

# Introduction

Welcome to an exploration of visible learning research to support the development of assessment-capable visible learners. Thank you for your commitment to ensuring your learners can own their own learning and be their own teacher! This guide will serve as a guide to take your students through lessons that introduce them to tools and strategies necessary to become assessment-capable visible learners.

In the *Becoming an Assessment-Capable Visible Learner, Grades 3–5: Learner’s Notebook* and accompanying *Teacher’s Guide*, you will find resources to help you along your professional learning journey, at whatever stage you find yourself. Whether this is an individual journey, or district or school initiative, working to use visible learning research to guide your teaching and student learning is a commitment well worth the effort. In doing so, you are committing to improving students’ learning outcomes by equipping learners with the skills they need to engage more fully in their own learning and increase their growth and achievement.

## What Is Visible Learning?

Visible learning is a compass for education. In 2009, when John Hattie first published *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Student Achievement*, it was deemed as the “holy grail” of education. His works included a synthesis of research conducted by researchers all over the world, which included over 50,000 individual studies including over 250 million students. It has been claimed to be the most comprehensive review of literature ever conducted. And the thing is, it’s still going on. By 2016, the database included 1,200 meta-analyses, with over 70,000 studies and 300 million students. That’s a lot of data, right? (Fisher, Frey, & Hattie, 2016). The goal of a meta-analysis is to synthesize what is currently known about a topic. The result, as in the case of visible learning, can be strong recommendations about the impact or *effect* of a specific practice (Fisher et al., 2016).

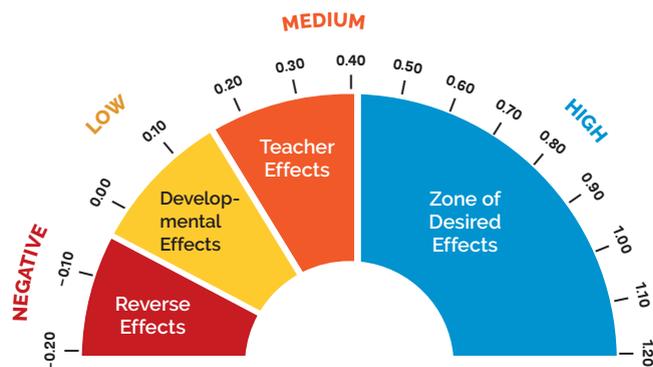
Visible learning is the understanding and “implementation of practices that work best to accelerate student learning” (Fisher et al., 2016). When well implemented, all stakeholders, and especially students, can see learning taking place—it becomes visible to them. Measured and ranked by *effect size*, the practices measured incorporate those exerted by the teacher, the student, the school, and other factors. Visible learning seeks to implement those strategies scientifically shown to have the greatest impact on student achievement. The *Becoming an Assessment-Capable Visible Learner, Grades 3–5: Learner’s Notebook* helps to develop strategies over which the student is the primary influencer.

## Effect Size

Effect size refers to the magnitude of the effect of a given approach, strategy, intervention, or influence. Hattie identified 0.40 as the hinge point: the *average* of all the influences studied. In other words, it is associated with a typical year’s growth

for a year's worth of school. Fisher, Frey, and Hattie caution that this does not mean that influences that fall beneath that 0.40 hinge point should be discarded. Any influence or strategy may be more or less beneficial in the different stages of learning, which Hattie identifies as surface, deep, and transfer. If a strategy is frequently implemented poorly, it can result in a lower effect size. See the appendix for a complete list of effect sizes.

The influence barometer is used by John Hattie in his visible learning research to show the effect size that varying influences in education have on student achievement. Influences having an effect size of 0.40 or higher fall into the zone of desired effects; 0.40 is the hinge point indicating a year's worth of progress for a year's input. Influences with an effect size greater than 0.40 have potential to make an even greater impact on student achievement.



**Influence Barometer**

Source: Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to student achievement* (Figure 2.4, p. 19). New York, NY: Routledge. Used with permission.

Throughout the *Teacher's Guide* and *Learner's Notebook*, the effect size for given influences are provided. However, simply doing an activity with a high effect size does not guarantee student learning. How, and in what phase of learning, a practice is implemented will impact its effectiveness in your classroom (for more on the surface, deep, and transfer phases of learning, see Fisher et al., 2016).

