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# Setting Conditions for Productive Debriefing

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## Abstract

*Background.* **Debriefing** is a fundamental step in **simulation**, particularly in the medical field. **Simulation** sometimes even serves as a pretext for **debriefing**. Most often, **debriefing** takes place easily, producing a qualitative **feedback** and an optimal learning transfer. But sometimes, the facilitator faces difficulties. An unproductive **debriefing** can be described as follows: the **debriefing** of a clinical **simulation** session is unproductive when facilitators or learners perceive the occurrence of an obstacle that has hindered the **learning process.**

*Objectives & method.* Considering the difficulties encountered in this type of **debriefing**, we believe it is necessary to investigate the topic in depth in order to bring out some theoretical principles. Based on a Nominal Group Technique involving the authors of this article, this project aimed at drawing up and proposing informed **recommendations** for ensuring **productive debriefing** in simulation-based **education** in **healthcare**.

*Results.* The authors make the following **recommendations**:

1. Reflect on your own performances as an **instructor** (asking for feedback from the learners and peers, and being appropriately trained as an **instructor** who can facilitate learning)

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2. Establish **simulation** ground rules (preparing and briefing the learners before the **simulation** experience, controlling the timing of the **simulation** session and the quality of the **scenarios**)
3. Manage unexpected events and intended learning objectives by using a **confederate** during scenarios.
4. Respect the steps of the **debriefing** process and good practice **recommendations** regarding learning psychology.
5. Maintain the balance between emotion and teaching by **decontextualizing** the experience from the participants during the debriefing.
6. Manage the input from the peers during the debriefing so they do not antagonise **the learning process.**

*Conclusion.* Six key **recommendations** are proposed. They have been deemed as core skills required of every **simulation** facilitator to prepare for **productive debriefing** and so the set learning objectives of a **simulation** session can be achieved successfully.

**Keywords**
confederate, productive debriefing, decontextualizing, education, feedback, healthcare, instructor, learning process, preventing, recommendations, scenarios, simulation

A simulation session in healthcare includes various important parts (Fanning & Gaba, 2007): pre-briefing (learners and environment presentation), briefing (introduction of the scenario to set the context), the actual simulation, and the debriefing of the learners' simulation experience. The debriefing process is an essential element of a successful educational session making use of simulation (Fanning & Gaba, 2007; McGaghie, Issenberg, Petrusa, & Scalese, 2010). The key points of debriefing are: first, obtaining buy-in from learners concerning the simulation learning experience; second, acknowledging performance gaps; and third, protecting the learners.

In this article a debriefing will be defined as *unproductive* when facilitators or learners perceive during the debriefing the occurrence of an obstacle that is hindering the learning process. The reasons for the problem can be diverse and multiple. They can be related to the learner(s), the facilitator(s), the environment, or the process of the briefing, simulation, and debriefing sessions (Steinert, 2013). It also may be due to perceived self failure during the experience caused by a misunderstanding of the situation or perceived deception on the part of the peers, or between the learners being debriefed and the facilitators, potentially creating a conflict (Raemer et al., 2011). Learners may become disengaged, or on the contrary take over the debriefing process and diverge from the review of learning points. It is sometimes possible to pre-empt an unproductive debriefing, especially if the learners are known to be *challenging* or if the experience does not occur as anticipated (Dyregrov, 1997). In the

context of simulation-based learning, this could be due to a technical fault, to learners misinterpreting a critical aspect of the scenario, or if an important intended learning objective does not emerge as expected during the course of a scenario. In reviewing the existing literature, we found no recommendation regarding this type of debriefing in the medical field. In this context, we found it important to propose a theoretical approach based on the experience of expert instructors to set best conditions for a productive debriefing.

## Objectives and Method

In this perspective, we have been compiling the various experiences of expert simulation instructors and we tried to deliver a synthetic overview of the key insights we could gather from these experts' feedbacks while setting up and prioritizing theoretical principles. In this respect, the authors, consisting of six highly experienced international simulation instructors in clinical simulation, used the Nominal Group Technique to determine key recommendations of a productive debriefing based on their experience and validated literature. We have expertise both in simulation-based education and healthcare, and a mixture of clinical and academic backgrounds. We have worked in a learning facilitation capacity in a hospital or university-based clinical simulation centre for a minimum 10 years. We were asked to determine recommendations for ensuring good debriefing using their experience. We each put forward, independently, our own key recommendations: 12 by author. The 72 key recommendations were analysed and debated on between experts, and a consensus was reached to propose a final list of six most cited and most relevant recommendations in simulation-based healthcare education.

