"Basics of Reading Problems".

In Section 1 of this course you will cover these topics:

- Reading And Its Assessment
- Assessment For Internal Audiences: On-Going Assessments
- Assessment For Internal Audiences: Periodic In-Depth Assessments

Topic: Reading And Its Assessment

Topic Objective:

At the end of this topic students will be able to understand:

- the many facets of reading and their relationship to appropriate instruction
- Five stages of reading development: emergent literacy; beginning reading; building fluency; reading for pleasure and to learn; and mature reading.
- Potential reading problems arising in each of the five stages of reading.
- Differentiate between internal and authentic assessment strategies used to plan instruction and assessment strategies used to report to external authorities.
- Describe the use of authentic assessment strategies and portfolio assessment to gather data

Definition/Overview:

Reading: Reading is a complex cognitive process of decoding symbols for the purpose of deriving meaning (reading comprehension) and/or constructing meaning. Written information is received by the retina, processed by the primary visual cortex, and interpreted in Wernicke's area. Reading is a means of language acquisition, of communication, and of sharing information and ideas. Readers use a variety of reading strategies to assist with decoding (to translate symbols into sounds or visual representations of language), and comprehension. Readers may use morpheme, semantics, syntax and context cues to identify the meaning of unknown words. Readers integrate the words they have read into their existing framework of knowledge or schema (schemata theory).

Key Points:

1. What Is Reading?

Although reading print text is now an important way for the general population to access information, this has not always been the case. With some exceptions, only a small percentage of the population in many countries was considered literate before the Industrial Revolution. Readingis a complex cognitive process of decoding symbols for the purpose of deriving meaning (reading comprehension) and/or constructing meaning. Written information is received by the retina, processed by the primary visual cortex, and interpreted in Wernicke's area.

Reading is a means of language acquisition, of communication, and of sharing information and ideas.

Readers use a variety of reading strategies to assist with decoding (to translate symbols into sounds or visual representations of language), and comprehension. Readers may use morpheme, semantics, syntax and context cues to identify the meaning of unknown words. Readers integrate the words they have read into their existing framework of knowledge or schema (schemata theory). Other types of reading may not be text-based, such as music notation or pictograms. Reading text is now an important way for the general population in many societies to access information and make meaning.

Rates of reading include reading for memorization (fewer than 100 words per minute [wpm]); reading for learning (100200 wpm); reading for comprehension (200400 wpm); and skimming (400700 wpm). Readingfor comprehension is the essence of the daily reading of most people. Skimming is for superficially processing large quantities of text at a low level of comprehension (below 50%).

Advice for choosing the appropriate reading-rate includes reading flexibly, slowing when concepts are closely presented, and when the material is new, and increasing when the material is familiar and of thin concept. Speed reading courses and books often encourage the reader to continually accelerate; comprehension tests lead the reader to believe his or her comprehension is continually improving; yet, competence-in-reading requires knowing that skimming is dangerous, as a default habit.

The Taylor values probably are higher, for disregarding students who failed the comprehension test. The reading test by the french psychologist Pierre Lefavrais tested reading aloud, with a penalty for errors, and could, therefore, not be a rate greater than 150 wpm.

Cognition is a concept used in different ways by different disciplines, but is generally accepted to mean the process of thought. For example, in psychology and cognitive science it refers to an information processing view of an individual's psychological functions. Other interpretations of the meaning of cognition link it to the development of concepts; individual minds, groups, organizations, and even larger coalitions of entities, can be modelled as societies which cooperate to form concepts. The autonomous elements of each 'society' would have the opportunity to demonstrate emergent behavior in the face of some crisis or opportunity. Cognition can also be interpreted as "understanding and trying to make sense of dmin: the world".

2. Fluency assessment

There are separate standardized assessment tools administered for infants, school-aged children, adolescents and adults. Assessments primarily examine the form, content, understanding and use of language, as well as articulation, and phonology. Oral motor and swallowing assessments often require specialized training which includes the use of bedside examination tools and end scopic/modified barium radiology procedures.

Individuals may be referred to an SLP for the following: Traumatic brain injury; Stroke; Alzheimer's disease and dementia; Cranial nerve damage; Progressive neurological conditions (Parkinson, ALS, etc); Developmental delay; Learning disability (speaking and listening); Autism Spectrum Disorders (including AspergerSyndrome); Genetic disorders that adversely affect speech, language and/or cognitive development; Injuries due to complications at birth; Feeding and swallowing concerns; Craniofacial anamolies that adversely affect speech, language and/or cognitive development; and Augmentative Alternative Communication needs.

There are myriad Speech-Language Assessment tools used for chidren and adults, depending on the area of need.

3. Reading Assessment

Proficient reading is equally dependent on two critical skills: the ability to understand the language in which the text is written, and the ability to recognize and process printed text.

Each of these competencies is likewise dependent on lower level skills and cognitive abilities.

Assessment can focus on the individual learner, the learning community (class, workshop, or other organized group of learners), the institution, or the educational system as a whole. According to the Academic Exchange Quarterly, "Studies of a theoretical or empirical nature (including case studies, portfolio studies, exploratory, or experimental work) addressing the assessment of learner aptitude and preparation, motivation and learning styles, learning outcomes in achievement and satisfaction in different educational contexts are all welcome, as are studies addressing issues of measurable standards and benchmarks"

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Topic: Assessment For Internal Audiences: On-Going Assessments

Topic Objective:

At the end of this topic students will be able to understand:

• Multiple sources of assessment information, including informal assessments and teacher observations, help create a complete, multidimensional picture of the students reading.

- Successful reading is a result of interaction between reader and text in which the reader actively constructs meaning based on the readers prior information and print experiences, the readers motivation and purposes, and the complexity of the text.
- Informal, ongoing assessments help document what readers do in authentic, rather than testlike, reading situations, and they support instructional decision-making.
- The classroom teacher is in the best position to observe and collect information about readers interactions with text and to make informed instructional decisions based on such information.
- Systematic observation of students reading strategies and behaviors requires deliberate planning and documentation.

Definition/Overview:

Assessment: Assessment can focus on the individual learner, the learning community (class, workshop, or other organized group of learners), the institution, or the educational system as a whole. According to the Academic Exchange Quarterly, "Studies of a theoretical or empirical nature (including case studies, portfolio studies, exploratory, or experimental work) addressing the assessment of learner aptitude and preparation, motivation and learning styles, learning outcomes in achievement and satisfaction in different educational contexts are all welcome, as are studies addressing issues of measurable standards and benchmarks.

Key Points:

1. Observations of Reading Behaviors and Strategies

Proficient reading is equally dependent on two critical skills: the ability to understand the language in which the text is written, and the ability to recognize and process printed text. Each of these competencies is likewise dependent on lower level skills and cognitive abilities.

Children who readily understand spoken language and who are able to fluently and easily recognize printed words do not usually have difficulty with reading comprehension. However, students must be proficient in both competencies to read well; difficulty in either domain undermines the overall reading process. At the conclusion of reading, children should be able to retell the story in their own words including characters, setting, and the events of

the story. Readingresearchers define a skilled reader as one who can understand written text as well as they can understand the same passage if spoken.

Print recognition requires the ability to perceive printed text and translate it into spoken language. This aspect of reading is the crux of much of the reading debate.

Reading readiness has been defined as the point at which a person is ready to learn to read and the time during which a person transitions from being a non-reader into a reader. Other terms for reading readiness include early literacy and emergent reading.

Children begin to learn pre-reading skills at birth while they listen to the speech around them. In order to learn to read, a child must first have knowledge of the oral language. According to the Ontario Government (2003), the acquisition of language is natural, but the process of learning to read is not - reading must be taught. This belief contradicts basic language philosophy, which states that children learn to read while they learn to speak. The Ontario Government (2003) also believes that reading is the foundation for success, and that those children who struggle with reading in grades 1-3 are at a disadvantage in terms of academic success, compared to those children who are not struggling.

Because a child's early experience with literacy-related activities is highly correlated to the child's success with reading, it is important to consider a child's developmental level when choosing appropriate activities and goals. Early and enjoyable pre-reading experiences set the stage for a child's desire to learn. By participating in developmentally-appropriate activities (activities that are fun and challenging, but not frustrating), the child gains knowledge that will serve as the foundation for further learning as he or she enters the school system.

Reading readiness is highly individualistic. There is no "one size fits all" solution to teaching a child to read. A parent or educator may need to employ several techniques before finding the most appropriate method for an individual child. According to Vygotsky's Zone of Proximal Development a child can, through the help of an adult or more capable child, perform at a higher level than he or she can independently. The process of learning to read should thus be supported by a caring and supportive individual.

2. Monitoring Spelling Progress

Spelling is the writing of a word or words with the necessary letters and diacritics present in an accepted standard order. It is one of the elements of orthography and a prescriptive element of language. Most spellings attempt to approximate a transcribing of the sounds of the language into alphabetic letters; however, completely phonetic spellings are often the exception, due to drifts in pronunciations over time and irregular spellings adopted through common usage.

Whereas uniformity in the spelling of words is one of the features of a standard language in modern times, and official languages usually prescribe standard spelling, minority languages and regional languages often lack this trait. Furthermore, it is a relatively recent development in various major languages in national contexts, linked to the compiling of dictionaries, the founding of national academies, and other institutions of language maintenance, including compulsory mass education.

In countries such as the U.S. and U.K. without official spelling policies, many vestigial and foreign spelling conventions work simultaneously. In countries where there is a national language maintenance policy, such as France, the Netherlandsand Germany, reforms were driven to make spelling a better index of pronunciation. Spelling often evolves for simple reasons of alphabetic thrift, as when British English "catalogue" becomes American English "catalog".

2.1 Methods used to teach and learn spelling

Learning proper spelling by rote is a traditional element of elementary education. In the U.S., the ubiquity of the phonics method of teaching reading, which emphasizes the importance of "sounding out" spelling in learning to read, also puts a premium on the prescriptive learning of spelling. For these reasons, divergence from standard spelling is often perceived as an index of stupidity, illiteracy, or lower class standing. The intelligence of Dan Quayle, for instance, was repeatedly disparaged for his correcting a student's spelling of "potato" as the now non-standard "potatoe" (C15th spelling, O.E.D.) at an elementary school spelling bee in Trenton, New Jersey on June 15, 1992.

