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Dieuwertje Bordat-Teeuwen, Guillaume Serres

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**Didactic analysis of the trainer's activity during a simulation session:
the question of managing the simulated activity while anticipating the debriefing**

Abstract

Background: Although the French nursing training standards have been advocating the use of simulation for nearly fifteen years, we regularly train new simulation trainers

Method: To promote the training of trainers, we analyzed the activities of five experienced trainers within the framework of professional didactics. The interviews we conducted enabled us to identify seven moments requiring complex skills. This contribution focuses on the moment when trainers seek to manage the simulated activity while simultaneously anticipating the debriefing.

Results: The aim here is to clarify the complexity of this moment by schematizing their expertise in the form of a conceptual situation structure, identifying the links between variables and indicators that enable complexity to be managed. This provisional formalization can be completed and tested in training.

Manuscript files

In 2009, France implemented its latest training guidelines for nursing students (French Ministry of Health and Sports, 2009), complemented on September 26, 2014 with a decree reinforcing the use of simulation. Following the Haute Autorité de Santé (HAS) good practice recommendations, a methodological guide was released in February 2019. However, the lack of training for simulation trainers could be an obstacle to its implementation. We wish to contribute to this perspective by uncovering action knowledge that can feed into the training of more novice trainers. To this end, we will draw on the findings of professional didactics, by highlighting the strategies deployed intuitively by healthcare trainers experienced in simulation, for training purposes.

In the course of our research, we have identified seven moments within the three stages (briefing, simulated activity and debriefing) that require particularly well-developed skills on the part of our experienced trainers. Previously, we described a moment in the briefing, when the expert trainer implements strategies to announce the risk of error while preserving the classroom climate (Bordat-Teeuwen & Serres, 2021). For this article, we have targeted a moment during the simulated activity, when trainers employ strategies to simultaneously manage the students' simulated activity while anticipating the debriefing. For ease of reading, we will refer to EACT as the student(s) in a simulated activity and EOBS as the students in an observer role.

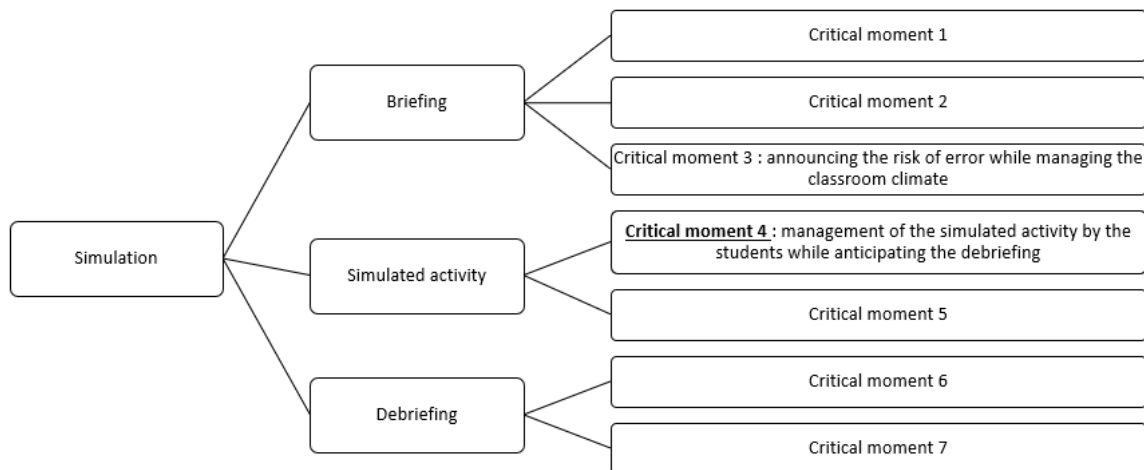


Figure 1

1 Context and problem statement

1.1 The context

Simulation is structured around three intrinsically linked stages: the briefing, the simulated activity where the trainer seeks to maintain "*learners in a problem(s) solving situation*" (Granry & Moll, 2012, p. 15) thanks to a scenario built around an objective obstacle to be achieved, and the debriefing.

With regard to the literature, the originality of this article lies in its focus on what the trainer does during the simulated activity: how they manage different objectives, which are both tricky to conduct due to their simultaneity and crucial for the quality of the debriefing to come.

