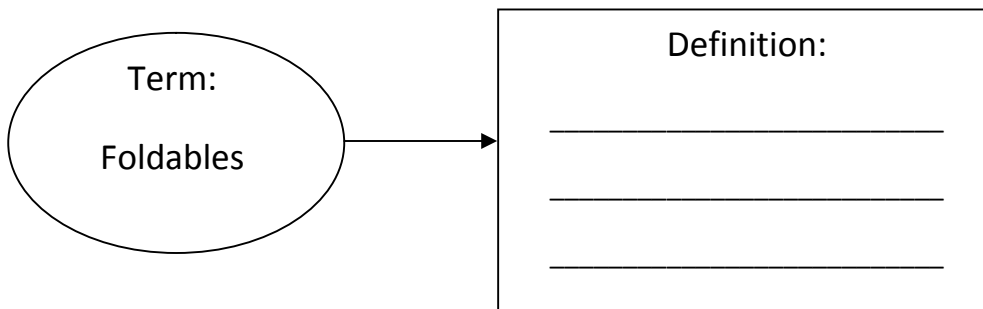
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_





Preferred modes for inputting and outputting information:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



Benefits of Foldables:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Multiple Intelligences listed in the readings:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

What is the key element with differentiating product?

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How can a teacher determine student readiness?

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How can a teacher determine student interest?

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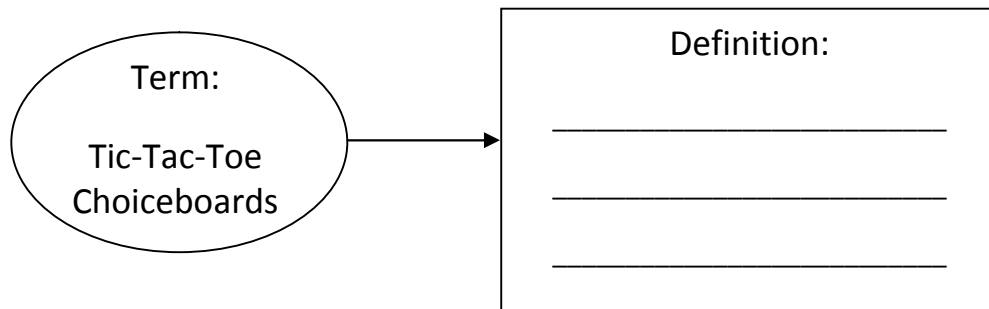
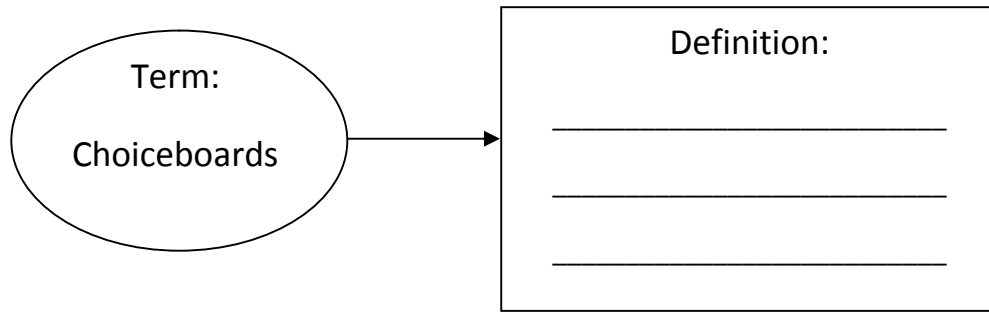
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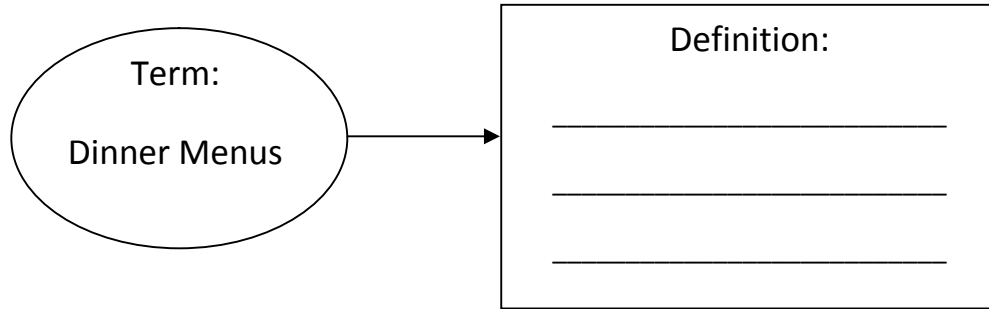
How can a teacher determine the learning profile of a student?

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What is primary purpose for tiering a lesson?

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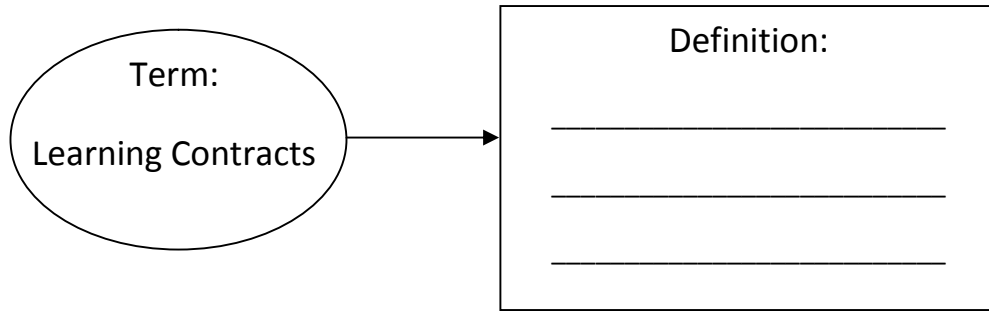
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Six Strategies for Structuring a Tiered Lesson

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Steps for Creating a Tiered Assignment

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_



Learning contracts are based on:

- \_\_\_\_\_
- \_\_\_\_\_

What should a teacher do when students first begin using learning contracts?

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_