

Research-Based Strategies

**Narrowing the Achievement Gap
for Under-Resourced Students**

Research-Based Strategies: Narrowing the Achievement Gap for
Under-Resourced Students

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Ruby K. Payne

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Ruby K. Payne, Ph.D.

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* This strategy has been repeated because of its significance to working with under-resourced learners. It has Applications in this area, as well as where it was first introduced on p. 109.

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FOREWORD

Those familiar with the work of aha! Process, Inc. and Dr. Ruby Payne realize that the practitioner is at the heart of the work. Providing research-based strategies that can be readily implemented and integrated into any curriculum or program that will raise student achievement has always been the focus of efforts by aha! Process. In this redesign of the original *Learning Structures*, you will find a “menu” of strategies that can be used to meet the needs of today’s under-resourced learners. These strategies are not a prescription of services; rather, they are designed for you to implement after you have completed an analysis of your students’ needs. Whether you base this analysis on state assessment results, formative assessments, daily observation, or classwork doesn’t matter. The important thing is that you are monitoring students’ progress and promptly making interventions as needed. Interventions made after a student has failed typically result in a student falling farther behind, often not being able to recover—and sometimes even dropping out of school as a result.

You will note that we have incorporated the book *Understanding Learning: the How, the Why, the What*. This is provided so that you have a basic understanding of learning theory that supports these interventions. In keeping with the premise that all learning is about the *what*, the *why*, and the *how*, the interventions are then formatted in this same way—providing you the *what* (the strategy), the *why* (the need for the particular strategy), and the *how* (explanation or process). The research base for each also is provided. To facilitate your addressing the needs of your students more readily, the strategies have been grouped according to academics, behavior, academics and behavior together, and communitywide strategies that we are finding are needed to build community sustainability.

When working with these strategies, several tips should be considered. First, flexibility in their use is key; if you try the strategy and it doesn't work, reflect upon why it didn't work. Modify it and try again. If that doesn't work, then perhaps it isn't appropriate for the student, and you might want to try something else. Second, at a time when our classrooms are more diverse than ever, differentiation is an absolute necessity. This menu of strategies can assist you in differentiating for your students. Third, use the strategies to meet the mandates of Response to Intervention. As the educator, you have incredible influence upon the success of your students; but we must make interventions simpler to use, yet they must have high impact and give a payoff for our time.

Finally, if you are familiar with the *Learning Structures*, you will note that we have included a number of the same strategies that appeared in that workbook. We have done this because our research, as well as your feedback, has indicated that they work. Just because something is not new does not mean it lacks value. So as you flip through these pages and start working with these interventions, feel free to adapt and modify them. Make them work for you. We hope you will find the additional strategies—and this reformatting that offers greater flexibility in use—to be beneficial.

–Donna Magee, Ed.D.

PURPOSE OF BOOK AND HOW TO USE IT

PURPOSE OF THE BOOK

The purpose of this book is to provide strategies for teachers so that they can narrow/eliminate the achievement gap for under-resourced students. Does the following chart (on Academic Strategies, Researchers, and Explanation) have all the answers? No. But it does provide many tools to begin the process of increasing achievement.

Historically, we have taken resourced students and put them into a box called school, and they come out more resourced. When under-resourced students came into school, many times they dropped out or failed because the resources/supports were not there for them. Our task now is to have under-resourced students enter this box called school and also come out more resourced.

HOW TO USE THIS BOOK

The book is organized this way:

- 1** The first chart is called **OBSERVED BEHAVIORS AND STRATEGY NUMBERS**. When you observe a behavior, next to the behavior is a strategy number.
- 2** When you know the strategy number, you use the second chart. The second chart is called **RESEARCH-BASED STRATEGIES TO USE WITH UNDER-RESOURCED LEARNERS**. This chart identifies what the strategy is, the researchers, a short explanation, and then the page number in this book where there is further explanation and an example.

