

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 1995 Volume I: Gender, Race, and Milieu in Detective Fiction

# Solving Mysteries in Stories and Throughout the Curriculum

Curriculum Unit 95.01.04 by Roberta Mazzucco

In evaluating the popularity of detective fiction, many critics point out that it is the solving of the puzzle which intrigues the reader and keeps their interest. It was the connection to puzzle solving which first suggested to me that the genre could be the springboard to an integrated unit of great interest to children. Having read some of the literature on detective fiction, I know that there are those who would be upset if the stories were seen merely as a literary puzzles. While I understand their point, it is necessary for my purposes to simplify what aficionados see as more than a one-dimensional genre.

I would like to begin my unit by suggesting that puzzles have long been a favorite activity of adults and children. Why are some people good at problem solving, and what makes someone successful in these endeavors? I suggest that when we tackle certain problems such as crossword puzzles, tangrams, word searches, etc., there is a kind of mind-set or game plan that we use or develop. In doing more and more crossword puzzles you develop an understanding of the strategies that are necessary to solve that type of puzzle.

While I recognize the inherent love of puzzles that children have, it is also apparent that they naturally lose interest in a task if it is too demanding. In general, most teachers and those who analyze test scores will point out that problem solving is definitely a major stumbling block. So pervasive is the difficulty in this area for most students that their inability to analyze and draw conclusions has become a "given" for most teachers. Whether it is really true that students of thirty or forty years ago were significantly better at these things, I have no proof. Nevertheless, my colleagues who have significant years of experience say that they have seen a lessening of these kinds of thinking skills.

Why this has occurred is up for speculation. Part of it, I believe, is the fact that our students have been trained by the system to seek the correct answer at all cost. This has led to an obsession with the "right" answer. They don't care how they got it, or where it came from, as long as it is on their paper. Perhaps this comes from years of doing fill-in-the-blank workbook pages, and our emphasis on results and not process. So we have classrooms of students who seek nothing but immediate answers as the ultimate sign of success. In my view, one of the sadder aspects of this is that students do not find enjoyment in the intellectual challenge of solving a problem.

What we are finding in the classroom is that in many areas of the curriculum students are not tenacious problem solvers because they have no grasp of possible methods to be used. Because the mental processes

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for problem solving seem to be weak, current educational research is encouraging teachers to do as much "modeling" as possible. "Metacognition"—in its simplest translation, thinking about how we think—has become the new educational buzz word. We talk our students through the thought patterns that we follow when we write, or approach the reading of a book, or do a math problem. We are recognizing that there are certain patterns or approaches that work to solve different types of problems, but our students do not possess them. In many cases they have no idea how to approach a puzzle or problem, and will merely stumble around until they reach their limit of frustration or they are able to get the answer from the teacher or another student. Thus, we need to gradually build up their skills by giving them as many opportunities to do the task we want them to master as possible. We are realizing that these skills are not innate, and so we must teach students literally how to think through a problem to its solution.

I think it apparent that detective fiction lends itself very nicely to this task. First, it presents a literary puzzle to the reader that makes him/her more active in the reading experience. In no other type of fiction does the writer defer in such an intricate manner to the reader's expectations. The writer knows that the reader has certain expectations and that he must try to fulfill them. Part of the delight in reading these stories is the acknowledgement by the reader that he /she will be taken on a convoluted path of clues and suspects to the final resolution. It is then that we will find out if our thinking was on the right track, or if we were taken in by the motives and behavior of the wrong character. It was Dorothy Sayers who observed that people love puzzles and mysteries because they anticipate the pleasure of the solution. Of course it is only at the end of the solution that the reader will decide whether the writer succeeded in leading him on a merry chase and devising a believable and rational outcome. Many times the reader is unsatisfied if the solution has no rational grounding in the information given by the author.