1.2 Literature review

The HAS prescribes that the trainer observes and evaluates the student interacting with the simulator. However, a review of the literature shows that the activity goes well beyond these prescriptions. While the simulation situation evolves "*with its own dynamics*" (Vidal-Gomel, 2009), for Samurçay, the trainer develops a diagnosis of the nature of the problem(s) encountered by the EACT (2009). Thus, Pollard and Wild specify that the trainer specifically assesses "[the student's] *clinical judgment in real time* [and measures] *the gap between academic practices and [the student's] practice*" (2014, cited in Klenke-Borgmann, Mattson, Peterman, & Stubenrauch, 2023).

To prevent the situation from developing into a failure, the trainer can intervene as a facilitator (Granry & Moll, 2012), acting on the interpretation or processing of the task, reorienting and helping the student (Vidal-Gomel, 2009), to bring them to confront the objective obstacle.

While the trainer is fully anchored in the activity so as to be able to act at any moment, they observe, anticipate and prepare personalized feedback to the EACT by detecting skills already acquired and any inadequate behaviors illustrating the EACT's difficulties (Demaurex & Vu, 2017). These observable elements of the activity, which feed into the debriefing, are described by Vidal-Gomel as "*traces of the activity*" (2009).

At the same time as observing the EACTs, the trainer pays particular attention to the observers of the simulated activity (El Hussein & Ha, 2023), even directing their gaze (O'Regan, Molloy, Watterson, & Nestel, 2016). These EOBS thus observe "*effective actions and [consider] alternatives in the event of difficulties*", enabling them to "*enrich each other's repertoires*". (Demaurex & Vu, 2017, p. 311). Finally, the trainer must simultaneously take care of the individuality of each EOBS. To avoid missing out on elements relevant to the debriefing, the trainer tries to gather observations on their reactions, particularly those of reserved

individuals, in order to call on them appropriately during the debriefing (Dieckmann, Molin, Friis, Lippert & Østergaard, 2009).

1.3 The question

While we perceive the trainer's different objectives to be achieved simultaneously, the question posed here is to know concretely: how trainers manage to focus on the activity in the here and now, while simultaneously projecting themselves into the debriefing, and managing both the individual and the group.

