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# INTRODUCTION

## Why Did We Write This Book?

**Dear Teachers of the Gifted,**

Are you providing adequate resources, methodologies, and skills for gifted students to conduct “real world” research, or are you teaching reference skills? Do you tend to assign topics to your students to research in the library, or do you create opportunities for inquiry into a discipline? Are you asking your students to synthesize the contributions of others, or are you providing opportunities for your students to create new knowledge? Unfortunately, student research and independent study are often nothing more than report writing.

We’ve written the book for you to use with your gifted students to help them become the active inquirers they are capable of becoming.

In order for you to guide your students to become researchers you must:

1. change their negative attitudes about research.
2. help them differentiate between “real world” research and report writing.
3. clarify and elaborate on the different kinds of research and the specific steps necessary to conduct a research project.
4. instruct your students in simple statistics and data analysis.
5. provide ideas, a format for conducting research, presentation strategies, and resources to get the job done!

Because these five essentials are, in fact, the objectives of this book, let’s elaborate some on each of them.

### **Objective 1: Changing student attitudes about research.**

Research should be exciting for students. They should become active inquirers, discovering new relationships about their world. Students should be collecting real data about real problems, and uncovering hidden attitudes and values by comparing and contrasting supporting data and existing ideas. Too often, however, the mere mention of the word “research” heralds in sounds of protest, criticism, and refusal. We asked some middle school students what they thought about research. Here are some revealing comments (we bet you’ve heard them all).

- I hate doing reports and telling the teacher what it’s all about. I hate research.
- I don’t think it’s necessary because it won’t come up in our lifetime.
- I really don’t like to do research because it’s too hard to understand what you’re looking for.
- Research is boring.
- Research is too time consuming.
- I have a very hard time picking a subject. If a subject is assigned to me by the teacher, I have resentment for the teacher.

A more positive comment (we guess) was :

- I don't mind research. You go to the library the night before; hit a few encyclopedia; write a couple of pages. You then make a nice cover and get an A.

This book will give you many ideas for changing attitudes and proving that "Research Can Be Fun!"

### **Objective 2: Helping you differentiate between reports and research.**

Too often we, as teachers, consider that assigning a written report about a topic is research. Indeed, assigning independent studies is a major component of programs for the gifted. Here too however, we see report writing as a substitute for real research. Consider instead \*Renzulli's Type III Enrichment-Individual and Small Group Investigations. In these investigations students become actual investigators of a real problem using appropriate methods of inquiry to effect change. This kind of goal related activity ignites research activities into exciting challenges. Do you feel qualified however, to guide them through the research process? Could this clipping be about two of your students?

#### **Survey's Net Results: Tennis Everyone?**

Two Norwood fifth graders, Tina Sohn and Traci Engelman, attended last week's mayor and council meeting to give the results of a survey they had recently conducted of borough residents. The survey was on the desirability of having public tennis courts in Norwood. The results were presented in a professional manner, complete with a large chart showing responses of residents to various questions in a random sampling.

Or are your students still writing reports about some aspect of Egyptian culture gleaned from the encyclopedia? This book will give you those appropriate methods of inquiry that Renzulli investigations promote.

### **Objective 3: Clarifying and elaborating on different kinds of inquiry and the steps needed to implement the process of inquiry.**

We often lack the background in inquiry ourselves to be able to provide opportunities for students to conduct research. We will explain 7 types of research and give examples for you to use with your students. We also will help you teach research skills needed to conduct "real world" inquiry by providing examples and many references.

### **Objective 4: Teaching simple statistical techniques to analyze data.**

Here is where your students can integrate math, calculators, and computers to enhance their inquiry skills. You and your students will learn how to use descriptive statistics like mean, median, and mode. (Hold on to your hat!) This book will actually teach your students how to calculate correlations, t-test, and chi-Square. A chapter on computer programs (an essential aspect) is also provided.

### **Objective 5: Providing ideas for research projects, how to organize them and report findings.**

Ah ha, here's where you can tie it all together. Lots of exciting ideas for research fill the pages of this book. Also a step-by-step management plan is included to guide your students through the process. The book concludes with presentation strategies. It is extremely important that once the research is completed, it is worthy of publi-

cation and the final report of findings are presented in an informative and attractive format. This book will offer suggestions for reporting the findings effectively and creatively. Yes, research can be fun!

