ABSTRACT

This report discusses the need to teach critical thinking and study skill strategies to improve the problem-solving ability, study habits, and knowledge of subject content to students in psychiatric treatment centers. The report asserts that this type of curriculum will assist students in comprehending new information and utilizing thinking skills to overcome everyday obstacles. Study strategies described include: (1) "SQ3R" (survey, question, read, recite, review); (2) paraphrasing; (3) guided questioning or self-questioning; (4) heuristic problem-solving (approaching a problem, understanding the problem, and arriving at a solution to the problem); (5) keyword method (the student is asked to associate an abstract word with a concrete word that sounds like it and use this information to create the new image to recall); (6) pegword method (memorizing a list of words that can be recalled readily and linking these words with the items that must be memorized); and (7) first letter mnemonics. Critical thinking strategies include analysis of choice making behaviors and use of weekly brain teasers. Procedures for assessing students academically and for implementing a study skills and critical thinking skills curriculum are outlined. (Contains 17 references.) (CR)
STUDY Skills and CRITICAL THINKING CURRICULUM FOR ADOLESCENTS IN A PSYCHIATRIC TREATMENT CENTER

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Study Skills and Critical Thinking Curriculum for Adolescents in a Psychiatric Treatment Center

Introduction

The U.S. Bureau of Census (1994) state, "There are approximately 774 psychiatric treatment centers in the United States, based on census reports of 1992." About three-fourths of these facilities contain an adolescent and/or child treatment program having a school component. Due to the continuous takeovers and consolidation of health maintenance organizations (HMO), and mergers of hospitals, clinics and treatment facilities; inpatient psychiatric treatment centers are in a state of flux. Downsizing and cutbacks force administrators of psychiatric treatment centers to reassess program priorities while ethically proposing to maintain program integrity. When the trend of mental health in the United States calls for short lengths of stay (five to seven days) just for stabilization purposes only, day or partial hospitalization programs and quick transition to outpatient clinics; the elimination of a school program for adolescents is most imminent.

Required organizational changes can result in many innovative and creative ideas. If the traditional school curriculum adopted by psychiatric treatment centers having longer lengths of inpatient stay (25 to 45 days) is not adaptable to the five to seven day inpatient stay or partial hospitalization schedule, then the idea of continuing an educational component within a treatment facility must change. The change could be presented in the form of teaching critical thinking and study skills strategies to improve problem-solving ability, study habits and knowledge of subject content. This type of curriculum will assist students (especially with
special needs) to comprehend new information in the classroom and utilize thinking skills to elucidate the obstacles present in their everyday, personal lives.

This idea was set in motion on a periodic basis with adolescents in Lovelace/ParkCenter Psychiatric Treatment facility (located in Albuquerque, New Mexico) during the 1993/1994 school year. Feedback received from the adolescents was favorable, many enjoyed exploring strategies on composition writing, critical thinking topics of "Choices", and problem-solving through self-questioning and debate.

Study and Critical Thinking Skills of Students with Learning Disorders

Knowing how to study is an essential element in the learning process for students with learning disabilities/psychiatric disorder, acquired brain injury/psychiatric disorder, attention deficit disorder or mild mental retardation. Hoover (1989) comments on a number of researchers in the mid 1980's who reported deficiencies in study skills with students having learning disabilities. The documented findings were deficiencies in note-taking, listening, test-taking, scanning (textbook reading) and organizing information. Due to these noted deficiencies, Hoover (1989) suggests, "There is need for an increased emphasis upon the development and maintenance of effective study skills usage in programs for students with learning disabilities in elementary and secondary educational settings (p.452)."

Critical thinking, according to Chaffee (1988), "is a process which enables a person to successfully solve problems he/she is continually confronted with, to make intelligent decisions, and to
achieve goals that give the person's life purpose and fulfillment (pg. 8)." Meltzer, Solomon, and Fenton (1987) found that the steps in problem-solving (critical thinking) process have proven to be problematic for those learners who seem to be less efficient than their non-learning disabled counterparts, in relations to planning, self-monitoring, and approaching problems. These students are less flexible in the selection of strategies, and experience difficulty moving from one aspect of the problem to another. Comfort (1992) adds, "these children tend to underuse skills they possess and demonstrate difficulty with linking, or generalizing, appropriate skills and strategies from one situation to another (pg. 47)." All students including those having learning difficulties can benefit from undergoing thinking strategy intervention and learning higher order thinking skills. Perkins, Goodrich & Tishman (1994) report thinking strategy intervention has been known to assist adolescents with learning problems to become more thoughtful readers, writers and problem-solvers.

