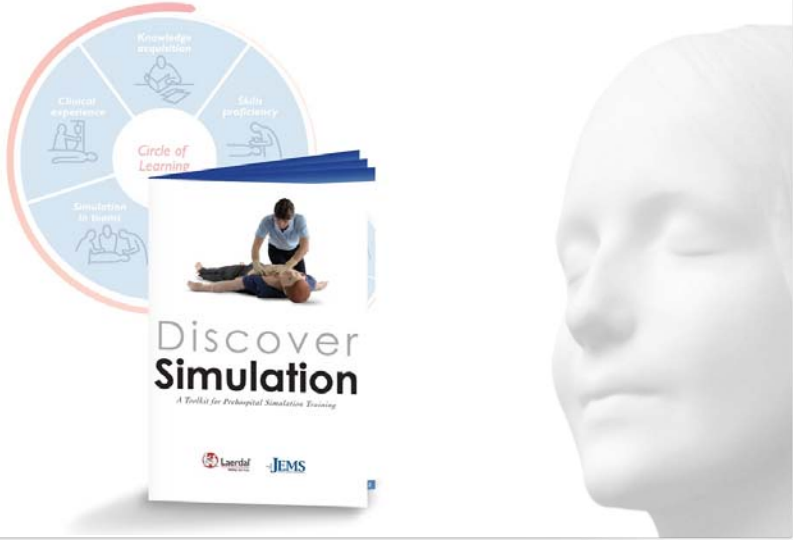

 **Laerdal**
helping save lives

Discover Simulation Webinar Slides



Tuesday, March 20, 2012

 **Laerdal**
helping save lives

Agenda

- Overview of Discover Simulation Toolkit
- Features that Lead to Effective Learning
- Toolkit Components
- Implementation Approach
- Support
- Q and A



Overview




Laerdal and JEMS provide comprehensive approach to teaching using blended learning methodology



Overview

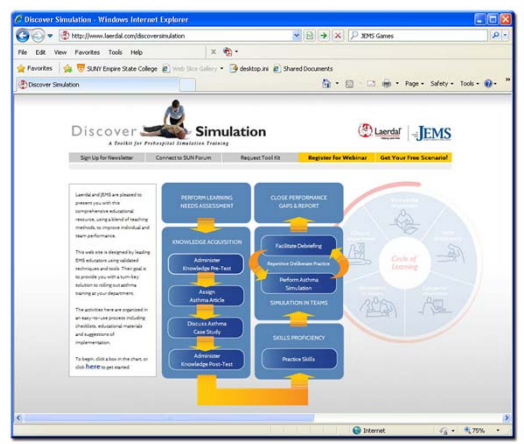



Goal: Help make simulation training easy

 **Laerdal**
helping save lives

Overview


Turn-key education system...



 **Laerdal**
helping save lives

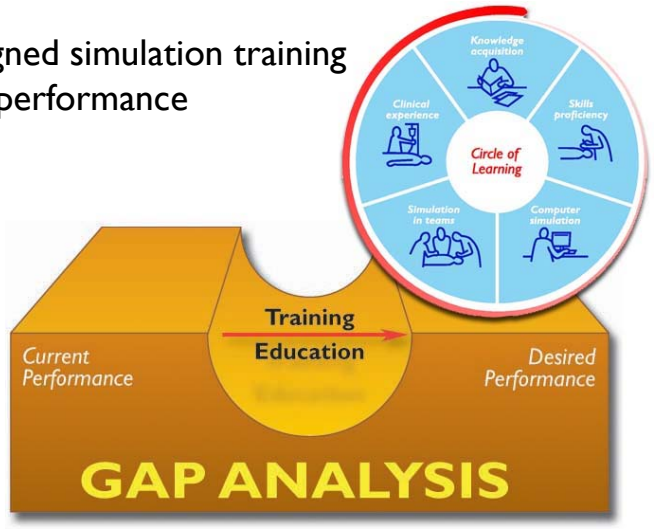
Benefits

- Relevant
- Efficient
- Total Solution
- Support


 **Laerdal**
helping save lives

What Leads to Effective Learning?

Well-designed simulation training improves performance



GAP ANALYSIS

 **Laerdal**
helping save lives

What Leads to Effective Learning?

Well-designed simulation training improves performance...but how do I implement?



What Leads to Effective Learning?