- 3 Go to that page number, read the explanation and see the example, and use them with the student. These strategies can also be used as a part of the RTI (Response to Intervention) process.

- 4 In the Appendixes is the transcript of a book called *Understanding Learning*. This is a quick read for a better understanding of what a student must do inside his/her head in order to learn.

I wish you wonderful success. It is going to take everyone working together to eliminate the achievement gap, which must not be allowed to continue to exist simply because a student does not have resources. We can do this.

OBSERVED BEHAVIORS AND STRATEGY NUMBERS

WITH OTHER PEOPLE

OBSERVED BEHAVIOR	STRATEGY NUMBER TO USE
Does not work well with others	33, 34, 38, 39, 43, 44, 46, 47, 50
Bullies others	33, 34, 36, 38, 40, 41, 43
Socializes excessively	14, 33, 34, 37, 40, 41
Has almost no friends; isolated	18, 19, 32, 33, 43, 44, 46
Has few words to resolve conflicts	16, 37, 38, 39, 40

WITH TASKS/ASSIGNMENTS

OBSERVED BEHAVIOR	STRATEGY NUMBER TO USE
Does assignment incorrectly	2, 3, 5, 6, 7, 8, 11, 12, 17, 20, 21, 22, 23, 30
Does not hand in work done outside of class	1, 14, 18, 33, 34, 37, 39, 45, 50
Cannot transfer information from board to paper	26, 28
Does not hand in work done in class	8, 14, 33, 34, 45
Does not follow directions	5, 8, 30
Will not attempt task	3, 6, 7, 8, 19, 30, 33, 34, 35, 45
Misuses time	5, 8, 14, 15, 30, 33, 41, 45
Skips steps/parts of assignment	5, 6, 7, 8, 12, 30

WITH CONTENT

OBSERVED BEHAVIOR	STRATEGY NUMBER TO USE
Overwhelmed by information presented	2, 3, 8, 11
Not on grade level	1, 4, 51
Does not know purpose of content	2, 3
Does not remember information next day	3, 21, 25, 31

WITH MANAGING SELF/BEHAVIOR

OBSERVED BEHAVIOR	STRATEGY NUMBER TO USE
Does not follow school rules	33, 38, 39, 40, 41, 43, 50
Interrupts teacher/class	33, 34, 39, 40, 42, 43
Entertains rather than does work	32, 33, 34
Sleeps in class	32, 47, 53
Disengaged, not motivated	13, 32, 36, 44, 46, 47, 48, 49, 53
Has difficulty focusing	25, 48
Health issues interfere with learning	32, 57

WITH READING/WRITING/LANGUAGE

OBSERVED BEHAVIOR	STRATEGY NUMBER TO USE
Cannot discern what is and is not important to remember in text	6, 21, 22
Writing samples are disorganized	3, 12, 17, 29
Writing samples are short, with limited vocabulary	9, 16, 17, 24, 27, 29
Writes below grade level	1, 3, 9, 29
Does not complete constructed response questions on tests	4, 8, 20, 30
Uses inappropriate verb tenses in writing	24, 29
Cannot discriminate main idea	6, 21, 22, 30
Unwilling to read	10, 18, 19, 30
Cannot decode with fluency	10, 31
Can read but does not understand what was read	4, 6, 21, 22
Has mostly casual register vocabulary	4, 9, 16, 24

WITH MATH

OBSERVED BEHAVIOR	STRATEGY NUMBER TO USE
Has difficulty with problem solving	5, 7, 8
Cannot follow columns and rows	26, 27
Cannot follow most math processes	7, 8, 30
Does not know math facts in multiplication, addition, subtraction	31
Has difficulty with math vocabulary	9, 16, 20, 24, 30
Has difficulty with math concepts	2, 3, 16, 42
Cannot rotate visual figures (geometry)	26, 42
Has difficulty doing equations	20, 25, 26

