

**TEXTBOOK CORRECTIONS FOR**

**Teaching Physical Education, 5<sup>th</sup> Edition, Mosston and Ashworth  
Benjamin Cummings Publishing Company**

During the printing process of the 5<sup>th</sup> Edition of Teaching Physical Education serious and professionally embarrassing errors occurred – a working copy (with content errors) was printed rather than the correct text. All printings of this text (except printings 2 and 3) have the following errors that need to be corrected.

The purpose of this information page is to identify the errors and provide the corrections. Some errors are more serious in that they tarnish the accuracy of the Spectrum theory; therefore, I have sequenced the corrections according to their importance in clarifying the Spectrum theory.

To make Spectrum information more accurate and accessible to everyone, we now have copyright of the text - Teaching Physical Education - and are making an updated edition available on our website. This site is now the only source for obtaining - for downloading - the text.

1. **Correct the Shift of Decision Charts—many of the style’s *shift of decision* charts throughout the text are incorrect. Use the following chart as the correct model.**

**The Correct Shift of Decision Chart for each Style on the Spectrum:**

	A		B		C		D		E		F		G		H		I		J		K		
Pre-Impact	(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)	→	(L)	→	(L)		
Impact	(T)	→	(L)		(L <sub>d</sub> )		(L)	→	(L)	→	(T <sub>L</sub> )	→	(L)	→	(L)	→	(L)	→	(-)	(-)	(-)	→	(L)
Post-Impact	(T)		(T)	→	(L <sub>o</sub> )		(L)	→	(L)	→	(T <sub>L</sub> )	→	(L <sub>T</sub> )		(L <sub>T</sub> )	→	(L)		(L)	→	(L)		

**Errors..**

**Each chart is INCORRECT on the following pages. The correct chart for the shift of decisions per style is provided above and at the end of this document.**

1. **Practice Style Anatomy Chart (page 94)**
2. **Figure 9.1 (page 143)**
3. **Figure 10.3 (page 159)**
4. **Guided Discovery Style Anatomy Chart (page 212)**
5. **Convergent Discovery Style Anatomy Chart (page 237)**
6. **Figure 13.1 (page 238)**
7. **Divergent Discovery Style Anatomy Chart (page 247)**

8. **Figure 14.2 (page 249)**
9. **Figure 15.1 (page 276)**
10. **Learner-Initiated Style Anatomy Chart (page 283)**
11. **Figure 16.1 (page 284)**
12. **Self-Teaching Style Anatomy Chart (page 290)**
13. **Figure 17.1 (page 291)**

**The correct version of each chart appears at the end of this document.**

## **2. Events per Episode Form - Figure 6.4 (page 84)**

### **The explanation of the error:...**

**The Events per Episode delineates the content that is intrinsic to all teaching interactions. The chart on page 84 is incorrect because it inaccurately presents and implies that a singular or fixed order must occur when delivering the three expectations: first subject matter, then behavior, then logistical expectations. That assumption is incorrect—there is no fixed order for delivering the expectations. The issue is that the three expectations need to be delivered separately and not in a mixed delivery. KEEP EACH EXPECTATION SEPARATE—DO NOT JUMP FROM ONE TO THE OTHER.**

**Therefore, the following corrected chart reflects the opportunity for choice when delivering the three expectations. A teacher must decide (based on the objectives of the overall experience—the content, students, and environment needs) the most appropriate order for delivering the three expectations. Again, the critical features to note are that order varies to accommodate the lesson’s objectives and each of the three expectations should be delivered separately. Mixing or jumping from one expectation to another is not beneficial.**

**Correct Events Per Episode Form page 84**

Episode #: _____ Content: _____ Objective(s) _____			
<b>Episode Events</b>	<b>Sequence of Events</b>	<b>Feedback</b>	<b>Time</b>
Separately deliver the 3 EXPECTATIONS (indicate order)  ___ Subject matter ___ Behavior ___ Logistics	1.  2.  3.		
QUESTIONS FOR CLARIFICATION	Verify understanding of Expectations before the Action begins:		
ACTION, TASK ENGAGEMENT, PERFORMANCE			
FEEDBACK			
CLOSURE	Reinforce the Stated Expectations:		

**Figure 6.4.** Events Per Episode Form

**3. Cognition terminology throughout the book.. particularly in Chapter 19.**

**Error...**  
 There are two terms that are misrepresented THROUGHOUT the text. This inaccurate typo has confused the content about cognition. There are too many errors throughout the text to identify each page. The reader is asked to recognize this typo/word confusion and correct it.  
**Remove these terms: REPRODUCTIVE, PRODUCTIVE**  
 The correct cognition terminology is: REPRODUCTION and PRODUCTION

4. Divergent Discovery Style page 265

**Error...**  
Under Figure 14.6 Word designation and alignment is incorrect next to the initials (Possible, Feasible, Desirable).

