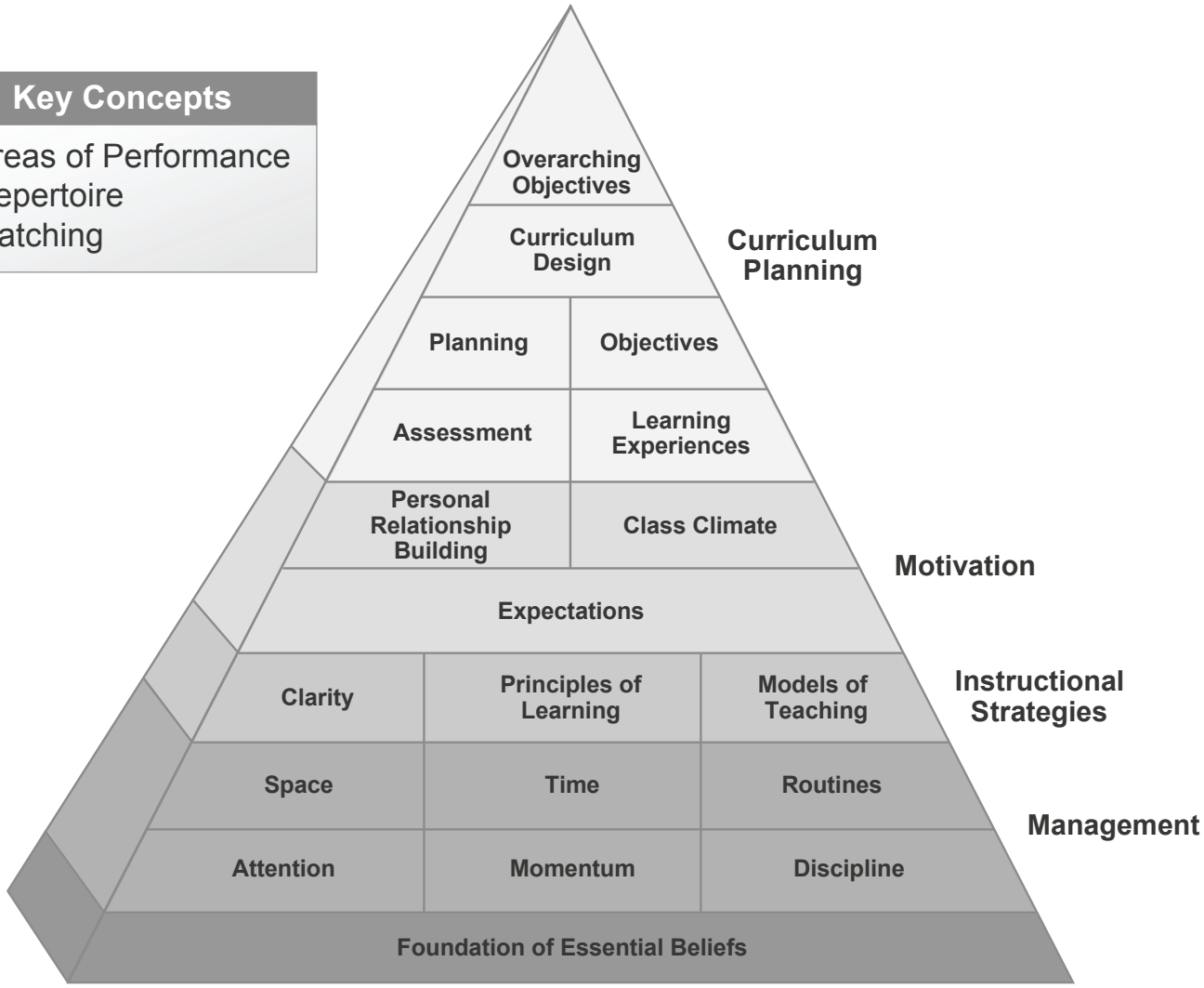
The Knowledge Base on Teaching

Key Concepts

- Areas of Performance
- Repertoire
- Matching



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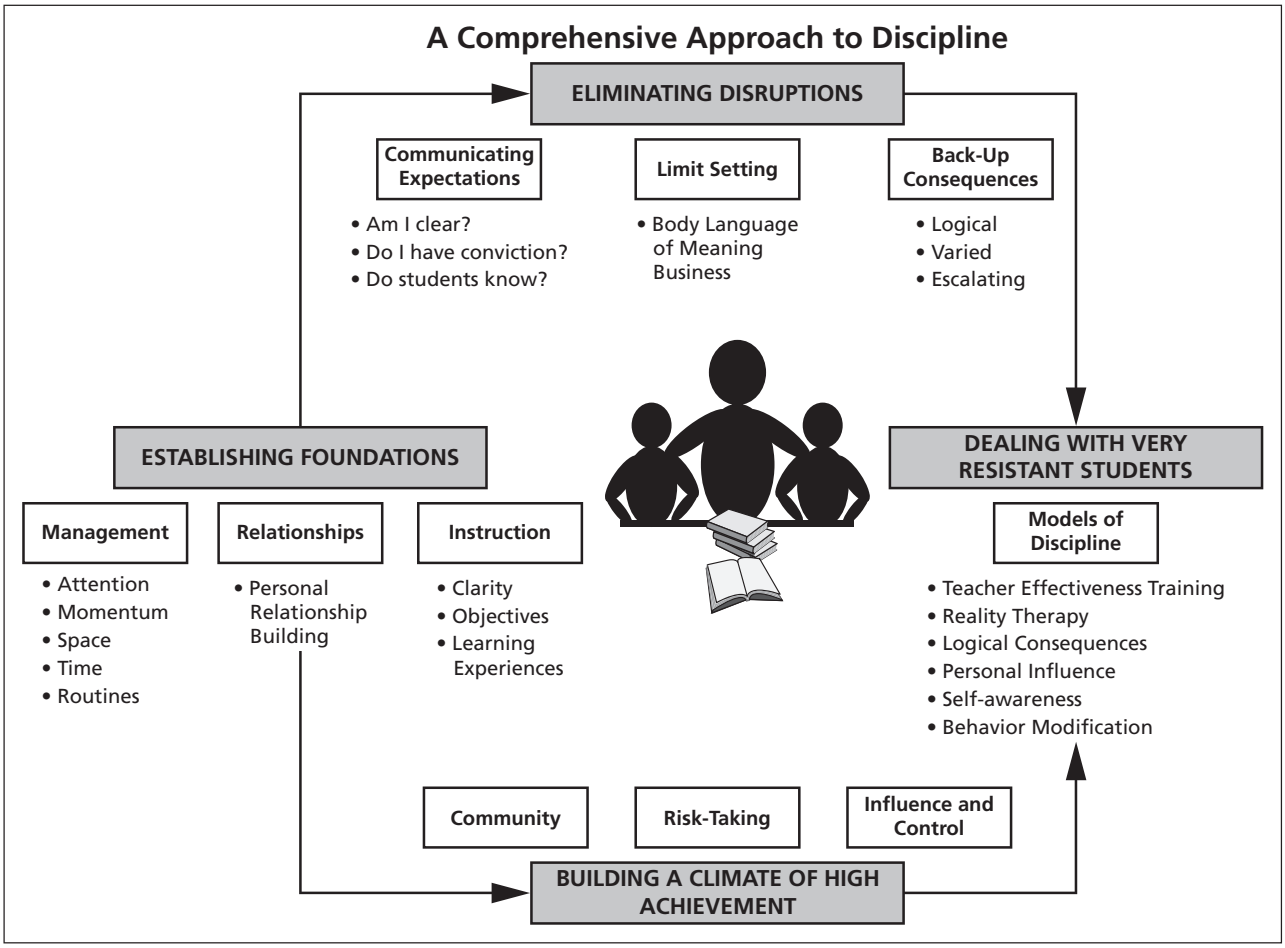
Discipline Tasks and Toolboxes



Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 74.

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Table 9.1. Clarity Concepts

I. FRAMING THE LEARNING

1. Framing the Big Picture by ensuring that students understand the following:
   - Objectives
   - Itinerary
   - Big idea/essential question
   - Reason it's worthwhile
   - Reason for activity
   - Criteria for success

2. Getting Ready for Instruction
   - Activating students' current knowledge
   - Preassessing
   - Anticipating confusions and misconceptions

II. PRESENTING INFORMATION

3. Presenting Information through well-chosen Explanatory Devices:
   - Simple cues
   - Progressive minimal cues
   - Highlighting important info
   - Analogies
   - Diagrams
   - Translation into simpler language
   - Pictures or pictographs
   - Charts, whiteboards, Smartboards
   - Document camera or transparency
   - Audio and video recordings
   - Computer presentation software
   - Models
   - Mental imagery
   - Modeling thinking aloud
   - Graphic organizer