The opposite viewpoint was voiced by President Andrew Jackson who stated "It's a damn poor mind that can only think of one way to spell a word."

Since traditional language teaching methods emphasize written language over spoken language, a second-language speaker may have a better spelling ability than a native speaker despite having a poorer command of the language.

Spelling tests are usually used to assess a student's mastery over the words in the spelling lessons s/he has received so far. They can also be an effective practice method. There are many free spelling tests on websites on the Internet. There are two major problems with spelling tests, however. First, many students "cram" the content into short term memory only to forget it immediately after the test. Secondly, although tests are great to determine which words are hard for a student, they do not ensure proper follow up. An effective remedy is often missing, especially since some students need much more support than others.

Spelling bees are competitions to determine the best speller of a group. Such events have grown in popularity and are often televised, particularly in the U.S.

2.2 Divergent spelling

Divergent spelling is a popular advertising technique, used to attract attention or to render a trademark "suggestive" rather than "merely descriptive." The pastry chains Dunkin' Donuts and Krispy Kreme, for example, employ non-standard spellings. The same technique is also popular among some recording artists.

2.3 The word itself

Spelling is a notable word; it is sometimes humorously spelled as "speeling" when drawing attention to poor spelling. The past tense and past participle of spell (only in the word-related sense) have both a regular form in spelled and an irregular form in spelt. British English and Canadian English allow both irregular and regular forms; in American English, the irregular forms are rarely used.

Topic: Assessment For Internal Audiences: Periodic In-Depth Assessments

Topic Objective:

At the end of this topic students will be able to understand:

- principles of effective classroom reading assessment?
- the four purposes of classroom reading assessment?
- commercial reading tests are available for classroom use? What is student and classroom profiling? How is profiling used to form needs-based reading groups?

Definition/Overview:

Reading education: Reading education is the process by which individuals are taught to derive meaning from text. Government-funded scientific research on reading and reading instruction began in the U.S.in the 1960s. In the 1970s and 1980s, researchers began publishing findings based on converging evidence from multiple studies. However, these findings have been slow to move into typical classroom practice.

Key Points:

1. Principles and Purposes of Reading Assessment

Assessment can focus on the individual learner, the learning community (class, workshop, or other organized group of learners), the institution, or the educational system as a whole. According to the Academic Exchange Quarterly, "Studies of a theoretical or empirical nature (including case studies, portfolio studies, exploratory, or experimental work) addressing the assessment of learner aptitude and preparation, motivation and learning styles, learning outcomes in achievement and satisfaction in different educational contexts are all welcome, as are studies addressing issues of measurable standards and benchmarks"

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The table to the right shows reading-rate varies with age, regardless of the period (1965 to 2005) and the language (English, French, German). The Taylor values probably are higher, for disregarding students who failed the comprehension test. The reading test by the french psychologist Pierre Lefavrais tested reading aloud, with a penalty for errors, and could, therefore, not be a rate greater than 150 wpm.

2. Types of Assessment

The term "assessment" is generally used to refer to all activities teachers use to help students learn. Though the notion of assessment is generally more complicated than the following categories suggest, assessment is often divided for the sake of convenience using the following distinctions: (1) formative and summative; (2) objective and subjective; (3) referencing (criterion-referenced, norm-referenced, and ipsative); and (4) informal and formal.

2.1 Formative and summative

Assessment is often divided into formative and summative categories for the purpose of considering different objectives for assessment practices.

Summative assessment - Summative assessment is generally carried out at the end of a course or project. In an educational setting, summative assessments are typically used to assign students a course grade.

Formative assessment - Formative assessment is generally carried out throughout a course or project. Formative assessment, also referred to as "educative assessment," is used to aid learning. In an educational setting, formative assessment might be a teacher (or peer) or the learner, providing feedback on a student's work, and would not necessarily be used for grading purposes.

Summative and formative assessment are often referred to in a learning context as assessment of learning and assessment for learning respectively. Assessment of learning is generally summative in nature and intended to measure learning outcomes and report those outcomes to students, parents, and administrators. Assessment of learning generally occurs at the conclusion of a class, course, semester, or academic year. Assessment for learning is generally formative in nature and is used by teachers to consider approaches to teaching and next steps for individual learners and the class.

A common form of formative assessment is diagnostic assessment. Diagnostic assessment measures a student's current knowledge and skills for the purpose of identifying a suitable program of learning. Self-assessment is a form of diagnostic assessment which involves students assessing themselves. Forward-looking assessment asks those being assessed to consider themselves in hypothetical future situations.

Performance-based assessment is similar to summative assessment, as it focuses on achievement. It is often aligned with the standards-based education reform and outcomes-based education movement. Though ideally they are significantly different from a traditional multiple choice test, they are most commonly associated with standards-based assessment which use free-form responses to standard questions scored by human scorers on a standards-based scale, meeting, falling below, or exceeding a performance standard rather than being ranked on a curve. A welldefined task is identified and students are asked to create, produce, or do something, often in settings that involve real-world application of knowledge and skills. Proficiency is demonstrated by providing an extended response. Performance formats are further differentiated into products and performances. The performance may result in a product, such as a painting, portfolio, paper, or exhibition, or it may consist of a performance, such as a speech, athletic skill, musical recital, or reading.

2.2. Objective and subjective

Assessment (either summative or formative) is often categorized as either objective or subjective. Objective assessment is a form of questioning which has a single correct answer. Subjective assessment is a form of questioning which may have more than one correct answer (or more than one way of expressing the correct answer). There

are various types of objective and subjective questions. Objective question types include true/false answers, multiple choice, multiple-response and matching questions. Subjective questions include extended-response questions and essays. Objective assessment is well suited to the increasingly popular computerized or online assessment format. Some have argued that the distinction between objective and subjective assessments is neither useful nor accurate because, in reality, there is no such thing as "objective" assessment. In fact, all assessments are created with inherent biases built into decisions about relevant subject matter and content, as well as cultural (class, ethnic, and gender) biases.

2.3 Bases of comparison

Test results can be compared against an established criterion, or against the performance of other students, or against previous performance: Criterion-referenced assessment, typically using a criterion-referenced test, as the name implies, occurs when candidates are measured against defined (and objective) criteria. Criterionreferenced assessment is often, but not always, used to establish a persons competence (whether s/he can do something). The best known example of criterion-referenced assessment is the driving test, when learner drivers are measured against a range of explicit criteria (such as Not endangering other road users). Norm-referenced assessment (colloquially known as "grading on the curve"), typically using a normreferenced test, is not measured against defined criteria. This type of assessment is relative to the student body undertaking the assessment. It is effectively a way of comparing students. The IQ test is the best known example of norm-referenced assessment. Many entrance tests (to prestigious schools or universities) are normreferenced, permitting a fixed proportion of students to pass (passing in this context means being accepted into the school or university rather than an explicit level of ability). This means that standards may vary from year to year, depending on the quality of the cohort; criterion-referenced assessment does not vary from year to year (unless the criteria change). Ipsative assessment is self comparison either in the same domain over time, or comparative to other domains within the same student.

2.4 Informal and formal

Assessment can be either formal or informal. Formal assessment usually implicates a written document, such as a test, quiz, or paper. A formal assessment is given a numerical score or grade based on student performance, whereas an informal assessment does not contribute to a student's final grade. An informal assessment usually occurs in a more casual manner and may include observation, inventories, checklists, rating scales, rubrics, performance and portfolio assessments, participation, peer and self evaluation, and discussion.

2.5 Internal and external

Internal assessment is set and marked by the school (i.e. teachers). Students get the mark and feedback regarding the assessment. External assessment is set by the governing body, and is marked by non-biased personnel. With external assessment, students only receive a mark. Therefore, they have no idea how they actually performed (i.e. what bits they answered correctly.)

3. Instructional methods

A variety of different methods of teaching reading have been advocated in English-speaking countries. In the United States, the debate is often more political than objective. Parties often divide into two camps which refuse to accept each others terminology or frame of reference. Despite this both camps often incorporate aspects of the other's methods. Both camps accuse the other of causing failure to learn to read and write.

Historically, the two camps have been called Whole Language and Phonics, although the Whole Language instructional method has also been referred to as "literature-based reading program" and "integrated language arts curriculum". Currently (2007), the differing perspectives are frequently referred to as "balanced reading instruction" (Whole Language) and "scientifically-based reading instruction" (Phonics).

Phonics advocates assert that, to read a large vocabulary of words correctly and fluently requires detailed knowledge of the structure of the English language, particularly spelling-speech patterns. Whole Language advocates assert that students do not need to be able to sound out words, but should look at unknown words and figure them out using context.

In Section 2 of this course you will cover these topics:

- Assessment For Internal Audiences: Portfolio Assessment
- Assessment For External Audiences: Formal Measures

Topic: Assessment For Internal Audiences: Portfolio Assessment

Topic Objective:

At the end of this topic students will be able to understand:

- Teachers, students, and parents need authentic ways to assess and document students progress to supplement test scores, grades, and other numerical data.
- Student portfolios can be used to showcase achievement, document progress over time, demonstrate effort, and foster students self-evaluation.
- Students self-evaluation is fostered by having a role in selection of work to be included and by conferring with peers, teachers, and parents about the work.

Definition/Overview:

Portfolio: Portfolios are used to plan, organize and document education, work samples and skills. People use career portfolios to apply to jobs, apply to college or training programs, get a higher salary, show transferable skills, and to track personal development.

1. Authentic assessment

Authentic assessment is an umbrella concept that refers to the measurement of "intellectual accomplishments that are worthwhile, significant, and meaningful," as compared to multiple choice standardized tests. Authentic assessment can be devised by the teacher, or in collaboration with the student by engaging student voice. When applying authentic assessment to student learning and achievement, a teacher applies criteria related to construction of knowledge, disciplined inquiry, and the value of achievement beyond the school.