Creating assessment-capable visible learners is a way of being in the classroom, requiring, for some educators, a paradigm shift. Each of the activities listed in this guide is intended to become a habit for students that reshapes the learning climate in the classroom or the school, placing the students at the center and in the driver's seat when it comes to their own learning. Though the effect sizes of influences are provided, it is up to you to transform what you implement into meaningful practice. This *Teacher's Guide* and *Learner's Notebook* are designed to support you as you support your students so that maximum learning can be achieved.

## Practices for Success

The following are some practices that will help you succeed in creating assessment-capable visible learners in your classroom:

1. **Document modeled and practiced strategies.** As you introduce new procedures and strategies, make these permanently visible to students in the form of anchor charts posted around the room. These charts provide students with a tool to remember individual choices they can make for their own learning. They also allow students to see that learning choices have a name and are legitimate practices that they can choose to use. Making these tools visible reinforces that learning is deliberate rather than something that happens by chance, and that they can choose to use the tools that help them advance.
2. **Provide regular feedback to students.** Effective feedback is accurate, timely, actionable, helpful, and descriptive. It provides students with information about their strengths, areas for improvement, and, when formative, provides suggestions for *how* to improve.

3. **Engage students in regular progress monitoring.** In addition to students self-assessing against success criteria for daily learning, engage students in a more formal analysis of their progress against the standards, or the broader learning intentions, so they can see growth over time. This may include preassessments, quizzes, informal assessments, mid-unit/module assessments and end-of-unit/module assessments, as well as final exams.

For some students, these expectations might diverge from what they have been required to do in the past. Just as it is a shift for some teachers, it can also be for students. In settings where these strategies are not the norm, teachers can expect reluctance on the part of some learners, especially at the beginning. They have probably never been asked to become their own teacher. They may be asked to think about school and their role in school differently. Some may even resist, at first. Change can be hard. However, over time, and if implemented not as another task to check off and get through, but as regular, integrated processes, it will become the norm. It can become the way students view school.

## How to Hook Reluctant Learners

As with most things in the classroom, students buy in when the following things happen:

1. **Teachers demonstrate clarity in their instruction.** This includes using learning intentions and success criteria, developing well-articulated and coherent lessons, clearly delivering instruction, setting clear expectations for behaviors, task instructions, and learning outcomes. The effect size of teacher clarity is 0.75, which means that done well, students whose teachers demonstrate clarity can accomplish nearly twice as much learning in a given year as they would in the absence of these things.
2. **Student view the teacher as credible.** “Teacher credibility is a constellation of characteristics, including trust, competence, dynamism, and immediacy. Students evaluate each of these factors to determine if their teacher is credible, and if they are going to choose to learn from that teacher. Teachers can compromise their credibility when they when they violate trust, make a lot of errors, sit in the back of the room, or lack a sense of urgency. They compromise their credibility particularly if they are not seen to be fair” (Fisher et al., 2016, pp. 11–12). Teacher credibility is accomplished by building trusting relationships, engaging students in relevant and challenging learning tasks, and by developing and implementing coherent teaching and assessment. The effect size of teacher credibility is 0.90.
3. **Teachers develop genuine relationships with students.** They demonstrate compassion, respect, and genuine caring for the students’ academic, socioemotional, and personal well-being. Genuine teachers are ones who understand they teach students first, and their content second. As Doug and Nancy often say, students don’t learn from people they don’t like. The effect size for teacher–student relationships is 0.52.
4. **Strategies are regularly and meaningfully embedded into learning,** are routinely utilized, and the purposes of the strategies are frequently discussed with students.
5. **Teachers are flexible in their strategy use and responsive to the students in front of them.** Visible learning is not a lock-step program. In the

beginning, select a few strategies to develop throughout the year, based on the needs of your own students. Continually monitor the effectiveness of the strategies and your own use of the strategies and modify as needed. This *Teacher's Guide* is not all-encompassing, but it is a starting point. Use the contents as they fit the needs of your students.

