

The Center for Medical Simulation

DEBRIEFING ASSESSMENT FOR SIMULATION IN HEALTHCARE (DASH)®

Rater's Handbook

INTRODUCTION

A crucial step in clarifying and consolidating the learning gained from simulations in healthcare is to debrief those simulation experiences—that is, to methodically review what happened and why. Leading a debriefing is a learned skill, and can be improved with practice and feedback. The Debriefing Assessment for Simulation in Healthcare (DASH)[®] Handbook and Rating Forms are designed to assist in evaluating and developing debriefing skills. Additional information, rating forms, and contact information can be found at the DASH website:

<http://www.harvardmedsim.org/dash.html>.

Background on the Debriefing Process

In the context of healthcare simulation, a debriefing is a conversation among two or more people to review a simulated event or activity. In the debriefing, participants explore and analyze their actions and thought processes, emotional states, and other information to improve performance in real situations. When instructors foster high participant engagement this yields better retention and deeper learning, and increases the likelihood of the transfer of new or reinforced knowledge, skills, and attitudes to the clinical or broader healthcare setting.

Debriefers make an implicit comparison between a desired level of performance and the level of performance they observe in the simulation. The difference between the desired performance and the actual performance is called the performance gap. The gap can be large, small, or, in the event of good or excellent performance, zero. Describing their assessment of this gap and inquiring into its origins is part of an effective debriefing.

Debriefers can help improve poor performance or reinforce good performance by critiquing and discussing trainees' actions. Alternatively or additionally, they can explore the “frames”—internal understanding and assumptions about external reality—that drove trainees' actions. Almost all complex actions are driven by frames. Debriefings can focus on frames or actions or both.

Healthcare professionals take psychological risks when they allow their performance to be watched and analyzed by peers and instructors. Thus, developing and maintaining a psychologically safe learning environment is essential for getting everyone's wholehearted participation. To do this, skilled debriefers give participants the benefit of the doubt (i.e., assume the best intentions) and regard mistakes and good performance as a mystery to be analyzed rather than as a crime to be punished or success to be simply lauded.

Feedback on current performance is a crucial part of the debriefing process. Skilled debriefers are neither overly harsh and negative, nor falsely kind and non-judgmental. Rather they provide direct, respectful feedback and explore the underlying drivers of a trainee's performance. Most debriefings aim to improve deficits in performance; but debriefings can also explore good performance: What actions or thought processes allowed a person or team to be effective?

What Is the DASH?

The DASH assesses the instructor behaviors that facilitate learning and change in experiential contexts. The behaviors described in the DASH were derived from relevant theory and evidence in previous research as well as expert observations of hundreds of debriefings.

The DASH is designed to guide assessment of debriefings in a variety of healthcare disciplines and courses, involving differing

numbers of participants and a wide range of educational objectives, from an exercise in suturing skills to one in disaster management for a whole hospital. It works in a variety of settings with various physical and time constraints. The DASH can be used to assess the introduction to the simulation course (Element 1) and the post-simulation debriefing (Elements 2-6). How well the instructor sets up an environment conducive to learning significantly affects the subsequent activities; scoring the introduction will enrich the meaning of the overall score.

The DASH tracks and rates six key Elements of a debriefing. These include whether and how the instructor

- (1) Establishes an engaging learning environment;
- (2) Maintains an engaging learning environment;
- (3) Structures debriefing in an organized way;
- (4) Provokes engaging discussions;
- (5) Identifies and explores performance gaps; and
- (6) Helps trainees achieve or sustain good future performance.

The DASH is a behaviorally anchored rating scale, which means it is based on the behaviors needed to execute an effective debriefing as well as those characteristic of poor debriefings. An "Element" in the DASH is a high-level concept that describes a whole area of debriefing behavior. Each Element is composed of "Dimensions" that reflect parts of the high-level competency. The bulleted "Behaviors" within each Dimension are concrete examples of carrying out this element. The listed behaviors are examples; possible behaviors are not limited to those listed.

Directions for Scoring

Raters score each Element using the dimension descriptions and example behaviors as guides. A complete DASH score includes five (or six, if Element 1, the introduction to the course, has been

observed) Element ratings. Ratings are based on a seven-point effectiveness scale.

Rating Scale

Rating	Descriptor
7	Extremely Effective / Outstanding
6	Consistently Effective / Very Good
5	Mostly Effective / Good
4	Somewhat Effective / Average
3	Mostly Ineffective / Poor
2	Consistently Ineffective / Very Poor
1	Extremely Ineffective / Detrimental

As a rater, you must study the Elements and be completely familiar with them. Summarize your impression of **overall effectiveness for the whole Element**, guided by your observation of the individual dimensions and behaviors that define it. Think holistically and not arithmetically to consider the cumulative impact of the dimensions, which may not all bear equal weight. You, the rater, will weigh dimensions as you see fit, based on your holistic view of the Element. If a defined dimension is not impossible or not available to assess, don't let that negatively influence your evaluation. For example, if no participants got upset, just disregard the dimension regarding how the debriefer handles upset people.

Once raters are thoroughly familiar with the Elements, they report that the scale is easy to use. Trained raters are able to produce reliable and valid scores.

It is expected that short debriefings and ones that focus only on actions and do not address frames are unlikely to be scored

higher than a 4, 5, or occasionally 6. It should be understood that the setting of the debriefing might affect the ratings. If the setting for the debriefing is less than ideal—a cramped room close to real world distractions, or in the same space as the simulation—with only a few minutes to spare, then it is reasonable to see the best ratings reach only “somewhat or mostly effective.” When participants feel time pressure, lack privacy, or are too close to real clinical or managerial distractions, it is difficult to pursue an in-depth analysis of the thinking behind behaviors (the causes or “frames” for actions).

There is *purposeful overlap* between the Elements. For example, Element 1, “Establishes an engaging context for learning,” has

some of the same Dimensions as Element 2 “Maintains an engaging context for learning.” In all cases and for every Element, raters should ignore the overlap and *rate each Element independent* of the others.

Score Sheets

Two different score sheets are available for raters. The short form, designed to obtain Element scores only, is appropriate especially for summative evaluations. The long form, designed to obtain Dimension and Element scores, is especially useful when providing formative feedback to debriefers.

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ELEMENT 1

Establishes an engaging learning environment

How well the debriefer or instructor introduces the simulation learning experience can set the tone for all that follows. Before any simulation begins, the instructor helps participants be clear about what is expected of them, and helps them understand the benefits and limits of the simulated clinical setting. The instructor informs trainees whether and how the case, event, or procedure will later be debriefed (i.e., discussed and analyzed) and whether the simulation will be videotaped. The instructor makes plain that the focus is on learning, not on “catching” people in a mistake, and creates an environment where participants feel safe in sharing thoughts and feelings about the upcoming simulation and debriefing without fear of being shamed or humiliated.

Element 1 Dimensions

Clarifies course objectives, environment, roles, and expectations.

Simulation-based courses flow better and participants engage more when they understand the point of what they are doing, their role, the instructors' roles, and what is expected of them.

Positive, effective behaviors for this dimension include:

- Introducing oneself and inviting others to introduce themselves.

- Sharing and inviting others to share information about their personal qualifications and experience, background, and interest in the course.
- Presenting the course overview and learning objectives.
- Introducing and describing the simulators, ancillary equipment, location of supplies, role of actors, etc.
- Modeling expectations for participants to engage with equipment (e.g., staying “in genuine and earnest character” when taking care of a simulated patient).
- Discussing the origins of the cases, procedures, or events to be simulated and why certain cases or tasks have been included in the course (e.g., actual cases that had bad outcomes; they are particularly difficult or amenable to practice, etc.).
- Explicitly stating expectations for participants' roles in the simulation course and subsequent debriefing.
- Requesting that participants engage in debriefing discussions and attempt to be self-reflective.
- Stating etiquette rules for debriefing: to be respectful, curious, and polite about others' thoughts and actions.
- Encouraging people to speak up, or allowing for respectful disagreement.
- Explicitly describing the instructor's role: to facilitate discussion; commenting on performance based on observing similar events or simulations; acting as a resource on own area of expertise (e.g., PALS, ACLS; CRM; teamwork; clinical); and ensuring that the training objectives are met.