Medical Teacher, Vol. 27, No. 1, 2005, pp. 10-28

Taylor & Francis
Taylor & Francis Group

Features and uses of high-fidelity medical simulations that lead to effective learning: a BEME systematic review*

S. BARRY ISSENBERG¹, WILLIAM C. MCGAGHIE², EMIL R. PETRUSA³,
DAVID LEE GORDON¹ & ROSS J. SCALESE¹

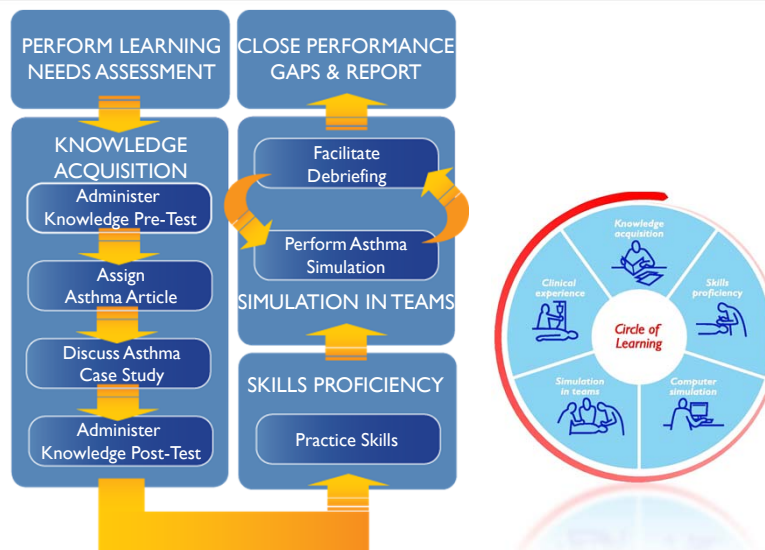
¹Center for Research in Medical Education, University of Miami School of Medicine, USA;
²Northwestern University Feinberg School of Medicine, USA; ³Duke University Medical Center, USA

Provide feedback / Repetitive practice

Multiple learning strategies / Controlled environment

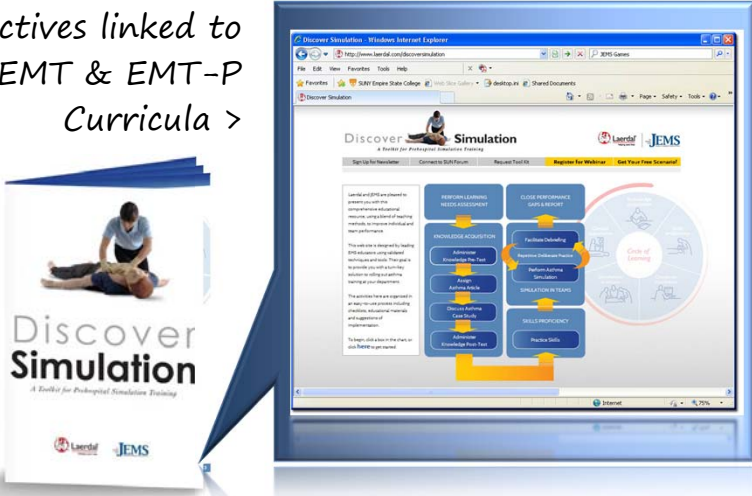


What Leads to Effective Learning?



Discover Simulation Components

Objectives linked to EMT & EMT-P Curricula >



The image shows the 'Discover Simulation' book cover on the left, which features a person performing CPR on a mannequin. To the right is a screenshot of the Discover Simulation website interface, displaying a flowchart of simulation components and a circular diagram on the right side.

Discover Simulation Components

Needs assessment >



The image shows the 'Discover Simulation' book cover on the left. To the right is a close-up of a rating scale, likely used for needs assessment. The scale is a table with five rows and two columns.

	RATING	
5	Outstanding	Consistently exceeds position and role and contribution and are often significant
4	Above Expectations	Consistently meets or exceeds individual expectations
3	Meets Expectations	Consistently meets individual expectations
2	Below Expectations	Consistently improves individual expectations
1	Unsatisfactory	Consistently fails to meet individual expectations

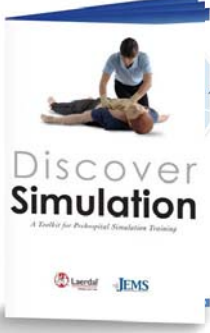
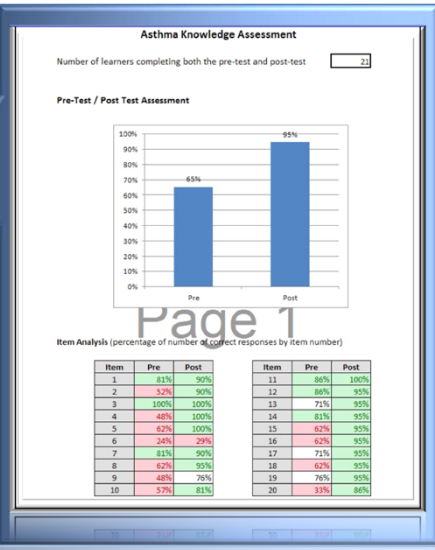
Discover Simulation Components

Article & Pre/Post Test >




Discover Simulation Components

Item analysis worksheet >

Asthma Knowledge Assessment

Number of learners completing both the pre-test and post-test: 21

Pre-Test / Post Test Assessment

Bar chart showing Pre-Test (65%) and Post-Test (95%) scores.

