

# Creating Immersive Learning Programs

## The ILC Quickstart Guide to Sim Curriculum



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## Need help?

ILC Staff members are available to assist you through all stages of course planning, from initial brainstorming to program execution and evaluation. Contact information can be found on page 6.

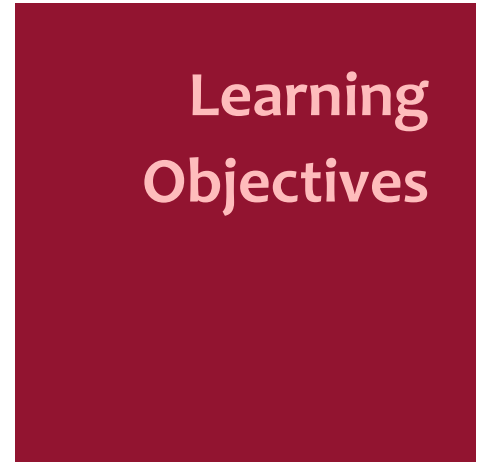
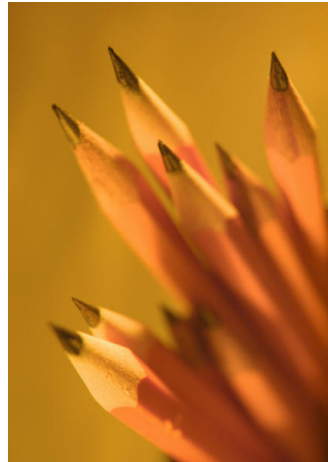
## Make Simulation-Based Learning Work for You.

Immersive and simulation-based learning is exciting, dynamic, and engages learners in ways that traditional didactic programs cannot. However, the process of creating and delivering a successful immersive learning program can be challenging, with obstacles and considerations unique to the learning modality.

If you have considered implementing an educational program utilizing immersive and simulation-based learning, but are unsure of how to approach any of the technical, logistical, or pedagogical elements, we can help. This resource manual provides a brief overview of some key components of immersive learning program design. Attention to, and incorporation of, all of these components will maximize the efficacy of your course, ensuring educational benefit for your learners and improving clinical outcomes.

## The heart of your program.

What do you want participants in your course to learn? Having clearly defined learning objectives provides a framework for curricular development and guides program planning. Whether you are writing simulated clinical scenarios, deciding what equipment and resources to use, or developing course materials, it is always helpful to reexamine the learning objectives.



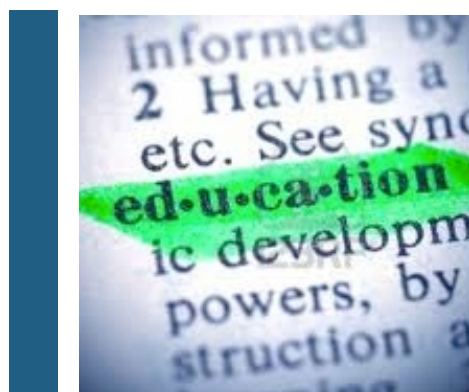
Immersive and simulation-based programs are especially effective at teaching behavior and interpersonal skills, in addition to clinical knowledge. Therefore, when writing learning objectives, consider the behavioral or performance changes you would like to effect in your learners. These questions may be helpful:

- What are the gaps between best practice and current practice in the field?
- What are the needs of learners in the field?
- How do you expect learner behavior to change as a result of participation in the course?
- What should the learner be able to do (or do differently) after participating in the course?

Another important consideration is whether you plan to objectively measure learner outcomes (i.e., how well your learning objectives were met). Using verbs that are measurable actions (e.g., *assess, diagnose, perform*) is preferable to subjective or internal actions that are difficult to evaluate (e.g., *think, understand*).