Study Skills Strategies

Study Skills strategies are used to facilitate student proficiency in the areas of reading, questioning, listening, note taking, writing, test taking and math word problems. The following listed strategies can be utilized in a variety of different topic areas. It is important for the student to know that he/she can use strategies where deem beneficial to learning the material.

SQ3R developed by Frances Robinson, means survey, question, read, recite, review. In employing this method, student begins with surveying the introductory statement, various headings, and summaries to grasp the main idea of the assignment. The second
step, Question, describes the purpose of the reading. The student poses the "wh" questions to him/herself; who, what, where, when, why, and how. The third step involves reading the material then attending specifically to the generated "wh" questions. In the Recite stage student attempts to answer the questions without direct reference to the reading. The last step, the student reviews the material and any written notes during the reading process to verify answers to questions.

First reported by Cheek & Cheek (1983), PARS is an acronym for Preview, Ask Questions, Read, and Summarize. Students first preview the material then formulate questions that pertain to the areas the teacher wishes to emphasize. The material is read with the developed questions in mind. The end phase is summarizing the material and correlating the verified information with generated questions.

Paraphrasing, developed by University of Kansas (1985) strategy curriculum center, simply means to translate something into your own words and repeat it to yourself. This process assist the student to think about it, understand it and remember it. Begin by reading a paragraph, then ask yourself what were the main ideas and details in the paragraph. Sample query could be, "What is this paragraph about? What does it tell me about ______?" The student translates main idea from reading into his/her own words. The paraphrase should have no more than three sentences. The sentences must contain a complete thought, be totally accurate, have new and useful information and make sense. The last step is to repeat the paraphrase to yourself for clarity and correctness.

Guided Questioning or Self-Questioning is where the student employs the "wh" questions to provide direction and organization of
information topic area and solve problems. Examples of guided questioning for written language are: "When you write a story, who is your intended audience? What does the reader need to know? What is my purpose as the writer... to inform, persuade, entertain? ... etc."

**Problem-solving strategy of Heuristic** is a general strategy. Ellis and Lenz (1987) characterize this strategy as being independent of a particular topic, it provides suggestions on how an individual is to approach a problem, understand the problem, and arrive at a solution to that problem. Samples of heuristic are:

**EASY: A Strategy for Studying Content**
- E = Elicit "wh" questions to identify important information (who, what, when, where, how and why)
- A = Ask self which information is least troublesome
- S = Study easy parts first, hardest parts last
- Y = Yes to self-reinforcement

**CAN-DO: A Strategy for Learning Content Information**
- C = Create a list of items to be learned
- A = Ask self if the list is complete
- N = Note the main ideas and details using a tree diagram
- D = Describe each component and how its related to others
- O = Overlearn main parts, then supporting details

Visual Memorization Strategies can assist students in maximizing their ability to memorize new information. Richardson (1980) professes the use of mental imagery constitutes a non-verbal, short-term, working memory processes in which information may be visually represented (words, people, animals, objects, gestures and graphics). These mental images are symbolic
representations evoked by the presentation of verbal information to be remembered over an indefinite period of time.

**Keyword Method**, developed by Atkinson (1975), is recommended for creating visual images of things that are not concrete in nature. Instead of making an image of an abstract word, the student is asked to associate the word with a concrete word that sounds like it and to use this information to create the new image to recall. For example, the word, "Oxalis" is a clover-like plant. To help one remember the word "Oxalis" find a similar sounding word like "Ox". "Ox" will be the keyword, now picture an Ox eating a clover-like plant.

**Pegword Method** assists in memorizing a list of words that can be recalled readily and linking these words with the items that must be memorized. Then, when one needs to retrieve the words, one merely recalls the story and the visual images created between the pairs. Words to memorize are line, dot, circle, triangle and box. Pegword Method: 1 - Bun, 2 - Shoe, 3 - Tree, 4 - Floor, 5 - Hive, 6 - Sticks, etc. Visualization: Bun with a line through it. A shoe with any color dot on it. A circle in a tree. A triangle on the floor. A box above a bee hive. Mastropieri, Scruggs & Levin (1986) state that this particular strategy has been shown extremely effective with learning disabled/mildly disabled learners, not only in immediate recall tests, but in 24-hour delayed recall tests. The pegword method can also be adapted to a nursery rhyme for recalling items.