In making detective fiction the mainstay of this unit I am trying to show students that different patterns of thinking run across all disciplines. While detective stories are somewhat formulaic, we nevertheless love watching the detective make connections which we may or may not figure out before he announces them. When Poe wrote the first story in the 19th century, the scientific method which had first developed in the seventeenth century had blossomed. The detective as Poe conceived him has an ability or "method" which allows him to know who is the villain. Not only does he know, but he is able to explain how he knows the guilt or innocence of a person by drawing irrefutable inferences. This is why most detective fiction concludes with a few paragraphs in which the detective reveals what steps he followed in determining the solution of the story. The aims of the elementary writing program include having students produce paragraphs which give information and directions or present an argument or point of view. In order to do this, students must be able to organize their ideas and put them in a logical sequence. Even pure story telling requires the inclusion of a coherent beginning, middle, and end. Detective mysteries, especially some of the shorter works, present children with a concise plot, recognizable vocabulary, and a skeleton they can examine to see how a story is put together. All of the things we do in studying literature and writing can be done with this genre. Whether it is showing how we need to plan what comes next in the story or that most difficult thing for all writers—deciding when information is really extraneous to the plot or paragraph.

As John Van Dover points out in his book, "You Know My Method," the industrialized society of Poe had been invaded by machines that did things for man but left him uncertain of how they were accomplished. For most the scientific method was not accessible or intelligible. Farmers who could once see their wheat ground by a mill stone crushing it were now bringing it to mills run by engines which made the process a blur to the eyes, and which they could no longer explain. <sup>1</sup>

What Poe did was to take the ability to know and apply it to moral questions. The detective knew how to know;

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he possessed a method of knowing that served him in the moral question that confronted him. The scientific method is neutral and, when applied to moral questions by the detective, it can show the guilt or innocence of a person with such certitude that we do not question the correctness of the outcome. The moral questions within these stories can be satisfied with unquestionable solutions as never before. When we read detective fiction we know that the detective possesses the most reliably scientific way of knowing and that his finding will be irrefutable. <sup>2</sup> The "method of knowing" is what we are seeking to give our students so that they can examine a problem or task and, despite its unexpected twists, come to a way of knowing that will increase their interpretive powers.

The wonderful thing about using detective fiction is that most students love these types of stories and needn't go without them because, on a practical note, there are detective stories available for all ages and for all reading levels. Even at a relatively young age students already possess a knowledge of the characteristic detective. He or she is clever, and uses clues to find out the solution to the crime. They may or may not use special equipment like magnifying glasses or fingerprint kits, but they always figure out the solution. It is that predictability or pattern which I seek to exploit.

Because students may need to read many mysteries to gain an idea of the pattern they possess, I have chosen to center the unit on the McGurk Mysteries by E.W. Hildick. There are many such series at different reading levels which one can successfully utilize, but I chose this series because it had a mixture of characters who are boys and girls, and some of the stories include minority children. The series concerns a group of children who have an amateur detective agency. They have a Holmesian leader—McGurk—who is always able to piece things together. There is also the Watson-like narrator who leads us through all the clues but without McGurk's instinct for deductive reasoning. The rest of the children in the group each have their own expertise which they contribute to the solution of the mystery. I thought this the best place to start because these stories possess elements of classical detective fiction, including Poe and Conan Doyle.

Here again I am accepting Edgar Allan Poe as the father of the detective novel and his Auguste Dupin as the prototype detective. In reading the literature it was fascinating to discover that the idea of detective fiction has been traced by many back to biblical stories and to Greek and Roman literature. While all of this speculation about the first detective story abounds in the literature, I still wish to accept Poe as the founder since, as Aaron Marc Stein, one critic, put it, there could be no real detective fiction until there were detectives and organized police units. This did not take place until the nineteenth century. Up until this point, detection had consisted of getting suspects and torturing them until they confessed. Within the democratic nations of America, Great Britain, and France, detection answered the need to find evidence that would logically convict the suspect. That need for a rational and logical explanation of a sometimes horrible event was necessary before detective fiction could be developed. <sup>3</sup>