Here are some examples of specific and well-written learning objectives:

- Critically review and analyze cases to improve the quality of patient care in management of disease X
- Develop treatment plans for patients with disease Y, incorporating evidence-based management guidelines and clinical trial data

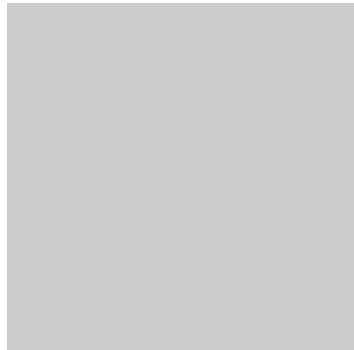


### Measurable Competence Verbs

- |                 |               |
|-----------------|---------------|
| ▪ Analyze       | ▪ Distinguish |
| ▪ Assess        | ▪ Evaluate    |
| ▪ Compare       | ▪ Formulate   |
| ▪ Contrast      | ▪ Plan        |
| ▪ Design        | ▪ Recommend   |
| ▪ Develop       |               |
| ▪ Differentiate |               |

### Measurable Performance Verbs

- |               |             |
|---------------|-------------|
| ▪ Apply       | ▪ Interpret |
| ▪ Counsel     | ▪ Manage    |
| ▪ Diagnose    | ▪ Perform   |
| ▪ Employ      | ▪ Prescribe |
| ▪ Examine     | ▪ Utilize   |
| ▪ Incorporate |             |
| ▪ Integrate   |             |



# + Scenario Design

Once you have identified the learning objectives for your course, these can be used to help nail down the details of your simulation.

Using a scenario template is an effective method to ensure that all key logistical elements are addressed during the design process. Here is a look at some of the components of the scenario template employed at the ILC:

**Scenario Overview:** This is a brief description of the scenario that will be viewed by faculty and staff only. It provides a summary of the event, including the patient description at the start of the scenario, evolution (or decline) of the patient status or environmental situation, the expected learner

interventions, and the resolution of the problem.

**Scenario Narrative:** This information is given to the learner at the start of the scenario (e.g., on the patient chart, or verbally by a confederate actor). It includes any information you wish to disclose to the learner to get them started. Some examples may include the patient’s age, sex, presenting symptoms, or components of the medical history. Keep in mind that you may wish to withhold certain information to see whether the learners will solicit it independently, particularly as relates to your cognitive or behavioral learning objectives.

**Staging Narrative:** This portion of the scenario template contains all of the details for equipment and personnel set-up and management. Examples include type and condition of mannequins (e.g., IV access, whether drips are running, if the mannequin should be on oxygen, or if the mannequin should have any wounds or rashes), props and supplies (e.g., specific medications that should be available, patient charts, code carts), and confederate actors (e.g., other members of the medical team or family members).

**Scenario Progression:** This section is essential for the simulationist and faculty to manage the scenario during the actual run. The details in this portion will guide the appropriate changes to the mannequin’s clinical parameters, provide directions for confederate actors, and determine what information will be available to the learner (e.g., through ordered lab tests). The following table provides an example for how scenario progression should be structured:

CHANGES IN CLINICAL ENVIRONMENT	EXPECTED INTERVENTIONS	PROMPTS
Ex: Changes in vital signs Patient seizure Changes in lab data	Call for help Call for crash cart Initiate CPR	Confederate RN: “His capillary refill is really delayed now”

(continued)

## + Scenario Design, continued

**Debriefing Checklist:** While designing the scenario, it is helpful to designate some key points for discussion during the debriefing session. These can be noted on the scenario template as a reminder for faculty debriefers. More information regarding debriefing can be found on page 5.

**Additional Details:** Other considerations include whether supporting data, such as radiographs or ECGs, will be necessary, and if any didactic materials or cognitive aids will be provided to the learner. Finally, course evaluations are a useful way to assess whether the program is effective and if learners met their learning objectives.

## + Scheduling & Staffing

Before booking space in the ILC for your program, your team of course planners will meet with ILC staff for a comprehensive consultation. During this process, we will discuss your learning objectives and scenario template, to determine which resources at the ILC are best suited for your program. This will include which simulation suite(s) or clinic space to use; what equipment, mannequins, or task trainers you need; and whether you will

require simulationist support, confederate actors, or standardized patients.