6. **Students see the benefits.** Students will be much more likely to buy in if the results of this work are visible and tangible. Regular self-monitoring of progress, self-grading, and self-assessment of learning make achievement visible. A primary goal of the *Learner's Notebook* is that students become capable of assessing their own work and their own progress toward learning goals. Teachers can work to connect empowerment of learning to current and future aspirations. The effect size of self-reported grades is 1.33.
7. **Teachers tailor the work to their students.** If a lesson doesn't seem like a good fit for your students, modify it. Pay attention to how students are responding and progressing and use formative assessment frequently to help determine that. Your individual students are just that—individuals. The more you build student–teacher relationships, the more they will be willing to take risks in their learning, because they know you will be there to support them. Listen to their feedback and tailor this work to their needs.

## Teacher Clarity: Learning Intentions and Success Criteria

Imagine being given a bow and arrow and told your evaluation would depend on whether or not you hit the target. The catch: You don't know what the target looks like or even where it is. It is invisible to you. It is very unlikely you will hit it. You may become angry and frustrated at your evaluators. You may even give up on trying. Yet all too often, this is the experience of our students. Good, daily learning intentions make the purpose and the target of the day's lesson visible to students. The relevance is clear, and so is the criteria for success. Good learning intentions and success criteria demystify the learning for students, thus providing a clear pathway toward success. In the development of assessment-capable visible learners, nearly every characteristic depends on teacher clarity. Therefore, learning intentions and success criteria take a prominent role in the *Learner's Notebook* and here in this *Teacher's Guide* as well.

When engaging in quality planning, teachers consider essential questions central to their content. They consult locally created curriculum guides and pacing charts derived by aligning district required teacher materials with state or local standards. These standards clearly state what students should know and be able to do. Standards guide instruction as teachers determine *how* students will demonstrate skill and concept acquisition and apply learning in new and novel situations. Though they are specific, standards may embed a broad set of skills and concepts. These may need to be demonstrated and applied in a variety of contexts over time.

Learning intentions correspond to the academic standard. In the broadest sense, they *are* the standard written in a manner accessible to students in student-friendly language. Standards are typically developed over a sustained period of time through thoughtful consideration of learning progressions. Effective teachers begin with standards but break them down into smaller components—smaller chunks that can be practiced and attained within a given lesson or set of lessons. These chunks correspond to the learning progression: What skills do my students need to develop to successfully master the standard?

Lesson-specific learning intentions are just that: what it is the teacher intends for students to learn and practice through the course of the lesson or class period. Learning intentions, then, provide the purpose of the lesson to the students. Sounds easy and straightforward. As the idea swirls around in our brains, it is easy enough to grasp, conceptually. However, once we begin writing learning intentions for our students, we may find that it takes much thought and deliberation to create well-articulated learning intentions, aligned to the performance task, in student-friendly language! The table below outlines the differences between standards, which are meant to be met over the course of a school year, and lesson-specific learning intentions.

STANDARD	LEARNING INTENTION
Determine a theme of a story, drama, or poem from details in the text; summarize the text.	Today we are learning to use key details to determine the theme of a story.
Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities.	The purpose of today's lesson is to use multiplication and division to solve word problems when there are equal groups.

Learning intentions have a much more specific purpose than the broader standard and drill deeper down into how we develop the learning standard. As such, the teacher must bear in mind a multitude of purposes when constructing the learning intention, including, but not limited to, the standards, essential questions and the content-specific skills and thinking habits that students need to develop in order to meet the standard.

Learning intentions are the *what* of learning. The purpose. Success criteria are the *how*. How students will know when they are successful. And how students can assess their progress toward the learning intention. They are a way for teachers and students to gauge progress toward the learning intention and subsequently, learning standards. Success criteria can be developed by the teacher or jointly with the students and may include checklists and rubrics. When students know what they are supposed to learn, what it looks like when they get there, and have a clear pathway forward, they are not only more likely to be successful, they are more likely to be motivated to do so.

Because success criteria play a crucial role in motivation, it is important for them to precisely and explicitly identify what the end goal looks like. Like identifying and naming learning intentions, identifying and writing quality success criteria takes deliberate practice.

Following is an example that takes a learning standard and uses it for development of learning intentions and success criteria. Quality success criteria need to be concrete and measurable through some form of assessment.