I would like to supplement the Hildick books with the Encyclopedia Brown stories. These so-called two-minute mysteries will offer supplemental practice in problem solving. The Meg Mackintosh books by Lucinda Landon differ usefully in that as the stories progress there are text and print clues which children can use to try to solve the mysteries confronting Meg. All of these stories are fairly short works with very concise plots. Therefore the unit would not be confined to concentrating on one book, but could accommodate groups reading different stories or the round robin reading of three or four books in a four to six week period. This would allow for a lot of exposure to the genre and increase the children's appreciation and confidence in reading such stories.

Overall, the unit seeks to let students know that there is not just a chosen few who can handle puzzles or

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mysteries, but that it is a matter of learning some patterns and maybe creating some new ones that leads to success.

"Setting the Stage for the Unit": In beginning the unit it would be desirable to get students interested very quickly. One possible way would be to give students some kind of puzzle to solve, be it a crossword puzzle, math problem etc. and/or to use a short story as an introduction. This could lead to a discussion of why people like to solve puzzles and what types of activities the children enjoy that include puzzle solving. The room could be enhanced by a bulletin board and/or display about detection.

The classroom teacher should tell students that they are also like detectives when they look for solutions to word problems or when they investigate a question in science. The whole classroom could become a detective agency and students could have identification cards. Cooperative groups could choose to give their agency a specific name and an incentive plan could be set up for groups that solve the most problems, etc. Once the children are drawn into the concept of being detectives, it will be up to the teacher to provide the necessary elements to keep the unit going.

"Math": The teacher can use a daily word problem or other math question to start the day. Since the idea of developing problem solving skills is one of our goals, teachers would model some basic ways in which we tackle a problem, including working backwards, and the strategies that work. Puzzles go beyond mere word problems and can include such manipulatives as tangrams, geo boards, pentominoes, colored tiles, cubes, etc.

"Writing": In addition to the writing of a mystery students can write about characters in their books and keep track through a graphic organizer of the means, motive and opportunity of each suspect. They might keep a math and/or science journal in which they write about what observations they made as they did a certain experiment, or how they did a problem and how they knew they had the correct answer. Students are usually fascinated by different kinds of writing and so they might be introduced to writing codes: the Morse code, sign language and other cryptic writing. Try to set up a classroom code which the teacher could use to write daily announcements, or messages on the board.

"Science": At a classroom science center students could be given the opportunity to make invisible ink and to write messages to one another. They might also study fingerprinting and do a picture using fingerprints as a basic motif. The whole idea of detection and mystery works very well with science. To this end, the Einstein Anderson books, which are stories that have solutions dependent on scientific principles, will be of great use. An observation center could be developed in which objects are rotated for the children to examine and write descriptions of. Here the teacher could introduce the scientific method to the class. Students need to know that scientists cannot close their minds to new ways of thinking and doing; otherwise our civilization would not have become so advanced.

"Social Studies": There is the popular television series "Where in the World is Carmen San Diego"in which the detectives try to track down criminals while learning about world geography. It is
based on the highly successful computer game featuring the same character. This is now
available in a board game version. Teachers can make up a classroom version to coincide with

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whatever their students are studying. Daily clues can help the class track the desperadoes. Students might also take turns leaving a clue for the class to follow. Map making could also be done to map out locations in a story.

