ESSENTIAL INSTRUCTIONAL PRACTICE 2: Interactive Notebooks

Interactive Notebooks are a learning structure that helps students organize and archive their learning, and serves as evidence of learning and a reference tool.

Interactive Notebooks were introduced to the educational world through the *History Alive! Interactive Student Notebook* publication in 1999. This valuable learning tool is now being used across academic disciplines and in multiple grade levels, including college courses. For students, Interactive Notebooks become a collection of evidence of learning, as well as a reference tool. For educators, Interactive Notebooks can be an efficient learning structure that helps students organize and archive their learning. There are many variations and formatting structures that can be included in an Interactive Notebook, allowing educators an opportunity to tailor their notebooks to relevant content and students' ability.

With Interactive Notebooks (INBs), students take greater responsibility for their learning as they more clearly connect the information from classroom notes, reading assignments, or laboratory work with the products from and application of the information. Providing students with a variety of options for processing their learning also accommodates different learning styles and creativity levels, and aids in retention of academic information. Interactive Notebooks also are a means of ongoing communication between students and teacher, and between the teacher and parents or guardians.

Instructional Goal

- Students will create "living" notebooks to be used as personal organizational tools, archives of learning, and reference tools.

Resources

- *Interactive Notebook: Left Side (Output)* (Student Resource)
- *Interactive Notebook: Right Side (Input)* (Student Resource)
- *Interactive Notebook Table of Contents* (Student Resource)
- *Interactive Notebook Score Sheet* (Student Resource)
- *Interactive Notebook 5-Point Scoring Rubric* (Student Resource)
- *Adult Input Page (Multiple Response)* (Student Resource)
- *Interactive Notebook Reflection Questions* (Educator Resource)
- *Interactive Notebook Reflection* (Student Resource)

Preparation for Instruction

- Evaluate the purpose of each lesson, strategy, chunk of instruction, or investigation and how the INB note-taking and processing will lead to an application of the learning in students' continued content work.
- Formulate and communicate the types of information that can be used as *input* (right-side information) and the types of processing strategies that can be used as *output* (left-side processing opportunities).

- Define notebook expectations while considering scaffolding support or increasing rigor based on grade level or developmental level of student population groups.
- Determine how collaboration can occur while students develop the sections of the Interactive Notebook (notes, questions, summary, reflection, charts/tables, processing strategies).
- Create a consistent plan and schedule to allow for assessment of notebooks, including students' self-reflection and peer evaluation.

Instructional Strategies

Teachers have many options to consider when using Interactive Notebooks as tools for learning. The grade level and developmental level of the students and the content area being taught will inform how the notebooks can be used. The strategies presented in this section can be modified to fit either print or digital Interactive Notebooks as well as to fit your needs and those of your students. In other words, "make it work for you."

Paper or Digital Interactive Notebooks?

There are benefits to both paper and digital Interactive Notebooks. The chart on the next page will help you compare and evaluate the general structure of both systems and determine which system is most appropriate for your classroom. Regardless of the system being used, the teacher should set clear expectations and model for students how to organize information within the Interactive Notebooks. Specific information on setting up and using Interactive Notebooks is provided after the comparison chart.