Page 1

Item Analysis (percentage of number of correct responses by item number)

Item	Pre	Post
1	81%	90%
2	52%	90%
3	100%	100%
4	48%	100%
5	62%	100%
6	24%	29%
7	81%	90%
8	62%	95%
9	48%	76%
10	57%	81%
11	86%	100%
12	86%	95%
13	71%	95%
14	81%	95%
15	62%	95%
16	62%	95%
17	71%	95%
18	62%	95%
19	76%	95%
20	33%	86%


Laerdal
helping save lives

Discover Simulation Components

Psychomotor Skills >



Discover
Simulation
A Toolkit for Prehospital Simulation Training




Laerdal
helping save lives

Discover Simulation Components

Scenario file >




Discover
Simulation
A Toolkit for Prehospital Simulation Training

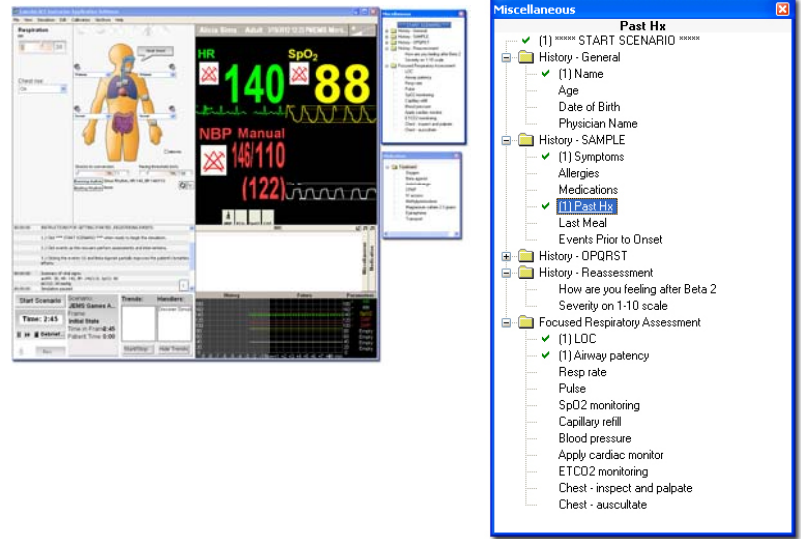
 




SimMan
ALS Simulator
VitalSim / SimPad

 **Laerdal**
helping save lives

Discover Simulation Components

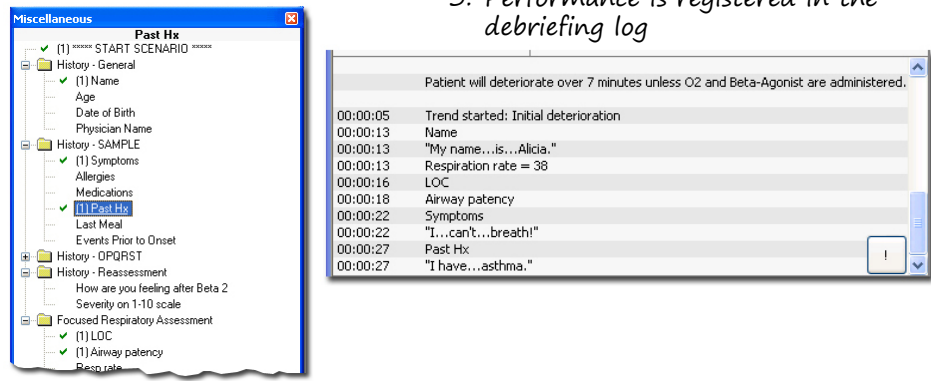


The screenshot displays the Discover Simulation interface. On the left, a patient monitor shows vital signs: HR 140, SpO2 88, and NBP 146/110 (122). On the right, the 'Miscellaneous' window is open, showing a tree structure for 'Past Hx' (Past History). The tree includes categories like 'History - General', 'History - SAMPLE', 'History - OPQRST', and 'History - Reassessment'. The 'Past Hx' category is expanded, showing a list of items: (1) START SCENARIO, (1) Name, Age, Date of Birth, Physician Name, (1) Symptoms, Allergies, Medications, (1) Past Hx (highlighted), Last Meal, Events Prior to Onset, History - OPQRST, History - Reassessment (How are you feeling after Beta 2, Severity on 1-10 scale), Focused Respiratory Assessment, (1) LOC, (1) Airway patency, Resp rate, Pulse, SpO2 monitoring, Capillary refill, Blood pressure, Apply cardiac monitor, ETCO2 monitoring, Chest - inspect and palpate, and Chest - auscultate.