Authentic assessment reflects educational policy research that recommends a "high priority on strategies that research has already shown to increase student learning."

Authentic assessment tends to focus on complex or contextualised tasks, enabling students to demonstrate their competency in a more 'authentic' setting. Examples of authentic assessments include:

- performance of the skills, or demonstrating use of a particular knowledge
- simulations and role plays
- studio portfolios, strategically selecting items
- exhibitions and displays

Topic: Assessment For External Audiences: Formal Measures

Topic Objective:

At the end of this topic students will be able to understand:

- Because formal tests are widely used to measure student achievement, teachers need to understand their characteristics, purposes, and features.
- Formal assessment is only one component of effective assessment.
- Reliability and validity are key components of test quality.
- Interpreting test scores requires an understanding of score distributions and

Definition/Overview:

Test: A test or an examination (or "exam") is an assessment, often administered on paper or on the computer, intended to measure the test-takers' or respondents' (often a student) knowledge, skills, aptitudes, or classification in many other topics (e.g., beliefs). Tests are often used in education, professional certification, counseling, psychology (e.g., MMPI), the military, and many other fields. The measurement that is the goal of testing is called a test score, and is "a summary of the evidence contained in an examinee's responses to the items of a test that are related to the construct or constructs being measured." Test scores are interpreted with regards to a norm or criterion, or occasionally both. The norm may be established independently, or by statistical analysis of a large number of subjects.

Key Points:

1. Norm-referenced test

A norm-referenced test / NRT is a type of test, assessment, or evaluation which yields an estimate of the position of the tested individual in a predefined population, with respect to the trait being measured. This estimate is derived from the analysis of test scores and possibly other relevant data from a sample drawn from the population. The term "normative assessment" refers to the process of comparing one test-taker to his or her peers. Norm-referenced assessment can be contrasted with criterion-referenced assessment and ipsative assessment.

Alternative to normative testing, tests can be ipsative, that is, the individual assessment is compared to him- or her-self through time.

By contrast, a test is criterion-referenced when provision is made for translating the test score into a statement about the behavior to be expected of a person with that score. The same test can be used in both ways. Robert Glaser originally coined the terms "norm-referenced test" and "criterion-referenced test".

Standards-based education reform is based on the belief that public education should establish what every student should know and be able to do. Students should be tested against a fixed yardstick, rather than against each other or sorted into a mathematical bell curve. By assessing that every student must pass these new, higher standards, education officials believe that all students will achieve a diploma that prepares them for success in the 21st century.

1.1 Advantages and limitations

An obvious disadvantage of norm-referenced tests is that it cannot measure progress of the population of a whole, only where individuals fall within the whole. Thus, only measuring against a fixed goal can be used to measure the success of an educational reform program which seeks to raise the achievement of all students against new standards which seek to assess skills beyond choosing among multiple choices. However, while this is attractive in theory, in practice the bar has often been moved in the face of excessive failure rates, and improvement sometimes occurs simply because of familiarity with and teaching to the same test.

With a norm-referenced test, grade level was traditionally set at the level set by the middle 50 percent of scores. By contrast, the National Children's Reading Foundation believes that it is essential to assure that virtually all of our children read at or above grade level by third grade, a goal which cannot be achieved with a norm referenced definition of grade level.

Critics of criterion-referenced tests point out that judges set bookmarks around items of varying difficulty without considering whether the items actually are compliant with grade level content standards or are developmentally appropriate. Thus, the original 1997 sample problems published for the WASL 4th grade mathematics contained items that were difficult for college educated adults, or easily solved with 10th grade level methods such as similar triangles.

The difficulty level of items themselves, as are the cut-scores to determine passing levels are also changed from year to year. Pass rates also vary greatly from the 4th to the 7th and 10th grade graduation tests in some states.

One of the faults of No Child Left Behind is that each state can choose or construct its own test which cannot be compared to any other state. A Rand study of Kentucky results found indications of artificial inflation of pass rates which were not reflected in increasing scores in other tests such as the NAEP or SAT given to the same student populations over the same time.

Graduation test standards are typically set at a level consistent for native born 4 year university applicants. An unusual side effect is that while colleges often admit immigrants with very strong math skills who may be deficient in English, there is no such leeway in high school graduation tests, which usually require passing all sections, including language. Thus, it is not unusual for institutions like the University of Washington to admit strong Asian American or Latino students who did not pass the writing portion of the state WASL test, but such students would not even receive a diploma once the testing requirement is in place.

Although the tests such as the WASL are intended as a minimal bar for high school, 27 percent of 10th graders applying for Running Start in Washington Statefailed the math portion of the WASL. These students applied to take college level courses in

high school, and achieve at a much higher level than average students. The same studyconcluded the level of difficulty was comparable to, or greater than that of tests intended to place students already admitted to the college.

A norm referenced test has none of these problems because it does not seek to enforce any expectation of what all students should know or be able to do other than what actual students demonstrate. Present levels of performance and inequity are taken as fact, not as defects to be removed by a redesigned system. Goals of student performance are not raised every year until all are proficient. Scores are not required to show continuous improvement through Total Quality Management systems.

A rank-based system only produces data which tell which average students perform at an average level, which students do better, and which students do worse. This contradicts the fundamental beliefs, whether optimistic or simply unfounded, that all will perform at one uniformly high level in a standards based system if enough incentives and punishments are put into place. This difference in beliefs underlies the most significant differences between a traditional and a standards based education system.

1.2 Common use

Most state achievement tests are criterion referenced. In other words, a predetermined level of acceptable performance is developed and students pass or fail in achieving or not achieving this level. Tests that set goals for students based on the average student's performance are norm-referenced tests. Tests that set goals for students based on a set standard (e.g., 80 words spelled correctly) are criterion-referenced tests.

Many college entrance exams and nationally used school tests use norm-referenced tests. The SAT, Graduate Record Examination (GRE), and Wechsler Intelligence Scale for Children (WISC) compare individual student performance to the performance of a normative sample. Test-takers cannot "fail" a norm-referenced test, as each test-taker receives a score that compares the individual to others that have taken the test, usually given by a percentile. This is useful when there is a wide range of acceptable scores that is different for each college. For example one estimate of the average SAT score for Harvard Universityis 2200 out of 2400 possible. The average for Indiana Universityis 1650.

By contrast, nearly two-thirds of US high school students will be required to pass a criterion-referenced high school graduation examination. One high fixed score is set at a level adequate for university admission whether the high school graduate is college bound or not. Each state gives its own test and sets its own passing level, with states like Massachusettsshowing very high pass rates, while in Washington State, even average students are failing, as well as 80 percent of some minority groups. This practice is opposed by many in the education community such as Alfie Kohn as unfair to groups and individuals who don't score as high as others.

2. Criterion-referenced test

A criterion-referenced test is one that provides for translating test scores into a statement about the behavior to be expected of a person with that score or their relationship to a specified subject matter. Most tests and quizzes written by school teachers are criterionreferenced tests. The objective is simply to see whether or not the student has learned the material. Criterion-referenced assessment can be contrasted with norm-referenced assessment and ipsativeassessment. Criterion-referenced testing was a major focus of psychometric research in the 1970s.

A common misunder tanding regarding the term is the meaning of criterion. Many, if not most, criterion-referenced tests involve a cutscore, where the examinee passes if their score exceeds the cutscore and fails if it does not (often called a mastery test). The criterion is not the cutscore; the criterion is the domain of subject matter that the test is designed to assess. For example, the criterion may be "Students should be able to correctly add two single-digit numbers," and the cutscore may be that students should correctly answer a minimum of 80% of the questions to pass.

The criterion-referenced interpretation of a test score identifies the relationship to the subject matter. In the case of a mastery test, this does mean identifying whether the examinee has "mastered" a specified level of the subject matter by comparing their score to the cutscore. However, not all criterion-referenced tests have a cutscore, and the score can simply refer to a person's standing on the subject domain. Again, the ACT is an example of this; there is no

cutscore, it simply is an assessment of the student's knowledge of high-school level subject matter.

Because of this common misunderstanding, criterion-referenced tests have also been called standards-based assessments by some education agencies, as students are assessed with regards to standards that define what they "should" know, as defined by the state.

3. Comparison of criterion-referenced and norm-referenced tests

Both terms criterion-referenced and norm-referenced were originally coined by Robert Glaser. Unlike a criterion-reference test, a norm-referenced test indicates whether the test-taker did better or worse than other people who took the test.

For example, if the criterion is "Students should be able to correctly add two single-digit numbers," then reasonable test questions might look like "2 + 3 = 2" or "9 + 5 = 2" A criterion-referenced test would report the student's performance strictly according to whether or not the individual student correctly answered these questions. A norm-referenced test would report primarily whether this student correctly answered more questions compared to other students in the group.

Even when testing similar topics, a test which is designed to accurately assess mastery may use different questions than one which is intended to show relative ranking. This is because some questions are better at reflecting actual achievement of students, and some test questions are better at differentiating between the best students and the worst students. (Many questions will do both.) A criterion-referenced test will use questions which were correctly answered by students who know the specific material. A norm-referenced test will use questions which were correctly answered by the "best" students and not correctly answered by the "worst" students.

Some tests can provide useful information about both actual achievement and relative ranking. The ACT provides both a ranking, and indication of what level is considered necessary to likely success in college. Some argue that the term "criterion-referenced test" is a misnomer, since it can refer to the interpretation of the score as well as the test itself. In the previous example, the same score on the ACT can be interpreted in a norm-referenced or criterion-referenced manner.

In Section 3 of this course you will cover these topics:

Emergent And Beginning Literacy

Assessing And Teaching Developing Readers

Topic: Emergent And Beginning Literacy

Topic Objective:

At the end of this topic students will be able to understand:

An important naturalistic or constructivist view of reading, whole language, holds that children learn to read actively, constructing meaning, without the direct instruction of explicit skills.

Another view of the process of learning to read, the direct instruction of explicit skills, holds that the awareness of sounds, phonological awareness, helps children learn letter-to-sound correspondences, leading to fluency and comprehension.

