Distance Learning Guidance:
Instructional Design Considerations

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Purpose and Overview

This document provides an overview for instructional design, and provides some recommendations for how teachers and instructional leaders might approach re-designing instruction for distance learning.

Most schools will need to offer a blend of offline and online learning, both which may include elements of asynchronous and synchronous learning opportunities. Strategies will need to be flexible depending on accessibility to devices and the internet. Additionally, strategies will likely change, both in the short- and long-term due to unforeseen circumstances.

Educators can use this document as a starting point to self assess current strategies, and as a planning tool for determining next steps in designing high quality distance learning.

Considerations and Recommendations

What is Instructional Design (ID) (also known as *Instructional Systems Design*)**?**

- Instructional Design (ID) is the creation of learning experiences and materials in a manner that results in the acquisition and application of knowledge and skills.
- Instructional Systems Design (ISD) is a discipline that follows a system of assessing needs, designing a process, developing materials and evaluating their effectiveness.

To learn more about ID visit **Instructional Design Central** or **InstructionalDesign.org**.

What role do Learning Theories play in Instructional Design?

Instructional design is based on a fundamental understanding of *Learning Theories*, which are theories that describe how students absorb, process, and retain knowledge during learning. In general, learning theories are based around the understanding that cognitive, emotional, and environmental influences, as well as prior experience, all play a part in how understanding is acquired or changed and knowledge and skills retained.

Although there are multiple theories of learning, there are four principle foundations that influence most instructional design models today: *behaviorist* learning theory, *cognitivist* learning theory, *constructivist* learning theory, and *connectivist* learning theory. Furthermore, many instructional designers blend these theories together to create powerful learning experiences.

Instructional Designers should include awareness of the Three Domains of Learning into activities and strategies utilized in instructional design. The three main domains of learning are cognitive (thinking), affective (emotion/feeling), and psychomotor (physical/kinesthetic).

Are there models for Instructional Design?

There are a number of prescriptive models (see examples here) that provide guidelines or frameworks to organize and structure the process of creating instructional activities. These models can be used to guide one's approach to the art/science of instructional design. This document will emphasize the 5E instructional model.

How might one consider organizing learning for instructional design?

In general, instructors tend to design in a nested hierarchy, with an *Instructional Unit* being the umbrella concept for a contained learning series. Units are then generally broken into *Learning Segments*, which are chunks of learning that are made-up of a sequence of *Lessons*. A sample of this hierarchy can be seen in the image below. It should be noted that learning segments may take as long as 1-2 weeks, or they can be as short as 2-3 days.

Instructional Unit															
Lesson Segment #1				Lesson Segment #2				Lesson Segment #3				Lesson Segment #4			
L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16

What is the 5E Instructional Model?

A great model of instructional design for distance learning is the 5E instructional model, as it works across multiple subject areas, and can be used for blended learning experiences. The 5E Instructional Model is used to plan instructional units, learning segments, and lessons. It is composed of five elements:

1. **Engage**: The purpose of this stage is to pique students interest and get them personally involved in the lesson, while pre-assessing prior understanding.

2. **Explore**: The purpose of this stage is to get students involved in the topic; providing them with a chance to build their own understanding.

3. **Explain**: The purpose of this stage is to provide students with an opportunity to communicate what they have learned so far and figure out what it means.

4. **Extend**: The purpose of this stage is to allow students to use their new knowledge and continue to explore its implications.

5. **Evaluate**: The purpose of this stage is for both students and teachers to determine how much learning and understanding has taken place.

Although the 5E Instructional Model appears linear, the actual intention is for teachers to iterate the elements while planning a unit. Also, these elements do not necessarily get equal amounts of time allotted to them. For example, a learning segment could proceed as follows:

Engage → Explore → Explain → Evaluate → Explore → Explain → Evaluate → Extend → Evaluate
15 min   80 min   40 min   20 min   40 min   40 min   15 min   40 min   20 min

The table on the next page provides guidance on the structure and tools that can be used for each element of the 5E instructional model.

Distance Learning 5E Instructional Model Considerations

Designed by @Catlin_Tucker

Lesson Elements	What does it look like?	What tools can I use?
Engage	• Brainstorm: What do you think? • Ask questions: What do you wonder? What are you curious about? • Access prior knowledge: What do you know? How did you learn it?	• Padlet • Google Classroom Question • Mentimeter
Explore	• Research • Watch videos • Read Articles • Offline Task • Discuss • Crowdsource	• Google Search • YouTube • Newsela, Smithsonian Tween Tribune • InsertLearning • Google Classroom Question • Schoology Online Discussion • Shared Google Slide Deck

Explain	• Live Synchronous Sessions
	• Video Lessons
	  ◦ Instruction
	  ◦ Modeling
	  ◦ Scaffolding
		• Google Hangout or Zoom: Use chat feature to ask questions and engage
		• Screencastify (Chrome Extension): Share videos directly from Google Drive
		• QuickTime + YouTube: Create online playlists
		• Edpuzzle: Engage students around your video content with questions and monitor their progress
		• FlipGrid: Allow students to teach each other concepts by recording videos

Elaborate	• Make connections
	  ◦ Connect concepts to life beyond the classroom
	  ◦ Connect to art, literature, music
	• Apply learning to new situations
	• Tackle real-world problems
	• Document your process as a group
	• Explain how: Articulate the process you would use to solve a problem or approach a particular situation
	• Student-created study materials and resources: Take the information and design a review resource
		• Quizizz
		• Shared Google Docs, Slides, Drawings, Spreadsheets
		• FlipGrid
		• Quizlet
		• Kahoot!

Evaluate	• Formative assessments • Quizzes • Video reflections • Digital exit tickets	• Quizizz • Kahoot! • Schoology quiz • Google Forms • Socrative

Other Distance Learning Guidance Documents from SMCOE:

- Distance Learning Guidance Continuum Delivery Strategies
- Sample Schedules and Content Resources

- **Distance Learning Readiness Technology Resources & Best Practices for Extended Closure**

Other Distance Learning Support from the CDE, COEs, and Districts

- CDE: Distance Learning Guidance and Continuum AND Appendixes
  A3 - Designing a High Quality Online Course
- Santa Clara COE **Distance Learning Website**
- Orange County Department of Ed: **Instructional Continuity**
- Contra Costa COE: **Schedules and Content Resources**
- San Diego COE **Distance Learning by Content Area**
- SFUSD: **Distance Learning Webinars** (with **PD Attendance Tracker**)
  and **Digital Learning Scope and Sequence**