Change to:  
Figure 14.6

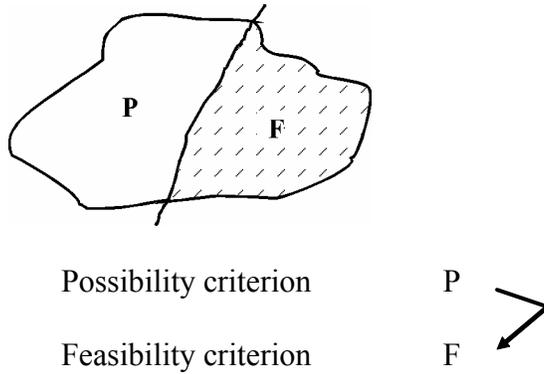
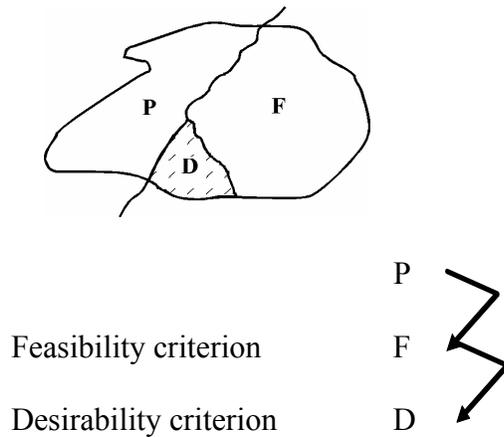


Figure 14.7



5. Word error on charts page 173 and 174

**Errors...**  
Figure 10.10 Two heading names (External Factors) are repeated.  
Figure 10.11 Two heading names (External Factors) are repeated.

**Correction:**  
The second heading in each chart should read **Intrinsic Factors**.

6. Reciprocal Style-C List of Misconceptions page 133 #4

**Error...** - The misconception comment in italics (The observer cannot evaluate the doer) is incorrect.

It is a misconception that the role of the observer is to evaluate the doer. The observer provides feedback based on content criteria provided by the teacher. The focus of the feedback is to reinforce and improve performance. Feedback is not judgmental but rather informative about what was performed correctly and how to correct incorrect performance.

7. Word error page 53

**Error...** - 7<sup>th</sup> line from the bottom... the word divergent was incorrectly used in the following sentence: “Although there are multiple parts within the movement, the cognitive path is “divergent” memory—recalling the parts to reproduce the indicated movement.”

**Correction:** change “divergent” to convergent

8. Sentence clarification page 145

**Error...**

In *The Impact Set* paragraph the last sentence omits the Table designation.

**Correction:** Add at the end of the last sentence... The sequence of events in this episode is as follows on **Table 9.1**

9. Word error .... page 175

**Error...**

**On the Golf Chip Shot task sheet under *To the student*: # 4 change the word “test” to task. Explanation of the error... If students think or are told that their performance level in the Inclusion Style will be used for testing purposes, they will make self-assessment decisions for a grade and not for personal performance acquisition. Inappropriate verbal behavior in the Inclusion Style—and all styles—will interfere with the anticipated objectives.**

10. Sentence omitted.... Page 198

**Error ... add the following sentences under Figure 11.6 at the beginning of the first paragraph.**

Figure 11.6 illustrates stations designed to reinforce content tasks in the same style. There are an infinite number of possibilities for station designs-some designs use the same style per station and some station designs use multiple teaching styles.

Figure 11.7 reinforces the option of using different teaching styles at each station. Using stations permits the concept of...

11. Add sentence page 218

**Error ... add sentence.... After the sentence beside Closure heading**

When the content the learner discovers is a concept or law, the teacher provides the name or term for the concept discovered. (Again, if the learner knew the content concept or law prior to the questions, the experience reverts to the Practice Style-B).