A balanced approach to teaching reading integrates phonological awareness, alphabet knowledge, and phonics, while providing rich authentic literature, shared reading, accessible and meaningful text, and writing for communication

Oral language fluency has an important association with children learning to read, with dictated experience accounts contributing to both language and reading development.

Definition/Overview:

Literacy: The traditional definition of literacy is considered to be the ability to read and write, or the ability to use language to read, write, listen, and speak. In modern contexts, the word refers to reading and writing at a level adequate for communication, or at a level that lets one understand and communicate ideas in a literate society, so as to take part in that society. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has drafted the following definition: "'Literacy' is the ability to

identify, understand, interpret, create, communicate, compute and use printed and written materials associated with varying contexts. Literacy involves a continuum of learning to enable an individual to achieve his or her goals, to develop his or her knowledge and potential, and to participate fully in the wider society." In modern times, illiteracy is seen as a social problem to be solved through education.

Key Points:

1. Different Conceptions of Early Literacy

Although the history of literacy goes back several thousand years to the invention of writing, what constitutes literacy has changed throughout history. At one time, a literate person was one who could sign his or her name. At other times, literacy was measured only by the ability to read and write Latin regardless of a person's ability to read or write his or her vernacular. Even earlier, literacy was a trade secret of professional scribes, and many historic monarchies maintained caches of this profession, sometimesas was the case for Imperial Aramaiceven importing them from lands where a completely alien language was spoken and written.

In 12th and 13th century England, the ability to read a particular passage from the Bible entitled a common law defendant to the so-called benefit of clergy, which entitled a person to be tried before an ecclesiastical court, where sentences were more lenient, instead of a secular one, where hanging was a likely sentence. This opened the door to lay, but nonetheless literate, defendants also claiming the benefit of clergy, andbecause the Biblical passage used for the literacy test was inevitably Psalm 51an illiterate person who had memorized the appropriate verse could also claim the benefit of clergy.

By the mid-18th century, the ability to read and comprehend translated scripture led to Wales having one of the highest literacy rates. This was the result of a Griffith Jones's system of circulating schools, which aimed to enable everyone to read the Bible in Welsh. Similarly, at least half the

population of 18th century New England was literate, perhaps as a consequence of the Puritan belief in the importance of Bible reading. By the time of the American Revolution, literacy in New England is suggested to have been around 90 percent.

The ability to read did not necessarily imply the ability to write. The 1686 church law (kyrkolagen) of the Kingdomof Sweden (which at the time included all of modern Sweden, Finland, and Estonia) enforced literacy on the people and by the end of the 18th century, the ability to read was close to 100 percent. But as late as the 19th century, many Swedes, especially women, could not write.

Although the present-day concepts of literacy have much to do with the 15th century invention of the movable type printing press, it was not until the industrial revolution of the mid-19th century that paper and books became financially affordable to all classes of industrialized society. Until then, only a small percentage of the population were literate as only wealthy individuals and institutions could afford the prohibitively expensive materials. As late as 1841, 33% of all Englishmen and 44% of Englishwomen signed marriage certificates with their mark as they were unable to write (government financed public education became available in England in 1870). Even today[update], the dearth of cheap paper and books is a barrier to universal literacy in some less-industrialized nations.

From another perspective, the historian Harvey Graff has argued that the introduction of mass schooling was in part an effort to control the type of literacy that the working class had access to. According to Graff, literacy learning was increasing outside of formal settings (such as schools) and this uncontrolled, potentially critical reading could lead to increased radicalization of the populace. In his view, mass schooling was meant to temper and control literacy, not spread it.

2. Understanding and Assessing Emergent and Beginning Literacy

Literacy has also been used as a way to sort populations and control who has access to power. Because literacy permits learning and communication that oral and sign language alone cannot, illiteracy has been enforced in some places as a way of preventing unrest or revolution. During the Civil War era in the United States, white citizens in many areas banned teaching slaves to read or write presumably understanding the power of literacy. In the years following the Civil War, the ability to read and write was used to determine whether one had the right to vote. This effectively served to prevent former slaves from joining the electorate and maintained the status quo. In 1964, educator Paulo Freirewas arrested, expelled, and exiled from his native Brazil because of his work in teaching Brazilian peasants to read.

Literacy comprises a number of subskills, including phonological awareness, decoding, fluency, comprehension, and vocabulary. Mastering each of these subskills is necessary for students to become proficient readers.

Many children experience difficulty when learning to read. Learning to read is difficult because reading requires the mastery of a code that maps human speech sounds to written symbols. Mastering this code is not a natural process, like the development of language, and therefore requires instruction. Readingcan be very difficult if students do not get good instruction in this code.

Readers of alphabetic languages must understand the alphabetic principle in order to master basic reading skills. A writing system is said to be alphabetic if it uses symbols to represent individual language sounds, though the degree of correspondence between letters and sounds varies across alphabetic languages. Syllabic writing systems (such as Japanese kana) use a symbol to represent a single syllable, and logographic writing

systems (such as Chinese) use a symbol to represent a morpheme.

Phonics is an instructional technique that teaches readers to attend to the letters or groups of letters that make up words. A common method of teaching phonics is synthetic phonics, in which a novice reader pronounces each individual sound and "blends" them to pronounce the whole word. Another method of instruction is embedded phonics instruction, used more often in whole language reading instruction, in which novice readers learn a little about the individual letters in words, especially the consonants and the "short vowels." Teachers provide this knowledge opportunistically, in the context of stories that feature many instances of a particular letter. Embedded instruction combines letter-sound knowledge with the use of meaningful context to read new and difficult words.

2.1 Critical reading

The increasing number of texts available, due to the printing press, allowed readers to compare and contrast varying opinions and accounts. Reading was not always critical: there is evidence to suggest that books were at times revered and were taken as an absolute truth.

2.2 Dangerous reading

Private reading was at times viewed dangerous. It was argued that reading acted as a tranquilliser and was especially dangerous when practised by subordinate groups such as common people or women. At the conclusion of the sixteenth-century, and later on, unsupervised reading was considered subversive by secular and theocratic authorities.

From the early sixteenth century onwards it was viewed as especially dangerous for women to read fiction. This notion originated from men who feared fiction for its potential to evoke dangerous emotions such as love.

2.3 Creative reading

Creative reading is spawned by the prospect that texts can and are read in ways divergent to the authors intentions. In a sixteenth century heresy trial an Italian miller, Menocchio, was questioned as to what books he read. The Inquisition was less concerned with what Menocchioactually read, and more in his interpretations of R.M reading.

2.4 Extensive reading

In the late eighteenth century a reading revolution of sorts was experienced. With a wide variety of sources available and an increasing literacy rate, books were consulted for information on specific topics. Consequently the practices of skimming, browsing and chapter hopping became prevalent.

2.5 Private reading

Books changed in format to accommodate skimming and browsing. Books were broken down into chapters and further into paragraphs, with notes in the margins of the page to assist in the summarisation of sections of text. Features such as table of contents and indexes were also added to books to assist readers in locating specific information. Smaller books were introduced into the market that reflected the privatisation of reading. This shift in reading is directly associated with the rise of individualism; reflected in popular eighteenth century images of men and women reading alone, seemingly unaware of that around them.

Topic: Assessing And Teaching Developing Readers

Topic Objective:

At the end of this topic students will be able to understand:

Word knowledge includes phonics, but also other important elements that support word recognition: word families; grammatical and derivational affixes; compound words; homophones and homographs; and etymologies or historical antecedents of words.

Word knowledge is taught with a variety of techniques, including word sorts, word walls, games, and word building.

It is important children develop a substantial bank of words recognized immediately, and without analysis, on sight; helpful strategies include dictated stories, echo-reading, and choral reading.

Children need to develop fluency in reading, which can be accomplished with rereading, repeated reading, use of predictable books, and use of easy readers and high interest/low

Definition/Overview:

Reading comprehension: Reading comprehension is defined as the level of understanding of a writing. For normal reading rates (around 200-220 words per minute) an acceptable level of comprehension is above 75%. Proficient reading depends on the ability to recognize words quickly and effortlessly. If word recognition is difficult, students use too much of their processing capacity to read individual words, which interferes with their ability to comprehend what is read.

Many educators in the USA believe that children need to learn to analyze text (comprehend it) even before they can read it on their own, and comprehension instruction generally begins in pre-Kindergarten or Kindergarten. But other US educators consider this reading approach to be completely backward for very young children, arguing that the children must learn how to decode the words in a story through phonics before they can analyze the story itself.

Key Points:

1. Teaching reading comprehension

Many educators in the USA believe that children need to learn to analyze text (comprehend it) even before they can read it on their own, and comprehension instruction generally begins in pre-Kindergarten or Kindergarten. But other US educators consider this reading approach to be completely backward for very young children, arguing that the children must learn how to decode the words in a story through phonics before they can analyze the story itself.

During the last century comprehension lessons usually comprised students answering teachers' questions writing responses to questions on their own, or both. The whole group version of this practice also often included "round robin reading," wherein teachers called on individual students to read a portion of the text (and sometimes following a set order). In the last quarter of the 20th century, evidence accumulated that the read-test methods assessed comprehension more than they taught it. The associated practice of "round robin" reading has also been questioned and eliminated by many educators.

Instead of using the prior read-test method, research studies have concluded that there are much more effective ways to teach comprehension. Much work has been done in the area of teaching novice readers a bank of "reading strategies," or tools to interpret and analyze text. There is not a definitive set of strategies, but common ones include summarizing what you have read, monitoring your reading to make sure it is still making

sense, and analyzing the structure of the text (e.g., the use of headings in science text). Some programs teach students how to self monitor whether they are understanding and provide students with tools for fixing comprehension problems.

Instruction in comprehension strategy use often involves the gradual release of responsibility, wherein teachers initially explain and model strategies. Over time, they give students more and more responsibility for using the strategies until they can use them independently. This technique is generally associated with the idea of self-regulation and reflects social cognitive theory, originally conceptualized by Albert Bandura

The U.S. National Reading Panel conducted a comprehensive literature search on teaching reading comprehension. They concluded that (1) vocabulary knowledge, (2) reading comprehension instruction based on reading strategies, and (3) practices were critical to effective reading comprehension teaching.