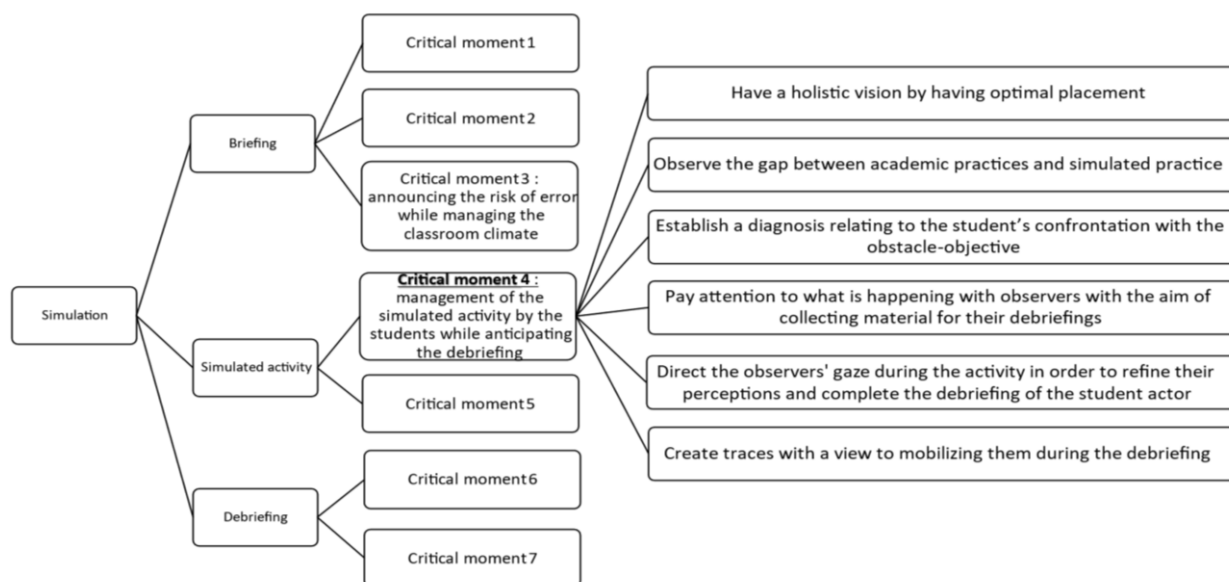


Figure 2

2. Method and materials

2.1. Accessing trainers' expertise

Professional didactics was chosen to analyze this activity. Its *"aim is to analyze work [here that of health trainers using simulation] with a view to training professional skills"* (Pastré, Mayen & Vergnaud, 2006). To gain access to the experience of five professionals, "look-alike" interviews were used. In the course of each instruction, the trainer interviewed explains their approach and the parameters they take into account: how they organize their actions during the simulated activity, identifies the goals they set for themselves, the elements that are significant for him or her, and the reference points used to discriminate between types of situation. To arrive at these perceptions, described as "intuitive" for the professionals defined as experts by Benner (2003), each interview began with the sentence: "Suppose I'm your look-alike and tomorrow I find myself replacing you in your job. What instructions should you give me so that no one notices the substitution?" (Oddone et al., 1981, quoted in Saujat, 2005, p. 1). This leads the trainers to explain precisely what to do, in sentences that often begin with "What you're going to do is...make sure...look...".

2.2. The sample

The training managers we contacted came from the nursing and electroradiology professions. In our sample, CFA1, CFA2 and CFA3 use a standardized patient as a simulator, and due to architectural conditions, do not have two separate rooms separated by one-way glass. The CFM1 and CFM2 trainers use a high-fidelity manikin and carry out simulations in pairs with other trainers in their respective establishments.

Although we wanted to analyze the activity of expert professionals (trained, qualified, practicing simulation, recognized by their colleagues as experts), we identified after hindsight that CFA1 had only been practicing simulation for a short time. Since this trainer is considered by Benner to be a novice (2003), we used the data from his activity to see how it contrasted with that of the experts.

2.3 The successive stages of this research

Initially, we sought to chronologically structure the simulation activity of the various trainers. We then identified and isolated seven moments described as delicate for the trainers, including the one developed specifically in this article. To improve the accessibility of our research results and enable readers to more easily grasp its main findings, we have chosen to schematize this moment (Harder, 2023) with a conceptual structure of the situation. This is "*a model of the task, used to design training*" (Vidal-Gomel, 2013, p2.). It includes at its core two pragmatic concepts, organizers of action, concepts defined as "*schematic and operative representations, elaborated by and for action [...] products of a historical and collective process*" (Samurçay & Rogalski, 1992, cited by Vidal-Gomel & Rogalski, 2007, p 51), parameters and indicators.

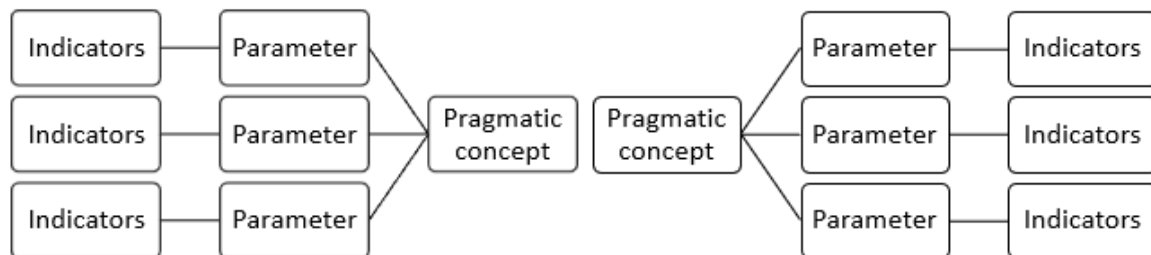


Figure 3

We have taken as an example the conceptual structure of vine pruning according to Caens-Martin, taken up by Vidal-Gomel & Rogalski in 2007, which has two pragmatic concepts at its core: plant load (the pruner must maintain the wood at a satisfactory quality level), and balance (the pruner must take account of the whole stock), guaranteeing both grape production and plant durability. Around these two concepts, this structure comprises a network of parameters and indicators enabling the pruner to keep the structure in balance (Pastré, 2002, p. 15).

3 Results and discussion

The five trainers are all vigilant in observing the simulated activity and preparing the debriefing, but the way in which they seek to achieve these objectives differs, depending in particular on the simulator used.

3.1 Results

We will successively examine the convergences and divergences in the action-organizing concepts detected in the interviews.

3.1.1 A holistic view through optimal placement

In order to observe the students during the simulated activity, the three CFAs, who do not have one-way glass, pay particular attention to the placement they will occupy during the activity. As the briefing, simulated activity and debriefing take place in the same room, they pay particular attention to the layout of the chairs, separating the two areas: the briefing/debriefing area, with a "*space for observers*", and the simulated activity area, with a "*sick room*" in a corner, complete with bed, armchair, call bell and bedside table.

