

A Checklist Approach to Simulation Problem Solving: Anticipate, Act, Amend

Amanda Carmack, DNP, MBA, RN, CNE

Sean Cavanaugh, CHSOS, CHSE

Amy Follmer, CHSOS

Melissa Lowther, BS, CHSOS

Jamie Stiner, CHSOS

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Financial Disclosures and Introductions

DISCLOSURE STATEMENT

Presenters have disclosed no financial relationships with entities that are commercial interests, as defined by the Council for Joint Accreditation for Interprofessional Continuing Education.



Amanda Carmack



Sean Cavanaugh



Amy Follmer



Melissa Lowther

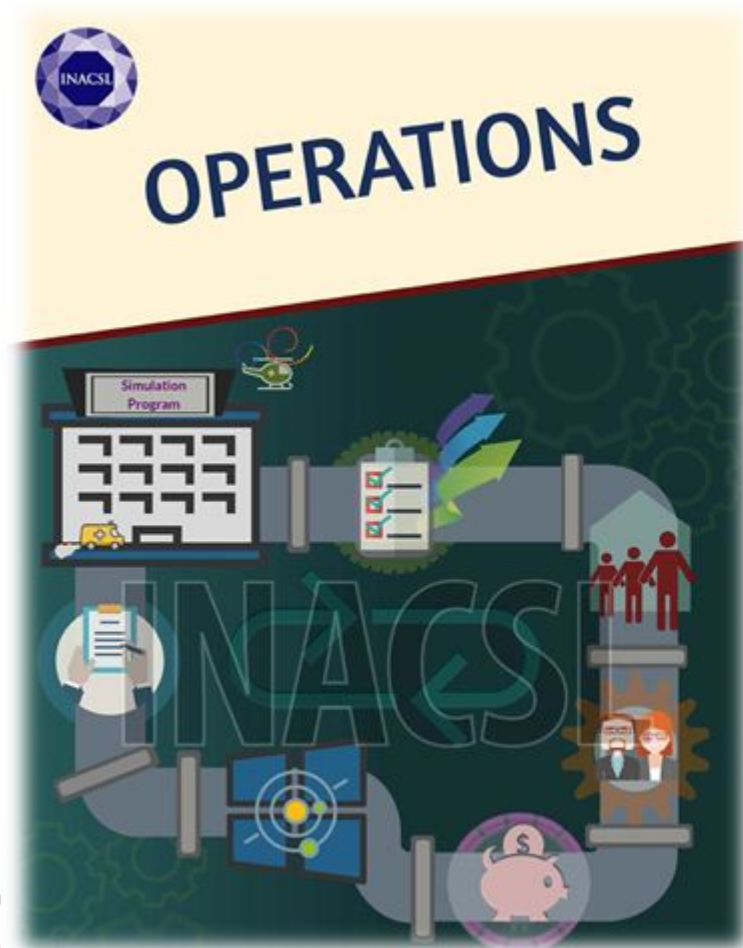


Jamie Stiner

Learning Objectives

- Examine from the simulation operations perspective barriers that may contribute to a simulation education session not meeting the learning objectives.
- Explore and apply the use of a standardized checklist to problem solve issues before, during, and after simulation events.
- Discuss and create strategies for preventing and resolving common barriers for simulationists.

Standards of Best Practice



Criterion 1 - Strategic Plan

Implement a strategic plan that coordinates and aligns resources of the SBE program to achieve its goals.

Criterion 2 - Personnel with Expertise

Provide personnel with appropriate expertise to support and sustain the SBE program.

Criterion 3 - Management Systems

Utilize a system to manage space, equipment, and personnel resources.

Criterion 4 - Fiscal Sustainability

Maintain and manage the financial resources to support stability, sustainability, and growth of the SBE program's goals and outcomes.

Criterion 5 - Systems Integration

Use a formal process for effective systems integration.

Criterion 6 - Policies and Procedures

Create policies and procedures (P&Ps) to support and sustain the SBE program.