	Paper	Digital
Type of Notebook	The most commonly used notebooks are spiral-bound or composition books. In determining the type and size to use, consider your students' developmental needs, the timeframe over which the notebook will be used (e.g., unit, grading period), and the wear-and-tear of the notebooks over the timeframe.	Students set up notebooks using cloud-based tools that allow for note-taking, word processing, or quick creative tasks.
Access	It is important to determine where students will keep their notebooks. Will they leave them in the classroom or take them home after class? For classroom storage, there must be adequate space for keeping sets of notebooks.	Set clear expectations and model for students how to organize information within the digital INBs. Also designate the location where students will save digital notebooks, so they are backed up to the Cloud. Will students have or need internet access to use the notebook inside and outside of the classroom? Will cloud software be available to students?
Input Pages	The *right page* of the notebook is the *input* page, where students will take notes (two- or three-column notes, Cornell notes) according to the purpose or the content of the lesson. The notes can be tailored to the purpose by using graphic organizers, charts, diagrams, or other structures to enhance note-taking and students' learning. For investigative learning, the procedures, materials, and set-up can be placed on the right page. To learn more, refer to *Student Resource: Interactive Notebook: Right Side (Input)* on page 31.	*Input* pages in a digital INB contain the same types of information as right-side pages in a paper notebook (e.g., notes, graphic organizers, and charts). In addition, the input pages in a digital INB can include real images, audio, video, and links to outside resources.
Output Pages	The *left page* is the *output* page, which is used by students to respond to or process the content by providing commentary, narratives, data, or other evidence of thinking and learning regarding the topic. This is the location where students can utilize the writing-to-learn options found in this chapter or the variety of processing strategies located on the *AVID Writing for Disciplinary Literacy* webpage on MyAVID. Students might paste or glue in loose pages, such as One-Pagers, articles, or flip pages. To learn more, refer to *Student Resource: Interactive Notebook: Left Side (Output)* on page 30.	*Output* pages in a digital INB allow students to process information using a wide variety of digital tools (e.g., creating multimedia such as screenshots, photos, or videos, and posting links). Some output strategies are more appropriate to complete using paper and pencil, posters, or sticky notes. These valuable learning opportunities can be easily captured with a camera or smartphone and saved in the digital INB.
Logistics	Maintaining the left and right side of the notebook for *output/input* is simple to set up and allows students to visually observe the connection between the *input* and *output* on the page. The kinesthetic nature of a paper INB makes it an excellent tool for kinesthetic learners.	Developing the *output* and *input* pages is dependent on the system used by students; screen size might make it difficult for students to see the connection between both pages. The *input* and *output* correlation may become reversed in sequence with a digital notebook (output pages following input pages) Interaction with the pages on a computer or tablet is excellent for students who are successful in working with digital learning.

Visit the *AVID Writing for Disciplinary Literacy* webpage on MyAVID to access Interactive Notebook student samples, processing activities, and rubrics.

Setting Up the Interactive Notebook

The basic elements of Interactive Notebooks, presented below, can be tailored to fit either print or digital notebooks. Each element serves a useful purpose in a notebook as it helps students organize and deepen their learning.

- **Page Numbering:** If using paper Interactive Notebooks, have students number the front and back of each page of the notebook in a consistent location, typically at the bottom outer corners of each page.
- **Table of Contents:** In its most basic form, a table-of-contents page includes the topic of study and the page number of the notes and student processing. However, the table-of-contents page can be customized to serve multiple purposes, as well as become the location for evidence of student reflection and metacognition. Some table-of-contents options to consider include:
    - **Columns and Page Numbers:** Create a four-column chart like the one shown in *Student Resource: Interactive Notebook Table of Contents* on page 32. Label the left side "Output Contents" and the right side "Input Contents." This separation of sides will allow students to precisely name the notes and thinking processes used on each page and record the corresponding page numbers.
    - **Dialectical Journal Format:** By having students set up a format within the table of contents (or on a separate page) that allows for two-sided conversation, the educator is creating a system of communication and record keeping of skills the student needs to improve upon to advance toward mastery. This also communicates to students that mastery of a skill or understanding of a topic is a progression that takes time.
    - **Classroom Table of Contents:** Maintaining an updated weekly display (chart paper, whiteboard, or shared digital workspace) of the topics covered each day will help students keep their tables of contents current and will aid students who have been absent.
- **Reference Pages:** You may want to have students leave a few pages blank at the beginning and end of the notebooks as common reference pages for your class.
    - **Classroom Information:** This information may include such items as class objectives or expectations, laboratory safety protocols, or formula charts.
    - **INB Grading Rubric:** A rubric within the INB makes students aware of the expectations for their grades. (Refer to *Student Resource: Interactive Notebook 5-Point Scoring Rubric* on page 34.)
    - **Score Sheet:** Having a specific location for recording scores on the lessons, units, or chapters will provide students and families with current assessment information. At the end of the grading period, this strategy should eliminate confusion about earned notebook scores. *Student Resource: Interactive Notebook Score Sheet* (page 33) illustrates the type of information that might be included on a score sheet.

