The Mystery of the Passive Students

I am concerned about my students. It seems that even though they are identified as Talented and Gifted (T.A.G.), they are increasingly passive in their thinking. They are used to easily comprehending all of the reading that they do in their other classes and there is no doubt about it: they do comprehend well. What they do not do well is apply, analyze, synthesize, or evaluate the information that they read. They also do not retain information for long periods of time because of the superficiality of their reading.

I am afraid that my students think of the learning process in the same way they think of watching television. They are used to being passive consumers of television and it seems that, when looking for information in texts, they would like to “switch the dials” as they do the channels on their television sets, and have the information they want magically appear before them. They do not realize that searching for information and reading is a very active process, requiring both mental and physical energy. My students are also resistant to thinking at higher levels: these thinking processes require mental energy. They are too used to being passive in their learning; they are consumers rather than producers.

There are two other reasons why my students’ lack of energy—mental and physical—is of concern to me. My own research points out that our high technology world will require even high school graduates to possess good critical and creative thinking skills. Not all of my students will go on to college, and I worry that they will not be prepared for the demands of the future job market, especially since this part of Connecticut includes many high-technology industries. The demands for my students to possess a wide variety of skills as they enter the work place will be great. I want them to be ready for the challenge.

As I continue to look towards my students’ futures, I see that just as they are passive in their quest for knowledge, many of them are passive in the living of their daily lives. Just as they accept whatever comes before them in their school reading and on television, they accept whatever comes before them in their lives. They do not question or, more frustratingly, even make an effort to “switch” the channels in their lives. Many of them seem to view life as something that just happens rather than as events over which they can exercise some control. Perhaps by providing opportunities for choice-making and decision-making in the classroom, I will enable my students to gain confidence in this same behavior outside of school.

I am not foolish enough to believe that this one unit can rectify all of the many problems I have described. However, I do believe that it is important to begin chipping away at my students’ passivity, to require them to make choices about their studies, to seek information from a variety of sources, to apply, analyze, synthesize,
and evaluate information, and to predict outcomes. It is important for my students to learn these skills in the classroom so that they may carry them over into their daily lives.

This unit is for all of my T.A.G. students in grades four through seven. The strategies in this unit would also be appropriate for most fifth, sixth, and seventh grade students.

The objectives of this unit are:

- to improve my students’ ability to apply, analyze, synthesize, and evaluate information;
- to allow my students opportunities for decision making and choice making;
- to provide my students with all of the terminology used in teaching problem solving skills and in describing higher level thinking skills;
- to introduce my students to two mystery series written for children—Encyclopedia Brown and Tintin;
- to capitalize on my students’ enjoyment of mysteries as a means of teaching higher level thinking skills and problem solving skills; and
- to encourage my students to become more active in their thinking in all parts of their lives, not just in school.

My students enjoy mysteries. When I told them I was writing this paper and reading children’s mysteries, almost all had one or more favorite mystery as a suggestion for me to read. Mysteries, I feel, will be a vehicle for providing my students with opportunities for problem solving and creative thinking since it is a genre that clearly appeals to my students. I will use these detective series to begin developing the higher level thinking skills that are necessary for critical thinking and problem solving.

