

An Inter- and Intra-Disciplinary Lesson

Sandra Kaplan, University of Southern California
Jessica Manzone, University of Southern California

The literature is replete with the importance of placing emphasis on intra- and inter-disciplinary connections within a lesson plan, learning experience, or unit of study. The ability to understand that the content or skill learned in one context has application to other contexts makes the learning more valuable and usable. The teachers' and students' abilities to form disciplinary connections is a "practiced art" that needs to be integrated consistently as a feature of all lessons.

Following is a design template illustrating where in a lesson, inter- and intra-disciplinary connections can be made to enhance and transfer the skill being taught. The lesson plan has been designed using a Direct Instruction pedagogical practice or model of teaching. The major purpose of a Direct Instruction lesson plan is the teaching and learning of a skill or process. Teaching to transfer refers to the fact that students can apply a skill learned in one context to other contexts. In this case, a skill is introduced at the start of a Direct Instruction lesson using one subject area or topic as the anchor for demonstration. The skill is then woven within, between, and across topic areas using inter- and intra-disciplinary connections. The practice and application of the same skill in many different contexts and content areas provides for the transfer of knowledge on three levels: procedural, conceptual, and metacognitive. The sample lesson plan provided articulates how the same skill can be taught and enhanced through the application of inter- and intra-disciplinary connections.

The overarching structure of any lesson plan is the creation of a learning objective. A learning objective is a succinct articulation of the key knowledge, skills, and outcomes students are to encounter throughout the lesson plan. A comprehensive learning objective is written using four distinct components. A definition and description of each component is outlined below.

- **Thinking Skill** – Thinking skills represent the cognitive process(es) that students will engage in during the learning experience. In a Direct Instruction lesson, the focus or driving force of the learning experience is on the teaching and learning of this process or skill.
- **Content** – The content of a learning objective is represented in the standard or the core discipline being presented during the learning experience. The content should be aligned directly with the standard(s) selected for instruction and should reinforce AND extend the disciplinary core content.

- **Resources** – The resources articulated within a learning objective represent the materials that the students will need in order to engage with and/or activate the content. Resources in a learning objective should allow for the use of multiple modalities and access to acquire knowledge.
- **Product** – The product of a learning objective can also be described as the output, the outcome, or the means by which students are provided an opportunity to “show what they know and can do” in relationship to the objective presented in the lesson. The product must be measurable and aligned with both the content and skills articulated in the learning objective.

Sample Lesson Plan

Learning Objective: Students will be able to **prove with evidence** (thinking skill), the **impact** (prompt of depth) of **context** (prompt of complexity) on the plot or problem articulated in a story (CCSS content connection). Students will read a **story in the anthology** (resource) in order to state their evidence in a **written narrative** (product).

Sequence of the Lesson	Intra-Disciplinary Connection	Inter-Disciplinary Connection
<p><u>Motivation:</u></p> <p>Discuss the importance of proof or evidence.</p>	<p>Discuss how authors need to verify alternative vocabulary to define “prove” and “evidence.”</p>	<p>The value of prove/evidence by scientists: physicist, biologists, etc.</p>
<p><u>Demonstration:</u></p> <p>Demonstrate for students how to prove with evidence using the following steps:</p> <ul style="list-style-type: none"> • Identify the problem • State the need to solve the problem • Find evidence as to how the problem can be resolved 	<p>Discuss how authors state problems and their means to resolution.</p>	<p>Demonstrate how a famous (engineer, instructor) individual gathered evidence to solve a problem.</p>
<p><u>Structured Practice:</u></p> <p>Provide students with an opportunity to use the skill</p>	<p>How authors use action words to prove the problem in a story.</p>	<p>Read an autobiography or biography detailing how an individual collected evidence to prove an idea.</p>

<p>of prove with evidence in a fable or story.</p> <p>Ask students the question: What evidence can you find in the text to prove how the author resolved the plot or problem in the story?</p>	<p>Discuss how setting validates the environment for the character's actions.</p>	
<p><u>Guided Practice:</u></p> <p>Provide students with the resources to prove a statement about the plot or problem in a story: Prove with evidence that the protagonist in the story was a positive influence on the plot or the resolution of a problem in the story.</p>	<p>Distribute a review of a book or movie.</p> <p>Ask students what evidence was used to verify the point of view or perspective in the review of the author's work.</p>	<p>Select a historic or contemporary political, economic, or social point of view.</p> <p>Inform students to research the evidence that supports a positive or negative response to the point of view.</p>
<p><u>Independent Practice:</u></p> <p>Inform students that they must define a point of view regarding a character and collect evidence to substantiate their perspective of the character's impact on context and plot.</p>	<p>Identify how an author has used evidence to prove the efficacy of their work (theme, characters, plot, etc.).</p>	<p>Inform students to pose an argument and to prove with evidence potential solutions to that argument.</p>

The purpose of providing the sample lesson plan outlined above is threefold: (a) to stimulate conversation related to the need to integrate inter- and intra-disciplinary connections with a learning experience, (b) to highlight how a lesson plan can be modified and adapted to include within, between, and across disciplinary connections, and (c) to demonstrate the concept of teaching to transfer regarding a skill or process.