# Senior High Best Practices

## VIEWING GUIDE

NOVA SCOTIA

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# Senior High Best Practices Viewing Guide

The *Senior High Best Practices* DVD, created by the Nova Scotia Department of Education, features Nova Scotian teachers and students working together in a variety of learning environments.

What is meant by "best practices"? A "best practice" is commonly understood as a strategy that has been proven through research to improve learning. A "best practice" may be a micro strategy, such as using comparison and contrast, metaphors, similes, or analogies to help students connect new learning to previously learned concepts. Alternatively, a "best practice" may be a macro strategy such as the Gradual Release of Responsibility, which is a framework for instructional design that involves mentoring students toward independence.

Robert Marzano and his associates prefer to describe instructional practices that have been proven to have high probability for student success as high-yield instructional strategies. But he is also quick to point out that no one strategy or even sets of strategies should be implemented without thought and planning. Indeed, making professional decisions about which strategies will work best for groups of students or individual students involves intentionality and rigorous planning. As professionals, teachers make long-range as well as minute-by-minute decisions about which approaches will work best to enhance student learning. Therefore, teachers must remain informed by their own research and the research of others to help guide their professional decisions and actions.

The stories that unfold through the teachers and their students highlighted in this DVD have been chosen to showcase a number of best practices that, when taken together, illustrate a comprehensive picture of powerful learning. Powerful learning is learning that works; in other words, the students "get it." But on the road to "getting it," the instructional experiences are engaging and support students whenever possible in applying what they have learned in real world contexts.

The *Senior High Best Practices* DVD showcases seven classrooms, as well as a range of co-op education experiences, that represent a cross-section of disciplines, subject areas, and grade levels. This is purposeful and is designed to illustrate that best practices "travel easily" across subjects and grade levels. This viewing guide can be used as you work your way through the DVD; it provides a brief synopsis of each segment and includes guiding questions for your consideration.

| Senior High Best Practices: Disc 1 | | |
|---|---|---|
| **Segment** | **Chapters** | **Time** |
| **1. Assessment *for* Learning** | • Introduction<br>• A Range of Tools<br>• Coach First and Most; Judge Later<br>• Descriptive Feedback<br>• Assess to Adjust Teaching<br>• Peer and Self-assessment | 18:30 |
| **2. Gradual Release of Responsibility** | • Introduction<br>• Explicit instruction: "I work, you watch and listen."<br>• Shared instruction: "I work, you help."<br>• Guided practice: "You do, I help."<br>• Independence: "You do the work."<br>• Going for GROR | 20:12 |
| **3. Learning Journals / Math Journals** | • Intro<br>• Journals at Lockview<br>• Thinking and Communications<br>• Tangible Records for Learning<br>• Journals and Assessment<br>• Journals and Self-Assessment<br>• Math Journals, in the End | 10:16 |

| Senior High Best Practices: Disc 2 | | |
|---|---|---|
| **Segment** | **Chapters** | **Time** |
| **4. Inquiry-Based Learning** | • Introduction<br>• Twenty-First Century Skill Sets<br>• Open-Ended Questions<br>• Curriculum Connections—Interdisciplinary Perspectives<br>• Collaboration and Peer Feedback<br>• Questions and Problems First<br>• Teacher as Facilitator | 18:09 |
| **5. Project-Based Learning in $O_2$ and Co-op Education** | • Introduction<br>• PBL at Forest Heights<br>• Learning by Doing<br>• Authentic Tasks<br>• Collaborative Learning<br>• Meeting the Outcomes<br>• PBL Assessment | 12:43 |

# Nova Scotia Department of Education Principles of Learning

The public school program outlines seven big ideas, derived from research and proven best practices, that should form the framework for instruction and assessment. The DVD highlights rich examples of what these principles look like in real classrooms, woven together and embedded within the particular "best practice" highlighted in each chapter of the DVD. Keep the Principles of Learning and the particular segment focus in mind while viewing the video chapters. A table has been provided below to record examples of best practice that rest upon these seven principles of learning.

| Principles of Learning | Observations and Evidence |
|---|---|
| **1. Learning is a process of actively constructing knowledge.**<br><br>Therefore, teachers and administrators have a responsibility to<br><br>• create environments and plan experiences that foster investigating, questioning, predicting, exploring, collecting, educational play, and communicating<br>• engage learners in experiences that encourage their personal construction of knowledge, for example, hands-on, minds-on science and math; drama; creative movement; artistic representation; writing and talking to learn<br>• provide learners with experiences that actively involve them and are personally meaningful | |
| **2. Students construct knowledge and make it meaningful in terms of their prior knowledge and experiences.**<br><br>Therefore, teachers and administrators have a responsibility to<br><br>• find out what students already know and can do<br>• create learning environments and plan experiences that build on learners' prior knowledge<br>• ensure that learners are able to see themselves reflected in the learning materials used in the school<br>• recognize, value, and use the great diversity of experiences and information students bring to school<br>• provide learning opportunities that respect and support students' racial, cultural, and social identities<br>• ensure that students are invited or challenged to build on prior knowledge, integrating new understandings with existing understandings | |

