

Performance Objective
Given a computing device with an Internet connection and the open Lumio lesson project, teachers will embed the content they have developed into the project; embedded content will follow one of the following formats: a file ending in .pdf/.ppt(x)/.notebook, teacher-created content that has been shared publicly on the Lumio platform, a YouTube video, a Desmos graphing calculator, a PhET Interactive Solutions simulation, a blank Lumio slide template, an interactive/game-based activity, or a ready-made graphic organizer or manipulative.

Learning Components	Considerations for Each Component	Instructional Strategy for Performance Objective
Pre-Instructional Activities	Provide for motivation (attention, relevance, confidence, satisfaction)	Attention: Teachers will first engage in an activity from a student's perspective, by logging on to a demo Lumio lesson as a student participant and independently exploring the interface and types of content formats (listed above). Relevance: All teachers will discern the relevance of the instruction differently, because they teach different content areas and have natural preferences for different content delivery formats. Science teachers will find relevance in the interactivity of the PhET simulations, ELA teachers will find relevance in the different graphic organizer templates; teachers with pre-existing PowerPoint learning materials will find relevance in the ability to import PowerPoints and embed interactive checks for understanding, etc. Confidence: Teachers will be provided with support related to how to use the student-side functionality of Lumio. Once comfortable with this, they will have more confidence to decide which content formats will best fit their content and picture what the final product will look like to the students. Satisfaction: In the needs assessment, teachers expressed their intrinsic desire to use technology tools more effectively in the classroom. As they develop confidence with Lumio and make decisions about the place it will take in their classroom, teachers will derive satisfaction through the knowledge that they have made significant progress toward this goal.

	Inform learner of objectives	Teachers will be provided with this concise version of the performance objective: “You will embed your developed lesson content into your Lumio lesson using uploaded/linked files/videos, slide templates, interactive simulations, games, and graphic organizers/manipulatives.”
	Promote recall of prerequisite skills	The following prerequisite skills will be presented as a checklist labeled, “You will need the following in order to continue:” ○ A clearly stated learning objective ○ A plan for content delivery using engaging instructional strategies ○ Lesson content that has been found, modified, or created to help students achieve the learning objective ○ A Lumio account and a new Lumio lesson that has been opened
	Link new content to existing knowledge	Teachers have spent their whole careers up to this point developing engaging activities with their content that help students achieve objectives. They will be reminded that the content formats in Lumio represent just a few additional options for creating engaging content.
Content Presentation	Sequence based on skill hierarchy	For this objective, each available content format (uploading files, embedding a YouTube video, using a blank template, developing a game, using a simulation, etc.) is identified as a separate subordinate skill. However, there is no specific hierarchy to these skills. Instead, the order of the presentation will be determined by the learners based on their observations, as described below. In the pre-instructional activity, teachers spent time exploring how to use the Lumio platform as a student and how to engage with each of the content formats (activity, video, manipulative, graphic organizer, etc.). They will be encouraged to reflect using inductive reasoning on what those formats were and what type of content would best fit each format, as well as what formats could match best with various lesson parts (bell-ringer, check for understanding, direct instruction, etc.). As teachers discuss with one another and offer their observations, explicit definitions and demonstrations will be shared by the training facilitator.

	Disclose distinguishing characteristics of concepts (purpose, physical, quality)	Teachers will distinguish between teacher-created content that has been posted on Lumio and content that was built-in to the Lumio platform; interactive activities and manipulatives; Desmos graphing simulations and a PhET science simulations; and slide templates and graphic organizers.
	Point out common errors in classifying	Example: A manipulative activity may seem interactive, but it is not classified as interactive because the SMART Board does nothing to respond to the user's manipulation of assets. It will not provide users with any guidance or feedback. A manipulative activity merely allows users to move items around the screen and arrange them.
	Provide examples and nonexamples	For each content format, the training facilitator will provide at least one example of how lesson content may be embedded. Where appropriate, the facilitator will demonstrate how something will not work if a misunderstanding has occurred (e.g., when demonstrating the file upload, the facilitator will attempt to upload an unsupported file type to show the error message that occurs, and will show how to determine the file type and convert file types if necessary).
	Create ways of organizing new into existing skills	Using a selection of traditional analog learning activities (e.g., written quizzes, matching worksheets, physical manipulatives, etc.), the facilitator will demonstrate how the content of these activities could be re-worked to match the activities provided by the Lumio platform.
Learner Participation	Ensure congruence of practice to conditions and behaviors	Teachers will be provided with example content and will practice embedding the content into various Lumio formats (behavior) using the exact same device, website, and account that was referenced in the performance objective and will be used in the performance context (condition).
	Progress from less to more difficult; use familiar contexts for rehearsal	In this practice section (as opposed to the content presentation above), the order of the formats presented will progress from less to more difficult (e.g., learners will first find a YouTube video and paste the link into Lumio, then select a blank slide template, then select an appropriate graphic organizer/manipulative, then develop interactive assessments). The practice will always closely match the teachers' familiar contexts.

	Provide conditions similar to performance context	The teachers will be using their own device with which they are already comfortable and will use during the development of their own lessons, will be on the same WiFi network, and may even be using their own curricular content to practice with.
	Ensure feedback is balanced with qualities and errors	The facilitator will encourage teachers that they are already content experts and skilled pedagogues, so they should not feel like they are unsuccessful teachers if they struggle to adapt their content to the Lumio delivery platform. The facilitator will identify the positive ways teachers have developed the activities and will recommend other approaches if necessary.
Assessment	Ensure learners' readiness for testing; accommodate hierarchical nature of skills; apply appropriate criteria for learner age and ability	Before assessment, teachers should have completed some practice with each of the eight identified content formats compatible with Lumio. A posttest will ask teachers to use content they are familiar with to develop one or more lesson activities of different formats. Assessment of the terminal objective will include development of an entire lesson flow that contains coherently organized instructional strategies/lesson parts that utilize more than one Lumio content format.
Follow-Through	Promote transfer (authentic tasks to performance context)	Transfer from this training should be near 100% given that the behaviors and conditions of the learning context are perfectly aligned with those of the performance context. Ultimately, teachers must apply novel learning targets and lesson content to the Lumio skills they have learned to develop via this performance objective.
	Consider memory requirements; consider job aid requirements	The memory demands of this performance objective are few. When embedding content into a Lumio lesson project, all eight of the content formats are presented prominently on the same page, which will remind teachers of what is possible. Each option also has a brief description and a link to a training video. Thus, it can be assumed that a facilitator-created job aid is not necessary for this performance objective.
	Ensure job environment is receptive; reflect on learning experience and future applications	The school principal will observe or participate in this training alongside the teachers, ensuring that he/she knows what is possible and can work with individual teachers to determine appropriate expectations and goals. Teachers will learn how to share lessons with one another for feedback.