The model of thinking skills that I use to develop my activities in my classroom is Benjamin Bloom’s Taxonomy of Cognitive Thinking Skills. At the lowest level of Bloom’s hierarchy is knowledge. This is the level at which students recall facts, principles, and concepts. At this level they describe and define information. They locate information in a single text and label it. My students do this fairly well. The second level is the comprehension level where students interpret information. This is more difficult for my students, but they do have some success when asked to infer from information read, to give examples of or explain information. The third level in Bloom’s model is the application level where students need to be able to apply previous knowledge to a new situation. Here students need to be able to classify, organize, generalize, and summarize information, and it is at this level that many of my students’ skills are lacking. The fourth level is analysis where students need to be able to break material into its components and to look at how it is structured and organized. At this level students need to be able to compare, contrast, solve, discriminate, or take apart. Tasks involving these skills are very difficult for my students. The fifth level, synthesis, requires the ability to put the parts back together; to form a whole that has been taken apart. Where analysis involves divergent thinking, synthesis requires convergent thinking—the ability to hypothesize, design, suppose, and create. The last level, the highest level
of thinking skills, is the evaluation level. Evaluation is the ability to make judgments based on the value of the information and on definite criteria. It is the ability to judge, criticize, defend, interpret, or assess. It is a skill that is very difficult for my students; even the simplest question requiring evaluative skills is often met with blank stares or shrugs of the shoulders. The difficulty my students encounter when asked to answer questions or demonstrate knowledge beyond the simple comprehension level is partly due to their mental passivity and partly due to a lack of opportunities requiring them to use higher level thinking skills. It is important that I provide my students with opportunities to flex their mental muscles. One way to begin this process is to ask questions that are open-ended, that cannot be answered by yes, no, or one word, and have more than one possible response. During discussions ask students for their opinions about the topic at hand. Questions that require students to use higher level thinking skills will begin to stimulate their thinking.

Knowing that students need to work on these thinking skills is not enough. Not only is it important that I provide students with problems to be solved that require using these higher level skills, but I must also provide students with specific strategies for solving these problems. Problem solving is the process of recognizing an obstacle, difficulty or inability to act, thinking of possible solutions, and evaluating the solutions. Students can be taught specific steps to take for problem solving that can be used over and over again. The following is a list of abilities that are necessary for students to possess before developing a problem solving strategy. There is a correlation between these abilities needed for problem solving and Bloom’s Taxonomy:

<table>
<thead>
<tr>
<th>Problem-Solving Abilities</th>
<th>Bloom’s Taxonomy</th>
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<tbody>
<tr>
<td>[The ability to:]</td>
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</tr>
<tr>
<td>1. Think of several</td>
<td>Knowledge</td>
</tr>
<tr>
<td>characteristics of a</td>
<td></td>
</tr>
<tr>
<td>given subject or</td>
<td></td>
</tr>
<tr>
<td>situation</td>
<td></td>
</tr>
<tr>
<td>2. Classify</td>
<td>Application</td>
</tr>
<tr>
<td>3. Perceive relationships</td>
<td>Analysis</td>
</tr>
<tr>
<td>4. Think of alternative</td>
<td>Synthesis</td>
</tr>
<tr>
<td>outcomes</td>
<td></td>
</tr>
<tr>
<td>5. List characteristics</td>
<td>Knowledge/Synthesis</td>
</tr>
<tr>
<td>of a goal</td>
<td></td>
</tr>
<tr>
<td>6. Produce a logical</td>
<td>Synthesis</td>
</tr>
<tr>
<td>outcome</td>
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</table>

If students are allowed to develop these abilities for problem solving, they will automatically be required to think at a higher level. In addition, students can be taught critical thinking/problem solving skills by using a set of strategies which build on the problem solving abilities and which also correlate with the higher level skills I am seeking to improve.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Bloom’s Taxonomy</th>
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<tbody>
<tr>
<td>1. Recognize the problem</td>
<td>Analysis</td>
</tr>
</tbody>
</table>
2. Formulate a hypothesis Synthesis
3. Gather pertinent data Application
4. Test and evaluate Evaluation
5. Draw conclusions Evaluation

To the above strategies must be added one more element: creativity. The creative child is often not appreciated in the classroom as this may be the child who talks too much and out of turn, who often has a ‘smart’ answer to questions. Many students find little appreciation for their creativity. They cease to use it. Since creativity plays a large part in problem solving, it is necessary that creativity be fostered in the classroom. There is evidence that creativity can be cultivated. Furthermore, studies have shown that teaching skills must be coupled with the opportunity to explore freely in order to foster creativity. Classroom experiences must be structured in such a way as to allow time for creative responses, to encourage all students to participate, to support and reinforce unusual ideas, to allow students to take risks, and to use failure or wrong answers as a positive learning experience.