Negative, ineffective behaviors include:

- Not describing objectives, roles, or expectations.
- Being vague or misleading in describing the simulation or debriefing.
- Leaving no time or opportunity for student questions.

Establishes a “fiction contract” with participants.

The fiction contract is a joint endeavor that debriefers and students create. In it, the instructor acknowledges that the simulation cannot be *exactly* like real life but agrees to make the simulation as real as possible within resource and technology constraints. Participants agree to do their best to act as if everything were real.

Positive, effective behaviors for this dimension include:

- Explaining that the instructor and participants have to collaborate to create an engaging simulation and learning environment.
- Stating that the instructor’s obligation is to do everything to make the simulation as real as possible within resource and technology constraints.
- Asking the participants to do their part to act, as best they can, as if the simulation were real, acknowledging that a participant will likely act differently in the simulation environment than in the real clinical environment.
- Stating a fair and balanced assessment of simulator strengths and weaknesses.

Negative or ineffective behaviors include:

- Trivializing the challenges students face in “buying in” to the realism of the simulation.
- Stating or assuming that trainees should and will act the same way they would in the real clinical setting.
- Insinuating or stating that it’s the student’s fault if the simulation doesn’t seem real to them.

Attends to logistical details.

Although it may seem secondary, informing participants about logistical details and providing a physically comfortable environment helps them focus on learning.

Positive, effective behaviors for this dimension include:

- Making sure that the learning space or conference room is clean. When available, chairs, tables, white board, video, simulation devices, or other educational materials are orderly, clean, and ready when the participants arrive.
- Briefing participants on where the simulation will take place and how long it may last.
- Letting participants know about the availability of food and drink, transportation or logistical considerations, locations of bathrooms, etc.
- Informing participants about when and where the simulated case, procedure, or event is likely to be debriefed.

Negative or ineffective behaviors include:

- Not orienting participants to course logistics and the physical environment.
- Ignoring or making light of trainees’ concerns about timing, location, or physical needs.
- Failing to address individuals’ potential challenges related to their particular physical circumstances (e.g., do they use a wheelchair or other device, do they have a latex allergy etc.)

Conveys a commitment to respecting learners and understanding their perspective.

Participants often worry that simulations are designed to expose their weaknesses or to humiliate them. To counter these notions,

instructors should offer a clear alternative approach by conveying that they assume the trainee has good intentions and are trying to do their best but will likely make mistakes along the way – which is perfectly all right because this is a good place to talk about improving our practice.

Positive or effective behaviors in this dimension include:

- Stating something like, “Mistakes are puzzles to be solved, not crimes to be punished.”
- Stating that he or she understands that trainees are trying to accomplish something positive, even when they make mistakes.
- Expressing some kind of “basic assumption” that trainees are intelligent, well-trained, and are trying to do their best to learn and improve.

Negative, ineffective behaviors include:

- Teasing, belittling, or ignoring participants’ expressions of anxiety.
- Stating or implying that poor performance by trainees in the simulation will be held against them.
- Making demeaning comments about a student’s competency.
- Saying things that undermine a student’s aspiration to be a capable health care provider.

ELEMENT 2

Maintains an engaging learning environment

This Element clearly overlaps Element #1 and encompasses how well the debriefer maintains a good learning environment. At the beginning of the debriefing, especially if it is the first of the day, and throughout the debriefing, the instructor should help trainees stay clear about what is expected of them. The instructor should ensure that students feel confident that the environment is safe for sharing thoughts and feelings—that is, that they won't be shamed or humiliated—and that the focus is on learning, not on "catching" people in a mistake.

Element 2 Dimensions

Clarifies debriefing objectives, roles, and expectations.

Debriefings flow better and participants engage more when they understand the point of what they are doing, their role, the instructors' roles, and what is expected of them.

Positive, effective behaviors include:

- Stating topic areas that will be covered (e.g. "I'd like to discuss how to identify arrhythmias.")
- Stating expectations for participants' role in debriefing.
- Requesting that participants engage in discussions and attempt to be self-reflective.
- Explicitly describing the debriefer's own role: to facilitate discussion; to comment on performance based on having observed similar simulations; to act as a resource on own area of

expertise (e.g., PALS, ACLS, CRM, teamwork, clinical); to ensure that the training objectives are met.

Negative, ineffective behaviors include:

- Saying nothing about the roles of debriefer or participants.
- Leaving debriefing objectives vague or unstated.
- Allowing no time for questions or comments from students.
- Not adjusting to verbal or non-verbal cues from participants that indicate they are confused about goals.

Helps participants engage in a limited-realism context.

Participants often don't appreciate (or resent) the constraints of simulation realism until they have been through a specific simulation. They want to perform well and often feel badly when they don't. If they feel tricked or frustrated by the simulation technology or worry they won't be seen as competent, they will complain. Sometimes they are simply frustrated when limited realism confounds their problem-solving process. Debriefers can help trainees address these issues by acknowledging the legitimacy of their complaints, yet keeping the debriefing focused on the learning objectives, not the equipment. Instructors model the seriousness and realism of scenarios or procedural simulations by treating them, when appropriate, as "cases" and treating mannequins, standardized/actor patients, and other actors in the scenario as though they were people with integrity and real motivations. For example, if an actor playing another clinician is angry and yelling, the debriefer would help participants think about exploring the character's legitimate concern.

Positive, effective behaviors include:

- Stating that the physical properties of the simulator are different from the real world.

- Stating that the participants likely act differently in the simulated environment.
- Stating or demonstrating that despite simulation limitations, there are still useful things to discuss (e.g., by comparing events and situations to real life).
- Acknowledging a participant's issues or complaints by paraphrasing and accepting them. (E.g., "You were frustrated with the breath sounds. Yes, they are not great.")
- After validating participants' experience, directing discussion to fruitful areas. (E.g., "True, breath sounds can be difficult to discern on the mannequin so I sympathize with that. I wonder has anyone ever had trouble diagnosing breath sounds in real life and what that's like for you?")
- Acknowledging that there's a certain awkwardness in "pretending."

Negative, ineffective behaviors include:

- Arguing with trainee about realism.
- Denying the legitimacy of participants' complaints.
- Showing resentment that participants did not fully engage in the simulation.
- Laughing at or belittling the technology or actors in the simulation.
- Making students feel foolish for entering fully into the fiction of the case, procedure, or event.

Conveys respect for learners and concern for their psychological safety.

Conveying respect and positive regard for participants helps create a context conducive to the conversational probing needed for a good debriefing. Instructors generate a favorable

environment when they treat participants as respected team members within a given profession. Communicating such respect can go hand in hand with pointed critiques of a participant's performance. It does not require hiding one's judgments. It *does* require asking questions and respectfully listening to the answers.

Positive, effective behaviors include:

- Showing genuine curiosity by eliciting participants' thoughts and listening to the answers.
- Asking open-ended questions that encourage participants to explore their thinking.
- Taking notes or remembering what participants say and making connections during the debriefing about insights or explanations.
- Critiquing the behavior, not the person. (E.g., saying, "Shouting at the nurse didn't get the response you needed," instead of, "You're hot-headed, aren't you?")

Negative, ineffective behaviors include:

- Asking and answering one's own questions.
- Talking over participants' remarks.
- Demeaning participants or ridiculing their answers.
- Pursuing a line of questioning intended to make a participant look or feel stupid.
- Using mean-spirited sarcasm or irony in discussing participants' actions or thinking.