"Language Arts": Detective work can surely be a theme for the child studying language. The routine of class reading and peer suggestions for writing could easily be centered on this. The students are detectives listening for certain main ideas in their classmates' writing. In perusing another writer's work the child would be looking for correct capitalization and ending punctuation, and determine whether paragraphs were indented and whether the student's paragraph did what it set out to do. "Art, Music, and Drama": Students can try making masks or disguises. The teacher might encourage a discussion of the purpose of a disguise to a detective as well as a criminal. Why do certain superheroes wear a disguise? (Batman, Superman). They could also do fingerprint painting. Students might try thinking of what type of music might go with a particular section of a detective novel. Since detective fiction often utilizes setting to establish a sense of danger or mystery the teacher may use available tapes and videos of children's stories to help students suggest how music and setting contribute to the telling of a mystery. Cooperative groups can be asked to dramatize a selection from a story. There are also mystery plays available for children to perform which could be a whole class project. The teacher could have students bring in hats, old gloves, glasses, etc., to make a prop box for dramatization. "Game Playing": game playing can be invaluable for children because it not only develops socialization skills but helps them develop strategies for problem solving. As previously mentioned, there is now a board game of the popular television series "Where in the World is Carmen San Diego?". Another popular board game that is most appropriate for the unit is "Clue"—in which players try to figure out the culprit from a series of clues. While this game is available in a children's version, I would suggest teachers will find the adult version appropriate for all levels and vastly superior in content.

Logical thinking can be promoted by encouraging students to play chess. Presently the United States Chess Federation is promoting the teaching of chess in New Haven and other areas for students as low as grade two, so it is a good time to get involved. Good chess players always try to think ahead three, four, or more moves, trying to anticipate their opponents move while countering with their own winning strategy. Just so, the mystery writer like the chess player has a desired end in mind: the chess player to achieve checkmate, or the surrender of his opponent; and the writer to logically weave a story that fits with his solution. To that end the detective and criminal often match wits, each making moves in anticipation of the other. We as readers or spectators likewise try to anticipate what move will occur next. Sometimes we disagree with the move, and sometimes we don't understand a move that has been made, but our fearless detective usually wows us by coming up with the surprise move or solution to end the case.

## Lesson Plan # 1. Writing a Classroom Mystery

As the literature points out the writing of mystery detective fiction requires that the author work backwards. In

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the majority of cases an author has a solution to the story before he has the plot. He works backwards to add the situation and clues that will lead to the desired end. This is a different type of writing for students—one that has to be specifically concerned with sequence and logical order. I would suggest that a group story might be the first writing activity, and then each student might try a short mystery. I think that the genre would lend itself to processed writing, which we now utilize with our students. The need for logical order would help focus attention and possibly help to eliminate the rambling that sometimes characterizes student's writing.

## **Objectives:**

The students will compose a group detective story. For our purposes the story will concern the theft of students' lunches in the classroom.

Materials: A chart on which the teacher gives a couple of characters and facts about them. For Example:

Students: Facts:

Jason owns a rabbit and hamster always getting in trouble

Alice loves vegetables guiet, good student

#### **Procedures:**

Prewriting or building background would entail reminding students that the writer of a detective story has to work backwards. He or she must have characters and a plot that has some twists in it if it is to be interesting. The teacher should have a plan for a story somewhat developed in his/her head before starting this activity—that way the teacher can help things along if the group is unable to get started. In this case I am giving students the crime—missing lunches—and then I am giving them two students, the class, and a couple of facts about each. We will use these facts to build our story.

First, I need to decide on a narrator. For this story I would tell the students that I am going to have a student who loves to solve problems as the main character. Her name will be Margie. You and I will be the narrator and tell how she solves the crime.

Our clues might include the fact that the crime always takes place while students are at recess and that the lunch bag is usually found near the coat rack, only missing vegetables like carrots or celery sticks. Since everyone knows that rabbits and hamsters eat vegetables the obvious first choice would be Jason. He not only owns these pets but he is of dubious character. We will lead the reader astray by showing the obvious person as the suspect. To add the needed twist to the plot, perhaps in questioning him Margie finds out that his mother works in a food store and brings home leftover carrots and lettuce for his pets. His motive is thereby destroyed.