**First Letter Mnemonic** is used to memorize list of items or steps in a process. Scruggs & Mastropieri (1990) recount this strategy for enhancing the integration of new content with previously learned content material. The procedure is a student
identifies an important word in each step. The words are then placed in the correct sequence. The first letter from each word is isolated. These first letters are shuffled to see if a word can be created from them or a word similar to the spelling made by these letters. If a word can not be made, a sentence or phrase is created using the first letter or each of the key words in steps (See figure 1 - Mnemonic Strategy).

Critical Thinking Strategies

Miles & Rauton (1990) note the important of a student becoming more aware of and in control of him/her thinking. A good student is usually a consciously thinking student. The well rounded critical thinking curriculum should investigate thinking and problem-solving in a variety of environments, such as: school, work or personal situations. A student needs to learn several specific thinking skills in detail then practice those skills in real life situations.

With the adolescent having dual diagnosis (second of psychiatric origin) the practical application of decision making is important. These students need to understand the reasons behind making decisions, whether the choices or decisions are impulsive, habitual and systematic. Miles & Rauton (1990) book "Thinking Tools" begins the exploration of thinking skill with "Choices". The main purpose being to realize which choices should be habitual, impulsive and systematic.

Utilizing activities that stimulate critical thinking in students. Vire (1994) points out various techniques can used be to unleash the abilities that lie dormant, one is weekly brain teasers. Students look forward to the challenge and fun.
Mnemonic Strategy

First Letter Mnemonic - used to memorize lists of items or steps in a process. The student identifies an important word in each statement or step. The words are placed in the correct sequence. The first letter from each word is isolated. These first letters are shuffled to see if a word can be created from them or a word that sounds similar to the spelling made by these letters. If a word can not be made, a sentence or phrase is created using the first letter or each of the key words.

Example: Computer Terminology

<table>
<thead>
<tr>
<th>Words</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
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<tbody>
<tr>
<td>Booting up</td>
<td>B</td>
<td>KMORBBF</td>
<td>Rich Flora</td>
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<tr>
<td>Format</td>
<td>F</td>
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<td>Kane Bet</td>
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Step 1: Isolate first letter, see if you can form a word with the letters.
Step 2: Rearrange the letters to form a word.
Step 3: Shape a sentence.
Techniques being used in brain teasers are: recall, observation, analysis, reason and elimination (See Figure 2 - Brain Teasers). Creating or utilizing exercises with analogies, determining patterns or relationships, analyzing cause and effect situations, determining placement of ideas from deductive thinking and exploring logic are all forms of activities that stimulate critical thinking. Many critical thinking instructional books contain a variety of example activities that can be employed in the classroom (See book listing in reference section).

**Diagnostic and Academic Assessment of Students**

The first step is identifying your population. It is not uncommon to find a large proportion of adolescents receiving short-term psychiatric treatment diagnosed as learning disabled, attention-deficit hyperactivity disorder, or slow learner. These individuals are susceptible to occasional bouts of depression due to difficulties in: attaining consistent academic achievement, auditory and/or visual processing, processing speed, receptive and/or expressive language (socializing), perceptual-motor ability and behavior monitoring (having control of locus). The teacher should review the student's medical chart before placement in class. Identification of the student's disorder is usually located in the assessment section of the chart. A psychiatrist after his/her initial assessment of the student has assigned a DSM-IV (Diagnostic and Statistical Manual of Mental Disorders) Multiaxial Evaluation. An example of a multiaxial evaluation is: Axis I. 300.4 Dysthymic Disorder & 315.0 Reading Disorder, Axis II. V71.09 No Diagnosis, Axis III. 382.9 Otitis Media, recurrent, Axis IV. Victim of child neglect and Axis V. GAF = 53
Figure 2

How many pearls are in the jewelry box?

How many pearls are on the string?

Source Unknown

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Axis I covers clinical disorders and other conditions that may be a focus on clinical attention. Axis II contains personality disorders and mental retardation. Axis III consists of general medical conditions. Axis IV deals with psychosocial and environmental problems and Axis V is Global Assessment of Functioning (GAF) Scale, a measurement of life stressors. This information familiarizes the teacher with student's present disorders and provide one with insight on how this adolescent may perform and react in the classroom.

