

PART I

Teaching for Wisdom, Intelligence, Creativity, and Success

1 Introduction to Teaching for Wisdom, Intelligence, Creativity, and Success

Part I briefly summarizes the theoretical model of human thinking and reasoning that we believe can provide insight into how students learn best. The theoretical model we refer to is known as “WICS” for Wisdom, Intelligence, and Creativity, Synthesized. We believe that wisdom, intelligence, and creativity are key ingredients in a successful person’s life, and that it is very important in educational settings to help students build on all these skills, in other words, to synthesize them. If you want to learn more about the theory behind the model, we have included an annotated bibliography of articles and books that describe the model more in detail in the Appendix to Part I at the end of this book. There, you will also find references to other authors who have investigated how students learn and offer strategies for teaching different skills such as analysis and creativity in the classroom.

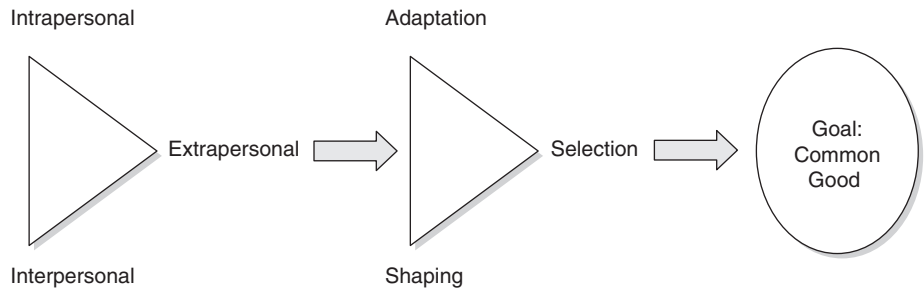
Here we will just briefly review the WICS model, present some arguments for the importance of teaching for intelligence, creativity, and wisdom in the K–12 classroom, and finally, provide a brief self-evaluation scale for you, the reader, to determine your own profile of skills: Are your main strengths in memory, analytical, practical, or creative abilities, or in some combination of them? A scoring key is provided in Answer Key toward the end of the book.

Figure 1.1 gives a visual overview of the WICS model.

Figure 1.1 TheWICS Model of Thinking

Memory, analytical, creative, and practical skills contribute to balancing interests and environmental responses, and positive values influence decision making.

Positive and ethical values influence decision making.



*Short- and Long-Term
Balance of Interests*

*Balance of Responses to
Environmental Context*

Memory, analytical, creative, and practical skills inform the balance of interests and environmental responses.



What Is the WICS Model?

The purpose of this book is to serve as a hands-on guide to inspire you to broaden your teaching and assessment repertoire to ensure that all students in your classroom are as successful as they can be. The goal is not to offer you an Introductory Psychology or Intelligence 101 course, but to provide you with suggestions for dealing with some practical and real situations in the classroom.

Before we start, however, we quickly summarize the different theories of intelligence that are in vogue and describe the one we subscribe to, so that you know our position and so that we're all on the same page. In a nutshell, there are two kinds of theories of intelligence: (1) the single-faceted, unified general intelligence (or *g*-factor) theories, which emphasize the nature of intelligence as a single entity; and (2) the multifaceted conceptions of intelligence, which emphasize the importance of multiple and distinctive aspects of intelligence.

Those who think that the first type of theory is correct generally view intelligence as relatively fixed and predetermined by genetic endowment, and as relatively independent from schooling. In other words, according to this theory, you are born with a certain amount of smarts, and the type of schooling you receive won't change it that much. The authors of this book, however, subscribe to the second of these two conceptions of intelligence. Many researchers who are familiar to teachers subscribe to this view, for example, Howard Gardner, the author of the theory of Multiple Intelligences. Investigators in the second group generally agree that

intelligence is the flexible capacity to learn from experience and to adapt to one's environment (using the skills required by and acquired through a specific cultural and social context). They also tend to agree that intelligence can be developed, whether through formal explicit instruction or in informal educational situations (depending on the types of abilities considered). The authors of this book believe that everyone has some initial abilities, and that these can be developed into competencies, and that these competencies can in turn be honed into expertise. We believe that these initial abilities depend in part on genetic heritage, but the manner and degree to which this genetic endowment is realized depends on the individual's environment. We believe that the key to success in the classroom—and in life more broadly—lies in a combination of intelligence, creativity, and wisdom, as per the WICS model.

We also believe there is an urgent need to teach to all abilities, and to match the assessment of achievement to such broad teaching. The time has come to capitalize on the variety of human resources because students' talents do not happen to correspond to the skills that schools traditionally have emphasized. Creative and practical abilities are certainly as important in life as are memory and analytical abilities, and they can be as important in school if a school chooses to emphasize these abilities. The next parts of this book will provide you with more details on how to teach and assess for a broader range of abilities, and give you a wealth of concrete examples from classrooms at different grade levels and in different content areas.