12. Remove example #1 in Guided Discovery page 222

**Error explanation ....**The soccer example has been removed because it presents an incorrect skill for soccer. I have kept the explanation of the process (but removed the soccer terminology). The process inherent to Guided Discovery is constant and independent of the specific content. This incorrect example reinforces the major *caution and concern* about this style: appropriate selection of content. The teacher must be very sure that the content selected and delivered for Guided Discovery is accurate and appropriate for this style! Once learners' *discover* content in Guided Discover it is very difficult to correct the content error.

13. Remove the example in Convergent Discovery page 241 and 242

**Error explanation....** This example does not adhere to the criteria of Convergent Discovery. This example is a series of tasks that represent the Practice Style-B. The tasks ask the learners to perform, gather factual information about the task practiced, record results, then practice again and record results, then compare given information and come to a conclusion based on the differences. There is no discovery in this task... This example is a non-example because it does not take the learners beyond the discovery threshold—the cognitive engagement remains in memory cognitive operations.

The examples for this style are not in physical education. The previous examples included in the text were inaccurate and did not represent the cognitive structure of the style. We welcome your ideas and examples for inclusion in the text.

Convergent Discovery is well represented in schools and society. Examples range from standardized testing situations to games and fun challenges. All examples of Convergent Discovery share the same structure: A stimulus (in the form of a question/ a toy/ a situation/ a problem to solve) is provided that invites reshuffling of known information to produce new or novel cognitive links and patterns, which require logic, perhaps trial and error to produce (to discover) the anticipated/target answer. If the learner has been exposed to the question-answer previously then the teaching style—the set of objectives activated—is no longer Convergent Discovery but Practice Style-B.

The following eclectic examples from society range from children’s riddles to newspaper challenges, to radio competitions. Each set is a little more difficult to solve; yet, all share the structure of this style.

Children’s riddles: (from <http://kids.niehs.nih.gov/rd1.htm>)

1. What do you get when you cross an automobile with a household animal?
2. Where do fish keep their money?

Answers: (1). A carpet! (2) In a riverbank, of course!

Newspaper challenges: These are more complicated examples; from the Sunday paper **Parade Magazine Ask Marilyn** section (Web archives <http://www.parade.com/askmarilyn>).

1. This problem has a two-step solution. The first “answer” will seem too easy. So it is! Take the next step. A sharper answer appears below.

What do these words have in common: aide, brash, cent, darn, east, fun, gale, jeep, kick, lumps, mail, nut, oats, ripped, sender, vent?

2. This challenge is very difficult.

A number has five different digits, none of which is 0: (a) The first plus the second equal the third digit; (b) the third times 2, plus the second, equals the fifth; (c) the second times 2 equals the first; (d) the first times 4 equals the fourth; and (e) the fourth minus the second equals the fifth. What is the number?

Many readers must really like these puzzles because they appear in the magazine regularly! Check your Ask Marilyn answers.

1. The first letter in each word can be replaced with other letters to form new words. That's too easy. The sharper answer: The first letter can be replaced with the next letter in the alphabet to form a new word (example: east, fast).

(Submitted by: Paul Lockwood, Woodstock, Ill. Feb 17, 2008 page 15 )

2. For great mental exercise, let's reason our way through it together, readers. From (a), we know the third digit must be 3 or more, because 3 is the total of the lowest possible numbers. (1 and 2) for the first and second digits. From (b) we know the third digit must be 4 or less, because 4 is the highest possible number that allows a single digit in fifth place ( $8+1=9$ ). So the third digit is either 3 or 4. And because of (a), the first and second digits must be 1, 2, or 3.

This exercise is a tad strenuous. Don't stop now. From (c) we know the first digit is 2 and the second digit is 1. So going back to (a) the third digit is 3. According to (d), the fourth digit is 8; and according to (e), the fifth digit is 7. So the number is 21387. Now look back at the question and see that this number fits all conditions.

January 27, 2008 page 25)

(Steve Hogan (city unknown)

Picture format: this style comes in many different images and formats. Each diagram communicates a well-known saying.

Figure # 1



Figure # 2



And the sayings are? Answers: (1) Not for love or money. (2) A flash in the pan

Some challenges are socially or culturally anchored; consequently, they are very difficult or impossible for learners outside those experiences to solve. When there is not enough foundational information learners do not have the necessary beginning data to manipulate in new and novel patterns.

NPR examples: The last example is from National Public Radio. Every Sunday a puzzle is played on the air with a new caller (see npr Sunday puzzle for more examples).