\* Renzulli, J. S. (1976). *The Enrichment Triad Model: A Guide for Developing Defensible Programs for the Gifted & Talented*. Mansfield Center, CT: Creative Learning Press.

## TURNING ON TO RESEARCH

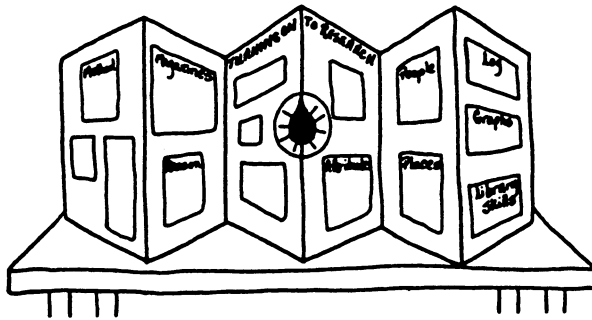
This chapter is designed to help you get your students thinking as researchers. It provides introductory skills, information, and resources that will be helpful as students prepare to conduct their research.

This chapter contains information about how to physically set up a research center, with specific tasks we think are necessary for the novice researcher.

### SETTING UP A RESEARCH CENTER

Starting a center in your classroom will help you and others learn about research. The next several pages will present a plan for a research center and offer sample task cards, activities and resources.

Obtain a portable sewing board which can be hinged together with tape or duct tape. Stand it on a table top (see below). The diagram on the next page shows a plan for the research center and indicates topics to be covered in Chapter 1. The task cards can be removed from the book and laminated creating cards for actual use in the research center.



This provides the physical structure for your center.

### What should you include in your center?

#### A. Magazines and Journals.

Often magazines and journals report results of different types of research. Here are some that we have found useful. Take a look through them. If you find others let us hear about them!

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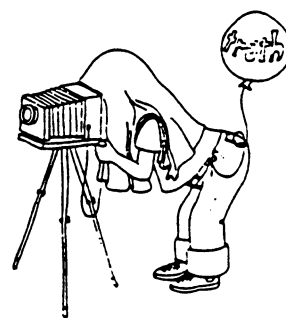
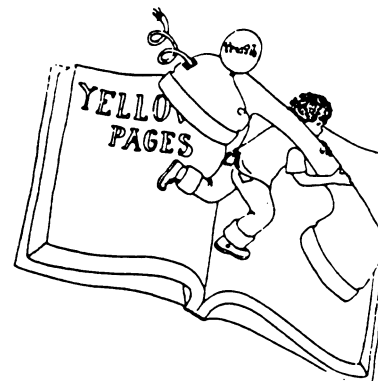
# TASK CARD PEOPLE

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- Locate people in your community who are researchers (Hint—check with the town clerk, the mayor's office, the superintendent of schools, local newspaper reporters).
- Contact them via a phone call or letter.
- Ask them if you can interview them (see task card on interviewing and notetaking below).
- Tape the interview for future reference.
- Take accurate notes.
- Write a letter to the researcher indicating your appreciation for the time spent with you in the interview. In addition, you should express an understanding of the content covered (hint—use your notes).

## Guidelines for Interviewing

- 2 Steps
  1. Get the other person talking.
  2. LISTEN!
- Set up the interview — Date:                      Time:                      Place:
- Investigate the subject
- Prepare some questions, for example:
  1. What do you research?
  2. Why are you a researcher?
  3. Why is your research important?
  4. Is your research challenging? Why or why not?
  5. What is the average amount of time you spend on a study?
  6. What kind of training was necessary for you to become a researcher?
  7. Who pays for research?
- Check your equipment (camera, tape recorder).
- Bring paper and pencil.
- Listen!



## Guidelines for Notetaking

The following are suggestions for accurate, detailed notes.

- Include main ideas, and details, examples, and explanations.
- Take notes in complete thoughts rather than isolated words.
- Make up your own abbreviations, for example res. for research.
- Start taking notes when the researcher starts talking.
- Isolate specialized vocabulary—check spellings and definitions later.
- Develop your own set of symbols to emphasize things in your notes.