| Principles of Learning | Observations and Evidence |
|---|---|
| **3. Learning is enhanced when it takes place in a social and collaborative environment.**<br><br>Therefore, teachers and administrators have a responsibility to<br><br>• ensure that talk, group work, and collaborative ventures are central to class activities<br>• see that learners have frequent opportunities to learn from and with each other<br>• structure opportunities for learners to engage in diverse social interactions with peers and adults<br>• help students to see themselves as members of a community of learners | |
| **4. Students need to continue to view learning as an integrated whole.**<br><br>Therefore, teachers and administrators have a responsibility to<br><br>• plan opportunities to help students make connections across the curriculum and with the world outside and structure activities that require students to reflect on these connections<br>• invite students to apply strategies from across the curriculum to solve problems in real situations | |

| Principles of Learning | Observations and Evidence |
|---|---|
| **5. Learners must see themselves as capable and successful.**<br><br>Therefore, teachers and administrators have a responsibility to<br><br>• provide activities, resources, and challenges that are developmentally appropriate to the learner<br>• communicate high expectations for achievement to all students<br>• encourage risk-taking in learning<br>• ensure that all students experience genuine success on a regular basis<br>• value experimentation and treat approximation as signs of growth<br>• provide frequent opportunities for students to reflect on and describe what they know and can do<br>• provide learning experiences and resources that reflect the diversity of the local and global community<br>• provide learning opportunities that develop self-esteem | |
| **6. Learners have different ways of knowing and representing knowledge.**<br><br>Therefore, teachers and administrators have a responsibility to<br><br>• recognize each learner's preferred ways of constructing meaning and provide opportunities for exploring alternative ways<br>• plan a wide variety of open-ended experiences and assessment strategies<br>• recognize, acknowledge, and build on students' diverse ways of knowing and representing their knowledge<br>• structure frequent opportunities for students to use various art forms—music, drama, visual arts, dance, movement, crafts—as a means of exploring, formulating and expressing ideas | |

| Principles of Learning | Observations and Evidence |
|---|---|
| **7. Reflection is an integral part of learning.**<br><br>Therefore, teachers and administrators have a responsibility to<br><br>• challenge their beliefs and practices based on continuous reflection<br>• encourage students to reflect on their learning processes and experiences<br>• encourage students to acknowledge and articulate their learnings<br>• help students use their reflections to understand themselves as learners, make connections with other learnings, and proceed with learning | |

# DVD Viewing Details

## Segment 1 Synopsis: Assessment *for* Learning

The purpose of classroom assessment is to support student learning and to communicate that learning to others. In order to support student learning, classroom assessment must provide timely, targeted, and frequent descriptive feedback *during* the learning. The teacher's role is coach first; judge later.

Damian Cooper, author of *Talk about Assessment: High School Strategies and Tools*, reminds us that assessment *for* learning is not only about grading and reporting; it's about teaching and learning. That's why it's so important. Teachers' minute-to-minute, day-by-day assessment *for* learning practices are the most powerful of many ways to increase student achievement.

The Assessment *for* Learning segment of the DVD demonstrates teacher-led, self-, and peer-assessment strategies being used to determine what students know already and what they need next on the way to meeting learning outcomes.

A range of classrooms, subject areas, and grade levels is showcased, highlighting how teachers have planned for and implemented assessment *for* learning in a variety of responsive ways, and how the evidence teachers collect is used to shape instruction and determine next steps.

**Classrooms Showcased**

- Mathematics Foundations 10
- Options and Opportunities 10, 11, and 12
- Global Geography 12
- Mathematics 10
- Science 10
- English 12
- Advanced English 12

**Guiding Questions**

1. What sorts of assessment strategies and tools do we see modelled by the teachers in the DVD?

2. How do these assessment strategies and tools provide teachers with evidence of student progress?

3. As Rick Stiggins says, "Students can hit any target that they know about and that holds still for them." How do the teachers in the DVD communicate the instructional targets to their students?

4. In what ways do teachers provide descriptive and corrective feedback to their students? With what impact?

5. What strategies are the teachers using to coach their learners?

6. Sources of evidence should derive from conversations, observations, and products (triangulation). Reflect on how the teachers are using conversations, observations, and products to discover and act upon what students know and need next.