4. Speech
   - Avoiding "mazes" or "vagueness" terms
   - Matching to setting and student culture

III. CREATING MENTAL ENGAGEMENT

5. Explicitness: Making explicit and not leaving to chance the following:
   - Intention of cues
   - Focus of questions
   - Necessary steps in directions
   - Meaning of references

6. Making Cognitive Connections: By teacher for student or by student at invitation of teacher:
   - Showing resemblance to student experience or something already learned
   - Asking students to compare and contrast
   - Extending to implications and future actions
   - Making transitions between ideas
   - Signaling shift in activity, pace, or level
   - Foreshadowing

IV. GETTING INSIDE STUDENTS' HEADS (COGNITIVE EMPATHY)

7. Checking for Understanding

8. Unscrambling Confusions

9. Making Students' Thinking Visible

V. CONSOLIDATING AND ANCHORING THE LEARNING

10. Summarizing

Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 163.

Verbal Behaviors in a Class That Let Kids Get Smart

Teacher starts by asking a good open-ended question that gets them thinking. Then…

1. asks students to explain the thinking behind their answers whether they're right or wrong.
2. asks students if they agree or disagree with a student answer.
3. asks students to comment or add on to a student's response or idea.
4. creates and then facilitates dialog between students about their ideas
5. asks follow-up questions that are similar to ones just discussed to see if student really understands
6. asks students to make connections to something another student said or something else they know
7. credits meaning to student comments, even obscure ones, and probes for the student's thinking. …does the same with incorrect answers.
8. uses wait-time…allows students to struggle and dwells with the student's thinking, sticking with them
9. comes back to a student you moved away from to now check and clarify what their thinking is, given the comments of other students
10. asks questions to surface discrepancies between what student says and the information in front of them "How can that be? What's going on there?"

Students:

11. do the majority of the talking
12. are expected to explain their thinking
13. show they are listening to one another
14. willingly to openly admit confusion or not knowing
15. challenge each other's thinking non-judgmentally
16. take initiative to explain another student's thinking, including how they might have made an error
17. students who get it quickly take responsibility for helping those who don't

Other teacher observables:

18. provides a clear visual display of the idea
19. gives encouragement
20. praises good thinking
21. validates students who acknowledge confusion
22. expresses confidence in kids explicitly

Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 196.

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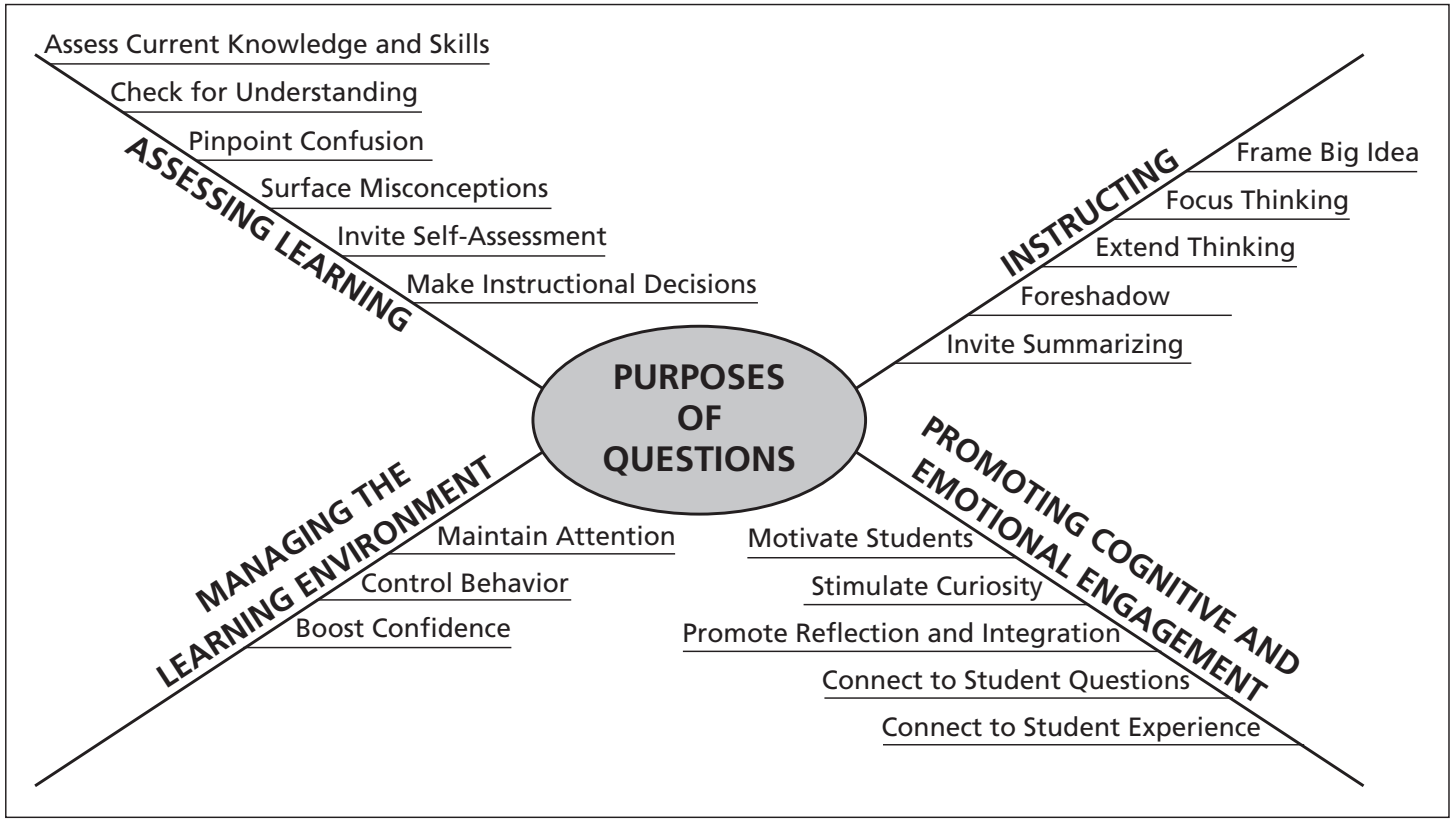
Purposes of Questions