 **Laerdal**
helping save lives

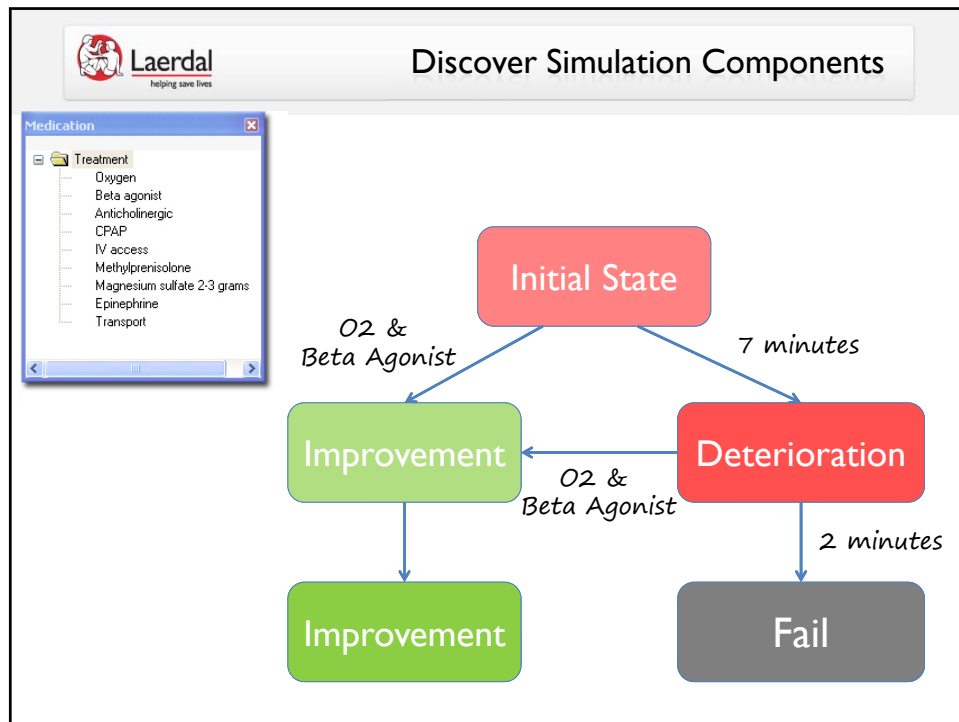
Discover Simulation Components

1. Watch learner's performance
2. Click events
3. Performance is registered in the debriefing log



The screenshot shows the 'Miscellaneous' window on the left, with the 'Past Hx' tree expanded. On the right, a debriefing log window is open, displaying a list of events and their timestamps. The log includes a warning: 'Patient will deteriorate over 7 minutes unless O2 and Beta-Agonist are administered.' The events listed are:

Timestamp	Event
00:00:05	Trend started: Initial deterioration
00:00:13	Name
00:00:13	"My name...is...Alicia."
00:00:13	Respiration rate = 38
00:00:16	LOC
00:00:18	Airway patency
00:00:22	Symptoms
00:00:22	"I...can't...breathe!"
00:00:27	Past Hx
00:00:27	"I have...asthma."





Discover Simulation Components



Debriefing can make or break a simulation session



Discover Simulation Components

CONCEPTS AND COMMENTARY

There's No Such Thing as "Nonjudgmental" Debriefing: A Theory and Method for Debriefing with Good Judgment

Jerry W. Rudolph, PhD, Robert Simon, EdD, Ronald L. Dufresne, MD, and Daniel B. Baumer, PhD

We report on our experience with an approach to debriefing that emphasizes describing outcomes, judgments and using learners' experiences about the situation and their reasons for acting in key ways. To highlight the importance of outcomes, describing their judgments, we call the approach "debriefing with good judgment." The approach draws on theory and empirical findings from a 12-year research program in the behavioral sciences on how to improve professional effectiveness through "reflective practice."