ELEMENT 3

Structures the debriefing in an organized way

While different schools of debriefing have different numbers of phases, almost all approaches advocate a logical flow that allows participants to 1) “blow off steam”—vent their immediate reactions; 2) analyze what happened and generalize or apply to their current or future practice; and 3) summarize their learning. Therefore, an effective debriefing should begin by eliciting reactions early on from participants; the middle should comprise an understanding phase that includes both analysis and generalizing to other settings; the debriefing should conclude with a summary phase.

Element 3 Dimensions

Encourages trainees to express their reactions and, if needed, orients them to what happened in the simulation, near the beginning.

This phase early in the debriefing allows for participants to express their initial emotional reactions to the simulation and, if needed, for the instructor to provide information or facilitate a conversation that clarifies the facts underlying the simulation. The instructor’s questions and responses to what a participant says can help or hinder the development of psychological safety. Inviting reactions and listening with interest helps create a sense of safety. The debriefer ascertains the participants’ understanding of the case, procedure, or event and may clarify salient facts. The participants’ comments provide hints about their concerns, and

informs the debriefer about what objectives are important to address.

Positive, effective behaviors include:

- Asking questions that invite participants to express their initial reactions to the case, procedure, or event, and allowing emotions to be expressed.
- Accepting and encouraging reactions by nodding or paraphrasing etc.
- Discussing facts and reviewing events when necessary to eliminate confusion expressed by the participant. This can also take place in analysis phase.

Negative, ineffective behaviors include:

- Ridiculing participants’ responses to the experience.
- Becoming defensive about negative reactions participants may express about the case, procedure, or event.
- Skipping over the reactions phase, which may leave the participant feeling unsettled or unsafe.

Guides an analysis of trainees’ performance during the middle of the session.

The purpose of the analysis phase is to allow participants to make sense of simulation events, address their concerns, and help participants move toward accomplishing course objectives. Instructors should attempt to elicit the thought processes and feelings that drove a participant's actions and then work with trainees to rethink or augment these underlying drivers of performance to ensure better patient care in similar situations in the future. In this phase the debriefer also helps the participant see how lessons can be generalized to other situations.

Positive, effective behaviors include:

- Asking questions that prompt the participant to discuss and reflect on what they thought, felt and what happened during the simulation.
- Listening to issues raised by the participant so that the instructor can tailor short micro lectures to address learner concerns.
- Spending appropriate time on topics of high interest for trainees while being sure to cover topics that are part of the course requirements.
- Asking questions and provoking discussion that lead participants to speculate on how lessons learned in simulation might apply in their healthcare setting—in other words, helping participants generalize from the simulation experience.

Negative, ineffective behaviors include:

- Immediately telling the participant what to DO differently next time (e.g., “Call for help immediately; don’t wait!”) without eliciting their thinking about what and why they did.
- Running through a list of teaching points per the curriculum without regard to specific incidents—positive or negative—during the case, procedure, or event from the trainees’ perspective.
- Cutting off participants’ explanations of why they pursued a certain course of action.

Collaborates with participants to summarize learning from the session, near the end.

The purpose of the summary phase is to signal the end of the debriefing, to review salient points, and to translate lessons learned from the debriefing into memorable principles that trainees can take with them to improve their practice.

Positive, effective behaviors include:

- Stating that it is time for the discussion to close, and making time for participants to summarize what they have learned.
- Asking participants a question or set of questions to help them summarize what they have learned. (E.g., “What went well? Given similar circumstances, what might you do differently next time? What lessons will you use in your practice?”)
- Summarizing important points if the participants did not cover them.
- Recommending reading or activities that participants can pursue to improve.

Negative, ineffective behaviors include:

- Ending the debriefing abruptly with no summary of main learning points (E.g., “Oh, look at the time! That’s all we’ve got time for. Have a nice day.”)
- Monopolizing the summary discussion without giving trainees a chance to contribute concluding remarks.
- Treating the debriefing as an isolated experience without stressing its connection to past and future practice.

ELEMENT 4

Provokes engaging discussions

How well does the debriefer engage the participants in interesting discussions, listen to what they say, and help them to be reflective practitioners? The purpose of debriefing is to get participants to focus on important topics and generate in-depth discussion. Debriefings should not focus on simple elicitation of knowledge and facts alone. Rather, good debriefings require participants to apply, analyze, synthesize, and evaluate information. The ultimate goal of debriefing is to encourage participants to personally reflect on their approach to clinical practice or healthcare management and to inspire improvement.

Element 4 Dimensions

Uses concrete examples and outcomes as the basis for inquiry and discussion.

Examining the visible clinical, social, or teamwork actions taken by the participant and the outcomes of the case, procedure, or event allows the debriefer and participant to work with verifiable, public data as the starting point for discussion. This could include, for example, whether the patient coded or important information was lost. From that starting point, debriefings explore the participant's personal "frames" that drove his or her actions.

Positive, effective behaviors include:

- Asking questions based on observed actions and results. "So it looked to me like it took three minutes to defibrillate the patient..."

- Using observations of behavior and interactions to launch discussion of thought processes or ways to improve action in the future. "So it looked to me like it took three minutes to defibrillate the patient. In the last debriefing, we discussed the importance of shocking the patient quickly. This makes me think there is something hard about getting this task accomplished. How do you all see it?"

Negative, ineffective behaviors include:

- Stating inferences or beliefs about trainee performance as fact (e.g., "You didn't know what the rhythm was,") without acknowledging them as inferences and thereby subjecting them to correction by participants.
- Harping on the outcome of the case, procedure, or event, particularly if poor, without breaking down the action sequence for analysis.

Reveals own reasoning and judgments.

There is a long tradition of Socratic dialogue and questioning in healthcare education. Too often this process is implemented in a way that violates both the spirit and letter of Socratic dialogue, a process in which both the teacher and student's thought processes are meant to be open to question. Instead, healthcare instructors often ask a string of questions without revealing their own thinking. The result of hiding one's own thinking is that trainees are often confused about why a question is being asked; worse, they may feel manipulated or unfairly trapped. Debriefers can avoid these problems by revealing their own reasoning or rationale for pursuing a line of questioning, and doing so in a way that is curious and respectful of the learner. Ideally, assumptions or conclusions a debriefer has made about trainee performance are communicated so that they are open for adjustment by trainees. In other words, instructors should view their own

conclusions with healthy skepticism and assume the trainee is well-intentioned and intelligent.

Positive, effective behaviors include:

- Describing one's own reasoning to make clear why the topic is important for the debriefing. E.g. "Even though chest compressions seem like a relatively simple thing to do, people often have trouble with it in the midst of a code. So, I'd like to discuss the challenges and tricks for maintaining the right rate and getting good chest recoil."
- Respectfully stating personal judgments or concerns about participant performance (good, bad, unusual, interesting, alarming, etc.) so that the participant does not have to guess why the question is being asked or feel confused about the debriefer's point of view. E.g. "I didn't see you double-check the dose of that medication. Without the double-check I worry that the patient is at more risk of getting the wrong dose. I'm wondering what was on your mind at the time?"
- Stating supporting information for the debriefer's point of view, such as personal experience, seeing others, reading, and so forth.
- Couching inferences or beliefs about trainee performance in tentative terms (e.g., instead of saying "You had no leader," saying "It looked to me like you had trouble assigning a leader in this case."), and not assuming to know what the participant was thinking at the time.

Negative, ineffective behaviors include:

- Keeping one's own concerns or reasoning hidden.
- Asking leading questions that conceal a judgment or solution in them. (E.g., "Wouldn't it have been better to call for help much earlier?")

- Framing questions so that they trap participants into displaying lack of knowledge or admitting mistakes without revealing the purpose of the question. (E.g. "When is a beta blocker like this indicated?")
- Stating one's own conclusions as truth. E.g. "You were fixated. You didn't consider anaphylaxis as a possible diagnosis."