Figure 9.7. Purposes of Questions

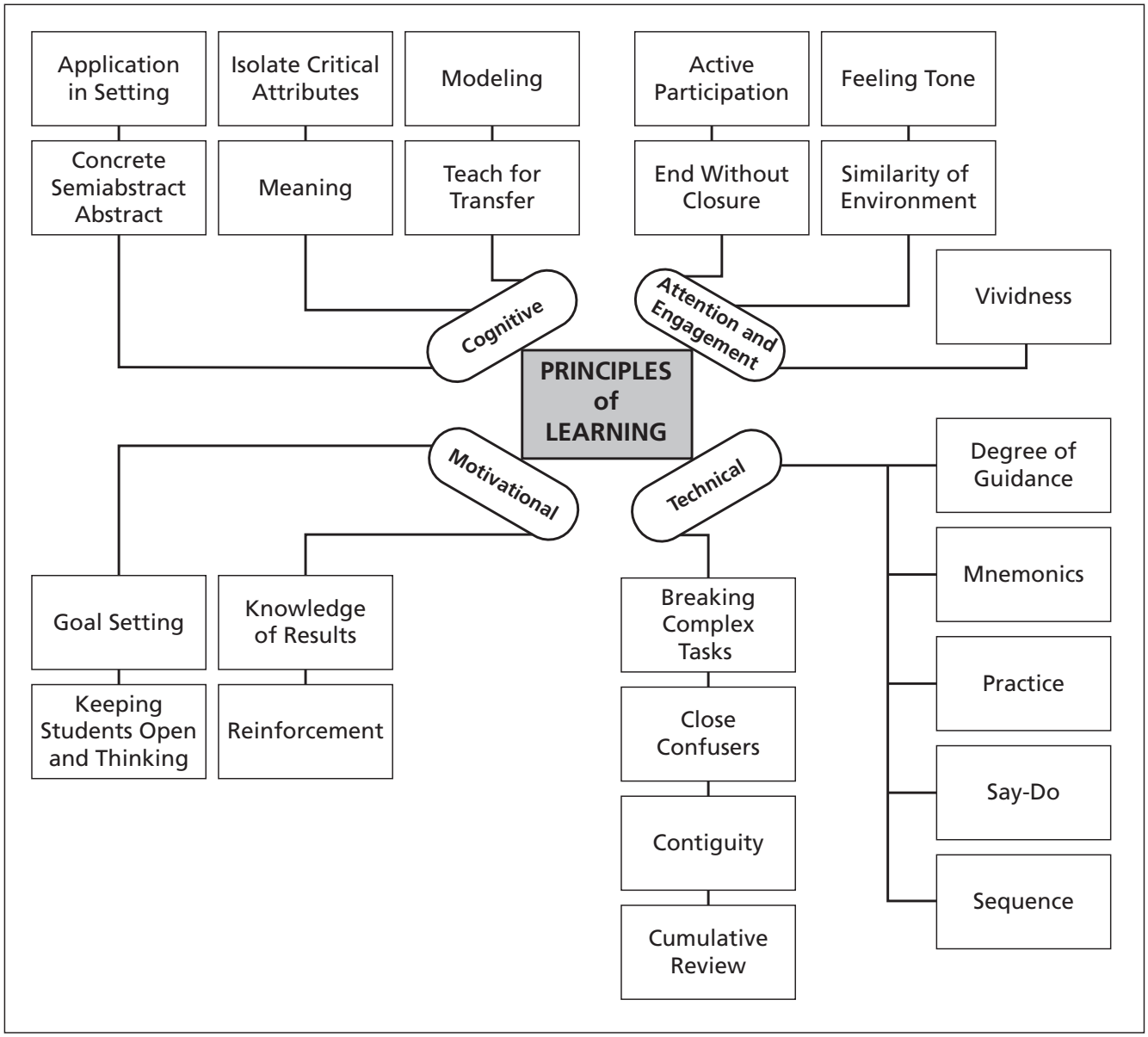


Source: Adapted from Bellon, Bellon, and Blank (1992).

Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 205.

Principles of Learning

Figure 10.1. Principles of Learning



Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 222.

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Climate of High Achievement for All Students

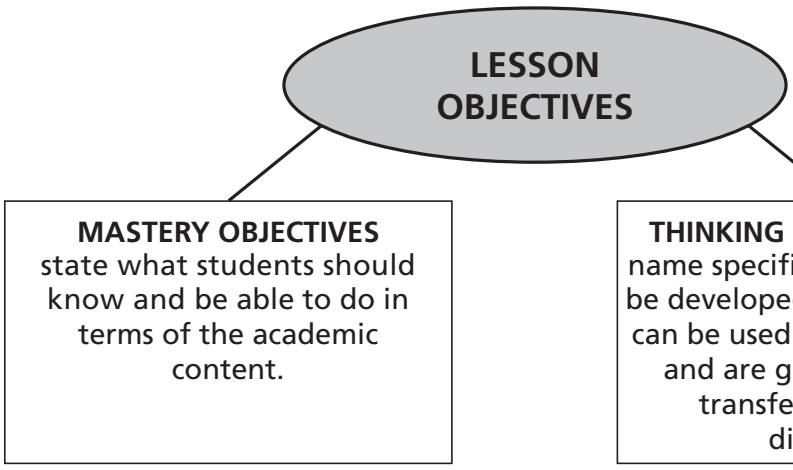
Figure 14.2. Climate of High Achievement for All Students

CREATING A CLIMATE OF HIGH ACHIEVEMENT FOR ALL STUDENTS				
COMMUNITY AND MUTUAL SUPPORT	**CONFIDENCE AND RISK TAKING**			**INFLUENCE AND CONTROL**
	Believing That . . .			
Knowing others	Mistakes help	vs.	Mistakes = sign of weakness	Empowering students to influence the pace of the class
↓	↓			↓
Greeting, acknowledging, listening, responding, and affirming	Care, perseverance, and craftsmanship count	vs.	Speed counts Faster = smarter	Negotiating the rules of the "classroom game"
↓	↓			↓
Group identity, responsibility, and interdependence	Good students solicit help and lots of feedback	vs.	Good students do it by themselves	Teaching students to use the principles of learning and other learning strategies
↓	↓			↓
Cooperative learning, social skills, class meetings, group dynamics	Effort and effective strategies . . . main determinants of success	vs.	Inborn intelligence = main determinant of success	Students using knowledge of learning style and making choices
↓	↓			↓
Problem solving and conflict resolution	Everyone is capable of high achievement	vs.	Only the few bright can achieve at a high level	Students and their communities as sources of knowledge

Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 331.

Lesson Objectives

Exhibit 16.1. Lesson Objectives



Mastery and thinking objectives should be **appropriate:**

- Linked to the agreed-on curricular standards (national, state, local)
- Worth knowing
- Matched to the students: challenging and attainable
- Able to be assessed

The language of a **mastery objective:**

- Is specific in terms of curricular knowledge: declarative or procedural
- Names an active performance (observable behavior) that demonstrates mastery
- Avoids using mental action words that do not inform students about what they will have to do to demonstrate mastery, such as:
  - understand
  - know
  - see that
  - learn
  - recognize that
  - appreciate that
  - be familiar with
  - have a grasp of
  - recognize significance of
- Begins with "Students (or *you*) will be able to..." indicating development of capacity vs. completion of an activity
- Includes strong clues about assessment
- May include a level of performance or be accompanied by criteria for success
- Is "kid friendly"

A **thinking skill objective:**

- Names a specific mental action verb
- Is "kid friendly"

Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 377.