Over time, **CFA2** takes more and more time to organize the room. He defines his role as "*paradoxical*", since it is both "*central*" for observing the simulated activity and "*invisible*" to the EACT, who, to feel completely at ease, must not "*see the trainer, his pens, his sheets*". As such, **CFA2** is as far away as possible from the simulated activity, and the EOBSs "*turn their backs*" to him so as not to see or hear him, and to avoid the pressure of the "*trainer-evaluator*". **CFA3** sits in a semi-circle with the EOBSs, to meet a dual objective: "*What you're going to do is set up your observers so that, [firstly], they can see the scene, the situation being played out, and also so that they're in a configuration that allows them to interact during the debriefing*". To achieve this, "*you'll make sure there's a space, [neither too close nor too far], at least a semi-circle [2 to 3 meters in diameter], but [...], this semi-circle must be able to be closed again at the time of the debriefing*".

He stresses that *"I'm really with the students, with the observers, on the same level, i.e. I'm in it"*, but steps back when the nature of the simulation is normative in aim. He also specifies that he is the guarantor of time, and that he forces the actor to terminate the simulation if the allotted time is exceeded.

The comments made by CFA2 and CFA3 contrast with the concerns of **CFA1** (novice), for whom the objective is to be *"as far away as possible"*, *"at the back of the room"* *"so that when the student enters the room, he will turn his back"*, while seeing *"lots of things, lots of feelings"*. He seems less concerned about the interference caused by the presence of the EOBS: *"the EACT quickly forget about them because the actor will capture all their attention"*.

3.1.2 Observation of the gap between academic practice and simulation practice by students in simulated activity

While **CFA2** found it a pity that by taking notes, he lost visual contact with the activity, he realized that *"with hindsight, I interpreted [what I saw]"*. By using the pretext *"that he didn't see the student or that he thought he heard [something]"*, he *"gets closer to the truth experienced by the student and the actor"*. This strategy, the fruit of his past experiences, offers the EACT time for introspection and discovering unidentified, unconscious reactions, while offering the trainer the possibility of seeing *"through the eyes"* of the EACT and limiting his own interpretations. Finally, **CFA3** gives importance to the way in which the EACT reacted, grasped and confronted the objective obstacle.

CFM1 describes observation as *"very hard, tiring, where you have to look at everything, [...] you have to feel everything"*. He distinguishes between two types of behavior on the part of EACTs: those revealing a lack of knowledge or reasoning, and those in which EACTs *"act the fool to hide"* their discomfort with a specific situation. With hindsight, and after discussions with his experienced colleagues, he points out, without being able to make it explicit, that when EACTs perform the activity twice, they are often *"less good"* the second time.

CFM2 leaves out what he doesn't want to debrief, and targets his observations. He *"potentializes, zooms in"* on the discrepancy between what the simulator says and what will be transmitted by the EACTs. Whether the transmission was correct or not, whether it was random or not, for the trainer, it's a question of *"getting away from the random and spontaneous"*, to transition to *"something more thoughtful"*. *"They need to understand how things done spontaneously were good, and how they need to be renewed"*. However, CFM2 points out that *"it's more difficult [...] to look at the positive effects and impacts"*.

CFA1's comments do not spell out the elements or benchmarks that might be significant for him. Generally speaking, he observes *"a little on the way they behave"* and will try to *"bring out the important things"* during the EACT debriefing, without making explicit how he gathers them during the simulated activity.

3.1.3 Identifying possible changes to the scenario, by intervening or not during the simulated activity.

CFA3 explains that his observations focus on *"the key moments during confrontation with the objective obstacle and the way in which the student has grasped/reacted to it"*. When this trainer feels that the EACT *"is in difficulty because the interaction with the simulator is going on too long"*, he may be prompted to stop the activity with a hand signal [the time-out gesture].

When **CFM1** manages the manikin and identifies that the EACTs are *"going around in circles"*, *"not finding the reason why they initiated the activity"*, *"concentrating on something that isn't true"*, he guides them during the activity by insisting *"more heavily on a clinical sign so that it clicks"*: *"you facilitate them a little, you reorient them a little"*. On the other hand, if the EACTs knowingly present inappropriate actions designed to mask discomfort, CFM1 will not intervene, at the risk of breaking the fictional contract.