## Results

The chosen recommendations to ensure good debriefing are described below. For an unproductive debriefing to occur, the holes need to align for each step in the simulation process allowing all defenses (6 keys) to be defeated and resulting in an unproductive debriefing (Figure 1).

1. Reflect on their own performances as an instructor

This entails asking for feedback from the learners and peers and being appropriately trained as a facilitator. Instructors in simulation-based education are *teachers* who use a particular teaching methodology with various types of simulation modalities and technologies. It is therefore essential that they acquire and master skills relevant to both *educators* or *teachers* and *simulation experts*. When developing and implementing simulation-based education, instructors will have to fulfil the multiples roles of a teacher as described by Harden and Crosby (2000): *information provider, role model, facilitator, assessor, planner*, and *resource developer*, but also *psychologist* to some degree. Managing difficulties encountered during the debriefing is a good example of

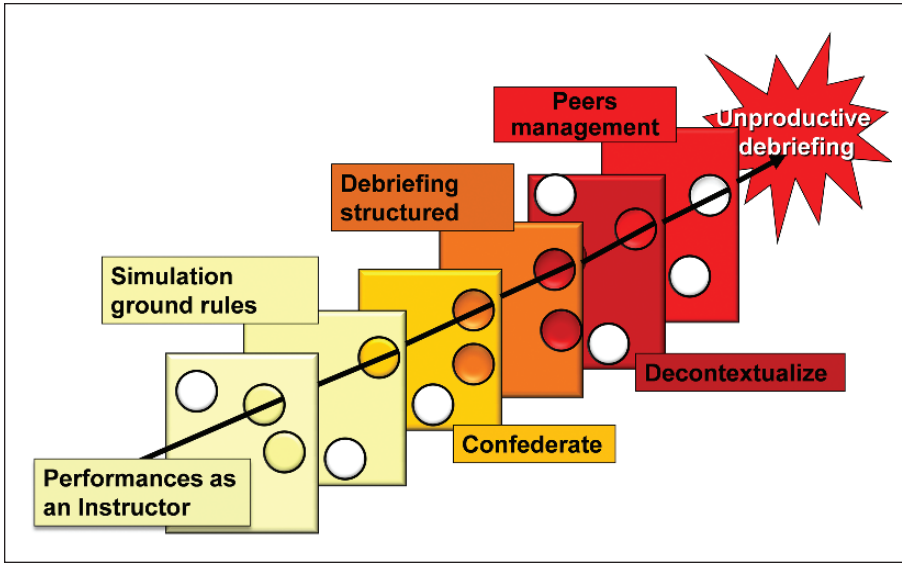


**Figure 1.** Keys for a productive debriefing*.
*adapted from "Swiss Cheese" Model – James Reason (1990).

such specific skills. Because these difficulties can have multiple origins embedded in the nature of simulation-based education, it is not surprising that formal training is necessary in order to anticipate and deal effectively with potential challenges and difficulties. This expertise should be acquired through specific faculty development programs and formal education dedicated to simulation training. Many simulation instructor courses have been developed throughout the world (Issenberg, 2006) and while these training courses have clearly elevated the level of expertise of the simulation community the current challenge is to better define the fundamental instructor competencies in order to promote best practice in the field (Navedo & Simon, 2013). Obtaining anonymous feedback from the learners and peers about the simulation session is also a good practice that can enhance the continuous development of the instructors. With the required consent from the people involved, videos of simulation sessions or debriefing can be used by the instructors to help them reflect on their practice and their interactions with learners (French National Authority for Health, 2012). After a simulation session, it would also be an opportune time for mutual feedback to be shared among instructors, also by using *Debriefing Assessment for Simulation in Healthcare* (DASH) (Simon, Raemer, & Rudolph, 2009). Such process encourages every member of the simulation team to reflect on their contribution to the session and the effectiveness of their interactions with learners to improve the quality of simulation-based educational activities.

