FEATURE

Co-Planning and Co-Implementing Assessment and Evaluation Strategies for Inquiry Learning

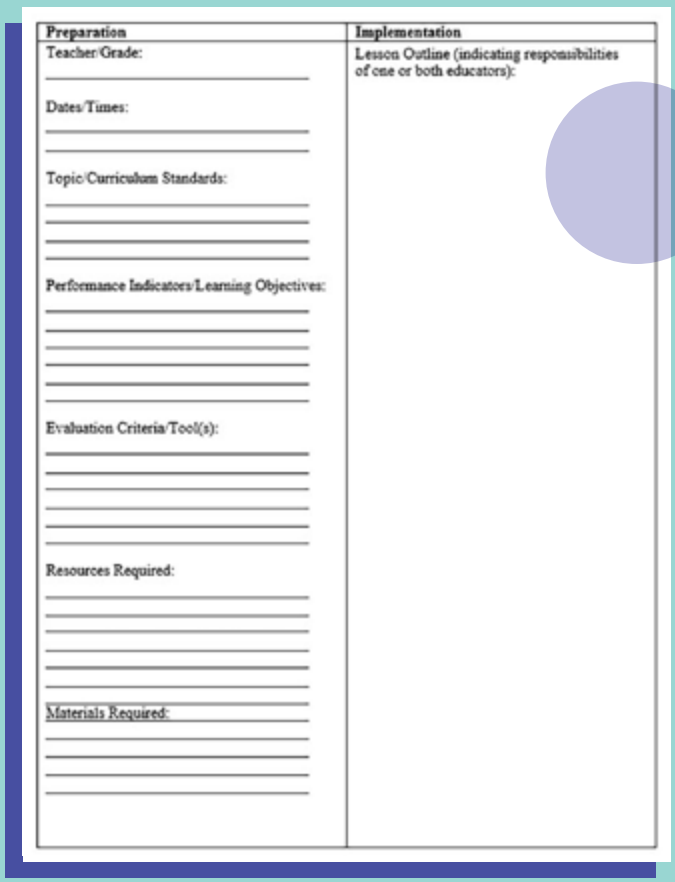
Judi Moreillon
info@storytrail.com

Assessment and evaluation are not optional for school librarians who want to be valued as full-fledged instructional partners. School librarians must document evidence of practice. Classroom teachers plan, implement, and assess student learning outcomes and then evaluate the effectiveness of their instruction. If school librarians are to be considered and serve as equal partners with classroom teachers and specialist colleagues, then comprehensive collaboration will include co-planning, co-implementation, co-assessment, and co-evaluation. Sharing the responsibility for assessment is a way for school librarians to be valued members on their schools' academic teams. Developing assessment expertise through coteaching is a pathway to leadership for school librarians.

All assessment should be conducted with the goal of improving learning. Giving students timely, specific, actionable feedback during an in-progress learning experience is a way for coteachers to monitor students' understanding and gauge the effectiveness of educators' instruction. This can be particularly true for longer periods of deeper learning such as those associated with inquiry, project-based, and problem-based learning. Effective feedback educators provide students contains specific steps to take to reach the learning goals for the project. As Rick Stiggins and Jan Chappuis (2012) have noted, assessment should be *for* learning rather than *of* learning. Assessment must be a path to improvement for students and for educators.

Self-assessment is also a necessary activity for all learners—youth and adults alike. Students must be given opportunities to self-assess their progress if they are to become self-regulating independent learners. Educators must take time to monitor and reflect on the effectiveness of their instructional practices and the resources and tools offered to support learning outcomes. When classroom teachers and school librarians co-plan and coteach, their reflective practice is strengthened by having two (or more) perspectives on what is working or has worked well and what can be improved at the next opportunity. When students, classroom teachers, and school librarians provide each other with feedback, the chances for success increase exponentially.