A final word about teaching problem solving and fostering creativity. All of the terminology concerning Bloom’s Taxonomy, problem solving strategies, and creativity enhancement as well as discussion about the skills we are developing, should be included as a part of this unit along with the actual activities to develop the skills. Students need a framework within which to operate. If we want good thinkers, good questioners, good problem solvers, we must empower them with this information also. This provides students with a sense of ownership and extra involvement in their learning that may increase their interest and enthusiasm.

Trying to accomplish all of the above—the development of higher level thinking skills, the teaching of problem solving skills and strategies, and fostering creativity—is a tall order. Reading detective fiction and developing a wide variety of activities based on the stories is one way of providing students with opportunities to learn and use many of these important skills and strategies. For example, detective fiction requires “an interest in reconstruction through detail as opposed to the larger picture.” Objectives are looked at closely to determine what they imply or what their purpose is. In other words, using detective fiction requires the reader to analyze and synthesize and the teacher can develop activities based on detective stories that single out these skills. Reading detective fiction requires imagination and solving the mystery requires invention. It also helps students tolerate a complexity as they organize and assess clues to solve the mystery.

I have stated that all of my students enjoy mysteries, but what is it about mysteries that appeals to them so much? Is it the suspense, the desire on my students’ parts to solve the mystery, or just the excitement of reading about the adventures of a person their own age? For some of my readers it is all of these things; for many it is the formula of the mystery that holds its greatest appeal.

The mystery formula always has a desirable and rational conclusion. For some readers the appeal is the explanation at the end of the story that allows them to see how close they were to solving the mysteries. For others the appeal is the logical solution at the end of the story: “Detective fiction insists that there must be some explanation” and when the explanation is presented, all loose ends are tied up. This is in contrast to everyday life which is full of loose ends and, for many of my students, full of events that have no reasonable explanations.

Detective fiction has a definite plot. There is an order to the story and this sense of order appeals to young
readers. In a detective novel there are four parts to the plot. It begins with: (1) a crime to be solved and that crime can only be solved by (2) gathering evidence. Once (3) evidence is assessed, (4) the identity of the criminal and meaning of the events is made clear. While mysteries are not always easy to read, this sense of completeness is important to my young readers. It is a place where the rules are followed and if they read the clues carefully, they can solve the mystery. There need not be any surprises. If they choose to read along without trying to solve the mystery, there is still the security of a completed story with no loose ends. There is a similarity between the rules of detective fiction and the rules of problem solving and critical thinking. Students will perform well if they have a framework within which to operate.

There is a last reason why I believe my students enjoy mysteries. As in adult literature, most of the stories that they read are also adventures, romances, or spy thrillers. The adventures, especially, hold my students’ interest and the mystery is a bonus that adds to the pleasure of the story. Thus, I have at my disposal a genre that holds my students’ attention whether they read to solve the mystery, or whether they just read to enjoy the action of the story and to be surprised at the end. Whichever the case, the genre provides an enjoyable means of teaching higher level thinking skills and problem solving skills to students.

An eleven year old girl listed the following as her opinion of the elements of a good mystery:

1. an exciting plot that holds her interest;
2. suspense;
3. enough clues so she can follow the action, and
4. clues that allow her to try to solve the crime.

The detective series I have chosen for this unit, *Encyclopedia Brown* and *Tintin*, do all of the above in addition to providing me with ample opportunity to develop activities appropriate to the goals of this unit. Furthermore, each *Encyclopedia Brown* book contains several short mysteries and the solution to each is kept separate so that the reader can try to solve the mystery (or the teacher can withhold the solution, allowing students the opportunity to attempt to solve the mystery using critical thinking and problem solving strategies) before revealing the author’s solution for comparison.