CFM2 intervenes as a facilitator when the EACT deviates, gets stuck or makes a clumsy mistake, such as preparing an injection incorrectly, or when the objective obstacle is elsewhere. This trainer then adopts his pedagogy to get the EACT *"back on track, using tricks"*, his objective being for the learner to carry out the

activity alone. He *"comes in for a trivial reason and says 'ok, you're preparing some...', so that the student realizes 'oh dear, that's the wrong product I'm preparing' "*. Another trick is to ask *"where are you in the preparation of such and such a drug?"*, to give the student every opportunity to *"recall the chronology"*.

CFM2 always takes on the role of a professional with a plausible role in the simulated, fictitious situation, but one that is *"not defined in advance"*. He adapts his posture by being on first-name terms with the EACTs, so that *"they don't see us [...] as a trainer"*, and is always careful to introduce himself, as *"it can happen [...] that he has two different roles"*: 1) often *"the role of the nurse on the next ward [when it is a matter of explaining] 'you do this and then that, then that', 'look, I see you're having difficulty with ..., I'll explain how it's done'"* and then steps out of the situation again, 2) the technician when *"the bed doesn't work"*, to avoid the situation becoming blocked *"because the student [...] doesn't know how it works"*, and that's not what he wants to debrief on. *"For these technical aspects, we're ready to get in very quickly so as not to spend time on them"*. Finally, CFM2 can take on the role of 3) doctor to guide learners. With experience, he has observed a discrepancy between what the EACTs perceive of the manikin's clinical condition and what they pass on to the doctor. His aim will be to provide *"the elements that make you think of..."*, to guide by saying *"I don't quite understand this situation, can you ask him..."*, to clarify the situation when the EACTs have the knowledge but *"find it hard to realize that the doctor isn't seeing the patient"*. These discrepancies are often debriefed.

For **CFA1**, the pedagogical objective for the EACT *"is to have this first contact with a patient when they've never seen one"*, with *"a kind of diversion" "and see how they'll behave"*. Intervening as a facilitator only to introduce the activity, when the EACT doesn't feel well, doesn't know how to react: *"you accompany him [...] behind the door, you knock, you go in with him, you modulate the scenario a little, saying 'I'm the nurse, I'd like you to meet the student, she's going to come and take your blood pressure' and then you stay long enough to take [the EACT] to the patient and [...] you say 'listen, I've got to leave you, I've got to go into the next room"*. On the other hand, if during the activity, *"things get bogged down, [...] go around in circles, the student can't make a decision"*, *"by his gestures, doesn't speak anymore, turns back to the observers, implying 'I don't know what to say, or what to do'"*, CFA1 will not intervene as a facilitator but will stop the simulated activity.

3.1.4 Paying attention to what's going on with the observers in order to gather material for their debriefings: a central, invisible role

Architectural conditions have an impact on CFAs' observation of EOBS. **CFA1** (novice) stays close to HAS prescriptions and does not address EOBS perceptions and reactions. For the simulation to be *"constructive"*, the EOBSs *"observe many things" "without making judgments"*. For what the EOBS can't see, he has a trick: he'll ask the standardized patient during the debriefing to *"give feedback"*.

For **CFA2**, the EOBS sit in rows around the simulated space, observing criteria determined together, using grids *"were the communication techniques implemented, what did it produce, [...] rather positive in the relationship or on the contrary negative? [...] how did we notice it"*. Sometimes, perceptions between EOBS and patient differ, and *"it's this discrepancy which is interesting and which is discussed between the EACT and the EOBS"* during the debriefing. However, CFA2 adds that some people derive far more benefit from observing than from performing the simulated activity.

CFA3 asks *"observers to be active observers: you're going to ask them to take notes, to look for elements that are linked to the objectives"*, to *"commit to taking an active part in the debriefing, so that it's more of an exchange between them than with the trainer"*. He looks at them before the activity and tells them: *"Above all, don't react, temper your reactions, observe carefully"*.

For **CFM1**, the EOBSs *"bring out elements that the trainer themselves have not seen, [notably] when several students interact simultaneously during the activity"*, *"perceive erroneous elements, [which will be] rectified later by the others"*. CFM1 gives them objectives, divided between EOBS, otherwise *"they don't look at what you want, and this forces them to look at very specific things"*, [...] *and note what's wrong or what you would have done differently"*.