Let's say that, so far, you agree with us that, in order to succeed in life, students need more than rote memorization and the ability to analyze. Let's say, also, that you think teachers should promote a broader range of skills in their classrooms to help more students of different abilities and learning profiles to succeed. At the same time, you may be asking yourself whether it's worth trying to implement all these changes and broaden your teaching repertoire. Teachers today are under a lot of pressure and have many constraints related to seeing their students perform well on tests. Indeed, many teachers we have worked with over the years say that although they would like to include more creative activities in their classroom, for example, their school administration is not supportive and emphasizes only the importance of test scores. We all want to promote high achievement in our students, and we think that by broadening your teaching repertoire and addressing the needs of a wider range of students with different learning styles, you will do exactly that. You will help students—*all* students—achieve at higher levels. Teaching for creativity is not just a nice and fun add-on to the regular curriculum. On the contrary, it is a means to teach content, the content that our local, state, and federal

6 • Teaching for Wisdom, Intelligence, Creativity, and Success

standards and scope and sequence guidelines ask us to teach. In the Appendix to Part I at the end of this book, you'll find references to studies where we have actually measured whether or not this approach promotes learning (it does!), but for now, let's just list the four main reasons why the WICS model works for students and teachers.

REASON #1: APPRECIATION OF DIFFERENCES

To teach within the WICS model is to create a supportive learning environment in which students find their own ability patterns, understand how uniqueness allows each individual to make a particular contribution to the learning community, and value diversity. One step toward this goal is to *balance* the types of activities you offer your students so as to broaden the range of abilities addressed and give more students a chance to capitalize on their strengths (and compensate for their weaknesses). Part III of this book will give you some charts to help you achieve this balance in your classroom.

REASON #2: INCREASING RETENTION OF THE MATERIALS LEARNED

When you teach students through analytical, creative, as well as practical instruction, you enable students to encode information in three different ways (analytically, creatively, and practically), in addition to encoding it for memory. Multiple encodings of information can help improve learning. The portion of this book devoted to teaching for enhancing memory will tell you more about how our memory works.


REASON #3: BUILDING ON STRENGTHS

In a classroom where only one type of skill is addressed (memorization, for example), only one type of learner, memory learners, will feel that they are able to use their strengths to be successful. Students who have strengths in other areas (creativity, for example) will never be able to let those strengths shine in the classroom. If, in contrast, you teach for a broad range of skills, you will give all students a chance to capitalize on their strengths and to compensate for, or correct, their weaknesses. In other words, there should be at least some instruction that is compatible with almost all students' strengths, enabling students to bring these strengths to bear on the work at hand. Instruction that enables students to capitalize on their strengths is also more likely to motivate students. At

the same time, at least some of the instruction will probably not correspond to students' strengths. It is important also to encourage students to develop modes of compensation for and correction of weaknesses.

REASON #4: INCREASING STUDENT MOTIVATION

Instruction that balances different types of activities addressing different students' strengths (memory, analytical, creative, practical, and wise thinking skills) will be more motivating to students simply because it makes the material to be learned more interesting. Indeed, when we ask students whose teachers apply the WICS model about their engagement in the curriculum material, we find WICS-based instruction to be effective in capturing the students' interest. And, we all know that school today competes with a variety of different environmental stimulants and capturing attention of students is difficult, so having a pedagogy that appears to be able to do so is really important for the overall success of schooling.



Your Turn

What Is Your Pattern of Strengths?

Now that we have reviewed the different types of abilities the WICS model focuses on, let's explore your own pattern of strengths, imagining that you are a student. Below, you will find a series of questions about your preferred assessments. This is not a scientific "test"; it's just one way to start thinking about your own preferred mode(s) of thinking, so that you can keep it in mind when you read the rest of the book and consider your students' varying patterns of strengths. We are intentionally putting you in a student's shoes, because typically students are not asked any of these questions because they are not usually given choices similar to those presented below. But, if you find yourself having preferences, so might they! Ready? Let's go! When you are finished, look at the answer key on page 13.

For each of the questions below, rate on a scale from 1 (low) to 5 (high) how much you would enjoy being evaluated via each type of assessment. You can use the same rating (1–5) several times for a give question. We're interested in your preferences, not in how easy each assessment would be. For example, it might be quicker to answer multiple-choice questions, but you would really more enjoy doing a project. For all these questions, please assume that you have studied the topics and know something about them, even if in reality you don't know anything about soccer and wouldn't know how to compare it to football.