1. 1. In this puzzle, every answer is a compound word or a familiar two-word phrase in which the first part has a long I vowel sound and the second part has a long O sound. Both parts have just one syllable. For example, given "a small

pink flower growing in a field," ..... Think the puzzle through—then look ...the answer would be "wild rose."

Convergent Discovery Style-G is a delightful challenge for learners who have:

- Sufficient entry level information
- Sufficient cognitive and emotional security and comfort *to risk* producing content in new and novel patterns.

Many learners who excel in the Reproduction Styles have great difficulty producing content. Their self-feedback structure is anchored in *giving the right answers*; therefore, many learners are not secure or comfortable enough producing answers that they have not read or heard before, and one they are not sure is correct. This cognitive and emotional rigidity and discomfort are even more pronounced in the next style.

#### 14. Style Specific Comments page 243

**Error... clarify 2<sup>nd</sup> sentence ...under *Standardized tests* heading.**

**Practice style questions measure what learners can recall, while Convergent Discovery style questions assess how well learners can make meaning from an unfamiliar question by using logic to link and sequence information into a pattern that leads to the discovery of the single target response. Test questions in Convergent Discovery assess students' ability to make meaning out of information not previously known.**

15. Remove incorrect example **last paragraph on page 243 and 244**

**Error....cut last paragraph (Many Convergent Discover episodes...) all the way through to #9 on page 244. The example is incorrect and not representative of the Convergent Discovery Style. Replace the remaining two paragraphs on page 244 with the following:**

Designing lessons that employ episodic teaching is a primary implementation objection of the Spectrum. Because no one style can accomplish all the objectives of education, it is necessary that teachers design lessons that employ *episodic teaching experiences that employ a variety of teaching styles from Command to Discovery*. Implementing a variety of teaching styles exposes learners to an array of multiple learning objectives in both subject matter and behavior. Learning to make the decisions and learning to internalize the objectives of each style requires repeated practice experiences in a variety of contents and conditions.

The order of the styles on the Spectrum (Styles A-K) is deliberate. The progression from one style to another is based on the cumulative shift of decisions from one style to another. Cumulative means adding on.... For example, the decisions in the Reciprocal Style-C also incorporate the nine decisions of the Practice Style-B; likewise the Self-Check Style-D also incorporate the five post-impact decisions of the Reciprocal Style-C and the nine decisions of the Practice Style-B. The Inclusion Style-E embraces the decisions of the styles before. The decisions of the previous styles serve as the foundation for the next style's new set of decisions. Consequently, the theory of the Spectrum framework delineates the cumulative decision progress from one style to another. Note: it is the specificity of the cluster of decisions shifted in each style that produces the significantly different set of learning objectives.

Awareness of each style's inherent decisions provides teachers with a diagnostic tool to determine learners' proficiency in making decisions or in averting unnecessary confusion when introduced to different teaching styles.

Classroom use and implementation of the Spectrum styles need not follow the theoretical *linear* presentation from Command to Discovery. Style selection must consider many factors: content objectives, needs and proficiencies of the learners, conditions, and time, etc. The decisions of each style provide a specific learning focus—a specific developmental opportunity. Deliberate episodic teaching is the goal of the Spectrum.

16. Anatomy chart for Learner-Initiated Style **page 284**

**Error.. the Pre-Impact designation in the anatomy is incorrect**

The Pre-Impact set of decisions is made by the Learner NOT the teacher. This style is implemented only when a learner initiates (see decision chart)

17. On the last page of the **Dedication page** under my name change the address TO

Sara Ashworth, Ed.D.  
 stclub@bellsouth.net  
 Spectrum Teaching and Learning Institute  
<http://spectrumofteachingstyles.org>

18. In the **Foreword** section (page xii) change website address from [www.esu.edu/Spectrum](http://www.esu.edu/Spectrum) TO  
<http://spectrumofteachingstyles.org>

19. In the **Acknowledgments** section on page xxiv change my address To  
 Sara Ashworth, Ed.D.  
 stclub@bellsouth.net  
 Spectrum Teaching and Learning Institute  
<http://spectrumofteachingstyles.org>

**Individual Style Decision Chart Corrections**

**Practice Style Anatomy Chart (page 94)**

Pre-Impact (T)  
 Impact → (L)  
 Post-Impact (T)