Facilitates discussion through verbal and non-verbal techniques.

Debriefers use verbal and non-verbal techniques both consciously and unconsciously during debriefing. This element relates to using these techniques to elicit and listen to trainees' input as well as to control discussion.

Positive, effective behaviors include:

- Involving everyone; not allowing one or two people to dominate the discussion.
- Eliciting and utilizing differing viewpoints to enrich understanding of a topic. "So, Frank it sounds like you think whether or not the patient's problem was iatrogenic shouldn't influence adherence to advance directives. But Elena, you think it should be taken into account. Help me understand the thinking behind your positions?"
- Drawing in people who are quiet by asking them substantive questions about the scenario. E.g. "Ravi, I saw you reviewing the patient's record, what kinds of things caught your attention?"
- Listening carefully to participant remarks without interrupting.
- Using body language such as head nods, eye contact, posture, proximity and distance, standing or sitting, and facial expression to pose a challenge, or help show interest, kindness, or power, but all in the service of a productive discussion.
- Allowing silence to give the participant time to think about questions.
- Paraphrasing, or verbally mirroring what trainees say.

Negative, ineffective behaviors include:

- Grimacing, rolling the eyes, tapping fingers, looking bored.
- Leaving no silent time so participants can speak up.
- Muttering under one's breath.
- Interrupting or cutting trainees off repeatedly.
- Allowing some participants to dominate discussion or "playing favorites" by showing more interest in them.
- Consistently allowing some trainees to be shut out of the conversation.

Uses video, replay, and review devices (if available).

Video or other replay and review devices are an effective educational technique and can be used to help participants see their actions as they relate to key objectives of the debriefing.

Positive, effective behaviors include:

- Showing one or a few well-chosen short segments to illustrate and introduce topics.
- Using replay as a springboard for discussion.
- Operating replay equipment efficiently (e.g., finding desired segments with little delay).
- Linking playback to key objectives; using replay and review devices to help make interesting points or to deepen a discussion.
- Pausing the replay if substantial discussion evolves.

Negative, ineffective behaviors include:

- Playing long pieces of video with no discussion or framing of the purpose.

- Not referring to video at all during when its use might highlight important points or resolve a conflict.
- Making fun of people's appearance or sound on camera.

Recognizes and manages the upset participant.

Skip rating this dimension if no participants appear upset.

At its best, simulation is emotionally engaging. That being the case, there are naturally times when a participant may become upset. The skilled debriefer will help the participant clear the air and help the group get back to an emotionally stable state. Even a moderately upset participant will allow for consideration of this dimension.

Positive, effective behaviors include:

- Noticing and recognizing when someone becomes upset; stating this as an observation and respectfully checking with the participant whether their observation is accurate.
- Inviting or allowing the participant to describe feelings—if the participant wishes.
- Trying a variety of techniques to re-establish equilibrium, from normalizing the behavior (e.g., if a participant is upset about her performance, putting it in the context of performance of others in similar simulations (such as saying, "We've done this scenario 40 times and almost everyone handles it the same way you did")), allowing other participants to defend or bolster a fellow participant, etc.
- Dealing openly with the root of the emotional upset.
- Guiding the discussion and timing to help the participant confront and resolve the upset, possibly by changing the pace of the discussion; distributing the conversation to others to explore their

perspective or their contribution to the troublesome issue instead of focusing exclusively on the upset participant; retreating to less emotional material but coming back to the difficult issue either within the debriefing or afterwards privately with the trainee.

Negative, ineffective behaviors include:

- Ignoring, hounding, or ostracizing an upset participant.
- Laughing at or belittling the reason for a person's being upset.
- Creating rivalries among participants over issues of disagreement.

ELEMENT 5

Identifies and explores performance gaps

In rating this Element, consider how well the debriefer describes the performance gap—that is, the difference between the actual performance and the optimal performance. Debriefings should provide participants concrete feedback about performance. Beyond identifying it, the debriefer should explore the causes of the gap. When performance is sub-optimal, the debriefer works with the participant to analyze how the trainee’s “frames” (including knowledge and attitudes) and skills led to the performance gap. If a student does well, it doesn’t mean there’s nothing to talk about: In the event that performance was good or excellent, the instructor assists the participant in identifying the knowledge, skills, and attitudes that contributed to that good performance.

Element 5 Dimensions

Provides feedback on performance.

When learning a complex skill, learners often lack a clear sense of how they are progressing—just like a person first learning to drive may have trouble determining where he is in the lane. Learners need feedback, and that usually means highlighting the gap between of where they want to be and where they are. Clear feedback—critiques—about how participant performance either falls short of, meets, or exceeds the desired performance for the simulation course is crucial for learning.

Positive, effective behaviors in this dimension include:

- Stating judgments or critiques of participants’ performance in a specific—and actionable—form . (E.g., Instead of saying, “Communication was poor,” saying, “I didn’t see you meet the patient’s eye or paraphrase what she said.”)
- Commenting on positive as well as negative performance.
- Being direct yet respectful. (E.g. “I didn’t hear you apologize to the patient for the mistake. I think this contributed to his getting angry”; e.g. “I didn’t see you double check the dose. I’m worried that increases the risk of a medication error.”)

Negative, ineffective behaviors include:

- Failing to reveal opinion or judgment when describing observations about the trainee’s performance.
- Disguising criticism by sugar-coating, camouflaging, or using the “sandwich technique” (positive statement followed by criticism followed by a positive statement).
- Asking leading questions in hopes the participant will state the performance deficit the instructor observed but does not want to say.
- Expressing judgments in a sarcastic, hurtful, insulting, or disrespectful way (e.g. “It’s no wonder the patient started screaming! What part of ‘I’m sorry’ is so hard to say?!”)

Explores the source of the performance gap.

Exploring the reason or driving force for trainees being where they are instead of where they may have been expected to be is a distinctive feature of a good debriefing. It is useful to help participants understand how their frames (such as knowledge, assumptions, beliefs, or feelings) contributed to their performance. Debriefers should help participants explore these foundations of their actions. Occasionally, it is necessary because

of time constraints or sufficient because of course objectives to focus only on correcting actions rather than helping participants explore and rethink their frames. A debriefing that focuses exclusively on actions will usually not be rated above a 4 and rarely receive a 5 on this Element.

Positive, effective behaviors include:

- Going beyond the “what” to the “why;” that is, exploring why participants took the actions they did without focusing exclusively on the do’s and don’ts of participant actions.
- Encouraging participants to reflect on what they were thinking at the time.
- Providing specific, actionable critiques. E.g. “I didn’t hear you summarize the mother’s concerns.” Or “You had your shoulders hunched near your ears—see here on the video?—I think this might have contributed to the awkwardness and fatigue you felt during that laparoscopy. Try dropping them down into the sockets next time.”
- When appropriate to the goals of the course, helping the participant explore and understand behavioral issues that contributed to a performance gap, such as communication style, planning, workload management etc.
- When appropriate to the goals of the course, helping the participant understand the kinesthetic or psychomotor issues that contributed to the performance gap, such as inadequate depth of chest compressions, or poor suturing technique during an intestinal anastomosis.
- When appropriate to the goals of the course, helping the participant understand how their clinical knowledge and assumptions or their application contributed to the performance gap, such as what were the causes of the delayed identification and treatment of an air embolism.

Negative, ineffective behaviors include:

- Focusing only on correcting actions.
- Shutting down discussion of participants’ thought processes.
- Utilizing shallow or too-abstract characterizations of behavior. (e.g. “You didn’t listen to the mom.” E.g. “You need to relax your shoulders more so you don’t get tired during a long procedure.”)
- Sneering at a trainee’s assumptions, faulty knowledge, or physical coordination.