Several theories of vocabulary instruction exist, namely, one focused on intensive instruction of a few high value words, one focused on broad instruction of many useful words, and a third focused on strategies for learning new words.

The idea of focusing intensely on a few words was popularized by Isabel Beck, Margaret McKeown, and Linda Kucan in their book for teachers called Bringing Words to Life: Robust Vocabulary Instruction (2002). They argued that words occur in three "tiers," the lowest (tier 1) being common words such as eat and fish, the top (tier 3) being very content-specific words such as photosynthesis and geopolitical. The tier 2 words were what they considered general academic vocabulary, words with many uses in academic contexts, such as analyze and frequent. Beck et al. suggested that teachers focus on tier 2 words and that they should teach fewer of these words with greater intensity. They suggested that teachers offer multiple examples and develop activities to help students practice these words in

increasingly independent ways.

The method of focusing of broad instruction on many words was developed by Andrew Biemiller. He argued, contra Beck et al., that more words would benefit students more, even if the instruction was short and teacherdirected. He suggested that teachers teach a large number of words before reading a book to students, by merely giving short definitions, such as synonyms, and then pointing out the words and their meaning while reading the book to students. The method contrasts with the Beck et al. approach by emphasizing quantity versus quality. There is no evidence to suggest the primacy of either approach.

The final vocabulary technique, strategies for learning new words, can be further subdivided into instruction on using context and instruction on using morphemes, or meaningful units within words to learn their meaning Morphemic instruction has been shown to produce positive outcomes for students reading and vocabulary knowledge, but context has proved unreliable as a strategy and it is no longer considered a useful strategy to teach students. This conclusion does not disqualify the value in "learning" morphemic analysis" - prefixes, suffixes and roots - but rather suggests that it be imparted incidentally and in context. Accordingly, there are methods designed to achieve this, such as Incidental Morpheme Analysis.

2. Reading strategies

Before the 1980s, little comprehension instruction occurred in the United States. Palinscarand Brown (1984) developed a technique called reciprocal teaching that taught students to predict, summarize, clarify, and ask questions for sections of a text. The technique had positive outcomes. Since then, the use of strategies like summarizing after each paragraph have come to be seen as effective strategies for building students' comprehension. The idea is that students will develop stronger reading comprehension skills on their own if the teacher gives them explicit mental tools for unpacking text

There are a wide range of reading strategies suggested by reading programs

and educators. The National Reading Panel identified positive effects only for a subset, particularly summarizing, asking questions, answering questions, comprehension monitoring, graphic organizers, and cooperative learning. The Panel also emphasized that a combination of strategies, as used in Reciprocal Teaching, can be effective.

Today, most reading comprehension programs teach students explicit reading strategies using teacher direct instruction with additional student practice.

Comprehension through discussion involves lessons that are "instructional conversations" that create higher-level thinking opportunities for students. The purpose of the discussions is to promote critical and aesthetic thinking about text and encourage full classroom involvement. According to Vivian Thayer, class discussions help students to generate ideas and new questions.

3. Phases of mental processing

Cognitive psychology is a branch of psychology that investigates internal mental processes such as problem solving, memory, and language. The school of thought arising from this approach is known as cognitivism which is interested in how people mentally represent information processing. It had its foundations in the Gestalt psychology of Max Wertheimer, Wolfgang Khler, and Kurt Koffka, and in the work of Jean Piaget, who provided a theory of stages/phases that describe children's cognitive development. Cognitive psychologists use psychophysical and experimental approaches to understand, diagnose, and solve problems, concerning themselves with the mental processes which mediate between stimulus and response. Cognitive theory contends that solutions to problems take the form of algorithmsrules that are not necessarily understood but promise a solution, or heuristicsrules that are understood but that do not always guarantee solutions. Cognitive science differs from cognitive psychology in that algorithms that are intended to simulate human behavior are implemented or implementable on a computer. In other

instances, solutions may be found through insight, a sudden awareness of relationships.

Cognitive psychology is one of the more recent additions to psychological research, having only developed as a separate area within the discipline since the late 1950s and early 1960s following the "cognitive revolution" initiated by Noam Chomsky's 1959 critique of behaviorism and empiricism more generally. The origins of cognitive thinking such as computational theory of mind can be traced as early as Descartes and Alan Turing. The cognitive approach was brought to prominence by Donald Broadbent's book Perception and Communication in 1958. Since that time, the dominant paradigm in the area has been the information processing model of cognition that Broadbent put forward. This is a way of thinking and reasoning about mental processes, envisioning them as software running on the computer that is the brain. Theories refer to forms of input, representation, computation or processing, and outputs. Applied to language as the primary mental knowledge representation system, cognitive psychology has exploited tree and network mental models. Its singular contribution to AI and psychology in general is the notion of a semantic network. One of the first cognitive psychologists, George Miller is wellknown for dedicating his career to the development of WordNet, a semantic network for the English language. Development began in 1985 and is now the foundation for many machine ontologies.

This way of conceiving mental processes has pervaded psychology more generally over the past few decades, and it is not uncommon to find cognitive theories within social psychology, personality psychology, abnormal psychology, and developmental psychology; the application of cognitive theories to comparative psychology has driven many recent studies in animal cognition. However, cognitive psychology dealing with the intervening constructs of the mental presentations is not able to specify: What are the non-material counterparts of material objects? For example, what is the counterpart of a chair in mental processes, and how do the nonmaterial processes evolve in the mind that has no space. Further, what are

the very specific qualities of the mental causalities? In particular, when the causalities are processes. The plain statement about information processing awakes some questions. What information is dealt with, its contents, and form. Are there transformations? What is the nature of process causalities? How subjective states of a person transmute into shared states, and on the other way around? Finally, yet importantly, how do we who works with cognitive research are able to conceptualize the mental counter concepts to construct theories that have real importance in real every day life? Consequently, there is a lack of specific process concepts which enable to derive new developments, and create grand theories about the mind, and its abysses.

The information processing approach to cognitive functioning is currently being questioned by new approaches in psychology, such as dynamical systems, and the embodiment perspective. Because of the use of computational metaphors and terminology, cognitive psychology was able to benefit greatly from the flourishing of research in artificial intelligence and other related areas in the 1960s and 1970s. In fact, it developed as one of the significant aspects of the inter-disciplinary subject of cognitive science, which attempts to integrate a range of approaches in research on the mind and mental processes.

In Section 4 of this course you will cover these topics:

- Mature Readers And Writers
- Adolescent Students With Reading Problems

Topic: Mature Readers And Writers

Topic Objective:

At the end of this topic students will be able to understand:

Teachers make lessons most effective when they are presented in three phases: 1) anticipation, including motivation and activation of prior knowledge; 2) building knowledge, strategies to explore a topic and augment prior knowledge; and 3) reflection, the reorganization of old

knowledge structures, incorporating new knowledge.

Activities appropriate for the anticipation phase include advance organizers, group and paired brainstorming, terms in advance, scrambled sequences, free writing, think/pair/share, the anticipation guide, and semantic mapping. In the reflection phase, most activities in the anticipation and building knowledge phases can be revisited to incorporate new knowledge. Children need to learn about major patterns of text organization: taxonomies (classification); chronological patterns; cause and effect patterns; written directions; comparison and contrast; and explanation and exposition.

Definition/Overview:

Effective reading: Effective reading is a collection of reading methods which attempt to increase rates of reading without greatly reducing comprehension or retention. Methods include chunking and eliminating subvocalization. It is important to understand that no absolute distinct "normal" and "speed-reading" types of reading exist in practice, since all readers use some of the techniques used in speed reading (such as identifying words without focusing on each letter, not sounding out all words, not sub-vocalizing some phrases, or spending less time on some phrases than others, and skimming small sections).

Key Points:

1. From Learning to Read to Reading to Learn

Psychologists and educational specialists working on the visual acuity question devised the tachistoscope, which is a machine designed to flash images at varying rates on a screen. The experiment started with large pictures of aircraft being displayed onscreen. The images were gradually reduced in size and the flashing-rate was increased. They found that, with training, an average person could identify minute images of different planes when flashed on the screen for only one-five-hundredth of a second. The

results had implications for reading.

Using the same methodology, the U.S. Air Force soon discovered that they could flash four words simultaneously on the screen at rates of one fivehundredth of a second with full recognition by the reader. This training demonstrated clearly that, with some work, reading speeds could be increased from reading rates to skimming rates. Not only could they be increased but the improvements were made by improving visual processing. Therefore, the next step was to train eye movements by means of a variety of pacing techniques in an attempt to improve reading. The reading courses that followed used the tachistoscope to increase reading speeds; it assumed that readers were able to increase their effective speeds from 200 to 400 words per minute using the machine. The drawback to the tachistoscope was that post-course timings showed that, without the machine, speed increases rapidly diminished.

Following the tachistoscopediscoveries, the HarvardBusiness Schoolproduced the first film-aided course, designed to widen the readers field of focus in order to increase reading speed. Again, the focus was on visual processing as a means of improvement. Using machines to increase people's reading speeds was a trend of the 1940s. While it had been assumed that reading speed increases of 100% were possible and had been attained, lasting results had yet to be demonstrated.

It was not until the late 1950s that a portable, reliable and 'handy' device would be developed as a tool for increasing reading speed. The researcher was a school-teacher named Evelyn Wood. She was committed to understanding why some people were naturally faster at reading than others and was trying to force herselfto read very quickly. It is told that while brushing off the pages of the book she had thrown down in despair, she discovered that the sweeping motion of her hand across the page caught the attention of her eyes, and helped them move more smoothly across the page. She then utilized the hand as a pacer, and called it the "Wood Method", which was renamed to Reading Dynamics in 1958. She coined

the term "speed reading."

More recently, speed reading courses and books have been developed to help the consumer achieve even higher increases in reading speed, some at 10,000 words per minute with high comprehension. With specific reference to pseudoscience concepts, companies have claimed to be able to extract meaning out of consciously unnoticed text from the para-consciousness or subconscious. These courses go by various titles such as photo-reading (1994), and alpha-netics (1999). Readingexperts refer to them as Snake oil reading lessons because of their high dependence on the suspension of the consumers disbelief.