**Figure 9.1 (page 143)**

	A		B		C		D
Pre-Impact	(T)		(T)		(T)		(T)
Impact	(T)	→	(L)		(L <sub>d</sub> )		(L)
Post-Impact	(T)		(T)	→	(L <sub>o</sub> )	→	(L)

**Figure 10.3 (page 159)**

	A		B		C		D		E
Pre-Impact	(T)		(T)		(T)		(T)		(T)
Impact	(T)	→	(L)		(L <sub>d</sub> )		(L)	→	(L)
Post-Impact	(T)		(T)	→	(L <sub>o</sub> )	→	(L)	→	(L)

**Guided Discovery Style Anatomy Chart (page 212)**

Pre-Impact (T)  
 Impact → (T<sub>L</sub>)  
 Post-Impact → (T<sub>L</sub>)

**Convergent Discovery Style Anatomy Chart (page 237)**

Pre-Impact        (T)  
 Impact            → (L)  
 Post-Impact      → (L<sub>T</sub>)

**Figure 13.1 (page 238)**

	<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>		<b>G</b>
Pre-Impact	(T)		(T)		(T)		(T)		(T)		(T)		(T)
Impact	(T)	→	(L)		(L <sub>d</sub> )		(L)	→	(L)	→	(T <sub>L</sub> )	→	(L)
Post-Impact	(T)		(T)	→	(L <sub>o</sub> )	→	(L)	→	(L)	→	(T <sub>L</sub> )	→	(L <sub>T</sub> )

**Divergent Discovery Style Anatomy Chart (page 247)**

Pre-Impact        (T)  
 Impact            → (L)  
 Post-Impact      (L<sub>T</sub>)

**Figure 14.2 (page 249)**

	<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>		<b>G</b>		<b>H</b>
Pre-Impact	(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)
Impact	(T)	→	(L)		(L <sub>d</sub> )		(L)	→	(L)	→	(T <sub>L</sub> )	→	(L)	→	(L)
Post-Impact	(T)		(T)	→	(L <sub>o</sub> )	→	(L)	→	(L)	→	(T <sub>L</sub> )	→	(L <sub>T</sub> )		(L <sub>T</sub> )

**Figure 15.1 (page 276)**

	<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>		<b>G</b>		<b>H</b>		<b>I</b>
Pre-Impact	(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)
Impact	(T)	→	(L)		(L <sub>d</sub> )		(L)	→	(L)	→	(T <sub>L</sub> )	→	(L)	→	(L)	→	(L)
Post-Impact	(T)		(T)	→	(L <sub>o</sub> )	→	(L)	→	(L)	→	(T <sub>L</sub> )	→	(L <sub>T</sub> )		(L <sub>T</sub> )	→	(L)

**Learner-Initiated Style Anatomy Chart (page 283)**

Pre-Impact → (L)  
 Impact → (-)  
                   → (-)  
                   → (-)  
 Post-Impact (L)

**Figure 16.1 (page 284)**

	<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>		<b>G</b>		<b>H</b>		<b>I</b>		<b>J</b>
Pre-Impact	(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)	→	(L)
Impact	(T)	→	(L)		(L <sub>d</sub> )		(L)	→	(L)	→	(T <sub>L</sub> )	→	(L)	→	(L)	→	(L)	→	(-) (-) (-)
Post-Impact	(T)		(T)	→	(L <sub>o</sub> )	→	(L)	→	(L)	→	(T <sub>L</sub> )	→	(L <sub>T</sub> )		(L <sub>T</sub> )	→	(L)		(L)

**Self-Teaching Style Anatomy Chart (page 290)**

Pre-Impact → (L)  
 Impact → (L)  
 Post-Impact → (L)

**Figure 17.1 (page 291)**

	<b>A</b>		<b>B</b>		<b>C</b>		<b>D</b>		<b>E</b>		<b>F</b>		<b>G</b>		<b>H</b>		<b>I</b>		<b>J</b>		<b>K</b>
Pre- Impact	(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)		(T)	→	(L)	→	(L)
Impact	(T)	→	(L)		(L <sub>d</sub> )		(L)	→	(L)	→	(T <sub>L</sub> )	→	(L)	→	(L)	→	(L)	→	(-) (-) (-)	→	(L)
Post- Impact	(T)		(T)	→	(L <sub>o</sub> )	→	(L)	→	(L)	→	(T <sub>L</sub> )	→	(L <sub>T</sub> )		(L <sub>T</sub> )	→	(L)		(L)	→	(L)