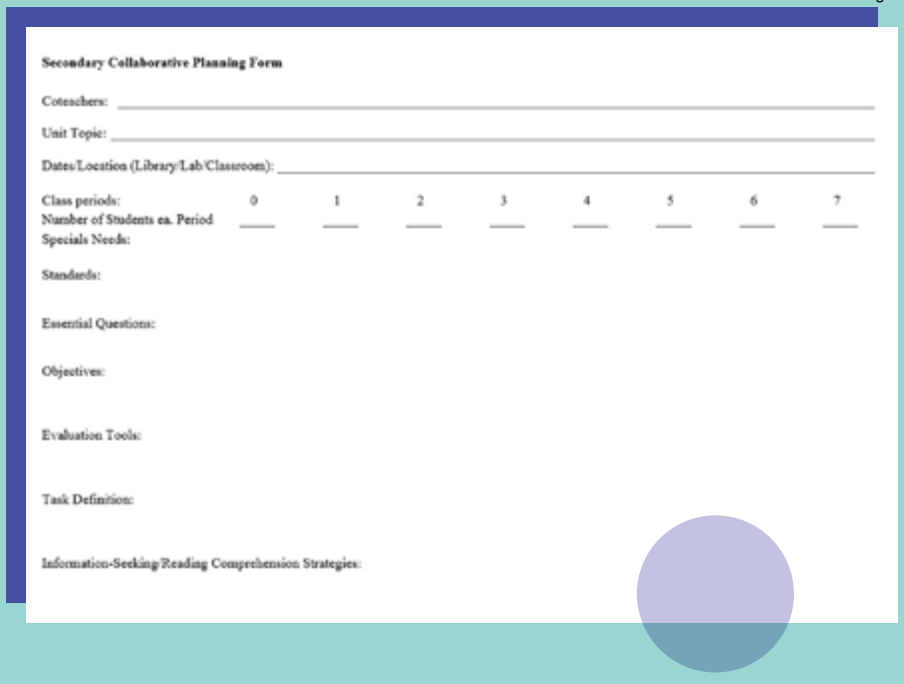
Assessment is a critical aspect of instructional partnerships. AASL recently published two position statements and included them in AASL's *National School Library Standards for Learners, School Librarians, and School Libraries* (2018). "Definition of an Effective School Library Program" states that an effective program requires a certified school librarian who is an instructional leader and teacher. "Collaboration" is one of the definitions included in that position statement: "working with a member of the teaching team to plan, implement, and evaluate a specialized instructional plan" (AASL



Preparation	Implementation
Teacher/Grade:	Lesson Outline (indicating responsibilities of one or both educators):
Dates/Times:	
Topic/Curriculum Standards:	
Performance Indicators/Learning Objectives:	
Evaluation Criteria/Tool(s):	
Resources Required:	
Materials Required:	

Figure 1. Elementary Collaborative Planning Form.

From J. Moreillon, *Coteaching Reading Comprehension Strategies in Elementary School Libraries* (Chicago: ALA 2013). Licensed under the Creative Commons Attribution–Noncommercial–Share Alike 2.5 License: http://creativecommons.org/licenses/ by-nc-sa/2.5/.



Secondary Collaborative Planning Form

Coteachers: _____

Unit Topic: _____

Dates/Location (Library/Lab/Classroom): _____

Class periods:	0	1	2	3	4	5	6	7
Number of Students ea. Period	___	___	___	___	___	___	___	___

Specials Needs:

Standards:

Essential Questions:

Objectives:

Evaluation Tools:

Task Definition:

Information-Seeking/Reading Comprehension Strategies:

Figure 2. Secondary Collaborative Planning Form.

From J. Moreillon, *Coteaching Reading Comprehension Strategies in Secondary School Libraries* (Chicago: ALA 2012). Licensed under the Creative Commons Attribution-Noncommercial-Share Alike 2.5 License: http://creativecommons.org/licenses/by-nc-sa/2.5/.

2016a). This definition also frames collaborative practices specified in the "Instructional Role of the School Librarian" position statement (2016b). For school librarians, collaboration and participation in assessment are ways to be accountable to colleagues and to students as well.

Inquiry learning is a framework for teaching and learning that supports empowered students in taking ownership of their own learning. Inquire is one of the Shared Foundations in the new AASL Standards. When learners inquire, they "build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems" (AASL 2018, 34). During inquiry learning, students increase their content knowledge. They learn and practice transferrable skills such as creativity and innovation, critical thinking and problem solving, communication, and collaboration, also known as the 4Cs (Partnership for 21st Century Learning). Learners also develop dispositions, such as flexibility and persistence, that will serve them well in their schooling and throughout their lives.