2. A Model of Instruction to Guide Reading to Learn

Some businesses selling courses and manuals on speed reading claim that it is possible to increase the reading to beyond 10 words per second with full comprehension, provided the course is followed and that the exercises are constantly practiced. However, a good deal of these courses and manuals are conflicting as to why and how speed reading should be adopted as a method.

Some other businesses claim that a person can double or triple his/her current speed. They claim that a person reading at 2 words per second (the average rate for untrained adult readers), can take a speed reading course and learn how to read at 5 to 7 words per second while maintaining, or even improving comprehension. In many commercial courses in fact the comprehension is only increased, because the difficulty of the texts used in the course is decreasingly difficult.

One point of contention between the various speed reading courses is the assertions concerning subvocalization. Some courses claim that the main obstacle to speed reading is any form of subvocalization. But there is no evidence that less subvocalisation can improve reading or even can willingly be changed at all. Other courses claim that subvocalizationcan be used on keywords in order to speed up learning and reading. Some

proponents of speed reading claim that subvocalization an be broken down into two levels, only one of which will reduce reading speed.

Speed reading courses and books take a variety of approaches to the concept of reading comprehension. Some courses and books claim that good comprehension is essential to speed reading, and that comprehension will improve with speed reading. Special non-standardized reading comprehension questionnaires are provided in order to convince the reader of the effects of the program. Some courses advise that while comprehension is important, it should not be measured or promoted. Speed reading courses variously claim that not all information in text needs to be covered while speed reading. Some claim that speed reading involves skipping text (exactly as has been measured during studies on skimming) whereas other speed reading promoters claim that all of the text is processed, but with some or most becoming subconsciously processed. Similarly, some courses claim that text should be serially processed whereas others say that information should be processed in a more haphazard or ad hoc fashion.

Computer programs are available to help instruct speed reading students. Vortex Speed Reading was one of the early applications, but it was strictly a productivity tool a program that only presented text one word at a time. Readers needed to focus on the center of the screen, not moving their eyes as they would while reading normal text.

A number of speed reading programs use a different approach. These programs present the data as a serial stream, since the brain handles text more efficiently by breaking it into such a stream before parsing and interpreting it. The 2000 National Reading Panel (NRP) report (p. 3-1) seems to support such a mechanism.

To increase speed, some older programs required readers to view the center of the screen while the lines of text around it grew longer. They also presented several objects (instead of text) moving line by line or bouncing

around the screen; users had to follow the object(s) with only their eyes. A number of researchers criticize using objects instead of words as an effective training method, claiming that the only way to read faster is to read actual text. Many of the newer speed reading programs use built-in text, and they primarily guide users through the lines of an on-screen book at defined speeds. Often the text is highlighted to indicate where users should focus their eyes; they are not expected to read by pronouncing the words, but instead to read by viewing the words as complete images. The exercises are also intended to train readers to eliminate subvocalization, an auditory phenomenon that can impede users' abilities to achieve high reading rates.

Skimming is a high speed reading process and involves visually searching the sentences of a page for clues to meaning. It is conducted at a higher rate (700 wpm plus) than normal reading for comprehension (around 200-230 wpm), and results in lower comprehension rates, especially with information-rich reading material. Skimming on its own should not be used when complete comprehension of the text is the objective. Skimming is mainly used when researching and getting an overall idea of the text. Speed reading courses which teach techniques that largely constitute skimming of written text also result in a lower comprehension rate (below 50% comprehension on standardized comprehension tests)

Topic: Adolescent Students With Reading Problems

Topic Objective:

At the end of this topic students will be able to understand:

In order to work successfully with adolescent students who have reading problems, teachers should establish trust, provide literate role models, reduce student feelings of learned helplessness and passive failure, legitimize their personal knowledge and experiences, and develop a positive learning environment.

One category of adolescent student with a reading problem is the non-

reader, who has almost no effective reading skills. Some appropriate instructional strategies include DLTA, LEA, repeated readings, word sorts, and journal writing.

Another category is the disenchanted reader, who may be able to read, but who chooses not to read. Appropriate strategies for them include the use of a self-directed unit management learning system, sustained silent reading, book conferences, reading response journals, and journal, process, and free writing guided by concept mapping.

Definition/Overview:

Adolescence: " Adolescence is a transitional stage of physical and mental human development that occurs between childhood and adulthood. This transition involves biological (i.e. pubertal), social, and psychological changes, though the biological or physiological ones are the easiest to measure objectively. Historically, puberty has been heavily associated with teenagers and the onset of adolescent development. In recent years, however, the start of puberty has seen an increase in preadolescence and extension beyond the teenage years, making adolescence less simple to discern.

Key Points:

1. Guiding Principles and Theories

Adolescent psychology is associated with notable changes in mood sometimes known as mood swings. Cognitive, emotional and attitudinal changes which are characteristic of adolescence, often take place during this period, and this can be a cause of conflict on one hand and positive personality development on the other.

Because the adolescents are experiencing various strong cognitive and physical changes, for the first time in their lives they may start to view their friends, their peer group, as more important and influential than their parents/guardians. Because of peer pressure, they may sometimes indulge in activities not deemed socially acceptable, although this may be more of a social phenomenon than a psychological one. This overlap is addressed within the study of psychosociology.

The home is an important aspect of adolescent psychology: home environment and family have a substantial impact on the developing minds of teenagers, and these developments may reach a climax during adolescence. For example, abusive parents may lead a child to "poke fun" at other classmates when he/she is seven years old or so, but during adolescence, it may become progressively worse, for example, the child may now be using drugs or becoming intolerably violent among other classmates. If the concepts and theory behind right or wrong were not established early on in a child's life, the lack of this knowledge may impair a teenager's ability to make beneficial decisions as well as allowing his/her impulses to control his/her decisions.

In the search for a unique social identity for themselves, adolescents are frequently confused about what is 'right' and what is 'wrong.' G. Stanley Hall denoted this period as one of "Storm and Stress" and, according to him, conflict at this developmental stage is normal and not unusual. Margaret Mead, on the other hand, attributed the behavior of adolescents to their culture and upbringing. However, Piaget, attributed this stage in development with greatly increased cognitive abilities; at this stage of life the individual's thoughts start taking more of an abstract form and the egocentric thoughts decrease, hence the individual is able to think and reason in a wider perspective.

Positive psychology is sometimes brought up when addressing adolescent psychology as well. This approach towards adolescents refers to providing them with motivation to become socially acceptable and notable individuals, since many adolescents find themselves bored, indecisive

and/or unmotivated.

Adolescents may be subject to peer pressure within their adolescent time span, consisting of the need to have sex, consume alcoholic beverages, use drugs, defy their parental figures, or commit any activity in which the person who is subjected to may not deem appropriate, among other things. Peer pressure is a common experience between adolescents and may result briefly or on a larger scale.

It should also be noted that adolescence is the stage of a psychological breakthrough in a person's life when the cognitive development is rapid and the thoughts, ideas and concepts developed at this period of life greatly influence the individual's future life, playing a major role in character and personality formation.

Struggles with adolescent identity and depression usually set in when an adolescent experiences a loss. The most important loss in their lives is the changing relationship between the adolescent and their parents. Adolescents may also experience strife in their relationships with friends. This may be because of things their friends do, such as smoking, that they feel if they don't do, they'll lose their friendship. Teen depression can be extremely intense at times because of physical and hormonal changes but emotional instability is part of being a teenager. Their changing mind, body and relationships often present themselves as stressful and that change, they assume, is something to be feared.

Views of family relationships during adolescence are changing. The old view of family relationships during adolescence put an emphasis on conflict and disengagement and thought storm and stress was normal and even inevitable. However, the new view puts emphasis on transformation or relationships and maintenance of connectedness.

2. Classifying the Adolescent Studen

Internationally, those over a certain age (often 18, though this varies) are

legally considered to have reached the age of majority and are regarded as adults and are held to be responsible for their actions. People below this age are considered minors and are children. A person below the age of majority may gain adult rights through legal emancipation.

Those who are under the age of consent, or legal responsibility, may be considered too young to be held accountable for criminal action. This is called doli incapax or the defense of infancy. The age of criminal responsibility varies from 7 in Indiato 18 in Belgium. After reaching the initial age, there may be levels of responsibility dictated by age and type of offense, and crimes committed by minors may be tried in a juvenile court.

The legal working age in Western countries is usually 14 to 16, depending on the number of hours and type of employment. In the United Kingdom and Canada, for example, young people between 14 and 16 can work at certain types of light work with some restrictions to allow for schooling; while youths over 16 can work full-time (excluding night work). Many countries also specify a minimum school leaving age, ranging from 10 to 18, at which a person is legally allowed to leave compulsory education.

The age of consent to sexual activity varies widely between jurisdictions, ranging from 12 to 21 years, although 14 to 16 years is more usual. In a 2008 study of 14–17-year-olds conducted by YouGov for Channel 4 it was revealed that one in three 15-year-olds were sexually active.

Sexual intercourse with a person below the local age of consent is treated as the crime of statutory rape. Some jurisdictions allow an exemption where both partners are close in age; for example, a 16-year-old and an 18-year-old. The age at which people are allowed to marry also varies, from 9 in Yemento 22 for males and 20 for females in China. In Western countries, people are typically allowed to marry at 18, although they are sometimes allowed to marry at a younger age with parental or court consent. In developing countries, the legal marriageable age does not always correspond with the age at which people actually marry; for example, the

legal age for marriage in Ethiopia is 18 for both males and females, but in rural areas most girls are married by age 16.

In most democratic countries, a citizen is eligible to vote at 18. For example, in the United States, the Twenty-sixth amendment decreased the voting age from 21 to 18. In a minority of countries, the voting age is 17 (for example, Indonesia) or 16 (for example, Brazil). By contrast, some countries have a minimum voting age of 21 (for example, Singapore) whereas the minimum age in Uzbekistan is 25. Age of candidacy is the minimum age at which a person can legally qualify to hold certain elected government offices. In most countries, a person must be 18 or over to stand for elected office, but some countries such as the United States and Italy have further restrictions depending on the type of office.