STANDARD	LEARNING INTENTION	SUCCESS CRITERIA
Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	The purpose of today's lesson is to use details in the text to explain what it says.	<ol style="list-style-type: none"> <li>1. Identify key explicit details in the text.</li> <li>2. Identify inferences in the text using explicit information.</li> <li>3. Explain what the text says using your explicit details and inferences.</li> </ol>

For additional help creating well-articulated learning intentions aligned to performance tasks, see *The Teacher Clarity Playbook: A Hands-On Guide to Creating Learning Intentions and Success Criteria for Organized, Effective Instruction* (Fisher, Frey, Amador, & Assof, 2018).

## The Learner's Notebook

The focus lessons, accompanying reflections, and progress monitoring tools included in the *Learner's Notebook* provide teachers with resources to support an instructional shift in the classroom. Visible learning is a way of approaching teaching and learning. For some, it proposes an instructional approach that may vary from current practices. Most of the included strategies simultaneously boost *teacher credibility*, *student–teacher relationships*, and student motivation, which have some of the highest influences of all (more on these later). The result is a culture of genuine learning. Simply using the accompanying materials and checking off a list of items to complete will, more than likely, not yield the desired results. Teachers who wish to see the benefits of visible learning must expertly incorporate strategies into the very body of their lessons and help students make those strategies and ways of thinking a habitual way of being.

The *Learner's Notebook* is designed to build the foundation for, and further support, visible learning in the classroom. For those just beginning with visible learning and for teachers and students who have been implementing visible learning strategies already, the *Learner's Notebook* is designed to help and encourage students to use self-assessment to improve their learning and to determine whether they have reached the intended outcomes. In other words, it is to help them become their own teacher. The goal of the *Learner's Notebook* is to establish the habits and dispositions of assessment-capable visible learners through consistent metacognitive, cognitive, and motivational practices.

Assessment-capable learners are students who

- Know where they are going
- Know how to choose the tools to get them there
- Monitor their progress
- Recognize when they are ready for the next step in their learning



Students do not walk into the classroom automatically knowing how to do these things. Like any skill, the processes, behaviors, and skills must be deliberately taught: labeled, modeled, practiced, and reflected upon. The contents of the *Learner's Notebook* provide students and teachers the opportunity to do just that. The learning strategies are introduced with gentle scaffolding, and the practice is embedded in content. Students are frequently asked to reflect on their learning to encourage the formation of regular habits.

As noted above, at the heart of visible learning and creating assessment-capable visible learners lies *teacher clarity*. Teachers in visible learning classrooms understand what students must learn (standards), design and present lessons in a coherent manner, help students see the *why* behind what they are learning, and understand where students are performing in relation to those standards. In the visible learning classroom, teachers also communicate this with their students. The classroom teacher marks a clear pathway toward achievement of learning goals for the students through the following:

- Setting clear learning intentions
- Developing success criteria for and with students
- Providing students with the opportunities to select and develop the tools to reach those goals
- Building in opportunities for students to check their own performance against the success criteria

The research is clear: When students know the goal and have a clear pathway forward, they are more apt to be motivated in their learning and the likelihood of achievement is higher.

## How to Use the *Learner's Notebook*

This *Teacher's Guide* explicitly lays out how to use the *Learner's Notebook*. However, it also provides plenty of room for flexibility, and we encourage you to adapt the pacing to meet the needs of your classroom and students.

This guide includes focus lessons designed to introduce students to key concepts and strategies that will assist them in their journey to becoming visible learners. We highly suggest that you include learning intentions and success criteria in every lesson, no matter what the focus of the lesson. Regularly including them is a first step toward teacher clarity, the foundation of your work together.

The focus lessons do not need to be taught in any particular order. If you prefer to teach the success criteria focus lessons first, for example, that is fine. Teach them in an order that is best for you and your students.



The chart below highlights the key features of the focus lessons.