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Criteria for Success

Exhibit 16.2. Criteria for Success

Definition

Criteria for success are the qualities the must be present for performance and products to meet the standards and be deemed successful. "What are the criteria?" means:

- "What should we look for in examining students' products or performances to know if they were successful?"
- "What attributes should we use to judge the effectiveness of the product or performance?"
- "What counts?"

A list of criteria (and exemplars) enable students to assess their current performances in light of the target performance. Criteria for success do not state what the teacher will do. They do not state what the student will do. Criteria for success name or describe the characteristics of the product performance, so the subject of the criteria should be the product or performance.

Examples of some criteria for products

1. The lab report
   - lists all the steps for the process of _____
   - explains your observations
   - explains your conclusions about the relationship between _____
   - uses technical terms correctly
2. Your learning log
   - summarizes the major events in the chapter
   - identifies the central conflict and progress toward its resolution
   - includes your own reflections on the decision that the protagonist is making in her attempt to deal with and solve her problem

Examples of some criteria for a performance

1. Your oral presentation
   - clearly states your position on the topic
   - presents the arguments supporting your position
   - supports all arguments with reason and evidence
   - responds to arguments opposing your position
   - is accompanied by visuals (e.g., charts, overheads, chalkboard, handouts)
   - is loud enough for everyone in the room to hear easily
   - may be spoken with notes but not read
   - is fluent in delivery and confident in tone (which means you practiced!)
2. Your sharing of your independent reading tells
   - the title and author of your book
   - the most interesting part so far
   - at least one vocabulary word that is new or interesting to you
   - a prediction of what will happen next

Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 378.

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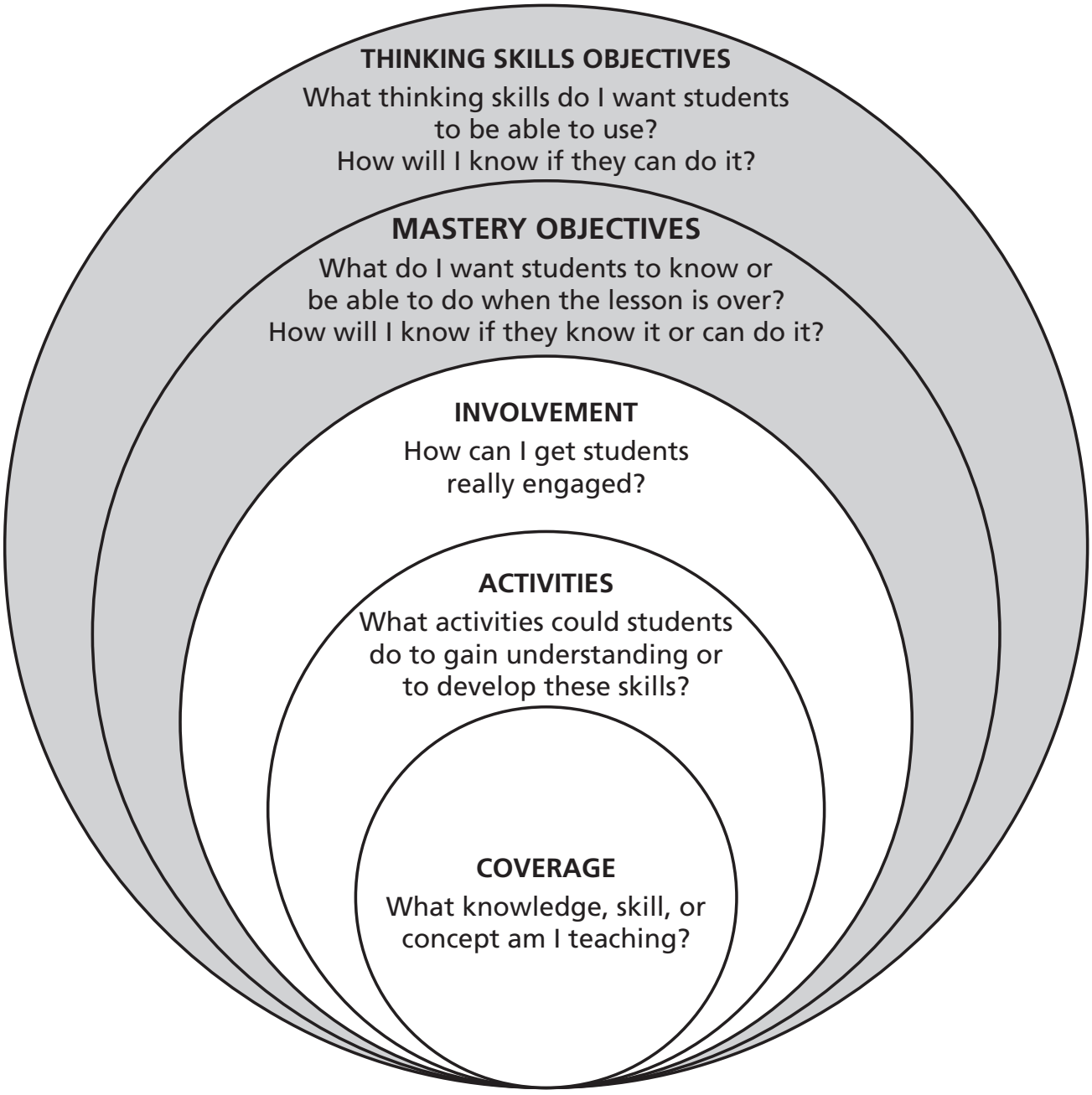
Key Questions in Lesson Planning