Co-Planning for Assessment During Inquiry Learning

School librarians can apply, further develop, and share their expertise in assessing student learning throughout the inquiry process,

Assessment must be a path to improvement for students and for educators.

including during the planning stage and at its culmination. During co-planning, classroom teachers and school librarians begin by consulting the classroom curriculum and connecting it with students' interests, background knowledge, and district, state, or national learning targets for students. Educators apply creativity and critical thinking as they guide inquiry learning that finds the sweet spot between required curriculum and standards-based outcomes and student engagement, motivation, and commitment. Giving students voice and choice starts with listening to how they connect with the learning topic, project, or problem presented. This search for relevance is an essential aspect of launching an inquiry unit.

When planning assessments to monitor student understanding and attainment of target outcomes, educators plan with the end in mind. When considering what they should measure, many educators turn to the tenets of Understanding by Design, or UbD. Grant Wiggins and Jay McTighe (2005) provided a straight-forward response to the "what" assessment question: What do we want students to know and be able to do as a result of learning? During the planning process, coteachers set goals, or learning objectives, for students. They conduct a task analysis to determine what specific knowledge, competencies, skills, and dispositions students need to gain in order to reach the lesson or unit objectives.

To increase learning for students, collaborating educators must also focus on "how" as they determine the best ways to collect, analyze, and use outcomes data in all 4Cs.

Educators use formative and summative assessments to determine the quality of student learning during the inquiry process. Formative assessments provide educators with feedback on students' understanding while inquiry is in progress. Students use the timely, actionable feedback on formative assessments to modify their performance and stay on track to meet the learning objectives. Educators use formative assessments to modify their instruction to meet students' needs for more information or practice. These assessment tools help educators and students improve while interventions can improve learning outcomes. Summative assessments administered at the end of a learning event are often evaluative. These assessments are related directed to the overarching learning objective(s) for the inquiry and are often represented by project scores and grades.

Figures 1 and 2 are sample classroom-library collaborative planning forms. Both forms include coteachers' standards-based learning objectives for students, and educators' initial ideas about the evaluation or summative criteria and tools educators will use to measure students' attainment of those objectives. However, based on their task analysis during the planning process, educators will want to consider additional assessments. Journaling, exit slips, graphic organizers, rubrics, and more can be used throughout the inquiry unit to monitor students' progress during the process. And as with the content of all learning plans, assessment tools may change or need to be revised based on what educators discover along the way.

Collecting Formative Assessment Data

Coteaching can increase the reliability of assessments. Educator observation can be strengthened when two or more coteaching educators are guiding and monitoring students' inquiry. It is certainly more difficult for one educator to monitor an entire classroom of students through observation than it is for two or more. Collaborating educators can share their observations with one another in real time during teaching and learning events as well as debrief after them. Shared observations can be more comprehensive and reliable than the efforts of a single educator.

While there are many indirect ways to document evidence, evidence of practice places a "higher premium on direct measures of student learning" (Todd 2007, 71). During the inquiry process, formative assessments are used to collect data regarding students' development of various subskills and dispositions. These assessment tools can simultaneously chart student progress on the overarching learning objectives as well as on the necessary skills that support students in achieving those targets.

Figure 3 shows such an example. After coteaching lessons on distinguishing between primary and

Figure 3. Notemaking and Works Consulted Rubric

Student's Name: _____ **Date:** _____ **Period:** _____

Assess your notemaking and research process by putting your initials in the description that best describes your work in each area (Notemaking Formats, Sources, and Works Consulted).