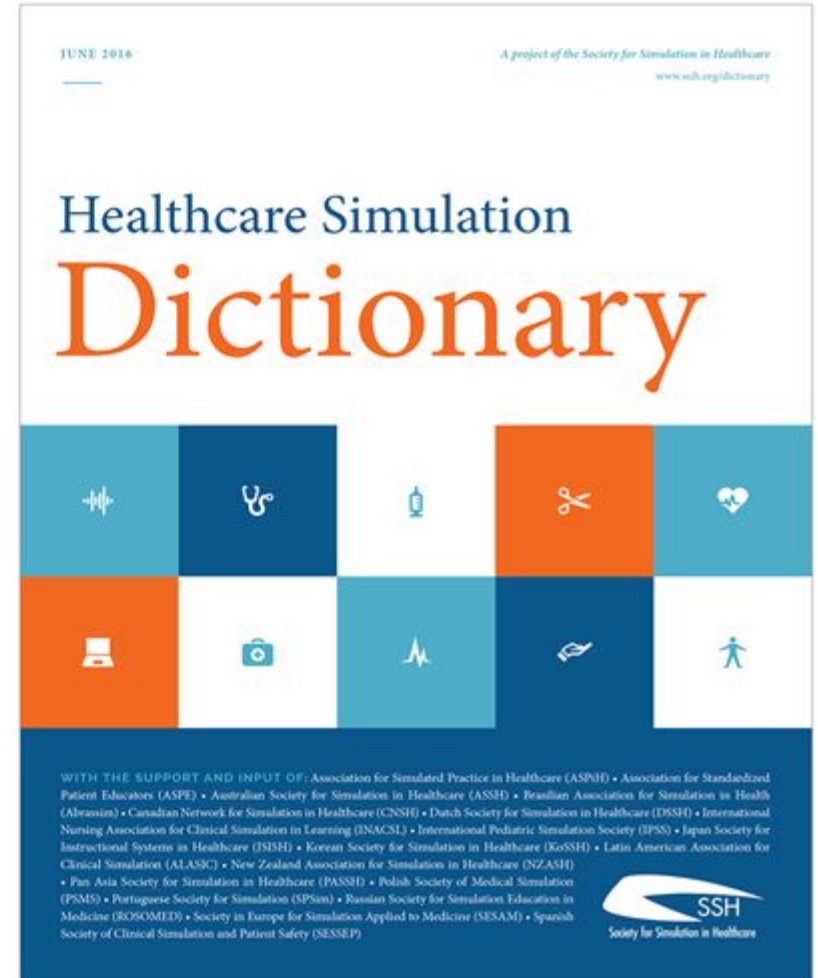
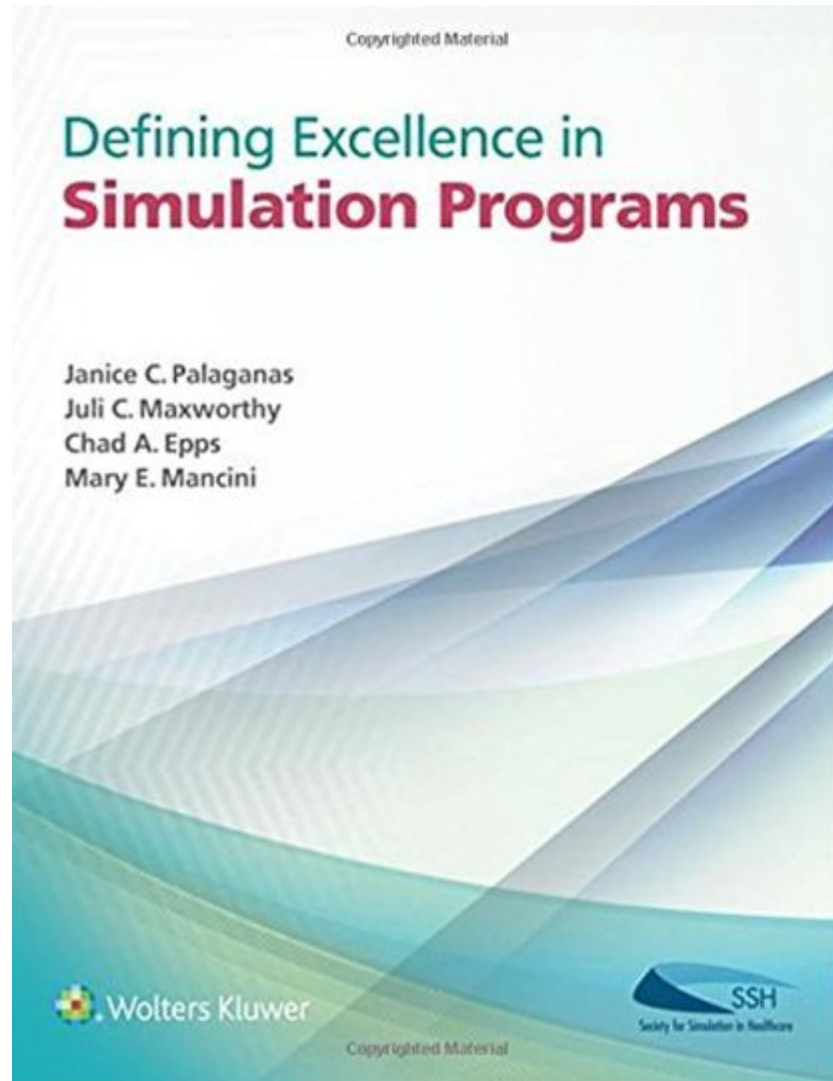
Standards of Best Practice: SimulationSM