7. In what ways have the teachers in the DVD used evidence of student learning to inform instruction?

8 In what ways are students an active part of the assessment process?

9 Discuss some ways that you use assessment-for-learning strategies to inform instruction.

10. Discuss some ways that you provide opportunities for students' self- and peer assessment.

11. When are self- and peer-assessment appropriate? When are they not appropriate?

12. What do you consider when choosing an assessment-for-learning strategy?

13. Discuss where in this video segment you saw evidence of the Principles of Learning in action.

**Observations** (of learning)
- anecdotal notes
- drafts showing crafting, revising, and editing strategies
- notes from Literature Circles
- observation checklists
- reading skills
- listening and speaking skills


**Conversations** (discussing learning with students)
- journals
- notes
- reading/writing conferences
- reflections
- self-assessments
- observations

**Products** (students create)
- assignments
- checklists
- notebooks
- peer assessments
- portfolios
- reader responses
- research notes
- test scores
- project assignments

## Segment 2 Synopsis: Gradual Release of Responsibility

The Gradual Release of Responsibility is a model of instruction that provides a scaffolded continuum of support for students as they learn new concepts and skills. The model incorporates approaches from constructivist learning theory, differentiated instruction, and the Nova Scotia Department of Education Principles of Learning. Sometimes, the model is also referred to as the workshop model.

This segment showcases a number of classrooms where teachers have incorporated the stages of the Gradual Release of Responsibility, showing the role of direct and explicit instruction, shared and guided practice, and independent student work. Throughout these stages, teachers embed active and responsive assessment *for* learning.

**Classrooms Showcased**

- Mathematics Foundations 10
- Mathematics 10
- Science 10
- English 12
- Advanced English 12

**Guiding Questions**

1. In which segments do you see evidence of the following stages of instruction?

    a. Explicit instruction: "I work, you watch and listen."

    b. Shared instruction: "I work, you help."

    c. Guided practice: "You do, I help."

    d. Independence: "You do the work."

2. What purposes does each stage or phase of instruction serve?

    a. Explicit instruction

    b. Shared instruction

    c. Guided instruction

    d. Independent practice

3. Roles and responsibilities

    a. What are the teacher's role and responsibilities in each stage?

    b. What are the student's role and responsibilities in each stage?

4. In which stages would you expect teachers to use assessment *for* learning? In what ways and to what end?

5. How do the teachers design instruction so that they have time to be mentors and coaches?

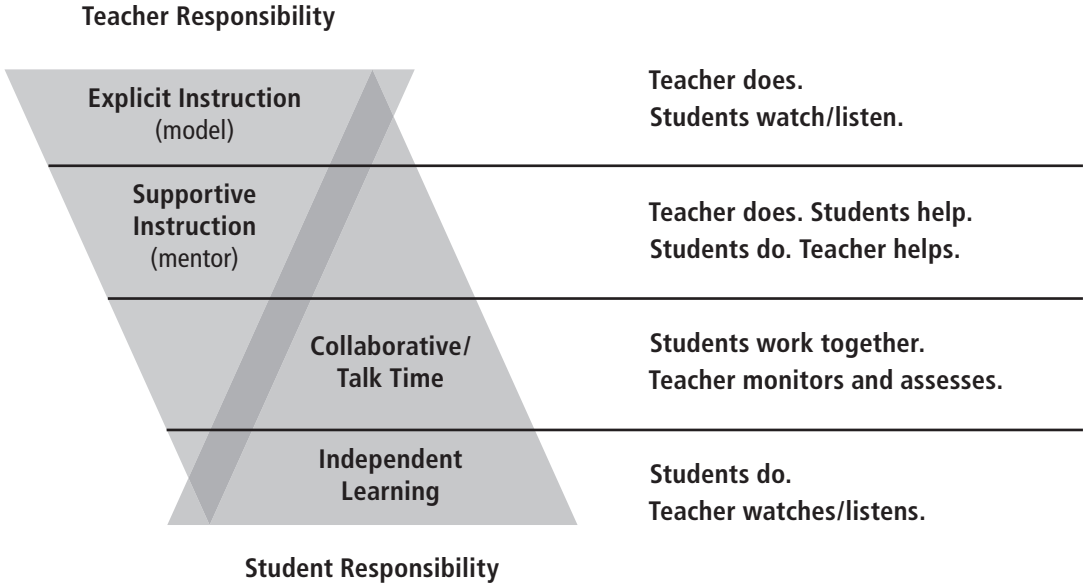
6. How are students placed to act as mentors and coaches?

7. Discuss the benefits of this model of instruction. Are there any challenges associated with this model? What might you do to overcome or mitigate the challenges?

8. How might you design an instructional sequence of a topic that you teach so that the gradual release of responsibility is used?

9. Discuss where in this video segment you saw evidence of the Principles of Learning in action.

## Gradual Release of Responsibility



## Segment 3 Synopsis: Learning Journals / Math Journals

Segment 3 explores how students at Lockview High School use journals in mathematics to think critically, problem-solve, reason, communicate, and reflect upon their learning. Teachers Susan Wilkie and Sherri Miles comment on the multiple uses of the mathematics journal, ways to establish mathematics journal routines, their purposes and functionality, as well as classroom instructional and assessment applications. Students discuss the benefits of a mathematics journal that travels with them from grade to grade.