	RUBRIC POINTS					
	20	**18**	**15**	**10**	**5**	**1**	**0**
Notemaking Formats	Student uses single words, short phrases **in own words**, abbreviations, and bulleted lists.	Student uses single words, short phrases **in own words**, and abbreviations; **no bulleted lists**.	Student uses single words and short phrases **in own words** but uses **no abbreviations or bulleted lists**.	Student copies short phrases or whole sentences from sources **with quotation marks**. **Few notes** are written in student's own words.	Student copies short phrases or whole sentences from sources **without quotation marks**.	Notes are **unreadable** or **incomplete**.	Notes are **not turned in**.
Primary or Secondary Sources	**All notes** are marked **correctly** with a **P or S** in parentheses (Primary or Secondary Source).	**One or two notes** are not marked or marked incorrectly with a P or S (Primary or Secondary Source).	**Three notes** are not marked or marked incorrectly with a P or S (Primary or Secondary Source).	**Four notes** are not marked or marked incorrectly with a P or S (Primary or Secondary Source).	**Five notes** are not marked or marked incorrectly with a P or S (Primary or Secondary Source).	**More than five notes** are not marked or marked incorrectly with a P or S (Primary or Secondary Source).	Notes are not marked or are marked incorrectly with a P or S (Primary or Secondary Source).
Works Consulted	All entries are **correct using MLA format**.	Entries are **mostly correct, but have one or two** errors or missing components.	Entries are **mostly correct, but have three** errors or missing components.	Entries are **mostly correct, but have four** errors or missing components.	Entries have **numerous errors or missing components**.	Entries are **not appropriate or relevant** to the research.	A Works Consulted list is **not turned in**.

Student Points (60 total points possible):_____ **Teacher Points** (60 total points possible):_____ **Total Points** (120 total points possible):_____

Comments (on reverse):

Figure 3. Notemaking and Works Consulted Rubric.

From J. Moreillon, *Coteaching Reading Comprehension Strategies in Secondary School Libraries* (Chicago: ALA 2012). Licensed under the Creative Commons Attribution–Noncommercial–Share Alike 2.5 License: http://creativecommons.org/licenses/by-nc-sa/2.5/.

secondary sources, educators may teach or reteach the subskills of notemaking and keeping a running record of the works students consult during an inquiry process. Students could use this rubric to self-assess their progress, and educators could co-assess students' ability to determine source types as well as attainment of these subskills. Students can use the comment section to ask questions. Educators can use it to provide specific steps for improvement.

When educators co-analyze formative assessment data they look for individual student's misunderstandings or lower performance as well as for patterns among students in the class or course. One or both educators may work one-on-one with individual students or small groups of students whose formative assessments suggest reteaching may be helpful to them. Coteachers may also find that reteaching, providing additional examples, or reframing the target objective or subskills should involve the entire class. Having two or more professionals to collectively review formative assessments increases the validity of educators' analyses and results in more consistent and effective feedback for students.

Drawing Inferences Group Work and Multimedia Product Rubric

Students' Names: _____

_____

Target Audience(s): _____

Multimedia Tool(s) Used: _____

Criteria	20	15	10	5
Targeting Audiences for Group Product	Students target **classmates, schoolmates, and the world** as audiences.	Students target **classmates and schoolmates** as the audiences for their group product.	Students target **classmates** as the audiences for their group product.	Students target the **classroom teacher** as the **only** audience for their group product.
Planning for Group Product	Students engage in **oral conversation & written/recorded electronic communication.**	Students engage in **oral conversation and written (nonelectronic) communication.**	Students **engage exclusively in oral conversation** to plan.	Students **do not document** their planning methods.

Criteria	20	15	10	0
Content	Students **provide compelling evidence from the text** to support their inference.	Students **provide strong evidence from the text** to support their inference.	Students **provide adequate evidence from the text** to support their inference.	Students **do not provide** evidence from the text.
Content	Students **include specific background knowledge AND research** that they used to support their inferences.	Students **include specific background knowledge OR research** that they used to support their inferences.	Students **include general background knowledge or research** that they used to support their inferences.	Students **do not provide** background knowledge or research.
Individual Reflection	Individual student submits reflective paragraphs, follows the prompts, and provides evidence.	Individual student submits reflective paragraph(s), follows some prompts, and provides evidence.	Individual student submits reflective paragraph(s), follows some prompts; no evidence provided.	Individual student does not submit reflective paragraph.

Criteria	20	15	10	0
Using Multimedia	Students **ONLY use original media components** that appeal to more than one sense.	Students **incorporate some original or remix media components** (appeal to more than one sense).	Students **use only previously published media components** (appeal to more than one sense).	Students' product appeals to **only one sense.**
Works Cited	Students **use only original media and cite ALL** of it.	Students **cite all original and previously published media.**	Students **cite previously published media only.**	Students **do not cite ALL of the media** they use in their product.

Total Score: _____

Comments (on reverse):

Figure 4. Drawing Inferences Group Work and Multimedia Product Rubric.