For the complete version go to: www.nursingsimulation.org/standards

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Resources



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Healthy Simulation – Prebriefing & Orientation Checklist



Prebriefing and Orientation Plan from HealthySimulation.com

List of possible activities to be completed either by faculty or learners prior to the simulation or on the simulation day before the scenario. The name of staff member preparing materials and/or instructions for learners may be recorded as well as the date items materials were completed.

Activity	Date Materials Completed/Staff
Preparatory Activities Prior to Sim Day	
Required video or other audiovisual materials review (list, learner instructions and method of distribution to learners.	
Required reading (list, learner instructions and method of distribution to learners.	
Medication list with/without medication prep sheets.	

Checklist available at : <https://www.healthysimulation.com/prebriefing/>

Challenges/Barriers in Simulation Activity Delivery



Our Challenges/Barriers



Sean

- Limited skilled facilitator availability
- Lack of buy in / problem with the fiction contract

Amanda

- Social distancing requirements
- Transitioning content online to a virtual format



January 2021						
S	M	T	W	T	F	S
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Melissa

- Scheduling multiple activities/rooms
- Network issues (ad-hoc, institutional, etc)

Amy

- Room occupancy limits/distancing requirements
- Limited clinician availability



Challenges/Barriers in Simulation Activity Delivery



Categories of Problems/Challenges

Problems with Things (Technology)



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Problems with Ideas (Planning)



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Categories of Problems/Challenges

Problems with People (Communication)



Problems with Places (Environment)



Benefits of Problem Solving Checklist



- Shared Mental Model
- Standardized documentation
- Faster troubleshooting
- Repeat issues can be addressed
- Continuity of work

Anticipate Challenges in Advance



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Visit <https://bit.ly/2VYLj3M>
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Simulation Operations Problem Solving Checklist

Anticipate Challenges in Advance of a Simulation Event

Simulation Event Name/Case: _____

- ☐ Consider element(s) of event most likely to fail

Examples: Vitals monitor, manikin pupil dilation, learner schedule, inexperienced faculty

- ☐ Plan for possible back-up strategies for issues identified above

- ☐ Communicate with instructors in advance on possible issues and backup plans identified above

- ☐ Agree on threshold to move to back-up plan

Act to Solve Problems During an Event



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Act to Solve Problems During an Event

- ☐ Always consider the learning objectives for the event.

- ☐ If problem(s) don't impact learning objectives or safety, continue with the event.
- ☐ If back-up plan exists from planning, move to it as necessary.
- ☐ If problem(s) impact learning objectives and/or safety, determine the ideal time to attempt a solution.
 - ☐ Immediately, in between cases, end of day_____

- ☐ Communicate with the team as necessary.
 - ☐ Is someone needed to get extra supplies or equipment?
 - ☐ Is someone needed to help with instructors/learners?
 - ☐ Is there someone that has experience with the issue and can help?_____
- ☐ Communicate with instructors/learners on impact issues have on the event.

Amend Problem Causing Issues



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Amend Problem Causing Issues After an Event

- ☐ Establish a theory of probable cause.

- ☐ Test theory of probable cause to determine actual cause.
 - ☐ If probable cause proves to not be the actual cause, start again with new probable cause.
- ☐ Establish action plan and execute it.

- ☐ Verify full system functionality.
- ☐ Document the process to resolve or prevent the problem in future events.
- ☐ Communicate the problem and solution to the team.

