

Continuous Improvement of Instruction through Curriculum Development On-Line

Professional Learning Program

Innovative Curriculum Resources Project

Session 1 of 3:

15 minutes	Introductions	Introductions to the people, what we are doing, why we are doing it
1 hour	Experiencing Learning Cycle Model Structural Engineering using a sheet of paper	<p>Prior to the event a list of necessary materials will be sent to each participant. They would be expected to have these items on hand. This will include only readily available, inexpensive items. An option would be to send out kits. Participants will download the lesson and get started. As a group we will reflect on the lesson leading to the discovery why we are writing new lessons in the 5E format.</p> <ol style="list-style-type: none"> 1. What objectives and standards did this lesson address? 2. Was this lesson effective? 3. How did this lesson differ from a traditional lesson format? <p>Provide the descriptors of each section of the 5E model.</p> <p>Share and discuss the Practical Lesson Writing Guide template that was used to develop this lesson. Highlight the utilization of the backwards design process.</p>
15 minutes	Explanation of lesson selection within the 5 Phase model.	Explain the origins of the topics that will be addressed by the new lessons that the teachers will be writing. This will introduce Phase I and II of the 5 Phase Professional Teaching Cycle. The teachers will be doing Phase III by working through the Practical Lesson Writing Guide (PLWG) template.
20 minutes	Set started on cover page of PLWG	Teachers will access the Practical Lesson Writing Guide. Move the teachers into designated chat rooms and get started on boxes 1-5 of the PLWG template.
10 minutes	Return to main room	Wrap up discussion of the process and share briefly of their progress. Inform teachers of the next on-line session.

Session 2 of 3:

10 minutes	Welcome	Welcome teachers back and remind them of their previous work. Briefly discuss the experience from the first session.
35 minutes	Move to Chat rooms Complete cover page including the Evaluation section (boxes 1-8)	Teachers have already started on the cover page, perhaps writing what the student should learn (objectives and standards). A handout of verbs aligned to Blooms Taxonomy will be helpful as they reconsider what they wrote during the first session. After reviewing the template, briefly discuss why we are doing the evaluation section (E #5) before doing anything else. Discuss the rationale for the backwards design structure. Use a variety of assessment techniques but be sure they align to the objectives.
5 minutes	Report	Return to main room. Several groups will be asked to report on their objectives and evaluation.
25 minutes	Move to Chat rooms Phase III: Engage	Teachers will write the Engage section (box 9). Refer to the 5E Descriptors sheet handed out earlier. Also, this short activity should be aligned to why this topic is important. The instructions should be in numbered steps to the student with comments to the teacher.
5 minutes	Return to main room	Several groups will be asked to report on their objectives and evaluation.
30 minutes	Move to Chat rooms Phase III: Explore	Teachers will write the Explore section (box 10). This will be challenging since this section is the essence of the break from traditional instructional strategies. This MUST be an activity consistent with the 5E Descriptors where students explore the topic and discover the concepts. It cannot be direct instruction (teacher talking/telling). This section will not be finished in this short time period, but teachers should get a good start.
10 minutes	Return to main room	Wrap up discussion and instructions for next session.

Session 3 of 3:

10 minutes	Welcome	Welcome teachers back and remind them of their previous work. Briefly discuss the experience from the first two sessions.
20 minutes	Move to chat rooms Phase III: Explore	Continue work on the Explore section. They were able to start during the previous session but probably have new ideas now.
5 minutes	Report	Several groups will be called upon to report their Exploration activity.
30 minutes	Move to chat rooms Phase III: Explain	As teachers write the Explain section (box 11), there may be some confusion. The main difference between traditional instruction and the learning cycle is who does the explaining. It is natural to think that the teacher should be explaining the concepts. If the Explore activity is effective, the students should be doing the explaining. This section consists of a series of questions.
5 minutes	Report	A few groups will be called upon to report their Explain section questions.
30 minutes	Move to chat rooms Phase III: Elaborate/Expand	This section of the instructional process is seldom done in traditional pedagogy. As teachers write the Elaborate/Extend section (box 12) they will start with “real world” applications and develop an activity that ties the concept/skill that was just learned to it.
20 minutes	Discussion of Phases IV and V Program Evaluation	Describe and explain Phase IV: Implement New Learning and Phase V: Monitor, Assess, and Adjust Practice. Also included in this discuss will be the intended activities over the next few months to support these lessons and write more. Complete the program evaluations.