Adapted from J. Moreillon, *Coteaching Reading Comprehension Strategies in Secondary School Libraries* (Chicago: ALA 2012). Licensed under the Creative Commons Attribution–Noncommercial–Share Alike 2.5 License: http://creativecommons.org/licenses/by-nc-sa/2.5/.

Collecting and Analyzing Summative Assessments

In inquiry learning, students and educators use summative assessments to evaluate students' final products, presentations, and their overall performance in terms of the standards-based learning objectives. If educators and students have benefited from formative assessments, then summative measures will show positive improvements as a result of educators' interventions. Summative assessments should be designed to measure achievement in terms of the knowledge, competencies, skills, and dispositions students developed as they reached for the target objectives. Summative assessments include tests, final product and presentation rubrics, reflective writing, and other tools that measure the sum total of the student outcomes for the learning event.

Effective summative assessment tools should help guide student learning throughout the inquiry process. These assessments should be distributed to students or co-created with students near the beginning of the inquiry process, and should be on hand for students and educators to refer to throughout the process. When students and educators regularly revisit the target learning objectives for inquiry, they are more likely to stay on course or get back on track to meet the expected outcomes.

Deeper learning experiences may require one or more summative assessments. Single summative assessments that touch all the bases may be useful as reminders of the various components of a creative final product that effectively demonstrates students' new knowledge. Educators may provide multiple summative assessments for various aspects of the inquiry unit. Some assessments may focus on subskills and dispositions while others may hone a focus on content knowledge and competencies.

Collection Map

Add a number, +, checkmark, or minus as appropriate.

Topic(s)	Resources	# of Items	Quality of Items	Improvement Action Items	Projected Cost	Source of Funds	Date Ordered
	Books						
	DVDs						
	Audio/ eBooks						
	Databases						
	Other Web Resources						
	Realia and Other Resources						

Figure 5. Collection Map.

From J. Moreillon, *Coteaching Reading Comprehension Strategies in Secondary School Libraries* (Chicago: ALA 2012). Licensed under the Creative Commons Attribution-Noncommercial-Share Alike 2.5 License: http://creativecommons.org/licenses/by-nc-sa/2.5/.

The Group Work and Multimedia Project Rubric (see figure 4) was designed to measure multiple aspects of students' final group projects. It guides students in targeting audiences and provides tips for successful collaborative planning. It measures students' use of evidence from their background knowledge and research to support the inferences they will make in their presentations. It asks students to use media ethically and to consider how their final products appeal to the audiences' senses for the purpose of persuading them of the correctness of learners' inferences.

The majority of this rubric could be completed by student groups self-assessing as a team. However, the rubric includes an individual reflection component. This component is designed to help individual students self-assess their practice and development of dispositions, a frequently missed opportunity for students and educators. Educators can suggest effective prompts to guide students as they reflect. These reflective pieces are powerful metacognitive tools for students that help them learn about themselves as learners. Students' reflections also give educators a window into students' thoughts and feelings that may not otherwise be known. (Ideally, educators will guide students to notice how they are applying dispositions throughout the inquiry unit and involve them in self-assessment throughout the process—not just at the end of the unit.)

Co-Evaluating a Cotaught Inquiry Unit

Just as co-assessing formative assessments helps educators provide improved instructional support for students, so does co-assessing summative assessments. Educators may work together to assess anchor examples that demonstrate various levels of achievement. They may continue to assess student work as a team, or they may assess work individually and come back together to compare their findings. One or both educators may also provide written comments that can guide students' performance during future learning experiences. With final assessments in hand, educators will once again look at individual achievement as well as patterns of achievement among students or groups of students.

Debriefing with one another after the completion of an inquiry unit is essential collaborative work. Below are possible questions coteachers may ask themselves and each other as they evaluate the success of a unit and specify areas for improvement. This type of shared evaluation requires a high level of trust between school librarians and classroom teachers, and it deepens their commitment to continuous improvement.

1. Describe the student outcomes in terms of data source(s).

2. What worked especially well in the unit?

3. What could be improved next time?

4. Were the resources lacking, adequate, or supportive of the learning goals? Explain. (See Collection Map in figure 5.)

5. Were the technology tools used effective? Explain. (Moreillon 2012)

School librarians who co-plan, coteach, and co-assess student learning outcomes and the instruction itself also gather evidence of the relative strength or weakness of school library resources and tools. A collection map for an inquiry unit such as the one shown in figure 5 can be an excellent way for school librarians to evaluate and improve the library's resources. It can also be a powerful advocacy tool. Sharing these data with decision-makers may make a case for increasing the library's materials budget.