Introduction to Checklist Practice Activity

- Interactive Poll Everywhere Activity
 - <https://pollev.com/imsh2021>
- We're going to start backwards with the barrier/challenge first
- Audience participation is important for this activity

Our Challenge/Problem:

- Enforcing mandated PPE in simulation activities



Anticipate Challenges: Element(s) Likely to Fail

Simulation Operations Problem Solving Checklist

Anticipate Challenges in Advance of a Simulation Event

Simulation Event Name/Case: _____

- ☐ Consider element(s) of event most likely to fail

Examples: Vitals monitor, manikin pupil dilation, learner schedule, inexperienced faculty

Our Problem:

- Enforcing mandated PPE in simulation activities



Anticipating "Enforcing mandated PPE in simulation activities." Challenges.

Top



Anticipate Challenges: Back-Up Plans

- ☐ Plan for possible back-up strategies for issues identified above

- ☐ Communicate with instructors in advance on possible issues and backup plans identified above
- ☐ Agree on threshold to move to back-up plan

Our Challenge/Problem:

- Enforcing mandated PPE in simulation activities

Anticipate Back-Up Plans for the Top 3 Initial Challenges

Top



Summary of Anticipation Phase

- Visualization or mental walkthrough of event
- Back-up plans for potential issues.
- Communication in advance with relevant stakeholders
- Threshold for implementation of back-ups

Act to Solve Problems: Learning Objectives/Goals

Act to Solve Problems During an Event

- ☐ Always consider the learning objectives for the event.

Our Challenge/Problem:

- Enforcing mandated PPE in simulation activities

Our Specific Challenge Enforcing PPE

- Multibed ultrasound training event
- Emails were sent to instructors with PPE info
- You're busy setting up for the event as participants arrive
- Once the event gets started, you realize almost none of the participants have eye protection



Act to Solve Problems: Timeline for Action

- ☐ If problem(s) don't impact learning objectives or safety, continue with the event.
 - ☐ If back-up plan exists from planning, move to it as necessary.
 - ☐ If problem(s) impact learning objectives and/or safety, determine the ideal time to attempt a solution.
 - ☐ Immediately, in between cases, end of day
-
-

Our Challenge/Problem:

- Enforcing mandated PPE in simulation activities

Our Specific Problem:

- Participants in a simulation activity are not wearing required PPE (eye protection).

What Timeline Should be Used for the Problem in the Example?

Immediate action required

In between cases or sessions

At the end of the day

Other



What Timeline Should be Used for the Problem in the Example?

Immediate action required

In between cases or sessions

At the end of the day

Other



Act to Solve Problems: Communication

- ☐ Communicate with the team as necessary.
 - ☐ Is someone needed to get extra supplies or equipment?
 - ☐ Is someone needed to help with instructors/learners?
 - ☐ Is there someone that has experience with the issue and can help?

- ☐ Communicate with instructors/learners on impact issues have on the event.

Our Challenge/Problem:

- Enforcing mandated PPE in simulation activities

Our Specific Problem:

- Participants in a simulation activity are not wearing required PPE (eye protection).

What Form(s) of Communication Would You Use in Response to Our Problem of Participants Not Wearing Required PPE?

In Person Conversation

Email

Text Message

Phone Call

Document or Formal Form Entry

Simulation Activity Delivery Documents

Other



What Form(s) of Communication Would You Use in Response to Our Problem of Participants Not Wearing Required PPE?

In Person Conversation

Email

Text Message

Phone Call

Document or Formal Form Entry

Simulation Activity Delivery Documents

Other



Summary of Problem Solving Phase

- Learning objectives are essential when issues arise
- Suggested steps provide guidance in rushed situations
- Not all steps relevant for every issue, but a starting point

Amend Problem Causing Issues: Theories of Probable Cause

Amend Problem Causing Issues After an Event

- ☐ Establish a theory of probable cause.

- ☐ Test theory of probable cause to determine actual cause.
 - ☐ If probable cause proves to not be the actual cause, start again with new probable cause.

Our Challenge/Problem:

- Enforcing mandated PPE in simulation activities

Our Specific Problem:

- Participants in a simulation activity are not wearing required PPE (eye protection).

What is your Theory of Probable Cause for Our Specific Problem of Participants in a Simulation Activity Not Wearing Required PPE?

Top



Amend Problem Causing Issues: Action Plan

- ☐ Establish action plan and execute it.

Our Challenge/Problem:

- Enforcing mandated PPE in simulation activities

Our Specific Problem:

- Participants in a simulation activity are not wearing required PPE (eye protection).

What Action Plans May be Helpful to Prevent this Problem from Happening Again in the Future?