- **Vocabulary List or Glossary:** Many teachers like to have students use blank pages in the back of the notebook to create class or personal vocabulary lists and definitions.
- **Adult Input Page:** A multiple-response adult input page can be inserted onto the inside back cover of the notebook. (Refer to *Student Resource: Adult Input Page {Multiple Response}* on page 35.)
- **Digital INB Links:** Digital INBs allow for content to be easily organized, searched, and linked. The table of contents can link to input and output pages. The vocabulary lists can be created and shared online, and linked to the table of contents or to specific lessons.

Communicating Expectations

- **Students:** Be prepared with a rubric or other evaluation measurement tool to clearly and fairly communicate to students the expectations regarding content, formatting, style, and organization.
- **Parents and Family:** An adult input page provides a place for the parent/guardian or other adult to review and comment on a student's work. The adult will be able to see the progression of learning happening in the classroom, and the level of participation or completion of the task, by their child. In addition to the multiple-response adult input page referenced above, a single-response form that allows for more in-depth responses can be found on the *AVID Writing for Disciplinary Literacy* webpage on MyAVID. Either type of adult input page can be accessed and completed digitally for students who are using digital INBs.

Personalizing

When students personalize their Interactive Notebooks, they are more likely to value them and less likely to misplace them—this instills a pride of ownership. There are many ways students can personalize their notebooks to reflect their unique personalities and learning styles. Consider having students include one or more of the following:

- **Goal Setting:** Designate an area of the notebooks where students can develop short- and long-term goals, both academic and personal, and indicate plans to achieve them. These goals should be revisited regularly so students can track their progress.
- **Destination College:** Have students design a page about the college or university of their dreams. Design elements to consider could include school colors, mascot, motto, and/or majors offered. Students might also add print information or digital links related to entrance requirements to inform their short-term and long-term goals as they map their personal path to college.
- **Cover Page or Title Page:** Allow students to design their individualized covers or title pages in a nonlinguistic way to show course topics in a graffiti-style approach. The instructor can define any common elements to be included.
- **Other Options:** The notebooks can be further personalized with options such as personality phrases, learning style, drawing of a successful student, class mission statement, and growth mindset statements.

Note-Taking

Students' notes are typically recorded on the right page, or the input page, of an Interactive Notebook. Chapter 3: Focused Note-Taking provides thorough information about note-taking structures and strategies.

Essential Questions are objective-based, student-generated or teacher-generated questions appropriate to a particular lesson, unit, or concept, used by students to guide thinking and frame note-taking and summarization in order to accomplish an assigned task.

- **Essential Question:** Each lesson included in the Interactive Notebook should have an overarching question to provide context for the learning represented through the lesson. The question is also an accountability measure to help educators ensure that they are covering their grade-level or course standards. The Essential Question can be rewritten from educational standards into student-friendly language, depending on the grade level or course, as long as crucial academic language and content-specific language are maintained in the rewriting of the standard.
- **Structure of Notes:** The note-taking format may take the form of two- or three-column notes, Cornell notes, or more structured formats such as graphic organizers, flowcharts, or tables. The type and length of content (e.g., discussion, video, laboratory investigation, mathematical problem analysis, or vocabulary study) should determine the most appropriate note-taking format.
- **Inserted Notes or Articles:** Assignment pages, guided notes, or text articles may sometimes be used instead of having students write their notes. In a digital notebook, these types of resources can be linked, inserted, or copy-pasted directly into the notebook. For paper notebooks, these pages can be folded as a flip page and glued or taped into the notebooks. (Tape or glue prevents the snags that staples may cause for inserted pages.) Be judicious about which materials students add to their notebooks, as too many items will make the notebooks bulky and hard to handle.

Interacting With the Notes

- **Thinking About the Notes:**
  - Encourage students to color-code different aspects of their notes as visual memory aids (Stencel, 1998). You may also want to create a consistent system that students can follow. For example, use one color of highlighter for important vocabulary, and another color for main ideas.
  - Suggest that students create diagrams or nonlinguistic representations within the notes as visual reminders or connections to the content.
- **Writing Questions:**
  - Review Costa's Levels of Thinking with students as a reminder to create higher-level questions (Levels 2 and 3) that require thinking at the processing or application levels, as well as Level 1 questions that require identification of main ideas or concepts.
  - Direct students to write questions in the left-most column of their notes about the content. The questions may be study questions they can use later to direct them to specific content, or they may be authentic questions they have about the content ("I wonder…" questions).