Assessment and Leadership

Co-assessing student learning is job-embedded professional development for school librarians and their colleagues (Moreillon 2018). By collaborating with classroom teachers and specialists at all grade levels and in all content areas, school librarians can receive and give a master class in effective assessment strategies. They can learn from the assessment expertise of content experts (classroom teachers and specialists) in all disciplines and note similarities and differences between specific coteachers' assessment strategies. They can co-develop assessment tools that can be used by other educators in multiple content areas, such as rubrics for assessing notemaking, graphic organizers for documenting the ethical use of resources and media, or questions that can be used to monitor the growth and development of dispositions. By engaging with others in designing and administering assessment tools, school librarians are perfectly positioned to develop their own level of expertise in assessing student learning outcomes and the effectiveness of instruction. They can also influence assessment practices throughout the school building and beyond through school librarian networks.

"Research shows that *less* teaching plus *more* feedback is the key to achieving greater learning" (Wiggins 2012, 16). When assessment is used *for* learning, school librarians can be recognized instructional partners and leaders in helping students, classroom teachers, administrators, and schools reach their targets for improvement. School librarian leadership in improving student learning and achievement and improving educator proficiency will help all library stakeholders reach for their capacity to learn, teach, and use data for instructional improvement. Helping others reach their capacity is what effective leaders do.

Judi Moreillon *is a literacy and libraries consultant and a Lilead Project mentor. A former school librarian and retired school librarian educator, she is the author of four professional books published by ALA, three of which focused on classroom–library coteaching reading comprehension strategies. Judi's most recent book is* Maximizing School Librarian Leadership: Building Connections for Learning and Advocacy *(ALA 2018). Among other publications, she contributed the literacy chapter in* The Many Faces of School Library Leadership *(Libraries Unlimited 2017). A twenty-eight-year ALA/AASL member, she blogs at SchoolLibraianLeadership.com, tweets @CactusWoman, and administers the Maximizing School Librarian Leadership Facebook Group.*

Works Cited:

American Association of School Librarians. 2016a. "Definition of an Effective School Library Program." <www.ala.org/aasl/sites/ala.org.aasl/files/content/aaslissues/positionstatements/AASL_Position%20Statement_Effective_SLP_2016-06-25.pdf> (accessed September 28, 2018).

____. 2016b. "Instructional Role of the School Librarian." <www.ala.org/aasl/sites/ala.org.aasl/files/content/aaslissues/positionstatements/AASL_Position_Statement_Instructional_Role_SL_2016-06-25.pdf> (accessed September 28, 2018).

____. 2018. *National School Library Standards for Learners, School Librarians, and School Libraries*. Chicago: ALA.

Moreillon, Judi. 2012. *Coteaching Reading Comprehension Strategies in Secondary School Libraries: Maximizing Your Impact*. Chicago: ALA.

____. 2013. *Coteaching Reading Comprehension Strategies in Elementary School Libraries: Maximizing Your Impact*. Chicago: ALA.

____. 2018. *Maximizing School Library Leadership: Building Connections for Learning and Advocacy*. Chicago: ALA.

Partnership for 21st Century Learning (P21). n.d. "We're Taking Teaching and Learning Above and Beyond." <www.p21.org/storage/documents/4csposter.pdf> (accessed September 28, 2018).

Stiggins, Rick J., and Jan Chappuis. 2012. *An Introduction to Student-Involved Assessment for Learning*, 6th ed. Upper Saddle River, NJ: Pearson.

Todd, Ross J. 2007. "Evidence-Based Practice in School Libraries: From Advocacy to Action." In *School Reform and the School Library Media Specialist*, edited by Sandra Hughes-Hassell and Violet H. Harada, 57–78. Westport, CT: Libraries Unlimited.

Wiggins, Grant. 2012. "7 Keys to Effective Feedback." *Educational Leadership* 70 (1): 11–16.

Wiggins, Grant, and Jay McTighe. 2005. *Understanding by Design*, 2nd ed. Alexandria, VA: Association for Supervision and Curriculum Development.