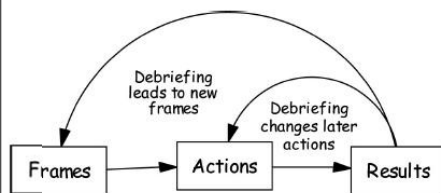
The approach requires a rigorous and reflective process that helps learners integrate and synthesize learning, clinical and behavioral outcomes, and the importance of the outcomes. The "debriefing with good judgment" approach is composed of three elements. The first element is a conceptual model that maps cognitive science. It requires that the debriefer "listen"—consciously of each stage in learning, assessment, and feedback—direct the action. The second, in turn, provides clinical results in a format for assessing the learner's clinical focus. The debriefer can keep the learner focused on clinical assessment and feedback and take action to correct learner mistakes in the future. The third element is a series of guiding questions for the debriefer to follow. Presuming that the debriefer's actions are as reflective as those of the learner, the debriefer can use a "reflective debriefing" model to assess, through inquiry, what those actions are. The debriefer is positioned in a "space of reflection" in which the learner's mistakes are possible to be revised rather than simply corrected. Finally, the approach includes a conceptual technique designed to bring the judgment of the debriefer and the learner to the table. The technique pairs subjective and objective evidence in a type of space that includes an objective observation about and subjective judgment of the learner's actions, history,

is a primary concern question that attempts to stimulate the learner's focus on the situation to the action described in the scenario's activity. We find that the approach helps learners manage the apparent tension between sharing, critical, evaluative judgments and maintaining a working relationship with learners.

Simul Healthc 2006;1: 49-55.


Sharing critical judgments is an essential part of learning in simulation and debriefing. Debriefers often avoid giving voice to critical judgments and feelings because they do not want to appear confrontational and they worry that criticism might lead to bad feelings and debriefing becomes less of a learning experience. Using critical judgment poses a dilemma for many debriefers: "How can I deliver a critical message and share my expertise while avoiding negative reactions, preserving social 'face,' and maintaining my relationship with the learner?" This paper offers an approach to debriefing that addresses this dilemma.

The existing debriefing literature¹⁻⁴ provides little guidance on how to create an environment in which learners feel comfortable enough to engage in reflective practice. By "reflective practice," we mean a process that challenges and potentially shifts the learner's clinical and behavioral assumptions and ways of thinking about the simulation experience. Drawing on a 12-year research program on improving professional effectiveness in the business world through "reflective practice,"⁵⁻⁷ this article articulates a model of debriefing for medical simulation education. The research program from which we adapted our approach has made and helped thousands of practicing business executives and managers improve their personal and organizational effectiveness through the development of reflective practice. "Reflective practice" is a term coined by the late Harvard Business School professor Peter Senge, who is known for his work on organizational learning and his book *The Fifth Discipline*.⁸ The debriefing model has three primary components: the first component is a conceptual model, drawn from research in cognitive science and in reflective practice, that guides the debriefer on how to stimulate the learner's ability to use reflective practice in the simulation. The second component is a set of guiding questions that stimulate the learner's ability to use reflective practice in the simulation. The third component is a type of




You can see actions, but never frames

Rudolph J, et al. There's no such thing as "nonjudgmental" debriefing" A theory and method for debriefing with good judgment. *Simul Healthcare* 2006;1: 49–55



Discover Simulation Components

Advocacy	Inquiry
<ul style="list-style-type: none"> My perspective Use first person Make perspective clear I observed _____ I'm concerned / pleased because _____ 	<ul style="list-style-type: none"> Short, open ended questions "I wonder what happened..." I'm curious how you see it?"



Discover Simulation Components

Beginning – Reactions Phase


Allow participants to express their initial reactions (emotion OK)
Discusses facts as necessary to eliminate confusion
Avoid ridiculing or shifting right to analysis

Middle – Analysis Phase


Ask questions that prompt the learner to discuss and reflect
Listen with genuine curiosity – seek to understand their “frames”
Avoid telling the participants what to do without getting them to reflect first


End – Summary Phase


Ask participants to summarize what they learned
“what went well?”
“Given a similar situation, what would you do differently?”


 **Laerdal**
helping save lives

Evaluate the Program


Level I

Reaction

Level II

Learning

Level III

Behavior

Level IV

Outcome / ROI
Return on
Expectations


Kirkpatrick, D.L., Evaluating Training Programs: The Four Levels. San Francisco, CA: Berrett-Koehler Publishers, 1998.

 **Laerdal**
helping save lives

Implementation

Next Actions

1. Register for follow-up webinar: April 24, 2012, 11:30 AM – 12:30 PM EST
2. Request toolkit and scenario
3. Join the Discover Simulation forum



www.laerdal.com/discoversimulation