Top



Amend Problem Causing Issues: Action Plan

- ❑ Verify full system functionality.
- ❑ Document the process to resolve or prevent the problem in future events.
- ❑ Communicate the problem and solution to the team.

Our Challenge/Problem

- Enforcing mandated PPE in simulation activities

Our Specific Problem:

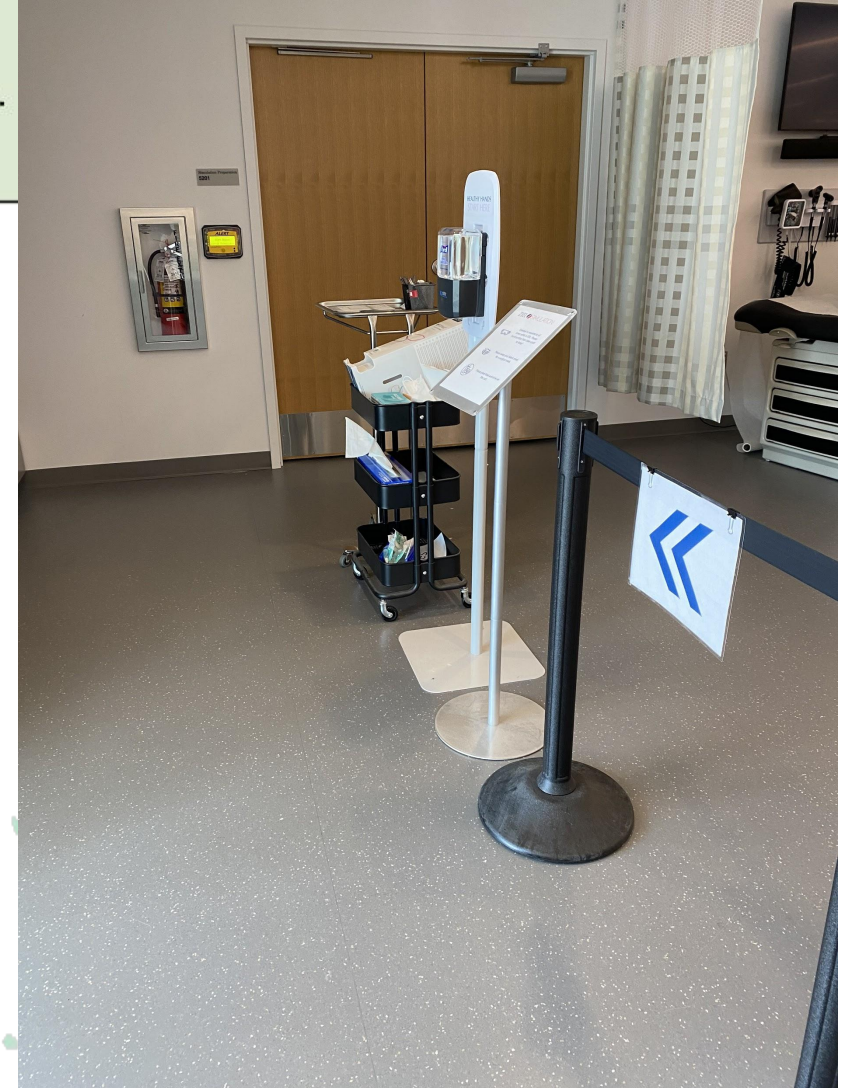
- Participants in a simulation activity are not wearing required PPE (eye protection).

Amend Problem Causing Issues: Action Plan

- ❑ Verify full system functionality.
- ❑ Document the process to resolve or prevent the problem in future events.
- ❑ Communicate the problem and solution to the team.



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Summary of Amend Problem Solving Issues Phase

- Follow-up after initial solutions helps prevent future problems
- Clear communication and documentation is essential
- Think system wide on this step

Please provide any feedback or thoughts on the problem solving checklist.

Top



WRAP-UP & QUESTIONS?

- Help us move this project forward.
- Complete this optional Survey
 - <http://bit.ly/2MvSmiY> or Scan QR Code

Scan This QR Code or
for Optional Survey



- Feel free to reach out with any additional questions or comments.
 - Amy Follmer a357f308@kumc.edu
 - Amanda Carmack ajcarmac@iue.edu
 - Sean Cavanaugh sean.cavanaugh@nyulangone.org
 - Melissa Lowther SimOpsMelissa@gmail.com
 - Jamie Stiner jamiejstiner@gmail.com

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