ELEMENT 6

Helps trainees achieve or sustain good future performance

Rating this Element requires gauging how effectively the debriefer helps learners align hypothetical future performance in line with expectations or to repeat good or excellent performance.

Debriefings should assist participants in developing the knowledge, skills, and attitudes to close any gaps between the level of performance the instructor desires and what was observed. In the event that the performance was good or excellent, the instructor should identify the good behaviors or responses that made it especially successful and elicit the underlying thought processes that enabled it. Helping students become aware of what actions or frames work well helps sustain good performance. The skilled debriefer is knowledgeable in the subject area and is able to work with performance gaps revealed in the simulation to generate discussions about how to improve or maintain clinical or teamwork performance in other settings or in the future.

Element 6 Dimensions

Helps close the performance gap through discussion and teaching.

Once the basis of a performance gap is understood, it is time to help participants understand how to perform more effectively next time. The approach to closing the performance gap can be done by discussing changes in frames and actions (usually resulting in higher DASH scores for the debriefer), or just changes in actions.

Positive, effective behaviors include:

- Discussing the current case, procedure, or event to elicit—from trainees—ways to improve future performance.
- If student do not generate adequate new practices through discussion, then using a very short lecture to share knowledge, experience, or research findings that inform participants how to improve performance.
- Providing specific information or knowledge whose absence contributed to the performance gap.
- Using information a participant has shared to help arrive at new ways to think about and solve clinical or teamwork problems.
- Stressing that the main concern is patient well-being.

Negative, ineffective behaviors include:

- Not suggesting or eliciting ways to improve performance in future practice.
- Not backing up instruction with explanatory knowledge.
- Sarcastically telling trainees they should consider another career.
- Ignoring good or outstanding performance.

Demonstrates firm grasp of the subject.

Effective debriefers have expertise in the subject area. Topics in debriefings may involve issues that have to do with the clinical situation, behavior, teamwork, ethics, etc. The debriefer discusses topics knowledgeably without overstepping the boundaries of expertise.

Positive, effective behaviors include:

- Imparting knowledge that is reasoned and current.
- Encouraging correct practices and knowledgeably elaborating on underlying principles.
- Being obviously comfortable with the material being discussed and checking to make sure the participant understands.
- Informing participants when the limits of the debriefer's knowledge are reached.
- Being interested in eliciting the best knowledge rather than maintaining an appearance of knowing everything.

Negative, ineffective behaviors include:

- Providing outdated or incorrect information.
- Allowing unacceptable practices to go unaddressed.
- Not being open to learning from others, including students.

[Note: Serious oversights or egregiously wrong information imparted by the instructor is cause to rate this entire Element as a 1 even if other Dimensions within Element 6 are done well.]

Meets the important objectives of the session.

The rater must know the objectives to use this dimension.

Simulated events, procedures or other activities take place within a larger curriculum and have specific educational objectives. The debriefer meets the goals of the curriculum. If objectives are discussed other than the intended ones, the debriefer appears to make rational choices.

Positive, effective behaviors include:

- Discussing all the important educational objectives of the scenario.
- Deviating from the curriculum when there is high educational benefit or backtracking to more fundamental building blocks to meet higher level or critically important objectives.
- Discussing objectives in such a way as to demonstrate comfort and expertise with relation to the objectives.
- Checking to ensure that participants understand the principle, technique, or approach under discussion.
- If objectives are not met, talking about how or why that happened.

Negative, ineffective behaviors include:

- Allowing the conversation to meander onto topics not crucial to curriculum.
- Allowing key learning points to be missed.

Debriefing Assessment for Simulation in Healthcare (DASH) Instructor Version[©]

Directions: Please provide a self-assessment of your performance for the introduction and debriefing in this simulation-based exercise. Use the following rating scale to rate the “Behaviors” and “Elements.” Do your best to rate your **overall effectiveness for the whole Element** guided by the Behaviors that define it. If a listed Behavior is not applicable (e.g. how you handled upset people if no one got upset), just ignore it and don’t let that influence your evaluation. You may have done some things well and some things not so well within each Element. The Element rating is your **overall** impression of how well you executed that particular Element.



Element 1 assesses the introduction at the beginning of the simulation-based exercise. Elements 2 through 6 assess the debriefing.

Rating Scale

Rating	1	2	3	4	5	6	7
Descriptor	Extremely Ineffective / Detrimental	Consistently Ineffective / Very Poor	Mostly Ineffective / Poor	Somewhat Effective / Average	Mostly Effective / Good	Consistently Effective / Very Good	Extremely Effective / Outstanding

Element 1 assesses the introduction at the beginning of a simulation-based exercise.

Skip this element if you did not participate in the introduction.

Element 1 I set the stage for an engaging learning experience		Rating Element 1 _____
Behavior		Behavior Score
A. I introduced myself, described the simulation environment, what would be expected during the activity, and introduced the learning objectives, and clarified issues of confidentiality		
B. I explained the strengths and weaknesses of the simulation and what the participants could do to get the most out of simulated clinical experiences		
C. I attended to logistical details as necessary such as toilet location, food availability and schedule		
D. I stimulated the participants to share their thoughts and questions about the upcoming simulation and debriefing and reassured them that they wouldn’t be shamed or humiliated in the process		

Elements 2 through 6 assess a debriefing.

Element 2 I maintained an engaging context for learning		Rating Element 2 _____
Behavior		Behavior Score
A. I clarified the purpose of the debriefing, what was expected of the participants, and my role (as the instructor) in the debriefing		
B. I acknowledged concerns about realism and helped the participants learn even though the case(s) were simulated		
C. I showed respect towards the participants		
D. I ensured the focus was on learning and not on making people feel bad about making mistakes		
E. I empowered participants to share thoughts and emotions without fear of being shamed or humiliated		

Element 3 I structured the debriefing in an organized way		Rating Element 3 _____
Behavior		Behavior Score
A. I guided the conversation such that it progressed logically rather than jumping around from point to point		
B. Near the beginning of the debriefing, I encouraged participants to share their genuine reactions to the case(s) and I took their remarks seriously		
C. In the middle, I helped the participants analyze actions and thought processes as we reviewed the case(s)		
D. At the end of the debriefing, there was a summary phase where I helped tie observations together and relate the case(s) to ways the participants could improve their future clinical practice		

Element 4 I provoked in-depth discussions that led them to reflect on their performance		Rating Element 4 _____
Behavior		Behavior Score
A. I used concrete examples—not just abstract or generalized comments—to get participants to think about their performance		
B. My point of view was clear; I didn't force participants to guess what I was thinking		
C. I listened and made people feel heard by trying to include everyone, paraphrasing, and using non-verbal actions like eye contact and nodding etc		
D. I used video or recorded data to support analysis and learning		
E. If someone got upset during the debriefing, I was respectful and constructive in trying to help them deal with it		

Element 5 I identified what they did well or poorly – and why		Rating Element 5 _____
Behavior		Behavior Score
A. I provided concrete feedback to participants on their performance or that of the team based on accurate statements of fact and my honest point of view		
B. I helped explore what participants were thinking or trying to accomplish at key moments		

Element 6 I helped them see how to improve or how to sustain good performance		Rating Element 6 _____
Behavior		Behavior Score
A. I helped participants learn how to improve weak areas or how to repeat good performance		
B. I was knowledgeable and used that knowledge to help participants see how to perform well in the future		
C. I made sure we covered the most important topics		

Debriefing Assessment for Simulation in Healthcare (DASH) Instructor Version[©]

Directions: Please provide a self-assessment of your performance for the introduction and debriefing in this simulation-based exercise. Use the following rating scale to give a score to each of the six “Elements.” For each Element, component Behaviors are given that would indicate positive performance in that Element. Do your best to rate your **overall effectiveness for the whole Element** guided by the Behaviors that define it. If a listed Behavior is not applicable (e.g. how you handled upset people if no one got upset), just ignore it and don’t let that influence your evaluation. You may have done some things well and some things not so well within each Element. The Element rating is your **overall** impression of how well you executed that particular Element.