2. Establish simulation ground rules

This entails preparing the learners before the simulation experience through a pre-briefing, and controlling the timing of the simulation session and the quality of the scenarios. What happens during the session involves the learners with whom additional ground rules need to be established at the beginning of the simulation session. Ground rules need to be considered in the same way as a learning contract in the sense that it informs every one of mutual expectations of the learning experience. Instructors must be cognizant of the potential fears and apprehensions (justified or not) that the learners might feel regarding their participation in simulation-based education (Savoldelli, Naik, Hamstra, & Morgan, 2005). In addition, instructors should know that learners might become defensive if they perceive a discrepancy between their educational expectations and their training experiences (Szyld & Rudolph, 2013). Generic simulation ground rules usually include the need to respect one another, confidentiality (non-disclosure of scenarios and wrongdoings of peers), learners' engagement in the scenarios, and acceptance of the limitations of the simulated event, of the environment, and of the simulation technology used. The orientation or familiarisation period of the pre-briefing should also help learners relax and familiarise themselves with the environment, the patient simulator, and the simulation principles (Alinier, Hunt, & Gordon, 2004; Alinier, Hunt, Gordon, & Harwood, 2006; McCausland, Curran, & Cataldi, 2004). The latter is of utterly importance if it is their first simulation exposure (Hawkins, Todd, & Manz, 2008) and may help build a rapport between the learners and the instructors. During this preparatory phase, the advantages and the limitations of the simulated environment and technology used should also be acknowledged and clarified. The participants should be instructed to behave like in "real life" to do "as if" everything is real. On the other hand the instructors should explicitly mention that they will do their best to make the simulation as real as possible where required. Rudolph, Simon, and Raemer (2007) referred to this educational agreement as "the fiction contract" (p.162) which contributes to the creation of an effective learning environment and clarifies the limitations of the simulation from a realism or fidelity point of view (Kyaw Tun, Alinier, Tang, & Kneebone, in press). The overarching goal of the pre-briefing is to create a safe and engaging learning environment, to clarify expectations, and to preserve the psychological safety of the learners (Simon et al., 2009).

Timing is fundamental during a simulation session because it will ensure all planned learning objectives during the course of the simulation session can be addressed. Many factors affect time during a simulation session: the number of learners (ideally 5 to 15, depending if it is a uni- or multi-professional session and on the duration of the session), the number of scenarios (ideally between 5 and 7 for a whole day), the debriefing approach (whether video review is used or not, or if any teaching elements are delivered between scenarios), and also the number of learning objectives. Although a scenario and debriefing cycle has no ideal duration, we propose a medium time of 45 minutes for a medical simulation session concerning a specific caretaking simulation (cardiac arrest, respiratory distress…).

The quality of the scenarios must also be controlled: scenarios must be adapted to learning objectives and specifically to learners. Initial simulation room configuration, situation, background, assessment of the patient must be detailed in the script (Alinier, 2011). The evolution of the "patient's" health (whether it is a simulated patient or a patient simulator) must be written step by step. A good scenario will spontaneously help the facilitation of the debriefing address the learning objectives. Scenarios must be tested and retested, trying to get rid of unnecessary events whilst ensuring scenarios remain realistic. The reliability of a scenario in addressing learning objectives can be enhanced through adequate preparation and anticipation of learners' actions. To that effect "life savers" can be custom prepared for each scenario and used to prevent learners going totally away from the intended learning objectives (Dieckmann, Lippert, Glavin, & Rall, 2010). Some themes will lead to more unproductive debriefings: death for example will increase emotional impact and can sometimes be felt by the learners as a sanction by the educator (Corvetto & Taekman, 2013). Interprofessional education or scenarios involving learners from varying levels of seniority will increase interactions between learners and potentially create conflicts. In this case, it will be necessary to control the learners' interventions, to correctly allocate the speaking time between participants and to remind the session's rules.