WITH EXTERNAL RESOURCE SUPPORTS

OBSERVED BEHAVIOR	STRATEGY NUMBER TO USE
Has frequent unexcused absences	32, 47, 53, 57
Has excessive tardies	32, 47, 53, 57

**RESEARCH-BASED STRATEGIES TO USE
WITH UNDER-RESOURCED LEARNERS**

STRATEGY NUMBER	PAGE NUMBER	ACADEMIC STRATEGIES	RESEARCHERS	EXPLANATION
1	53	Extra time—using technology, scheduling (double periods), or tutors	<p>Bloom, B. (1976).</p> <p>TIME/SCHEDULING:</p> <p>Farbman, D., and Kaplan, C. (2005).</p> <p>Farmer-Hinton, R. L. (2002).</p> <p>Gladwell, M. (2008).</p> <p>Mattox, K., Hancock, D., and Queen, J. A. (2005).</p> <p>TECHNOLOGY:</p> <p>Behrmann, M., and Jerome, M. K. (2002).</p> <p>Swan, K., van Hooff, M., Kratcoski, A., and Unger, D. (2005).</p> <p>Williams, A., Rouse, K., Seals, C., and Gilbert, J. (2009).</p> <p>Wright, J.C., and Huston, A. C. (1995).</p> <p>OTHER:</p> <p>“Report of the National Education Commission on Time and Learning.” (1994).</p> <p>Rocha, E. (2008).</p>	Extra time is one of four variables that impact student learning. Using flip video cameras, lessons can be recorded and burned to DVD or stored on a portable device like a laptop or iPod video to be visited again by students. Double periods back to back to increase learning time. Tutors may also be used to provide extra learning time.

STRATEGY NUMBER	PAGE NUMBER	ACADEMIC STRATEGIES	RESEARCHERS	EXPLANATION
2	54	Content comprehension (structure, purpose, pattern, process of the discipline)	<p>Bransford, J. D., Brown, A. L., and Cocking, R. R. (Eds.). (2000).</p> <p>Donovan, M. S., and Bransford, J. D. (2005).</p> <p>Hill, H. C., Blunk, M. L., Charalambous, Y., Lewis, J. M., Phelps, G. C., Sleep, L., and Ball, D. L. (2008).</p> <p>Kilpatrick, J., Swafford, J., and Findell, B. (Eds.). (2001).</p> <p>Krauss, S., Brunner, M., Kunter, M., Baumert, J., Neubrand, M., Blum, W., et al. (2008).</p> <p>Senge, P. (1994).</p> <p>Shulman, L. (1987).</p>	All content has a purpose, as well as structures, patterns, and processes. That is the basis for determining what is and is not important in the discipline. These can be represented by concept maps, mental models, and visual representations.

**ACADEMIC
STRATEGIES****STRATEGY****1**

ACADEMIC STRATEGIES	RESEARCHERS	EXPLANATION
Extra time—using technology, scheduling (double periods), or tutors	<p>Bloom, B. (1976).</p> <p>TIME/SCHEDULING:</p> <p>Farbman, D., and Kaplan, C. (2005).</p> <p>Farmer-Hinton, R. L. (2002).</p> <p>Gladwell, M. (2008).</p> <p>Mattox, K., Hancock, D., and Queen, J. A. (2005).</p> <p>TECHNOLOGY:</p> <p>Behrmann, M., and Jerome, M. K. (2002).</p> <p>Swan, K., van Hooft, M., Kratcoski, A., and Unger, D. (2005).</p> <p>Williams, A., Rouse, K., Seals, C., and Gilbert, J. (2009).</p> <p>Wright, J.C., and Huston, A. C. (1995).</p> <p>OTHER:</p> <p>“Report of the National Education Commission on Time and Learning.” (1994).</p> <p>Rocha, E. (2008).</p>	Extra time is one of four variables that impact student learning. Using flip video cameras, lessons can be recorded and burned to DVD or stored on a portable device like a laptop or iPod video to be visited again by students. Double periods back to back to increase learning time. Tutors may also be used to provide extra learning time.