Element 1 assesses the introduction at the beginning of the simulation-based exercise. Elements 2 through 6 assess the debriefing.

Rating Scale

Rating	1	2	3	4	5	6	7
Descriptor	Extremely Ineffective / Detrimental	Consistently Ineffective / Very Poor	Mostly Ineffective / Poor	Somewhat Effective / Average	Mostly Effective / Good	Consistently Effective / Very Good	Extremely Effective / Outstanding

Skip this element if you did not conduct an introduction.

Element 1

Rating Element 1

I set the stage for an engaging learning experience

- I introduced myself, described the simulation environment, what would be expected during the activity, and introduced the learning objectives, and clarified issues of confidentiality
- I explained the strengths and weaknesses of the simulation and what the participants could do to get the most out of simulated clinical experiences
- I attended to logistical details as necessary such as toilet location, food availability and schedule
- I stimulated the participants to share their thoughts and questions about the upcoming simulation and debriefing and reassured them that they wouldn’t be shamed or humiliated in the process

Element 2

Rating Element 2

I maintained an engaging context for learning

- I clarified the purpose of the debriefing, what was expected of the participants, and my role (as the instructor) in the debriefing
- I acknowledged concerns about realism and helped the participants learn even though the case(s) were simulated
- I showed respect towards the participants
- I ensured the focus was on learning and not on making people feel bad about making mistakes
- I empowered participants to share thoughts and emotions without fear of being shamed or humiliated

Element 3**Rating Element 3****I structured the debriefing in an organized way**

- I guided the conversation such that it progressed logically rather than jumping around from point to point
- Near the beginning of the debriefing, I encouraged participants to share their genuine reactions to the case(s) and I took their remarks seriously
- In the middle, I helped the participants analyze actions and thought processes as we reviewed the case(s)
- At the end of the debriefing, there was a summary phase where I helped tie observations together and relate the case(s) to ways the participants could improve their future clinical practice

Element 4**Rating Element 4****I provoked in-depth discussions that led them to reflect on their performance**

- I used concrete examples—not just abstract or generalized comments—to get participants to think about their performance
- My point of view was clear; I didn't force participants to guess what I was thinking
- I listened and made people feel heard by trying to include everyone, paraphrasing, and using non-verbal actions like eye contact and nodding etc
- I used video or recorded data to support analysis and learning
- If someone got upset during the debriefing, I was respectful and constructive in trying to help them deal with it

Element 5**Rating Element 5****I identified what they did well or poorly – and why**

- I provided concrete feedback to participants on their performance or that of the team based on accurate statements of fact and my honest point of view
- I helped explore what participants were thinking or trying to accomplish at key moments

Element 6**Rating Element 6****I helped them see how to improve or how to sustain good performance**

- I helped participants learn how to improve weak areas or how to repeat good performance
- I was knowledgeable and used that knowledge to help participants see how to perform well in the future
- I made sure we covered the most important topics

Debriefing Assessment for Simulation in Healthcare (DASH)[®] Score Sheet

Directions: Rate the quality of the debriefing using the following effectiveness scale on six Elements. Element 1 allows you to rate the introduction to the simulation course and will not be rated if you do not observe the introduction. The Elements encompass Dimensions and Behaviors pertinent to the debriefing as defined in the DASH Rater's Handbook. Within each Element, the debriefing may range from outstanding to detrimental. Please note that the overall Element score is *not* derived by averaging scores for individual Dimensions or Behaviors. Think holistically and not arithmetically as you consider the cumulative impact of the Dimensions, which may not bear equal weight. You, the rater, weight dimensions as you see fit based on **your holistic view of the Element**. If a Dimension is impossible to assess (e.g., how well an upset participant is handled during a debriefing if no one got upset), skip it and don't let that influence your evaluation.

Rating Scale

Rating	1	2	3	4	5	6	7
Descriptor	Extremely Ineffective / Detrimental	Consistently Ineffective / Very Poor	Mostly Ineffective / Poor	Somewhat Effective / Average	Mostly Effective / Good	Consistently Effective / Very Good	Extremely Effective / Outstanding

Element 1 assesses the introduction at the beginning of a simulation-based exercise.

(This element should be skipped if the rater did not observe the introduction to the course.)

Element 1 Establishes an engaging learning environment.	Element 1 Rating:
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- Clarifies course objectives, environment, confidentiality, roles, and expectations.
- Establishes a "fiction contract" with participants.
- Attends to logistical details.
- Conveys a commitment to respecting learners and understanding their perspective.

Elements 2 through 6 assess a debriefing.

Element 2 Maintains an engaging learning environment.	Element 2 Rating:
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- Clarifies debriefing objectives, roles, and expectations.
- Helps participants engage in a limited-realism context.
- Conveys respect for learners and concern for their psychological safety.

Element 3**Structures the debriefing in an organized way.****Element 3 Rating:**

- Encourages trainees to express their reactions and, if needed, orients them to what happened in the simulation, near the beginning.
- Guides analysis of the trainees' performance during the middle of the session.
- Collaborates with participants to summarize learning from the session near the end.

Element 4**Provokes engaging discussion.****Element 4 Rating:**

- Uses concrete examples and outcomes as the basis for inquiry and discussion.
- Reveals own reasoning and judgments.
- Facilitates discussion through verbal and non-verbal techniques.
- Uses video, replay, and review devices (if available).
- Recognizes and manages the upset participant.

Element 5**Identifies and explores performance gaps.****Element 5 Rating:**

- Provides feedback on performance.
- Explores the source of the performance gap.

Element 6**Helps trainees achieve or sustain good future performance.****Element 6 Rating:**

- Helps close the performance gap through discussion and teaching.
- Demonstrates firm grasp of the subject.
- Meets the important objectives of the session.

Debriefing Assessment for Simulation in Healthcare (DASH) Student Version[©]

Directions: Please summarize your impression of the introduction and debriefing in this simulation-based exercise. Use the following scale to rate the “Behaviors” and the six “Elements.” If a listed behavior is impossible to assess (e.g., how the instructor handled upset people if no one got upset), leave it blank and don’t let that influence your evaluation. The instructor may do some things well and some things not so well within each Element. Do your best to rate the **overall effectiveness for the whole Element** guided by your observation of the Behaviors that define it. The overall Element rating is not an average of the Behavior Scores; it’s your overall impression of how well the Element was executed by the instructor.



Rating Scale

Rating	1	2	3	4	5	6	7
Descriptor	Extremely Ineffective / Detrimental	Consistently Ineffective / Very Poor	Mostly Ineffective / Poor	Somewhat Effective / Average	Mostly Effective / Good	Consistently Effective / Very Good	Extremely Effective / Outstanding

Element 1 assesses the introduction at the beginning of a simulation-based exercise.

Skip this element if you did not participate in the introduction.

If there was no introduction and you felt one was needed to orient you, your rating should reflect this.

Element 1 The instructor set the stage for an engaging learning experience.	Rating Element 1 _____
Behavior	Behavior Score
A. The instructor introduced him/herself, described the simulation environment, what would be expected during the activity, and introduced the learning objectives.	
B. The instructor explained the strengths and weaknesses of the simulation and what I could do to get the most out of simulated clinical experiences.	
C. The instructor attended to logistical details as necessary such as toilet location, food availability, and schedule.	
D. The instructor made me feel stimulated to share my thoughts and questions about the upcoming simulation and debriefing and reassured me that I wouldn’t be shamed or humiliated in the process..	

Elements 2 through 6 assess a debriefing.