Thinking Behind Objectives



Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 386.

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Relationships Between Planning, Clarity and Expectations

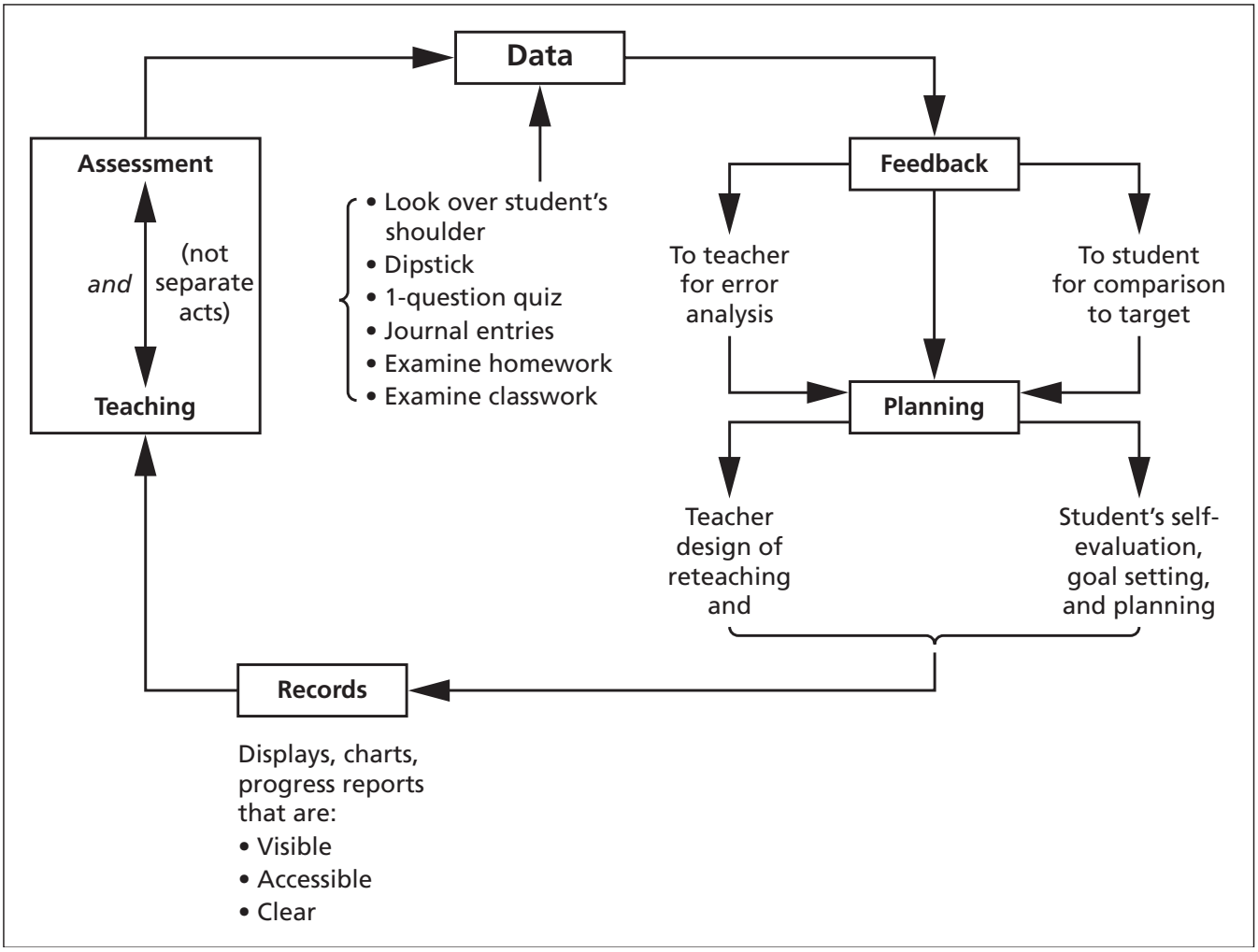
Exhibit 17.1. Relationships Between PLANNING, CLARITY, and EXPECTATIONS