While Segment 3 focuses on the journal as a tool for learning mathematics, the strategy and the underlying pedagogy are applicable across subjects, disciplines, and grade levels.

### Classrooms Showcased

- Mathematics Foundations 10
- Mathematics 10

### Guiding Questions

1. Describe some of the benefits for both teachers and students of learning journals.

2. Discuss the ways in which the teachers in the DVD used learning journals to increase chances for student success.

3. How important are routines and expectations for helping students to effectively use their journals?

4. Comment on how the ways in which you use strategies such as learning journals and other methods that embed writing to learn in your subject area.

5. Discuss the successes and challenges involved in using learning journals. What are some solutions to the challenges posed?

6. How might the learning journals be used as a powerful assessment-for-learning tool?

7. Discuss how learning journals support the Principles of Learning.

## Segment 4 Synopsis: Inquiry-Based Learning

Inquiry-based learning is based on complex, real-world problems. As students confront these real-world challenges, they acquire and apply new knowledge that goes well beyond mere rote recall of facts. Inquiry-based learning is a critical instructional design component of twenty-first century learning. Segment 4 showcases how teachers structure and facilitate inquiry-based learning, guiding students as they frame open questions; how they structure meaningful tasks, and coach both knowledge development and social skills. The segment also provides insight into how teachers carefully assess what students are learning and the outcomes they are achieving from their experiences.

**Classrooms Showcased**

- Advanced English 12
- English 12
- Global Geography 12
- Mathematics Foundations 10
- Science 10
- Options and Opportunities 10, 11, and 12

**Guiding Questions**

1. How have the teachers in the DVD structured their physical environments (classrooms) and their instruction to allow for inquiry?

2. What needs to be considered in order to design effective inquiry-based learning?

3. How might inquiry-based learning encourage interdisciplinary connections?

4. How might inquiry-based learning encourage student collaboration?

5. What twenty-first-century skills did you see students using as they engaged in inquiry-based learning?

6. What problems did they investigate? What solutions did they encounter or invent?

7. What products did students create as a result of their inquiries?

8. In what ways might a teacher assess student achievement within an inquiry-based instructional framework?

9. How well does inquiry-based learning fit with the Principles of Learning?

## Segment 5 Synopsis: Project-based Learning in $O_2$ and Co-op Education

Like inquiry-based learning, project-based learning (PBL) is rooted in authentic real-world problems and requires that students apply skills and their understanding of content to complete projects that are meaningful and significant.

Segment 5 showcases how teachers structure and facilitate project-based learning in Co-operative Education and Options and Opportunities classrooms. Here we see students working on a wide range of projects that arise from the curriculum, projects that demand the application of skills and knowledge in order to create products and new knowledge. Although $O_2$ and Co-operative Education classes are highlighted, project-based learning has wide application across subject areas and grade levels.

**Classrooms Showcased**

- Options and Opportunities 10, 11, and 12
- Co-operative Education 11 and 12

**Guiding Questions**

1. What appear to be the benefits of project-based learning?

2. Psychologist Mihaly Csíkszentmihályi coined the term **flow** to describe what happens when students are immersed in an experience that is so engaging it results in feelings of positive energy, focus, and intrinsic motivation. What evidence did you see in the segment that shows students engaged in a state of **flow**?

3. What skills and strategies could be addressed through the use of project-based learning?

4. If students are engaged in project-based learning, what role does the teacher play?

5. What structures need to be in place for students to engage successfully in project-based learning?

6. What evidence of learning did you find in this segment?

7. How might teachers assess student learning within a project-based approach to instruction?

8. How do you think the teachers structured the learning experiences to meet outcomes?

9. How might a teacher use the Gradual Release of Responsibility to support students with a project-based learning event?

10. How could you use project-based learning in your own subject areas?

11. How does project-based learning fit with the Principles of Learning?

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# DVD Participants

David Broome, Forest Heights Community School, and students of Co-operative Education 11 and 12, and Options and Opportunities 10, 11, and 12

Amber Cowan, Citadel High School, and students of Global Geography 12

Shane Eno, Parkview High School, and students of Science 10

Laurie Hayden, Principal, Forest Heights Community School

Jeff Hogue, Jeff's Old Volks Home, European Auto Repair

Sherri Miles, Lockview High School, and students of Mathematics 10, Mathematics Foundations 10, and Mathematics 12

Glenn Thompson, Cobequid Education Centre, and students of English 12

Steven Van Zoost, Avon View High School, and students of Advanced English 12

Susan Wilkie, Lockview High School, and students of Mathematics 10, Mathematics Foundations 10, and Mathematics 12