Element 2 The instructor maintained an engaging context for learning.	Rating Element 2 _____
Behavior	Behavior Score
A. The instructor clarified the purpose of the debriefing, what was expected of me, and the instructor’s role in the debriefing.	
B. The instructor acknowledged concerns about realism and helped me learn even though the case(s) were simulated.	
C. I felt that the instructor respected participants.	
D. The focus was on learning and not on making people feel bad about making mistakes.	
E. Participants could share thoughts and emotions without fear of being shamed or humiliated.	

Element 3		Rating Element 3
The instructor structured the debriefing in an organized way.		_____
Behavior	Behavior Score	
A. The conversation progressed logically rather than jumping around from point to point.		
B. Near the beginning of the debriefing, I was encouraged to share my genuine reactions to the case(s) and the instructor seemed to take my remarks seriously.		
C. In the middle, the instructor helped me analyze actions and thought processes as we reviewed the case(s).		
D. At the end of the debriefing, there was a summary phase where the instructor helped tie observations together and relate the case(s) to ways I can improve my future clinical practice.		

Element 4 The instructor provoked in-depth discussions that led me to reflect on my performance.		Rating Element 4

Behavior	Behavior Score	
A. The instructor used concrete examples—not just abstract or generalized comments—to get me to think about my performance.		
B. The instructor's point of view was clear; I didn't have to guess what the instructor was thinking.		
C. The instructor listened and made people feel heard by trying to include everyone, paraphrasing, and using non verbal actions like eye contact and nodding, etc.		
D. The instructor used video or recorded data to support analysis and learning.		
E. If someone got upset during the debriefing, the instructor was respectful and constructive in trying to help them deal with it.		

Element 5 The instructor identified what I did well or poorly—and why.		Rating Element 5

Behavior	Behavior Score	
A. I received concrete feedback on my performance or that of my team based on the instructor's honest and accurate view.		
B. The instructor helped explore what I was thinking or trying to accomplish at key moments.		

Element 6 The instructor helped me see how to improve or how to sustain good performance		Rating Element 6

Behavior	Behavior Score	
A. The instructor helped me learn how to improve weak areas or how to repeat good performance.		
B. The instructor was knowledgeable and used that knowledge to help me see how to perform well in the future.		
C. The instructor made sure we covered important topics.		

Debriefing Assessment for Simulation in Healthcare (DASH) Student Version[®]

Directions: Please summarize your impression of the introduction and debriefing in this simulation-based exercise. Use the following scale to rate each of six “Elements.” Each Element comprises specific instructor behaviors, described below. If a listed behavior is impossible to assess (e.g., how the instructor(s) handled upset people if no one got upset), don’t let that influence your evaluation. The instructor(s) may do some things well and some things not so well within each Element. Do your best to rate the **overall effectiveness for the whole Element** guided by your observation of the individual behaviors that define it.

Rating Scale

Rating	1	2	3	4	5	6	7
Descriptor	Extremely Ineffective / Detrimental	Consistently Ineffective / Very Poor	Mostly Ineffective / Poor	Somewhat Effective / Average	Mostly Effective / Good	Consistently Effective / Very Good	Extremely Effective / Outstanding

Element 1 assesses the introduction at the beginning of a simulation-based exercise.

Skip this element if you did not participate in the introduction.

If there was no introduction and you felt one was needed to orient you, your rating should reflect this.

Element 1

The instructor set the stage for an engaging learning experience.

Overall Rating Element 1

- The instructor introduced him/herself, described the simulation environment, what would be expected during the activity, and introduced the learning objectives.
- The instructor explained the strengths and weaknesses of the simulation and what I could do to get the most out of simulated clinical experiences.
- The instructor attended to logistical details as necessary such as toilet location, food availability, schedule.
- The instructor made me feel stimulated to share my thoughts and questions about the upcoming simulation and debriefing and reassured me that I wouldn’t be shamed or humiliated in the process.

Elements 2 through 6 assess a debriefing.

Element 2

The instructor maintained an engaging context for learning.

Overall Rating Element 2

- The instructor clarified the purpose of the debriefing, what was expected of me, and the instructor’s role in the debriefing.
- The instructor acknowledged concerns about realism and helped me learn even though the case(s) were simulated.
- I felt that the instructor respected participants.
- The focus was on learning and not on making people feel bad about making mistakes.
- Participants could share thoughts and emotions without fear of being shamed or humiliated.

Element 3 The instructor structured the debriefing in an organized way.	Overall Rating Element 3 _____
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- The conversation progressed logically rather than jumping around from point to point.
- Near the beginning of the debriefing, I was encouraged to share my genuine reactions to the case(s) and the instructor seemed to take my remarks seriously.
- In the middle, the instructor helped me analyze actions and thought processes as we reviewed the case(s).
- At the end of the debriefing, there was a summary phase where the instructor helped tie observations together and relate the case(s) to ways I can improve my future clinical practice.

Element 4 The instructor provoked in-depth discussions that led me to reflect on my performance.	Overall Rating Element 4 _____
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- The instructor used concrete examples—not just abstract or generalized comments—to get me to think about my performance.
- The instructor's point of view was clear; I didn't have to guess what the instructor was thinking.
- The instructor listened and made people feel heard by trying to include everyone, paraphrasing, and using non verbal actions like eye contact and nodding, etc.
- The instructor used video or recorded data to support analysis and learning.
- If someone got upset during the debriefing, the instructor was respectful and constructive in trying to help them deal with it.

Element 5 The instructor identified what I did well or poorly – and why.	Overall Rating Element 5 _____
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- I received concrete feedback on my performance or that of my team based on the instructor's honest and accurate view.
- The instructor helped explore what I was thinking or trying to accomplish at key moments.

Element 6 The instructor helped me see how to improve or how to sustain good performance	Overall Rating Element 6 _____
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- The instructor helped me learn how to improve weak areas or how to repeat good performance.
- The instructor was knowledgeable and used that knowledge to help me see how to perform well in the future.
- The instructor made sure we covered important topics.

Bibliography: Debriefing Assessment for Simulation in Healthcare

1. Darling M, Parry C, Moore J. Learning in the thick of it. *Harvard Business Review*. 2005;83(7):84-92.
2. Baker AC, Jensen PJ, Kolb DA. In conversation: Transforming experience into learning. *Simulation and Gaming*. 1997;Volume 28:6 - 12.
3. Lederman LC. Debriefing: Toward a systematic assessment of theory and practice. *Simulation and Gaming*. 1992;23(2):145-160.
4. Rudolph JW, Simon R, Dufresne R, L, Raemer DB. There's no such thing as a "non-judgmental" debriefing: a theory and method for debriefing with good judgment. *Simulation in Healthcare*. March, 2006 2006;1(1):49-55.
5. Kolb DA. *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall; 1984.
6. Savoldelli GL, Naik VN, Park J, et al. The value of debriefing in simulation-based education: oral versus video-assisted feedback. *Simulation in Healthcare*. 2006;1(2).
7. Fanning RM, Gaba DM. The role of debriefing in simulation-based learning. *Simulation in Healthcare*. 2007;2(2):115-125.
8. Dismukes RK, McDonnell LK, Jobe KK. Facilitating LOFT debriefings: Instructor techniques and crew participation. *International Journal of Aviation Psychology*. 2000;10:35-57.
9. Dismukes RK, Smith GM. *Facilitation and debriefing in aviation training and operations*. Aldershot, UK: Ashgate; 2001.
10. Kegan R, Lahey LL. *How The Way We Talk Can Change The Way We Work*. San Francisco: Jossey-Bass; 2001.
11. Brett-Fleegler M, Rudolph JW, Eppich WJ, Fleegler E, Cheng A, Simon RS. Debriefing Assessment for Simulation in Healthcare (DASH): Assessment of the reliability of a debriefing instrument. *Simulation in Healthcare*. 2009;4(4):240-325?
12. Jacobs RAUKD, Zedeck S. Expectations of behaviorally anchored rating scales. *Personnel Psychology*. 1980;33(3):595-640.
13. Popham JW, Husek TR. Implications of Criterion-Referenced Measurement. *Journal of Educational Measurement*. 1969;6(1):1-9.
14. Boyatzis RE. *The competent manager: A model for effective performance*. New York: Wiley-Interscience; 1989.
15. Spencer LM, Spencer SM. *Competence at Work: Models for Superior Performance*. New York: John Wiley & Sons, Inc.; 1993.
16. McClelland DC. Identifying competencies with behavioral-event interviews. *Psychological Science*. 1998;9(5):331-339.
17. Simon R, JW R, DB R. Debriefing Assessment for Simulation in Healthcare. 2009.