Planning Decisions	Clarity Move	Expectations Arena
1. Recall big idea	Framing the big picture	
2. Articulate mastery objective for today		
3. Plan how to communicate objective	Communicating objective	
4. Envision evidence you'll take as sign of achievement of mastery of objective	Criteria for success	
5. Analyze evidence from recent student work		
6. Plan pace and subgrouping		Grouping and "reteaching loop"
7. Pick materials		
8. Anticipate confusions	Anticipating confusion	
9. Identify presentation strategy and student tasks	Explanatory devices	
10. Check match of student task with objective		
11. Plan how and when to gather evidence of student learning	Checking understanding	Calling on and responding to students
12. Plan how students will make their thinking public	Making thinking visible	
13. Plan how to get students to summarize	Summarizing	
14. Decide how to get students' minds in gear	Activating knowledge	
15. Plan space, time, routines		
16. Plan effective effort strategies		
17. Plan interactive moves (cues, questions)	Explicitness-questioning	
18. Plan how to diversify		
19. Plan student assistance		
20. Plan extensions and challenges		
21. Plan homework: what, why, and connections to today	Making connections	Feedback and grading structures

Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 409.

24 Hour Cycle of Teaching and Learning

Figure 19.1. The Twenty-Four-Hour Cycle of Teaching and Learning



Source: Jon Saphier, Mary Ann Haley-Speca, and Robert Gower. 2008. *The Skillful Teacher: Building Your Teaching Skills*, 6th ed. Acton, MA: Research for Better Teaching, p. 436.

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Arenas for Communicating Key Messages and Doing Attribution Retraining

1. When we call on students
   - avoiding the Pygmalion behaviors
   - using wait time

2. When we respond to student answers

3. When students don't answer

4. When we give help
   - responding when students ask for help
   - giving unsolicited help

5. When we give feedback on student performance
   - responding to unmet expectations
   - responding when students do well
   - noting significant change in performance

6. When we deal with errors

7. When we give grades

8. When students don't "get it" yet

9. When we group students

10. When we give/negotiate tasks and assignments

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Analyzing Lesson Challenge and Alignment

Does the teacher have an **intended objective** that is clearly stated or discernable as a "know/be able to do" about something worthwhile from the curriculum?

Yes. Obj is stated and T's actions match and support the intended objective

Yes. The objective can be deduced from all the actions although it is never clearly stated to students

Claim that the teacher's lesson was designed and carried out to support a mastery objective of *(give the objective)*

As evidenced by …..

- E = Framing Moves
- E= Lrng Exper.
- E= Expl. Devices
- E= Stand + Expect
- E= Checking

Yes but his/her **actions do not match** and support the intended objective

Claim that the teacher's demonstrated focus *(name it)* was not the same as the intended objective *(give the objective)*

Lack or—or mismatch of

- E = Framing Moves
- E= Lrng Exper.
- E= Expl. Devices
- E= Stand + Expect
- E= Checking

No.

Claim that the teacher's thinking and/or planning did not identify a clear mastery objective but stopped instead at coverage, activities, or involvement.

- E= quotes from pre-conf, or documents
- E= quotes that show what the teacher said instead of communicating a mastery objective
- E= use of time and focus of activities and questions
- E= missed opportunities to provide practice, check for understanding, assess; or acute need to unscramble, data re student performance

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