The sale of selected items such as cigarettes, alcohol, and videos with violent or pornographic content is also restricted by age in most countries. In the U.S, the minimum age to buy an R-rated movie, M-rated game or an album with a parental advisory label is 17 (n some states 18). In practice, it is common that young people engage in underage smoking or drinking, and in some cultures this is tolerated to a certain degree. In the United States, teenagers are allowed to drive between 14-18 (each state sets its own minimum driving are of which a curfew may be imposed), in the US, adolescents 17 years of age can serve in the military. In Europe it is more common for the driving age to be higher (usually 18) while the drinking age is lower than that of the US(usually 16 or 18). In Canada, the drinking age is 18 in some areas and 19 in other areas. In Australia, universally the minimum drinking age is 18, unless a person is in a private residence or is under parental supervision in a licensed premises. The driving age varies from state to state but the more common system is a graduated system of "L plates" (a learning license that requires supervision from a licensed driver) from age 16, red "P plates" (probationary license) at 17, green "P plates" at 18 and finally a full license, i.e. for most people around the age of 20.

The legal gambling age also depends on the jurisdiction, although it is

typically 18. The minimum age for donating blood in the U.S is 17 although it may be 16 with parental permission in some states such as New York and Pennsylvania.

A number of social scientists, including anthropologist Margaret Mead and sociologist Mike Males, have noted the contradictory treatment of laws affecting adolescents in the United States. As Males has noted, the US Supreme Court has, "explicitly ruled that policy-makers may impose adult responsibilities and punishments on individual youths as if they were adults at the same time laws and policies abrogate adolescents rights en masse as if they were children."

The issue of youth activism affecting political, social, educational, and moral circumstances is of growing significance around the world. Youthled organizations around the world have fought for social justice, the youth vote seeking to gain teenagers the right to vote, to secure more youth rights, and demanding better schools through student activism.

Since the advent of the Convention on the Rights of the Child in 1989 (children defined as under 18), almost every country (except the U.S.& Somalia) in the world has become voluntarily legally committed to advancing an anti-discriminatory stance towards young people of all ages. This is a legally binding document which secures youth participation throughout society while acting against unchecked child labor, child soldiers, child prostitution, and pornography.

In Section 5 of this course you will cover these topics:

Topic : Strategies For Teaching Reading And Writing To English Language Learners

Topic Objective:

Strategies For Teaching Reading And Writing To English Language Learners

Factors Related To Reading Problems

At the end of this topic students will be able to understand:

English language learners are now found in almost every classroom in the nation.

Bilingual education is an approach to English language learners in which they learn academic subjects, such as reading and mathematics, in the mother tongue WHILE they are in the process of learning English. Children in bilingual education ordinarily make a transition from mother tongue academic instruction to English language instruction in the second or third grade.

Communicative approaches to second language acquisition are more effective and more rapid than those that focus on grammar.

The language experience approach to reading is a powerful tool for teachers to use in working with English language learners.

The use of a phonetic approach to teaching reading in English to English language learners should be used with caution, as their phonemic awareness is of sounds in the mother tongue, not English.

Definition/Overview:

Overview: English is a language with great reach and influence; it is taught all over the world under many different circumstances. In English-speaking countries, English language teaching has essentially evolved in two broad directions: instruction for people who intend to live in an English-speaking country and for those who don't. These divisions have grown firmer as the instructors of these two "industries" have used different terminology, followed distinct training qualifications, formed separate professional associations, and so on. Crucially, these two arms have very different funding structures, public in the former and private in the latter, and to some extent this influences the way schools are established and classes are held. Matters are further complicated by the fact that the United Statesand the United Kingdom, both major engines of the language, describe these categories in different terms: as many eloquent users of the language have observed, "England and America are two countries divided by a common

language." The following technical definitions may therefore have their currency contested.

Key Points:

1. The Context of Teaching English Language

The other broad grouping is the use of English within the Anglosphere. In what theorist Braj Kachru calls "the inner circle", i.e. countries such as the United Kingdom and the United States, this use of English is generally by refugees, immigrants and their children. It also includes the use of English in "outer circle" countries, often former British colonies, where English is an official language even if it is not spoken as a mother tongue by the majority of the population.

In the US, Canada and Australia, this use of English is called ESL (English as a second language). This term has been criticized on the grounds that many learners already speak more than one language. A counter-argument says that the word "a" in the phrase "a second language" means there is no presumption that English is the second acquired language (see also Second language). TESL is the teaching of English as a second language.

In the UK, Ireland and New Zealand, the term ESL has been replaced by ESOL (English for speakers of other languages). In these countries TESOL (teaching English to speakers of other languages) is normally used to refer to teaching English only to this group. In the UK, the term EAL (English as an additional language), rather than ESOL, is usually used when talking about primary and secondary schools.

Other acronyms were created to describe the person rather than the language to be learned. The term LEP (Limited English proficiency) was created in 1975 by the Lau Remedies following a decision of the US Supreme Court. ELL (English Language Learner), used by United Statesgovernments and school systems, was created by Charlene Rivera of the Center for Equity and Excellence in Education in an effort to label

learners positively, rather than ascribing a deficiency to them. LOTE (Languages other than English) is a parallel term used in Canada, Australia, and New Zealand.

Typically, this sort of English (called ESL in the United States, Canada, and Australia, ESOL in the United Kingdom, Ireland and New Zealand) is learned to function in the new host country, e.g. within the school system (if a child), to find and hold down a job (if an adult), to perform the necessities of daily life. The teaching of it does not presuppose literacy in the mother tongue. It is usually paid for by the host government to help newcomers settle into their adopted country, sometimes as part of an explicit citizenship program. It is technically possible for ESL to be taught not in the host country, but in, for example, a refugee camp, as part of a pre-departure program sponsored by the government soon to receive new potential citizens. In practice, however, this is extremely rare.

Particularly in Canada and Australia, the term ESD (English as a second dialect) is used alongside ESL, usually in reference to programs for Canadian First Nations people or indigenous Australians, respectively. It refers to the use of standard English, which may need to be explicitly taught, by speakers of a creole or non-standard variety. It is often grouped with ESL as ESL/ESD.

It is worth noting that ESL and EFL programs also differ in the variety of English which is taught; "English" is a term that can refer to various dialects, including British English, American English, and many others. Obviously, those studying English in order to fit into their new country will learn the variety spoken there. However, for those who do not intend to change countries, the question arises of which sort of English to learn. If they are going abroad for a short time to study English, they need to choose which country. For those staying at home, the choice may be made for them in that private language schools or the state school system may only offer one model. Students studying EFL in Hong Kong, for example, are more likely to learn British English, whereas students in the Philippinesare more

likely to learn American English.

For this reason, many teachers now emphasize teaching English as an international language (EIL), also known as English as a lingua franca (ELF). Linguists are charting the development of international English, a term with contradictory and confusing meanings, one of which refers to a decontextualised variant of the language, independent of the culture and associated references of any particular country, useful when, for example, a Saudi does business with someone from China or Albania.

2. Issues in Assessing the Readingand Writing of English Language Learners

Language teaching practice often assumes that most of the difficulties that learners face in the study of English are a consequence of the degree to which their native language differs from English (a contrastive analysis approach). A native speaker of Chinese, for example, may face many more difficulties than a native speaker of German, because German is closely related to English, whereas Chinese is not. This may be true for anyone of any mother tongue (also called tirst language, normally abbreviated L1) setting out to learn any other language (called a target language, second language or L2). See also second language acquisition (SLA) for mixed evidence from linguistic research.

Language learners often produce errors of syntax and pronunciation thought to result from the influence of their L1, such as mapping its grammatical patterns inappropriately onto the L2, pronouncing certain sounds incorrectly or with difficulty, and confusing items of vocabulary known as false friends. This is known as L1 transfer or "language interference". However, these transfer effects are typically stronger for beginners' language production, and SLA research has highlighted many errors which cannot be attributed to the L1, as they are attested in learners of many language backgrounds (for example, failure to apply 3rd person present singular -s to verbs, as in 'he make').

While English is no more complex than other languages, it has several features which may create difficulties for learners. Conversely, because such a large number of people are studying it, products have been developed to help them do so, such as the monolingual learner's dictionary, which is written with a restricted defining vocabulary.

EFL, English as a foreign language, indicates the use of English in a non-English-speaking region. Study can occur either in the student's home country, as part of the normal school curriculum or otherwise, or, for the more privileged minority, in an anglophonecountry that they visit as a sort of educational tourist, particularly immediately before or after graduating from university. TEFL is the teaching of English as a foreign language; note that this sort of instruction can take place in any country, Englishspeaking or not. Typically, EFL is learned either to pass exams as a necessary part of one's education, or for career progression while working for an organisation or business with an international focus. EFL may be part of the state school curriculum in countries where English has no special status (what linguist Braj Kachru calls the 'expanding circle countries"); it may also be supplemented by lessons paid for privately. Teachers of EFL generally assume that students are literate in their mother tongue. The Chinese EFL Journal and Iranian EFL Journal are examples of international journals dedicated to specifics of English language learning within countries where English is used as a foreign language.

3. Effective English Reading Instruction

Proficient reading is equally dependent on two critical skills: the ability to understand the language in which the text is written, and the ability to recognize and process printed text. Each of these competencies is likewise dependent on lower level skills and cognitive abilities.

Children who readily understand spoken language and who are able to fluently and easily recognize printed words do not usually have difficulty with reading comprehension. However, students must be proficient in both competencies to read well; difficulty in either domain undermines the overall reading process. At the conclusion of reading, children should be able to retell the story in their own words including characters, setting, and the events of the story. Readingresearchers define a skilled reader as one who can understand written text as well as they can understand the same passage if spoken.

Print recognition requires the ability to perceive printed text and translate it into spoken language. This aspect of reading is the crux of much of the reading debate.