18. Lederman LC. Debriefing: A critical reexamination of the postexperience analytic process with implications for its effective use. *Simulation and Gaming*. 1984;15(4):415-431.
19. Hankinson H. *The cognitive and affective learning effects of debriefing after a simulation game* [Doctoral dissertation]. Indianapolis, IN: School of Education, Indiana University; 1987.
20. Rudolph JW, Simon R, Raemer DB, Eppich W. Debriefing as formative assessment: closing performance gaps in medical education. *Academic Emergency Medicine*. 2008;15(11):1110-1116.
21. Morgan PJ, Tarshis J, LeBlanc V, et al. Efficacy of high-fidelity simulation debriefing on the performance of practicing anaesthetists in simulated scenarios. *Br J Anaesth*. Oct 2009;103(4):531-537.
22. Bion WR. The psycho-analytic study of thinking. A theory of thinking. *Int J Psychoanal*. Jul-Oct 1962;43:306-310.
23. Modell AH. "The Holding Environment" and the therapeutic action of psychoanalysis. *J Am Psychoanal Assoc*. 1976;24(2):285-307.
24. Winnicott DW. Metapsychological and clinical aspects of regression within the psycho-analytical set-up. *Int J Psychoanal*. Jan-Feb 1955;36(1):16-26.
25. Bion WR. *Learning from Experience*. 7th ed. London: Karnac; 2005 [1962].
26. Edmondson A. Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*. 1999;44:350-383.
27. Argyris C, Putnam R, Smith DM. *Action Science: Concepts, Methods and Skills for Research and Intervention*. San Francisco: Jossey-Bass; 1985.
28. Zhao N. Learning from errors: The role of context, emotion, and personality. *Journal of Organizational Behavior*. 2010;31(/):???
29. Fisher S. *Stress and Strategy*. London: Lawrence Erlbaum Associates; 1986.
30. Blascovich J, Mendes WB, Hunter SB, Salomon K. Social 'facilitation' as challenge and threat. *Journal of Personality and Social Psychology*. 1999;77(1):68-77.
31. Cottrell NB, Wack DL, Sekerak GJ, Rittle RH. Social facilitation of dominant responses by presence of others. *Journal of Personality and Social Psychology*. 1968;9: 245-250.
32. Zajonc RB. Social Facilitation. *Science*. 1968;149:269-274.
33. Pratt MG, Rockmann KW, Kaufmann JB. Constructing Professional Identity: The Role of Work and Identity Learning Cycles In The Customization of Identity among Medical Residents. *Academy of Management Journal*. 2006;49(2):235-262.
34. Miller S. Why having control reduces stress: If I can stop the roller coaster, I don't want to get off. In: Garber J, Seligman M, eds. *Human helplessness: Theory and applications*. New York: Academic Press; 1980:71-95.
35. Issenberg BS, McGaghie WM, Petrusa ER, Gordon DL, Scalese RJ. Features and uses of high-fidelity medical simulation that lead to effective learning: a BEME systematic review. *Medical Teacher*. 2005;27(1):10-28.
36. McDonnell LK, Jobe KK, Dismukes RK. *Facilitating LOS Debriefings: A Training Manual*: NASA;1997. DOT/FAA/AR-97/6.

37. Boyatzis RE, Smith ML, Blaize N. Developing Sustainable Leaders Through Coaching and Compassion. *Academy of Management Learning & Education*, . 2006;5(1):8-24.
38. Fredrickson BL. The role of positive emotions in positive psychology. *American Psychologist*. 2001;56(3):218-226.
39. Dieckmann P, Gaba D, Rall M. Deepening the theoretical foundations of patient simulation as social practice. *Simul Healthc*. Fall 2007;2(3):183-193.
40. Rudolph JW, Simon R, Raemer DB. Which Reality Matters? Questions on the Road to High Engagement in Healthcare Simulation. *Simulation in Healthcare*. 2007;2(3):161-163.
41. Rousseau DM. *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks: Sage Publications; 1995.
42. Eco U. *Six Walks in the Fictional Woods*. Cambridge, MA: Harvard University Press; 1994.
43. Miner JB. *Organizational Behavior I: Essential Theories of Motivation and Leadership*. Armonk, New York: M.E. Sharpe; 2005.
44. Morecroft JDW. Rationality in the Analysis of Behavioral Simulation Models. *Management Science*. 1985;31, No. 7 (Jul., 1985), pp.(7): 900-916.
45. Dismukes RK, Jobe KK, McDonnell LK. LOFT Debriefings: An analysis of instructor techniques and crew participation Moffett Field, CA: NASA Ames Research Center US National Aeronautics and Space Administration (NASA); 1997
46. Bateson G. *Steps to an ecology of mind*. New York: Ballantine Books; 1972.
47. Bowen M. *Family Therapy in Clinical Practice*. Northvale, NJ: Jason Aronson; 1994.
48. Satir V. *Conjoint family therapy*. 3rd ed. Palo Alto, CA: Science and Behavior Books; 1983.
49. Foldy EG, Rivard P, Buckley TR. Power, safety and learning in racially diverse groups. *Academy of Management Learning and Education*. 2009;8(1):25-41.
50. Stone D, Patton B, Heen S. *Difficult Conversations*. New York: Penguin Books; 1999.
51. Seo M-G, Barrett LF, Bartunek JM. THE ROLE OF AFFECTIVE EXPERIENCE IN WORK MOTIVATION. *Academy of Management Review*. 2004;29(3):423-439.
52. Carroll JS, Rudolph JW, Hatakenaka S. Learning from experience in high-hazard industries. *Research in Organizational Behavior*. 2002;24:87-137.
53. Ibarra H. Provisional selves: Experimenting with image and identity in professional adaptation *Administrative Science Quarterly*. 1999;44(4):764-791.
54. Bosk C. *Forgive and remember: Managing medical failure*. Chicago: University of Chicago Press; 1979.
55. Pryor J, Crossouard B. A socio-cultural theorisation of formative assessment. *Oxford Review of Education*. Feb 2008;34(1):1-20.
56. Raelin J. Public reflection as the basis of learning. *Management Learning*. 2001;32:11-30.

57. Tucker A, Edmondson A. Why hospitals don't learn from failures: Organizational and psychological dynamics that inhibit system change. *California Management Review*. 2003;45(2):55-72.
58. Finkel DL. *Teaching with Your Mouth Shut*. Portsmouth, NH USA: Boynton/Cook Publishers Inc.; 2000.
59. Regehr G, MacRae H, Reznick RK, Szalay D. Comparing the psychometric properties of checklists and global rating scales for assessing performance on an OSCE-format examination. *Acad Med*. Sep 1998;73(9):993-997.
60. Martin JA, Regehr G, Reznick R, et al. Objective structured assessment of technical skill (OSATS) for surgical residents. *British Journal of Surgery*. 1997;84(2):273-278.
61. Swartz MH, Colliver JA, Bardes CL, Charon R, Fried ED, Moroff S. Global ratings of videotaped performance versus global ratings of actions recorded on checklists: a criterion for performance assessment with standardized patients. *Academic Medicine*. 1999;74(9):1028-1032.