1. You just studied a lesson on the history of the Civil War.

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. multiple-choice test	
b. essay test asking me to compare the Civil War to the American Revolution	
c. test asking me to create an imaginary soldier and then write a fictionalized story that is nevertheless true to the details of the war, describing the soldier's life during the course of the war	
d. essay question asking me what lessons the Civil War holds for resolving the polarization between liberals and conservatives in contemporary American society	

2. You have just learned how to compute areas of different types of polygons.

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. test where I describe from memory how to compute the areas of each of the types of polygons	
b. test containing mathematical word problems that involve my computing areas of polygons in the context of solving the problems	
c. test where I have to write the mathematical word problems involving computing areas of polygons	
d. test where I compute the approximate area of the town in which I live, given a to-scale map	

3. You have just read the novel *Tom Sawyer*.

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. multiple-choice test requiring me to remember people and events from the book.	
b. test asking me to analyze how Tom Sawyer and Huck Finn are similar and different as people	

(Continued)

10 • Teaching for Wisdom, Intelligence, Creativity, and Success

(Continued)

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
c. prompt to write a short story about what happened to Tom Sawyer and Becky Thatcher ten years later	
d. prompt to write an analysis of lessons about persuasion and salesmanship to be learned from Tom Sawyer's convincing his friends to whitewash Aunt Polly's fence	

4. You have just studied a biological-science lesson on the functioning of the major organs of the human body.

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. fill-in-the-blanks test assessing my mastery of the different functions of the major organs	
b. essay on how the functioning of the brain can affect the functioning of the heart	
c. assessment involving designing an experiment to see how different stressors affect the functioning of the heart	
d. essay on how smoking damages the functioning of the lungs	

5. You have just studied the geography of the Alps mountain range.

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. multiple-choice test assessing my knowledge of the geography of the Alps	
b. assessment asking me to compare the geography of the Alps to that of the Andes	
c. written task involving writing a story about the geography of a mountain range on an imaginary planet	
d. essay showing how the geography of the Alps has helped to promote alpine tourism	

6. In Spanish class, you have just learned words for many different kinds of foods.

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. fill-in-the-blanks test assessing my recall of the Spanish equivalents of the English words for ten different kinds of foods	
b. prompt to write an essay showing how the Spanish and English words for different kinds of foods are similar and different, and what generalizations can be drawn from these similarities and differences	
c. task involving creating an imaginary dialogue between an American diner and a Spanish waiter, where the American orders food in Spanish	
d. prompt to write an essay in Spanish on the healthiness of several different kinds of foods served in restaurants	

7. In art class, you have just studied principles of perspective in drawing and painting.

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. fill-in-the-blanks test assessing my memory for the principles	
b. assessment asking me to compare the use of perspective by two painters, Bosch and Bruegel	
c. task requiring the drawing of a scene in a park using the principles of perspective I learned	
d. demonstration of how principles of perspective are applied in a modern building in the town in which I live	

8. In music class, you have studied some principles of harmony.

<i>I'd like to be evaluated with a</i>	<i>Your rating (1–5)</i>
a. multiple-choice test on the principles of harmony	
b. prompt to compare the use of principles of harmony by Beethoven versus Copeland	

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12 • Teaching for Wisdom, Intelligence, Creativity, and Success

(Continued)

<i>I'd like to be evaluated with a</i>	<i>Your rating (1–5)</i>
c. task to compose a tune in which I use principles of harmony	
d. prompt asking me to demonstrate how principles of harmony are used in contemporary advertising jingles to make products appealing to consumers	

9. In physical education, you have learned the rules of soccer.

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. fill-in-the-blanks test on the rules of soccer	
b. prompt to compare and contrast the rules of American football with soccer	
c. prompt to create my own game that is a combination of American football and soccer	
d. assessment asking me to demonstrate how violations of soccer rules were responsible for the defeat of a particular team in a recent World Cup match	

10. In general, to what extent do you prefer each of the following?

<i>I'd like to be evaluated with a(n)</i>	<i>Your rating (1–5)</i>
a. multiple-choice tests assessing my memory of material I have learned	
b. analytical essay test that requires me to analyze, compare and contrast, or evaluate things or ideas	
c. project where I have free reign for deciding how creatively to study a topic	
d. practical assessment that requires me to apply what I have learned to a real-world problem	

We hope you enjoyed completing the survey!

To score, add up the numbers you have written down for all the As, Bs, Cs, and Ds. You can use the table below to do it:

<i>Question number</i>	<i>Rating for option A</i>	<i>Rating for option B</i>	<i>Rating for option C</i>	<i>Rating for option D</i>
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
<i>Total</i>				

What do these scores mean? The response items labeled A are memory-based; the Bs, analytically-based; the Cs, creatively-based; and the Ds, practically-based. Your relative scores should give you a sense of your preference for each of the kinds of activities. In other words, if you score higher on A than on C, it indicates that you prefer to complete assessments that draw mostly on your memory skills rather than to complete assessments that ask you to be creative.

Notice that, in this particular assessment, we are looking at your preferences, and not necessarily your skills, for the different kinds of tasks you might confront.

Some of us have a clear preference for one type of activity or skill (always practical, for example), while some of us tend to like all types of activities and no clear preference stands out.

Are you surprised by your results, or are these results what you expected?

14 • Teaching for Wisdom, Intelligence, Creativity, and Success

Now think about what implications this exercise can have for your classroom. Your students have both preferences and profiles of success that can be very different from yours. If you teach and assess only to one type of ability (the one you prefer, say), then students with different profiles of strengths and preferences will have very few opportunities to shine in your classroom.

In the rest of this book, we will discuss how you can make sure that you address the needs of a broad range of students in your classroom, while at the same time making sure that you develop wise thinking skills in your students as well.