CFM2 describes the role of the EOBS as "major", in a "very comfortable" situation. Behind the glass, they see "lots of things" and hear everything. By observing the action, EOBSs ask themselves questions: "why did so-and-so do it like that, I might not have done it like that". Keeping an eye on the EOBSs' interactions and questions, CFM2 tells them "you might think of asking this question during the debriefing, it would be interesting to discuss it for everyone". He uses these exchanges between students as "pretexts" to illustrate the discrepancies between the action of the EACTs and the reactions perceived by the EOBSs, to "bring richness to the debriefing", and to structure it by "avoiding that it goes off in all directions". The EOBS will help the EACT to identify what he has done chronologically: "yes, you did that first, then...". For CFM2, the EOBSs have difficulty verbalizing a judgment during the debriefing: "I noticed that you had a difficulty at such and such a moment", because "it's not necessarily very natural" to say what's wrong. By witnessing the exchanges between the EOBS, he solicits the options they have verbalized: "Do you remember at that moment, you said something to your colleague, could you share it with us?"

3.1.5 Directing the observers' gaze during the activity to refine their perceptions and complement the student actor's debriefing

Only **CFM2** interacts with the EOBS during the simulated activity, arguing that it can be very complicated for the EOBS to observe when they don't know what to observe. In the past, he would give them observation grids to guide them, but these were not used. In hindsight, by anticipating the important elements to observe and hear, he guides the EOBS who might be observing something else: "look at what's happening on the right...listen carefully to what's going to be said on the right". By bringing the EOBSs' gaze to focus on certain points, he hopes that the EOBSs will identify for themselves whether there is compliance with the medical prescription. For CFM, when the EACTs' actions can be improved, the EOBSs are more dynamic during the debriefing and more likely to say "maybe I would have done things differently".

3.1.6 Keep a record of the activity, for debriefing purposes.

CFA1: observes and "takes notes even, if you can". His notes focus on the same objectives as the EOBS, namely "how the student behaved, his posture in front of the patient, how he talks to him, [...], you see little things like that", "you note how the scene unfolded a little". But "this note-taking doesn't last long", as the scenarios are quite short. **CFA2** thinks it's a shame to have to write, because he says he loses the visual aspect of the activity. He notes down words, and makes two columns: one to note down elements that concern only one EACT, and one concerning all the students, whether it's shared knowledge or techniques. **CFA3** takes a lot of notes, classifying them by key words. On the 2/3 left-hand side of the sheet, he repeats the chronology: "take chronological notes", "transcribe sentences that have been said, when they seem interesting [you] underline them, note some actions from moments that are a more intense in confrontation with the objective-obstacle, and how [the EACT] dealt with it, how he reacted". On the right-hand 1/3 of the sheet, CFA3 notes the reference points he wishes to return to during the debriefing. His difficulty: "It goes very, very quickly, so you won't be able to take note of everything, so really note the key points". To overcome this, he uses a few tricks: "in the right-hand column, I put a few elements of interpretation with a question mark, I can put the letter "Q" for question, [specifying that it will be asked of the EACT during the debriefing] little signs that help me find the elements during the debriefing". CFA3 also notes "the patient's reactions to what the student has said".

CFM1 uses pre-filled sheets to focus on his own objectives, and to "go faster and avoid taking notes". **CFM2** takes notes throughout the activity, explaining that it's to "see if things are going the way [he expected, so that he can] debrief this or that aspect". He doesn't take note of everything because "it's too complicated, it requires too much concentration, and above all, a lot happens in ten minutes". There are certain elements that he notes each time: "in particular, the order in which they ask questions [...] to see if they've transmitted it properly [to the physician] in that form", as there is often "a huge gap between what they've gathered and what they transmit". In her experience, CFM2 has identified that "we systematically have this difficulty: these are elements that I note down immediately". CFM2 notes "very specific things": if the EACT "goes a bit round in circles", it's time to debrief. His note-taking "always ends [with the transcription] of the first words [when they "come out" of the simulated activity] for me, that's what's essential, it's what they felt".

As we have just seen, the management of simulated activity reveals many generic aspects for our five trainers, as well as a few more singular ones. What about prescribed activity? What does the literature say about these different sub-goals? Has it examined each of them? Has it identified them all?

3.2 Discussion

According to our study, the trainer simultaneously manages two pragmatic concepts with two different temporalities: maintaining the simulated activity by managing the here and now, while anticipating the debriefing. For each of these two pragmatic concepts, known as "*action organizers*", we will detail the parameters and indicators that enable the trainer to keep them in balance. Identifying this overall structure and the strategies deployed by experts will enable us to grasp it in order to encourage and support the learning needs of novice simulation trainers (Harder, 2023).