OVERVIEW	—	Provides background information and helpful tips and reminders meant only for the teacher.
TIME		The approximate length of time needed to implement the lesson.
ASSOCIATED INFLUENCE AND EFFECT SIZE		The influence that was measured for effect on student achievement; for example, cooperative learning or self-reported grades. Each lesson has one or two influences listed; however, overlap can exist. For example, receiving quality feedback is its own influence. However, feedback can influence motivation, teacher credibility, and clarity. An effect size above 0.40 indicates the influence had an effect above what would be expected of a student who simply attended school every day for one year.
TEACHER PREPARATION	—	Includes things to think about before using the provided template as well as items to prepare in advance. Such items might include supplies, posters, prior class-created anchor charts, and other artifacts.
RELATED TOOLS AND RESOURCES		This section lists the relevant tools or resources embedded within the lesson. These tools appear in Part III, Tools and Resources.
LESSON PAGES FROM THE LEARNER'S NOTEBOOK		These are the pages the students will see in their notebooks, included at full size and on shaded pages for easy reference.
TEACHER TALK	<b>Highlight</b>	Teacher Talk is a script that you <i>may</i> follow verbatim or use as a springboard to tailor to meet the needs of your students. It includes explanations and directions for the student. <b><i>Teacher Talk is presented in bolded italics and is highlighted for greater visibility.</i></b>
STUDENT ACTION	—	Student Actions are the clearly defined steps students will take throughout the focus lesson.

Inside the *Learner's Notebook* you will find flexible templates, scaffolded reflection prompts, and progress monitoring tools designed to use with specific scripted focus lessons, but flexible enough to be used for teacher generated purposes as well. The *Learner's Notebook* is broken into two distinct sections:

1. **Lessons.** In this section you will find the lessons designed to support creating students who are assessment-capable visible learners.
2. **Tools and Resources.** In this section, there are copies of templates and checklists that are used throughout the focus lessons. Deliberate practice using the tools and applying the strategies will be imperative if students are going to internalize these behaviors, so additional tools to use with a variety of learning experiences are available here. Each resource is repeated three times, so that the teacher can model it on multiple occasions. Here are the items that are included:
  1. My Learning Goal and Checklist
  2. Assessment-Capable Visible Learner Self-Assessment

3. Learning Intentions and Success Criteria Self-Assessment
4. Co-Constructing Success Criteria
5. Self-Assessing Your Progress Using Success Criteria
6. Taking on the Challenge of Learning: Part 1
7. Taking on the Challenge of Learning: Part 2
8. Study Skills Student Checklist
9. Is It Time for Feedback? Checklist
10. Looking at Mistakes as a Chance to Grow in My Learning
11. Using Self-Questioning to Guide Your Learning
12. Checklist for Peer Teaching With Think-Alouds
13. Student Sentence Starters for Reciprocal Teaching

## Lesson Linkage to *Developing Assessment-Capable Visible Learners*

The lessons below correspond to the chapters of *Developing Assessment-Capable Visible Learners* (Frey, Hattie, & Fisher, 2018). While there is an overlap among some of the tools and strategies students will use, lessons have been designed with a linkage to specific chapters in the *Developing Assessment-Capable Visible Learners* professional book. Even though the lessons support ideas in each chapter, there is no specific order in which the lessons need to be implemented. It is up to you as the teacher to determine how these lessons will best be implemented to meet the readiness levels of your students in helping them become assessment-capable visible learners.

Lesson (Page in <i>Teacher's Guide</i> )	Tools and Resources (Page in <i>Learner's Notebook</i> )	Chapter of <i>Developing Assessment-Capable Visible Learners</i>
<b>LESSON 1</b> Setting Learning Goals (PAGE 2)	My Learning Goal and Checklist (PAGE 72)	1. Defining Assessment-Capable Visible Learners and the Teachers Who Create Them
<b>LESSON 2</b> Becoming an Assessment-Capable Visible Learner (PAGE 10)	Assessment-Capable Visible Learner Self-Assessment (PAGE 81)	1. Defining Assessment-Capable Visible Learners and the Teachers Who Create Them
<b>LESSON 3</b> Learning Intentions and Success Criteria: How They Help You Learn (PAGE 22)	Learning Intentions and Success Criteria Self-Assessment (PAGE 90)	2. Assessment-Capable Visible Learners . . . Know Their Current Level of Understanding
<b>LESSON 4</b> What Does Success Look Like? (PAGE 32)	Co-Constructing Success Criteria (PAGE 102)	2. Assessment-Capable Visible Learners . . . Know Their Current Level of Understanding

(Continued)