We would now have to find a less obvious solution. In the end we could find Alice, who loves vegetables. She confesses when the girls set a trap for her. She is only stealing vegetables, which she loves, because she is hungry. She would never really steal anyone's entire lunch. Bullies are taking her lunch. She is afraid to squeal and so she takes the part of the lunches she knows the other kids don't like. The problem is solved when the girls tell the story to their teacher and the bullies are apprehended.

After doing a kind of graphic display of the plot the teacher would lead the class through the drafting, responding and revising, and final publishing of the story. Students then could try another story on their own or in a cooperative group situation.

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#### Lesson Plan # 2. Math—You Have the Answers Now What Were the Questions?

Working backwards, which has already been shown to be a strategy used by the detective writer, is also pertinent to the solving of some types of math problems.

## **Objective:**

Students will be given information and a group of numbers. They will work backwards to write the question that could go with the numerical answers.

#### Materials:

In this activity the class is given a sheet on which information is written such as:

There are 20 students in Ms. Anderson's class. 9 have chocolate milk for lunch. Mr. Jones has 5 fewer students in his class. 7 of them have chocolate milk.

#### **Procedures:**

Students are asked to read the information. Then they are told to look at the numbers listed below and write a question about the information that these numbers solve. Possible answer-questions are shown in italics:

- 15 How many Students are in Mr. Jones' class?
- 5 How many more students are there in Ms. Anderson's class?
- 35 How many students are in both classes altogether?
- 16 How many students had chocolate milk?
- 19 How many students didn't have chocolate milk?

#### **Lesson Plan #3. Science—Fingerprinting**

Children will be fascinated to learn that a person's fingerprints are unique. Even twins do not possess the same pattern of swirls and ridges. Students can research information about the history of fingerprinting and how it has become such an important tool for law enforcement.

#### Objective:

Students will learn about the uniqueness of fingerprints and have experience trying to collect samples off of classroom objects.

#### Materials:

baby powder, transparent tape, a black sheet of construction paper for each child, tissues, a large soft paint brush, magnifying glass (optional), and an object with fingerprints on it.

## **Procedures:**

- 1. Student will brush some powder on the surface where there is a fingerprint.
- 2. Student will lightly brush away the powder to reveal the fingerprint.
- 3. Then the student uses a piece of tape to cover the fingerprint. Picking the tape up quickly will transfer the print.

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- 4. The student can then put the tape on the black paper so it will be easier to see.
- 5. Students can then use the magnifying glass to examine the ridges within the print.
- 6. Students may make a class booklet containing each other's fingerprints.

## Lesson Plan #4 Reading—Finding solutions to short mystery stories

## **Objectives:**

To practice solving short detective stories using story and picture clues. To list reasons for conclusions in personal journal.

#### Materials:

Copies of "50 Mysteries I Can Solve" by Susannah Brin and Nancy Sundquist. These are short works that challenge students to use picture and story clues to solve a mystery. A copy can be made and given to each child. Teachers may want to do this first as a small group activity until children gain some confidence.

### **Procedure:**

- 1. Tell students that they will get a chance to solve a mystery on their own.
- 2. Have them take out their writing journals.
- 3. Distribute copies of "The Chocolate Chip Cookie Maker." Students are not to begin reading until they are given a signal to begin.
- 4. Students should be told to read and use clues in the story and illustration to solve the crime.
- 5. When they have a solution they are not to tell anyone else. They should write their solution in their journals with an explanation of why they think their solution is correct. In doing this they should list any clues that helped them.
- 6. After the class has completed the assignment solutions and the reasons behind them should be shared.

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### **Notes**

- 1. J.K. Van Dover, "You Know My Method," (Bowling Green OH: Bowling Green St. Univ. Popular Press, 1994) 6-7.
- 2. Van Dover 8-9.
- 3. Aaron Marc Stein, "The Mystery Story in Cultural Perspective," "The Mystery Story," ed. John Ball, et al. (California: Univ. of Calif, 1976) 36-38

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