EXTRA TIME—USING TECHNOLOGY, SCHEDULING (DOUBLE PERIODS), OR TUTORS

Benjamin Bloom found in his research that the amount of time an individual has to learn something makes a big difference in achievement. Malcolm Gladwell (2008) calls it the 10,000-hour guideline, i.e., to be an expert in something requires 10,000 hours working in that occupation or knowledge base. Numerous studies link time on task in a classroom to the achievement in that classroom. Extra time can be provided by using technology (downloadable audio and video files of the teacher teaching), double scheduling time, tutors, etc.

STRATEGY**2**

ACADEMIC STRATEGIES	RESEARCHERS	EXPLANATION
Content comprehension (structure, purpose, pattern, process of the discipline)	Bransford, J. D., Brown, A. L., and Cocking, R. R. (Eds.). (2000). Donovan, M. S., and Bransford, J. D. (2005). Hill, H. C., Blunk, M. L., Charalambous, Y., Lewis, J. M., Phelps, G. C., Sleep, L., and Ball, D. L. (2008). Kilpatrick, J., Swafford, J., and Findell, B. (Eds.). (2001). Krauss, S., Brunner, M., Kunter, M., Baumert, J., Neubrand, M., Blum, W., et al. (2008). Senge, P. (1994). Shulman, L. (1987).	All content has a purpose, as well as structures, patterns, and processes. That is the basis for determining what is and is not important in the discipline. These can be represented by concept maps, mental models, and visual representations.

WHAT IS CONTENT COMPREHENSION?

Just as reading comprehension means that you understand the reading passage, so content comprehension means you understand the content at a level where you can manipulate it and use it.

To use and manipulate content, in addition to knowing the meaning of vocabulary, you also must know the purpose, structures, patterns, and processes used in that particular discipline or content. These four factors tell you what is more important and less important as you sort information in order to use it.

For example, the purpose of language arts is to study how structure and language are used to influence a reader. It is basically about writers and readers. The structures are the genres (short story, drama, poetry, biography, novels, etc.), grammar, organizational patterns of text, syllables, phonics, etc. The patterns then become units of study.

The processes can include reading, writing, speaking, filmmaking, and listening. So an expert teacher in language arts is going to help his/her students understand that language arts is always about the relationship between reader and writer—the manipulations of structure, word choice, organization, etc.—in that process.

Another example: Math is about assigning order and value to the universe. We use numbers, space, and time as primary structures to do that. Patterns that are taught include fractions (part to whole of space), decimals (part to whole of numbers), measurement (assigning the value of space and time). Processes are addition, subtraction, multiplication, and division. So an elementary school teacher would facilitate a discussion with students about how to know how much space is theirs in a classroom before introducing fractions. The class would measure the room, divide it with masking tape, and calculate space using fractions. The teacher could do the same thing by dividing pizza. The students would then understand what each student needs to know about measurement and fractions.

For example, the purpose of chemistry is to understand chemical bonding. The periodic table provides the rules or patterns for bonding. The process used to figure out the bonding is equations. The structure theory has varied from shell theory to vapor cloud theory to string theory.

When students have content comprehension, teachers can spend the majority of their time teaching the use and manipulation of the content. For example, in language arts in high school, the teacher does not test by asking what color the girl's dress was in the story, but rather "What specific techniques did the writer use to make the reader feel empathetic toward the girl?" Or: "How would the reader have felt different if this short story had been told in a poem?"

Lee Shulman found that this was a critical issue in excellent teaching. Furthermore, he indicated that graphic visual representations (mental models) used by the teacher came out of this understanding—and that teachers then knew when a student had a slight misunderstanding versus no understanding at all.

And it also can be stated that if teachers don't understand their content against these four criteria—purpose, structures, patterns, and processes—they can't facilitate or develop high achievement. It's impossible to teach what you don't know.