During the consultation, we will help you to find a time to hold your program that works for your faculty, learners, and the ILC staff. We can also assist you in booking the appropriate rooms and resources through MedScheduler. Our learning spaces include a simulated operating room, 3-bay emergency room or intensive care unit, and 2 acute care inpatient hospital rooms. In addition, we have 10 clinic (patient examination) rooms, workspace for use of part task trainers, as well as dedicated conference rooms for debriefing. Our simulation spaces and debriefing rooms are equipped with audio/visual feeds, allowing faculty and learners to remotely observe participants in simulation scenarios.



### Interested in more training?

CISL offers a Crisis Resource Management (CRM) Instructor Workshop and courses in debriefing and scenario design for clinicians and health care educators who are developing immersive learning programs. Contact us for more information.



## The Art of Debriefing



## Where it All Comes Together.

Debriefing is the process of facilitated or guided reflection in the cycle of experiential learning. Analysis and discussion of scenarios and events after the simulation has concluded allows participants to solidify clinical knowledge and improve future performance. The

debriefing session is a good opportunity for instructors to emphasize key learning points by relating them directly to the learners' experience; this produces a more memorable and effective result than discussing the same issues without context or practical application.

While debriefing is a powerful tool, it requires a skilled facilitator to maximize the educational benefit for the learner. The following are some guidelines to consider when planning a debriefing session:

### Creating a safe learning environment:

Simulation scenarios can be intense and stressful. Ensure that participants feel supported and respected rather than being judged on their performance. Instructors may set the tone for the debriefing session by reemphasizing the learning objectives and encouraging open, nonjudgmental discussion. Avoid use of polarizing language, such as “right” or “wrong”, and maintain a relaxed, noninterrogatory atmosphere.

### Keep sight of the big picture:

It may be helpful for instructors to make notes while observing scenarios. Behaviors or decision points that illustrate or bring up the learning objectives should be kept in mind and referenced during the discussion. Ideally, the debriefer should find a balance that allows the session to proceed naturally, stimulated by learner response and participation, while still ensuring that key educational points are covered.

### Engage all learners:

Learners have a variety of personalities and learning styles. A skilled debriefer is able to encourage participation from all

members of the group using directed questioning or reflecting questions back toward learners. Understanding body language and group dynamics helps the debriefer defuse challenging situations and keep the experience positive.

### Let the learners drive the discussion:

Participants should be given the opportunity to reflect on their own experiences before any instructor feedback or constructive criticism is offered. The purpose of the debriefing session is not to serve as a lecture, but rather as an open-ended forum. The skilled debriefer recognizes when certain issues or events are particularly impactful for learners and explores them more thoroughly.

### Use tools to facilitate learning:

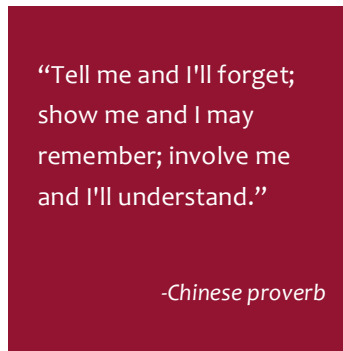
Simulations conducted in ILC learning spaces can be recorded and annotated, allowing instructors to mark key events that can then be accessed during video playback in the debriefing session. Watching recorded video can serve as a trigger for discussion, as well as allow scenario participants to review their actions and behavior.

## Evaluating outcomes and next steps.

Some informal participant evaluation of the course may be incorporated into the debriefing discussion, but to gather more objective and honest feedback, consider a program evaluation. Retro pre/post questionnaires are a method of assessing changes in learner competence (e.g., *prior* to this course, how often did you use skill X in situation Y/*after* taking this course, how often will you use skill X in situation Y?).

Consider also whether you would like to provide your learners with supplemental education tools, such as cognitive aids, worksheets, or handouts, to reinforce your learning objectives in practice.

At the conclusion of your program, ILC staff will meet with you to discuss any technical or logistical concerns that arose and plan for recurring courses, if applicable.



## Contact us.

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