3. Manage unexpected events and intended learning objectives by using a confederate during scenarios

Simulation-based training often presents inherent dilemma: duration of a scenario and learning objectives that are expected be addressed versus allowing participants to totally wonder away from the core scenario and losing the opportunity to demonstrate the key leaning outcomes. Complex clinical situations sometimes have long learning horizons (hours, days, even more…) before the consequences of previous actions and decisions can be experienced. In a simulated context, for educational time-framing, learning episodes need to be shorter in duration. Simulation accelerates the learning process associated with the analysis of complex problems. Equally important, it enables the observation of managerial and interpersonal behaviours required to act (lead or perform) successfully in a complex environment (Musselwhite, Kennedy, & Probst, 2010). The need for facilitation during a simulation session lies in these dilemma (simulation time is sometimes shortened compared to reality); there might be a need for someone to help or direct trainees to solve a complex situation in an adequate manner or to redirect the course of a scenario towards specific learning objectives over a short period of time. In that respect one needs to learn to differentiate a facilitator from a confederate. A facilitator is a person who is acceptable to all group members, substantively neutral, and has no decision-making authority who helps a group improve the way it identifies and solves problems and makes decisions (Schwartz, 2002). A confederate may also be called an *embedded actor* and will have a specific role in the simulation encounter, often unknowingly to the other scenario participants, in ensuring the particular direction of a scenario by positively, negatively or neutrally influencing the direction of a scenario (Meakim et al., 2013).

Although scenario learning objectives are pre-planned, we can never fully anticipate what might happen during a scenario due to participants' actions and behaviour, as well as their personal circumstances as the situation may act as an emotional trigger (Alinier, 2011; Oberleitner, Broussard, & Bourque, 2011). Unexpected events may deviate a learning experience from addressing planned learning objectives and this should preferably be managed in a non contentious manner.

4. Respect the steps of the debriefing process and good practice regarding learning psychology

Several approaches exist to conduct a debriefing, and their common denominator is the facilitative approach to be adopted on the part of the specifically trained instructors (Decker et al., 2013; Dismukes, Gaba, & Howard, 2006; Gardner, 2013). In order to conduct an efficient debriefing, instructors should respect different stages in this complex process and use a systemic-constructivist approach (Kriz, 2010). These stages may also be described as the exploration of Reactions, Understanding, and Summarize the lessons learned (Rudolph, Simon, Raemer, & Eppich, 2008). The descriptive part is the factual description of the simulation session by the scenario participants: get the participants to explain what happened during the scenario without commenting too extensively on it at this stage. In a second step, the analysis of the scenario is based on individual perspectives and the learning objectives (why, when, how). Finally, the learners should be directed to conclude by saying what they have learned and will apply in future events, and what their personal learning outcomes are. Respecting a structured framework while accepting some flexibility to adapt to the learners' goals (bridging teacher's objectives and learner's objectives) helps facilitate the debriefing process (Dieckmann et al., 2010; Fanning & Gaba, 2007). It is important to respect any predefined schedule with regards to the duration of the debriefing, but also maintain control as to who speaks and for how long. Many tools can help the debriefing process: paper, flip charts, video, poster, board, and electronic voting systems. All these tools should be used mindfully. For example, using video-review to target an error should not be turned into a humiliation for the participants involved (Savoldelli et al., 2006). The intervention of external people (experts, confederates, visitors …) to provide evidence-based medical references, documents, guidelines, international recommendations can be planned, especially when one participant cannot reach the acknowledgement of a performance gap.

5. Maintain the balance between emotion and teaching by decontextualizing the experience from the participants during debriefing

As an action-based educational approach, teaching using simulation engages learners in cognitive and behavioural aspects, in addition to technical or practical domains. Emotional reactions can occur during the scenario and during the debriefing : "reflective engagement in debriefing can be just as, sometimes even richer than excited engagement in the simulation/game experience" (Crookall, 2014, p. 423). When