Lesson (Page in <i>Teacher's Guide</i> )	Tools and Resources (Page in <i>Learner's Notebook</i> )	Chapter of <i>Developing Assessment-Capable Visible Learners</i>
<b>LESSON 5</b> Using Success Criteria to Keep Track of Your Progress (PAGE 38)	Self-Assessing Your Progress Using Success Criteria (PAGE 108)	3. Assessment-Capable Visible Learners . . . Understand Where They're Going and Have the Confidence to Take on the Challenge
<b>LESSON 6</b> Taking on the Challenge of Learning: Part 1 (PAGE 44)	Taking on the Challenge of Learning: Part 1 (PAGE 117)	3. Assessment-Capable Visible Learners . . . Understand Where They're Going and Have the Confidence to Take on the Challenge
<b>LESSON 7</b> Taking on the Challenge of Learning: Part 2 (PAGE 56)	Taking on the Challenge of Learning: Part 2 (PAGE 129)	3. Assessment-Capable Visible Learners . . . Understand Where They're Going and Have the Confidence to Take on the Challenge
<b>LESSON 8</b> Learning How to Learn (PAGE 64)	Study Skills Student Checklist (PAGE 141)	4. Assessment-Capable Visible Learners . . . Select Tools to Guide Their Learning
<b>LESSON 9</b> Is It Time for Feedback? (PAGE 72)	Is It Time for Feedback? Checklist (PAGE 150)	5. Assessment-Capable Visible Learners . . . Seek Feedback and Recognize That Errors Are Opportunities to Learn
<b>LESSON 10</b> Looking at Mistakes as a Chance to Grow in My Learning (PAGE 77)	Looking at Mistakes as a Chance to Grow in My Learning (PAGE 156)	5. Assessment-Capable Visible Learners . . . Seek Feedback and Recognize That Errors Are Opportunities to Learn
<b>LESSON 11</b> Using Self-Questioning to Guide Your Learning (PAGE 83)	Using Self-Questioning to Guide Your Learning (PAGE 165)	6. Assessment-Capable Visible Learners . . . Monitor Progress and Adjust Their Learning
<b>LESSON 12</b> Teaching Your Peers With Think-Alouds (PAGE 89)	Checklist for Peer Teaching With Think-Alouds (PAGE 174)	7. Assessment-Capable Visible Learners . . . Recognize Their Learning and Teach Others
<b>LESSON 13</b> Teaching Your Peers With Reciprocal Learning (PAGE 94)	Student Sentence Starters for Reciprocal Teaching (PAGE 180)	7. Assessment-Capable Visible Learners . . . Recognize Their Learning and Teach Others

## Suggestions for Implementation in Elementary Schools

Individual educational settings vary in climate, priorities, offerings, structures, and a multitude of other factors contributing to the identity of the school. Visible learning classrooms share the common belief that student ownership of learning is essential for optimal student growth and achievement. Visible learning classrooms put the student at the center. The structures individual educational settings choose to put in place to support visible learning are dependent on the identity, resources, and readiness of each setting. Here are some possible implementations:

- Individual teacher use
- Implementation within a department
- Implementation within grade-level teams
- Whole school implementation: Teach focus lessons in advisory, homeroom, study block, or house or school-within-a-school teams; incorporate with LMS or online portfolios.

Although the focus lessons are introduced in a specific order, they are flexible enough to use in a teacher-preferred order. Like most skills, the behaviors and habits in the *Learner's Notebook* should be identified, labeled, modeled, and practiced with students, thus scaffolding for a gradual release of responsibility and daily habit formation.

To become assessment-capable visible learners, students need explicit teaching and regular practice of cognitive, metacognitive, and motivational strategies, as well as management strategies.

- **Cognitive strategies** are used to deepen the understanding of the content.
- **Metacognitive strategies** help students to become aware of what they know and don't know. It incorporates the knowledge about when to use certain strategies in the learning process; it includes planning, monitoring, and assessing one's learning and readiness as well as regulating the learning process.
- **Motivational strategies** are the strategies one develops to focus and stay engaged in learning.
- **Management strategies** help students to locate, navigate through, and evaluate resources.

The focus lessons contained in this guide strive to develop metacognitive and motivational strategies to support the effective implementation of cognitive strategies. The focus lessons are not meant as a be-all, end-all, for developing assessment-capable visible learners; rather, they are a starting point for teachers and students. It is encouraged and expected that teachers will want to implement specific focus lessons in response to student needs as they arise. In fact, it will be necessary to incorporate focus lessons on content specific cognitive and management strategies, so that students can then use and continue to select these strategies to help them become their own teacher.