If the student's medical records does not include a detailed report regarding learning difficulties then the teacher may wish to assess student's reading and writing ability using quick and easy test instruments. Nelson-Denny is commonly utilized in high school and college to determine vocabulary level, reading rate and comprehension. The entire test takes approximately thirty-five minutes to complete. Timed Readings is a series of books intended to determine a baseline in reading rate. Student reads passage at own reading pace then answers questions, baseline score is recorded for reading speed and comprehension. Sentence Writing Strategy is part of the Learning Strategies Curriculum written by the University of Kansas. Students are pre-tested by writing six sentences on a general topic selected by instructor. Sentences will be rated on use of sentence type (simple, compound, complex, compound-complex and non-sentence). Results from the previous instruments supply the instructor with background knowledge regarding reading and writing ability; better equipped to assist the student in concurrent strategies (i.e., critical thinking and sentence writing).
Implementing Study Skills and Critical Thinking Skills Curriculum into an Adolescent Psychiatric Treatment Program

After determining the diagnosis and academic functioning level of these adolescents, the next step is to implement teaching plans of each study skill and critical thinking exercise. Teaching plans should emphasize the "What, Why, How and What if" to every topic. For example, SQ3R, the beginning step of "What" is explaining the concept of SQ3R. The instructor can use mapping to point out the keys steps in SQ3R. The second step of "Why" is to illustrate why a person needs to know about SQ3R, the benefits, generality of strategy and practical uses. After the "Why" students then proceed to try the strategy independently. The third step is having students in a group talk about their experience undertaking this strategy. The fourth step involves presenting students with different examples of readings (textbook, magazine, instructional booklet, etc.) to experiment with SQ3R. Individually, students explain how he/she went about implementing this strategy during the experimentation stage, step five. Step six, when students possess thorough erudition of SQ3R pose questions on alternating, abbreviating or improving method to enhance reading and comprehension; have students think about questions then evoke a response from group on questions.

How does one develop a schedule to teach study skills and critical thinking strategies during a short impatient stay of five, ten or fourteen days? This translates into an even shorter period of school time, operating only five days per week (Monday - Friday). The following schedule provides a guide to planning a daily agenda regarding study skill/critical thinking topics for five days. Each week will begin a new study skills/critical
thinking topic. This timetable is easier to adapt and accommodate a mid-week admission of an adolescent. The adolescent can receive extra tutoring or assignments (if needed) to acquire the skill of the strategy at a quicker pace, then remain on schedule for learning next week's new set of strategy instructions. (See Figure 3).

Conclusion

This paper explored the possibilities to executing an abbreviated school program for adolescents in a psychiatric treatment facility, emphasizing a curriculum focus of study skills and critical thinking strategies. The purpose here is to attract attention to alternative, effective methods of continuing an educational component in the adolescent program within short-term inpatient psychiatric treatment. This theory has resulted in small favorable results (noted at Lovelace/ParkCenter), but this idea should be explored and promoted to prevent the lost of education to adolescents with special needs receiving inpatient psychiatric counseling, because this is the population that has deficiencies in academic skills and problem-solving skills. Why, what better reason to reduce residism with this group of people then through the teaching of adaptive coping (problem-solving & critical thinking), reading, writing, mapping, questioning and memorization skills.
### Teaching Plans for Study Skills/Critical Thinking

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:50: Concept of SQ3R</td>
<td>9:00 - 9:50: Visualization Strategy - Importance of Keyword Pegword &amp; Mnemonics</td>
<td>9:00 - 9:50: Group Discussion SQ3R - Practical Work</td>
</tr>
<tr>
<td>10:00 - 10:50: Critical Thinking - What is it</td>
<td>10:00 - 10:50: &quot;Why&quot; - Critical Thinking - Implementing Choices</td>
<td>10:00 - 10:50: In Class Assign. Develop Own Keyword &amp; Pegword Technique. Homework - Mnemonics</td>
</tr>
<tr>
<td>11:00 - 11:50: Intro. to Visualization Strategy</td>
<td>11:00 - 11:50: Benefits of SQ3R - Practical Homework</td>
<td>11:00 - 11:50: In Class Assign. Write or Discuss All Choices Made Yesterday</td>
</tr>
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<tr>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tbody>
<tr>
<td>9:00 - 9:50: In Class Two Examples of Readings (Instructional Guide &amp; Magazine) Students Implement SQ3R</td>
<td>9:00 - 9:50: Student demonstrate visualization strategies &amp; discuss what they learned - variation to strategies</td>
</tr>
<tr>
<td>10:00 - 10:50: Discuss Difference Between Impulsive, Habitual, Systematic Choices - Categorize Yesterdays Choices</td>
<td>10:00 - 10:50: Student demonstrate SQ3R Tech. - discuss what they learned - variation or adaptation to the process</td>
</tr>
<tr>
<td>11:00 - 11:50: In Class List of Words to be Memorized, Students Utilize Keyword, Pegword and Mnemonics for each list</td>
<td>11:00 - 11:50: Discuss impulsive choices made in the past, how to change this, state steps to systematic choices</td>
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References


I. DOCUMENT IDENTIFICATION

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