3.2.1 The trainer's pragmatic concept: "managing the here and now"

In order to manage the here and now, so that the student is "*immersed*" in a fictitious reality and has to deal with an objective-obstacle, the trainer is attentive to three parameters.

The holistic quality of observation differs according to architectural conditions. CFMs are more detailed about the reactions and exchanges between EOBSs, while CFAs, lacking the one-way glass recommended by Demaurex & Vu (2017), are more vigilant about being able to see the activity as a whole. To achieve this, expert trainers deploy strategies: seeing without being seen, setting up a precise distance and space according to the pedagogical context.

The quality of the trainer's diagnosis of the nature of the problem(s) encountered by the student involves four observable parameters: the quality of enrolment, confrontation with the objective-obstacle (referred to as O.O. in the conceptual structure below), the path towards it, which we had not identified in the literature, and the identification of deviation(s) in the actions carried out by EACTs and good practice recommendations, defined as an "*indicator to the reference situation*" (Vergnaud, 1996, cited by Vidal-Gomel, 2009).

Regarding the path to the O.O., and to avoid blocking the situation when the EACT fails to perceive the purpose of the activity, the reason for entering, fails to make a decision or focuses on the wrong element, the trainer sets intermediate objectives to reach the O.O. These four indicators make it possible to train novices such as CFA1, whose less explicit and less precise vocabulary ("*to see a little*", "*to discover a little*", "*to observe a little*", "*we see a lot of things, a lot of feelings*") may be a linguistic tic, but also reflects a by-the-book approach to simulation management.

The quality of anticipating a possible intervention as a facilitator is inseparable from the previous one. Here, the parameter is not based on what the trainer does as a facilitator, but on what they must anticipate in order to fulfill this role. The observable indicators are: compliance with the O.O., identification of a plausible modulation without transforming the scenario, including the possibility of stopping the activity at any time, speed of intervention, the profile and posture they foresee to adapt to the scenario and the pedagogical choice used to keep the student involved (insisting heavily, questioning, redirecting, repeating aloud the chronology of the process carried out by the student). This last indicator is designed to help students identify their own mistakes, thereby developing their sense of competence.

3.2.2 The trainer's pragmatic concept: "anticipating the debriefing"

To anticipate the debriefing of EACTs and EOBSs, the trainer is alert to five parameters, of which "the quality of the diagnosis made by the trainer" and "the quality of observing" are described above.

"Interaction with the observers" is based on the parameter "the quality of the observers' observations". For experts, EOBS observations are complementary to their own. These trainers use observation grids, direct the eyes or ears of the EOBSs, take them as witnesses, claiming that, unlike the EOBSs, they were unable to see. For these experts, these different strategies enable them to get as close as possible to what the EACTs were trying to do. Using a cognitive detective posture, advocacy with inquiry, combining an

assertion about an observation and a hypothesis in the form of a question, they debrief with good judgment (Rudolph et al., 2006). Thanks to the exchanges, options and deviations verbalized by the EOBS behind the one-way glass, and in line with Dieckmann, Molin, Friis, Lippert, & Østergaard (2009), the expert uses them as "*pretexts*" to solicit the introverted observers during the debriefing, thus helping to develop their skills through vicarious learning.

The implementation of simulation differs between CFM and CFA. The former train students in "*procedural skills*" (Ammarati, Grandy & Savoldelli, 2017), staying "*very close to procedures*", the latter train in "*behavioral skills*" (Ammarati, Grandy & Savoldelli, 2017), allowing "*some planning freedom for trainees*" (Samurçay, 2009). Unable to anticipate the spontaneity of EACTs' auditory and gestural exchanges, CFAs are unable to guide EOBSs' gazes and listening, generating disparities in debriefing management between CFAs and CFMs. This is data that we had not identified either in the prescriptions or in the literature .

The quality of activity traces is essential to anticipate debriefing, and depends on the holistic quality of observation. This applies to both EACT and EOBS observations (Vidal-Gomel, 2009). It is illustrated by the way notes are organized, by classifying them (what concerns the individual versus the collective), by respecting a chronology, by coding with "Q", "?". Some experts will take notes on what they observe from the actor, or even the first words verbalized by the student as they exit the simulated activity. This is data we didn't see in the literature review.