- **Collaboration:**
  - Collaboration with peers is a valuable learning tool for students and provides a safe environment for them to discuss their learning and to revise and extend the learning. It can be used effectively on any section of note-taking for the Interactive Notebook, whether paper or digital.
  - Allow students to review, revise, and refine their notes in a partner Pair–Share to determine completeness of the information. During the collaboration, they can add to their notes (perhaps in a different color), correct or delete incorrect information, identify main ideas and details, or connect ideas with arrows or lines.
  - Students can also collaborate on the question writing, processing opportunities, and summaries, as well as on laboratory analysis and conclusions for scientific investigations.

Summarizing Content and Writing Reflections

- **Summary:**
  - The summary for notes, which is typically recorded on the right page of the Interactive Notebook, should capture the meaning and importance of the content. It should also answer the Essential Question or focusing question that guides the note-taking.
  - For research and investigations, the summary is in the form of data analysis and conclusions from the investigation. These summaries should include identification of the Claim, Evidence, and Reasoning (CER). For more information on CER, refer to the *Essential Instructional Practice 5: Questioning* (pages 48–50) in this chapter.

Reflection involves purposeful processing that is reliant upon thinking, reasoning, and examining one's own thoughts, feelings, and experiences.

- **Reflection:**
  - A reflection is a personal statement that focuses on critical thinking and mental processing of learning. It connects to prior learning and future application of the content.
  - The type of information requested in a reflection should be tailored to the subject area or age/grade level of the students. After a lesson, unit, or grading period, students can reflect on their learning based on the questions or prompts established by the instructor. See *Educator Resource: Interactive Notebook Reflection Questions* on page 36 and *Student Resource: Interactive Notebook Reflection* on page 37.

Processing Content

- Using the Interactive Notebook, the learning from a lesson or strategy is integrated and processed on the left page as *output.* The various processing options typically require a nonlinguistic representation of the content and an explanation of how the image explains and describes the content. These opportunities help students recall and think critically about the content information. Refer to *Instructional Practice: Nonlinguistic Representations* (pages 66–67) in this chapter for additional information on graphic summaries of content.

- The processing strategies can be modified for use with any student population, as needed. The level of the products will depend on the skills and education backgrounds of the students.
- Encourage students to use multiple colors for processing information as prompts to memory.

Assessment of Interactive Notebooks

Student Interactive Notebooks provide educators with opportunities for informal and formal assessments of students' engagement in their learning. Because all work is maintained in the Interactive Notebooks, the instructor can see how students are improving, and can provide targeted feedback to help students strengthen their skill sets.

- **Informal Assessment:** "Walk-by" checks for completion can be done by commenting on, initialing, or stamping specific pages on a daily or weekly basis. During these informal reviews, you can note positive comments or ask questions on the pages. Allowing students to use their notebooks for open-note quizzes is another method of informal assessment.
- **Formal Assessment:** It is most appropriate for formal assessments to be based on rubrics with which students are familiar. The rubric may specify categories and scores for specific content, the format of the notebook, or holistically evaluate the notebook based on completion and the degree to which expectations have been met.
    - Sample assessment rubrics are available on the *AVID Writing for Disciplinary Literacy* webpage on MyAVID.
    - A benefit of having students use digital notebooks is that instructors have access to students' work at all times. This allows for greater frequency and quality of feedback.
- **Self-Assessment:** Students can self-assess through a reflection response on the critical thinking and mental processing of their learning in a unit or chapter or on selected elements of the notebook. Students can choose several of the lessons or processing strategies that represent their best work or deepest learning, and a lesson or concept that was problematic for them, and then respond to provided reflection questions. *Educator Resource: Interactive Notebook Reflection Questions* (page 36) provides example questions.

Educator Master Notebook

- A master Interactive Notebook, print or digital, kept by the instructor (or tutor or responsible student) can provide increased access and support for students. The purposes of keeping a master notebook include record keeping of daily learning strategies, a tool to give students who were absent an opportunity to catch up on missed learning or assignments, and a visual model to demonstrate expectations for all students.
- Consider keeping a notebook for each subject, or each class, to aid with organization. You may also choose to color-code notebooks based on the subject or class (e.g., all science notebooks are green, or different colors for different classes).