Reading readiness has been defined as the point at which a person is ready to learn to read and the time during which a person transitions from being a non-reader into a reader. Other terms for reading readiness include early literacy and emergent reading.

Children begin to learn pre-reading skills at birth while they listen to the speech around them. In order to learn to read, a child must first have knowledge of the oral language. According to the Ontario Government (2003), the acquisition of language is natural, but the process of learning to read is not - reading must be taught. This belief contradicts basic language philosophy, which states that children learn to read while they learn to speak. The Ontario Government (2003) also believes that reading is the foundation for success, and that those children who struggle with reading in grades 1-3 are at a disadvantage in terms of academic success, compared to those children who are not struggling.

Because a child's early experience with literacy-related activities is highly correlated to the child's success with reading, it is important to consider a child's developmental level when choosing appropriate activities and goals. Early and enjoyable pre-reading experiences set the stage for a child's desire to learn. By participating in developmentally-appropriate activities (activities that are fun and challenging, but not frustrating), the child gains knowledge that will serve as the foundation for further learning as he or she

enters the school system.

Reading readiness is highly individualistic. There is no "one size fits all" solution to teaching a child to read. A parent or educator may need to employ several techniques before finding the most appropriate method for an individual child. According to Vygotsky's Zone of Proximal Development a child can, through the help of an adult or more capable child, perform at a higher level than he or she can independently. The process of learning to read should thus be supported by a caring and supportive individual.

Topic: Factors Related To Reading Problems

Topic Objective:

At the end of this topic students will be able to understand:

Current legislation specifies the rights of students with disabilities and the services public schools are required to provide.

Since students with disabilities must have access to the same curriculum and be placed in the least restrictive learning environment, general education teachers are responsible for assessing and teaching students with special needs.

The identification process is generally similar in all school divisions and includes procedures for referral, assessment, identification of handicapping conditions, recommendation for special services, development of an Individualized Educational Program (IEP), and parental consent. The identification process includes administering and interpreting formal tests of intelligence and learning aptitude, achievement, adaptive behavior, specific learning processes, and behavior and adjustment.

Definition/Overview:

Special education: Special education is the individually planned and systematically monitored arrangement of teaching procedures, adapted equipment and materials, accessible settings, and other interventions

designed to help learners with special needs achieve a higher level of personal self-sufficiency and success in school and community than would be available if the student were only given access to a typical classroom education.

Key Points:

1. Issues Related to Special-Needs Students

Students with special needs, such as learning differences, mental health issues, specific disabilities (physical or developmental), and giftedness are those whose needs are addressed within the classroom setting. However, generally, the term "special education" refers specifically to students with learning disabilities, mental conditions, and other disabling conditions.

Beginning in 1952, Civitans were the first to provide widespread training for teachers of developmentally disabled children.

Disability studies is an interdisciplinary field of study, which is focused on the contributions, experiences, history, and culture of people with disabilities. The field of teaching and research in the area of disability studies is growing worldwide

The scope of disability studies differs in different countries. In the UK, for instance, it is seen as the province of disabled people, whereas in the USA a much wider range of professions concerned with disabilities and disabled people is involved.

Special education has been a field in which large, empirical studies have been difficult to implement, given the differences in service delivery models. In a meta-analysis of special education, researchers found no significant effect size when examining the relationship between student outcomes and inclusion in special education (see Kavale, K. A., Glass, G. V (1982) The Efficacy of Special Education Interventions and Practices: A Compendium of Meta-Analysis Findings. Focus on Exceptional Children,

v15 n4 p1-14).

Beneficial classrooms designed for special education students, sometimes called resource rooms, are targets for those who seek to include a heterogenous group of students without consideration of the myriad of learners. Students with disabilities require individualized instruction--as mandated by an IEP--and thus full inclusion or "push in" servicing is not viable for school districts.

Special education as implemented in public schools has been criticized because the qualification criteria for services are extremely variable from one education agency to another. In the United States, all Local and State Education Agencies must use classification and labeling models that are aligned with the federal definitions, outlined the Individuals with Disabilities Education Act (IDEA).

At-risk students (those with educational needs that are not associated with a disability) are often placed in classes with students with disabilities. Critics assert that placing at-risk students in the same classes as disabled students may impede the educational progress of people with disabilities.

The practice of inclusion has been criticized by advocates and some parents of children with disabilities because some of these students require instructional methods that differ dramatically from typical classroom methods. Critics assert that it is not possible to deliver effectively two or more very different instructional methods in the same classroom. As a result, the educational progressof students who depend on different instructional methods to learn often fall even further behind their peers without disabilities.

Parents of typically developing children sometimes fear that the special needs of a single "fully included" student will take critical levels of attention and energy away from the rest of the class and thereby impair the academic achievements of all students.

Some parents, advocates, and students have concerns about the eligibility criteria and its application. In some cases, parents and students protest the students' placement into special education programs. For example, a student may be placed into the special education programs due to a mental health condition such as OCD, depression, anxiety, panic attacks or ADHD, while the student and his parents believe that the condition is adequately managed through medication and outside therapy. In other cases, students whose parents believe they require the additional support of special education services are denied participation in the program based on the eligibility criteria.

An alternative to homogenization and lockstep standardization is proposed, using the Sudbury model schools, an alternative approach in which children learn at their own pace rather than following a chronologically-based curriculum. Proponents of unschoolinghave also claimed that children raised in this method do not suffer from learning disabilities.

Gerald Coles, in his book, The Learning Mystique: A Critical Look at "Learning Disabilities", asserts that there are partisan agendas behind the educational policy-makers and that the scientific research that they use to support their arguments regarding the teaching of literacy are flawed. These include the idea that there are neurological explanations for learning disabilities.

2. Other Factors

The provision of education to people with disabilities or learning differences differs from country to country, and state to state. The ability of a student to access a particular setting depends on the availability of services, location, family choice, or government policy. Special educators have historically described a cascade of services, in which students with special needs receive services in varying degrees based on the degree to which they interact with the general school population. In the main, special education has been provided in one, or a combination, of the following

ways:

Inclusion: Regular education classes combined with special education services is a model often referred to as inclusion. In this model, students with special needs are educated with their typically developing peers for at least half of the day. In a full inclusion model, specialized services are provided within a regular classroom by sending the service provider in to work with one or more students in their regular classroom setting. In a partial inclusion model, specialized services are provided outside a regular classroom. In this case, the student occasionally leaves the regular classroom to attend smaller, more intensive instructional sessions, or to receive other related service such as speech and language therapy, occupational and/or physical therapy, and social work.

Mainstreaming: Regular education classes combined with special education classes is a model often referred to as mainstreaming. In this model students with special needs are educated with their typically developing peers during specific time periods.

Segregation (Self-Contained): Full-time placement in a special education classroom may be referred to as segregation. In this model, students with special needs spend no time with typically developing students. Segregated students may attend the school as their neighbors, but spend their time exclusively in a special-needs classroom. Alternatively, these students may attend a special school.

Exclusion: A student who does not receive instruction in any school is said to be excluded. Such exclusion may occur where there is no legal mandate for special education services. It may also occur when a student is in hospital, homebound, or detained by the criminal justice system. These students may receive one-on-one instruction or group instruction. Students who have been suspended or expelled are not considered excluded in this sense.

With increasing experience over the past few decades in the field of special education, the concept is shifting away from the student's level of disability as the prime determinant of physical placement (i.e., the degree of

exclusion/segregation s/he experiences) toward the challenge of modifying teaching methods and environments so that students might be served in typical educational environments. In the US, the President's National Council on Disability has called for special education to be regarded less as a "place" and more as "a service, available in every school."

Modifications can consist of changes in curriculum, supplementary aides or equipment, and the provision of specialized physical adaptations that allow students to participate in the educational environment to the fullest extent possible. Students may need this help to access subject matter, to physically gain access to the school, or to meet their emotional needs.

Support is targeted to the needs of the individual student and can be short or long term. In the United States, the Individuals with Disabilities Education Act requires that special needs students be included in regular education activities as much as possible. In Scotland the Additional Support Needs Act places an obligation on education authorities to meet the needs of all students in consultation with other agencies and parents.

In England there are support services available which can help parents in particular with the educational provision of their child. Parent Partnership Services are support services which ensure the involvement of parents in the planning and delivery of their child's educational provision.

3. Special education in the United States

Special education programs in the United Stateswere made mandatory in 1975 when the United States Congress passed the Education for All Handicapped Children Act (EHA) in response to discriminatory treatment by public educational agencies against students with disabilities. The EHA was later modified to strengthen protections to people with disabilities and renamed the Individuals with Disabilities Education Act (IDEA). The EHA and IDEA both implement their mandate by requiring States to provide special education consistent with federal standards as a condition of receiving federal funds. The IDEA is found in Title 20 of the United States

Code, starting at section 1400. IDEA is interpreted by extensive federal regulations.

The two most basic rights ensured by the IDEA is that every student is entitled to a free and appropriate public education (FAPE) in the least restrictive environment (LRE). To ensure a FAPE, a team of professionals from the local educational agency (ie public school) and parents meet to determine the student's unique educational needs, develop annual goals for the student, and determine the placement, program modification, testing accommodations, counseling, and other special services that the student needs through the development of an Individualized Education Program (IEP). The educational agency (ie school) is required to develop and implement an IEP that meets the standards of federal and state educational agencies.

The study of special education and special education policy brings together diverse disciplines and requires an integration of a variety of resources. To a large extent, provision of special education is governed by state and federal law as expressed in statutes and implementing regulations. Because special education law is structured upon a cooperative federalism model, Schafferv Weist, one must look to both state and federal law to understand how special education is delivered and financed in any particular state. Application of these statutes and regulations occurs at the local level by local school districts under supervision of their State government. Disputes over the application of the law begins at the local school district and travels through an administrative procedure subject to judicial review. This process, of applying law through layers of governmental decision-making is studied in the discipline of Administrative Law. In addition, aspects of special education law rest on evolving civil rights jurisprudence. But an understanding of special education requires integration of other disciplines, including education and education finance, psychology, public health and medicine.