developing emotional skills is part of the experiential learning goals, the corresponding objectives should be formulated in advance so they are triggered in a controlled manner. Emotions must be explored and expressed safely during the debriefing and respected by the entire group (feeling of inefficiency, difficulties in investing in the role play, feeling of not being listened to …). When discussing emotions with participants, we could consider adding the Pendleton rules to ensure a psychologically safe learning environment when giving feedback to students (Pendleton, Schofield, Tate, & Havelock, 1984). However, conflicts occurring during the debriefing phase can be helpful when they allow the construction of knowledge through participants' expression of different points of view. They lead to unproductive debriefing when a participant perceives that its personality and work competency are challenged by the group or the facilitator. The establishment and maintenance of an environment that engages interaction and learning is the responsibility of the facilitators - anchored on an educational contract and adapted to the needs of learners. The judgment is made on action taken during the scenario, not by an individual as such (Rudolph, Simon, & Raemer, 2007). This approach is linked to some form of decontextualization between the *characters* engaged in the scenario and the learners that now take part in the debriefing and include the scenario participants (characters).

Lived experiences are analyzed to reflect on the actions performed. However, in simulation, the context is reconstructed and the process leading to the observed actions is greater than the result itself. To explore the decision-making process, issues that relate to the analysis of the activity can be formulated this way:

> "Can you tell me how you made …?",
>
> "What was your intention when you did …?",
>
> "Also to work on discrimination or generalization helps to prepare participants for the transfer of learning",
>
> "What elements are the same or different from real life?",
>
> "What are the assumptions you made during this situation?".

Therefore, corrections by facilitators focus on the decision making process rather than observed results during the simulation. Even if exploring the individual mental frames is important from an educational point of view, decontextualizing can help the facilitators focus the students on the actions made and the corresponding results rather than on the "authors" of these actions. Indeed, sometimes students spend time to argue that real life is different. It could be considered as a mechanism of protection and to accept this maintains a respectful atmosphere so the facilitators can continue to drive them to reflect on the process. Moreover, it can also be reminded that this remains a simulation session, the objective being to train reflexes and to understand the processes underlying a specific action or question.

6. Manage the input from the peers during the debriefing process

Unexpected events may not only occur during the scenario phase, but also during the debriefing itself, which may be an emotionally sensitive phase as it may trigger unexpected reactions to comments made by peers or the facilitators if they lack tact in the comments they make or questions they ask. The adoption of a particular style of debriefing, such as the "debriefing with good judgement" may help reduce the potential occurrence of an unexpected reaction on the part of the scenario participants (Rudolph, Simon, Rivard, et al., 2007). If a conflict occurs between a scenario participant and a peer observer, for example due to the lack of respect of the established ground rules, the debriefing facilitator should interrupt the discussion and help rephrase or reframe the point being discussed in defence of the scenario participant(s) so they remain engaged in the discussion rather than close themselves and stop learning or reflecting on the situation in the scenario.

## In conclusion

In this article, we have suggested recommendations that may set best conditions for a productive debriefing and facilitate the acquisition of important skills. As difficult as the situation might be, an effective debriefing is essential to guide the learners in the reflective and learning process. Facilitating a good debriefing is never straightforward as it is a sensitive aspect of a simulation session during which learners are pushed to realise where their weaknesses are, which skills they need to develop, and also what aspects of their professional practice they have mastered appropriately. Rall, Manser, and Howard (2000), wrote that the debriefing *"can 'make or break' a simulator session and can be attributed as the 'heart and soul' of simulator training"* (p. 517). It is not something that all instructors are predisposed to do irrespective of their clinical expertise, their familiarity with the simulation technology used, and their understanding of the simulation processes. "*Identifying qualified faculty skilled in simulation use and debriefing is another significant barrier* [to the implementation of simulation training programmes]" (Okuda et al., 2009, p. 339). A simulation team is often constituted of people who excel in different areas of a simulation session. Some are great confederates, others fantastic at putting learners at ease, but in a team at least one person should have mastered the art of debriefing scenario participants. Preparing for a productive debriefing should be part of the core skills of all instructors who use simulation-based education because they are facilitators of learning.

### Author Contributions

All authors contributed to this article, both substantively and formally. Conceived and designed the manuscript: all authors. Wrote the manuscript: all authors. Wrote the final manuscript: GDS, GA. Wrote the first draft: GDS. Did the bulk of the literature search: GA, GS, DO. Made numerous critiques and suggested specific wording: GS, GA, DO. Designed most of the graphics: FL, GDS.

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