The *Tintin* series is in hardcover comic book fashion and has much more complicated plots. The books require the reader to read and observe as clues are in both the text and the pictures. The *Tintin* books can be broken up and read in smaller sections so that students can predict, based on careful observation and using critical thinking and problem solving strategies, what will happen in the following section. Since I see each of my groups of students only once a week, both of these detective series fit my routine well. Using *Encyclopedia Brown* and *Tintin* may work for the regular classroom teacher also, since finding time for these activities may be limited to once or twice a week.

*Encyclopedia Brown* and *Tintin* have further appeal. In many respects they mirror the amateur sleuth of adult fiction. Tintin, while Belgian, is typical of the bumbling American sleuth—a Columbo for kids. While Tintin’s adventures take him from his home in England to places all over the world, Encyclopedia Brown stays in his
hometown of Idaville where he is the ten year old son of the Chief of Police and “the real brain behind Idaville’s war on crime.” Encyclopedia is a real “kid” who worries about the town bully, Bugs Meany, and has friends with whom he hangs around when not solving crimes. He is less bumbling than Tintin, who is a child in an otherwise adult world.

In fact, focusing on the differences between Tintin and Encyclopedia Brown would be a good beginning activity in which students could develop a chart comparing and contrasting the two main characters. Organizing information into a chart requires students to apply what they know about the two characters and comparing and contrasting requires them to analyze what they know about the characters. In addition, if students are allowed to make these charts on large, white, unlined paper and use color and decorate them, they can put their artistic creativity to work also.

Predicting an outcome based on careful examination of the clues requires students to analyze carefully what they have read. Using either a Tintin or Encyclopedia Brown story, students can predict the solution to the crime by listing, after careful reading (and observing in the case of Tintin) all the clues that substantiate their conclusion. This activity requires students to apply and analyze what they have read. This might also be the time to teach students about “red herrings” in detective stories. Red herrings are the clues that are given to mislead the reader—those clues that appear at the moment to have a bearing on the crime but those which, once the crime has been solved, actually have nothing to do with the crime. Once students are aware of red herrings, they can reexamine their lists of clues to determine which clues were valid and which were indeed red herrings.

This same activity can be done using problem solving strategies. Students can begin by (1) recognizing the problem, i.e., defining the crime that has taken place. They can then (2) hypothesize a possible solution, and (3) list clues (pertinent data) to substantiate the hypothesis. Next, they can (4) evaluate the data they have gathered and scrutinize it to see if the solution will hold up against all of the clues. The final step would be to draw a final conclusion as to whether or not, based on all of the above examination, the hypothesized solution is indeed a possible solution to the crime. This kind of problem solving activity lends itself to students working together in small groups and once students are familiar with the problem solving strategies, they will work with ease within this framework. This framework can be used over and over again to predict solutions to mysteries and it can be used for other classroom activities and problems that require solutions.

The opportunities that mysteries present for higher level thinking, inquiry, and problem solving are many and varied. I have presented only a few examples. What is most important is to teach students how to think critically and problem solve and then to provide ample opportunities in the classroom to use these skills and strategies. Once students are familiar with these strategies and more comfortable with activities requiring higher level thinking skills, they will carry these skills to other academic areas and to other areas of their lives outside of school.

Notes

2. Ibid.
7. Feldhusen and Treffinger, p. 31.
Lesson Plan Comparing and contrasting Tintin and Encyclopedia Brown

**Procedure** Students should read at least one Tintin book and several Encyclopedia Brown stories (see Bibliography). As a whole group activity, have students brainstorm the similarities and differences between the two characters. For example: they are both boys; Encyclopedia Brown is American, Tintin lives in England; Tintin is wealthy (ask what clues tell this), Encyclopedia is not; Tintin’s adventures take him all over the world, Encyclopedia Brown stays in Idaville. Once the similarities and differences have been exhausted, help students organize the information into categories. An example of a very simple chart is as follows:

<table>
<thead>
<tr>
<th>Tintin</th>
<th>Encyclopedia Brown</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td><strong>Similarities</strong> 2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
<tr>
<td>1.</td>
<td>1.</td>
</tr>
<tr>
<td><strong>Differences</strong> 2.</td>
<td>2.</td>
</tr>
<tr>
<td>3.</td>
<td>3.</td>
</tr>
</tbody>
</table>

Lesson Plan Creative writing

**Procedure** On the board, write the following headings: setting, characters, time, crime. Have students brainstorm several responses for each category and list these under each heading. Ask students to pick one entry from each category (or perhaps two or three from the characters’ category) and use these as the basis of a story. This activity requires students to stretch their imaginations to make connections between four or more unconnected items.

After students have been reading mysteries and have discussed the elements of a mystery, this activity can be narrowed by using the same format but with only two categories such as crimes and clues or setting and clues. Students can choose one item from the crime or setting category and two or three from the clues category to write a mystery story.

Lesson Plan Looking for clues and predicting what comes next

**Procedure** Using The Case of the Broken Ear, have students read to page 3. Ask students why Tintin knows the idol is a fake. Have them reread and observe for clues that will answer that question. Answers and reasons for their answers can be written into paragraphs or this can be a small group activity in which groups of three or four read, observe, discuss, and develop an answer, and make a prediction that is either charted or written into a well developed paragraph. This activity can also be done as a whole group activity with conclusions and reasons listed on the board. Have students continue reading to discover whether their conclusions are correct. All of the Adventures of Tintin books lend themselves to this kind of activity.

Lesson Plan Predicting possible solutions to a mystery

**Procedure** Using any Encyclopedia Brown story and the chart below, fill in each category and use that information to develop possible solutions to the story. This chart format can be used over and over again and with other books such as Two Minute Mysteries or You Be the Jury. These
charts can be saved over a period of time to compare beginning predicting skills with later skills.

Story Characters Important Red Possible Solutions—
Title Clues Herrings Why?

Lesson Plan Creative thinking using codes

Procedure Discuss with students the idea of information and messages written in code. Since secret messages are often included in children’s mysteries, present students with examples of codes to decipher by making up your own or using examples from any of the Usborne Puzzle Adventures by Gaby Waters and Graham Round (see Student Bibliography). Initially you will have to help students begin learning how to decipher by asking them questions or making suggestions that will guide them towards breaking the code.

Have each student develop his/her own code and write a message to exchange for deciphering with another student. Since deciphering these codes may be difficult for some students, each student may want to develop a set of “clues” to be used with his/her code if necessary. Remind them of the questions you asked and suggestions you made when introducing codes to them to be used as models for this part of the activity.

Teacher’s Bibliography


A discussion of popular formulaic literature.


A how-to book for teaching critical and creative thinking and problem solving skills.


A teacher’s guide to helping students write detective fiction. Includes interesting background material for teachers and students. Lesson plans and worksheets which are structured to require students to use higher level thinking skills.


A discussion of recent findings in the field of creativity.


A textbook about all kinds of children’s literature.


A discussion of how to plan activities requiring higher level thinking skills around field trips.

A collection of essays about detective fiction.

**Student Bibliography**


Puzzles, projects, and lots of information about crime detection, all presented in illustrations by Colin King.


A series of over twenty books in which Tintin, boy detective, and his dog, Snowy, travel all over the world and even into outerspace while pursuing nefarious criminals.


Puzzles, projects, and information presented in colorful illustrations (by Colin King) about all aspects of crime detection.


Ten courtroom mysteries in which the student has to read and observe clues given to decide the innocence or guilt of an accused criminal.


Two of many books in the Encyclopedia Brown series in which Encyclopedia tackles crime in his hometown of Idaville.


For older students (grade seven and up), these two to three page mysteries require the student to read carefully to find a solution to a variety of crimes.


More wonderful illustrations by Colin King in this how-to catch criminals book.

All about detective fiction—essays, stories, puzzles. Light and enjoyable reading.