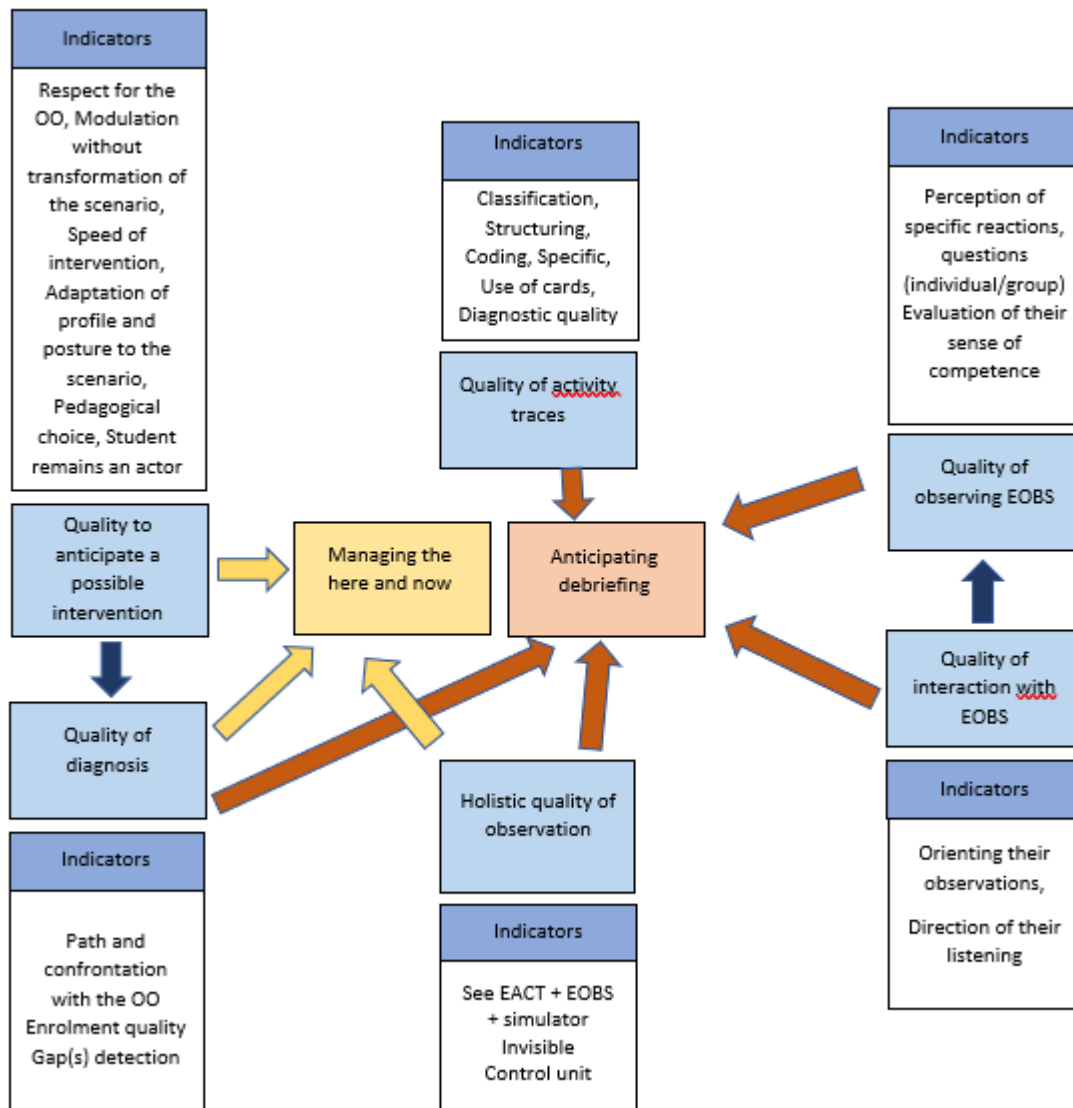
For CFM2, debriefing is difficult if there are no perfectible elements, especially when the student already possesses the necessary skills to confront the objective obstacle. This is the case for students undergoing professional retraining: their experience may have given them the skills we're looking for in students in initial training. These skills can be discussed during the debriefing, but to maintain them in a learning situation, we can ask ourselves whether, instead of being a facilitator, the trainer can become a "*complexifier*" on the road to the O.O.?

The aim of this work was to understand the complexity of the trainer's activity during the simulated activity. To this end, we conceptualized this activity through a conceptual structure, based on "managing the here and now" while "anticipating the debriefing". It highlights the various subtleties developed by an expert trainer, which can be used to train novice trainers (see figure 1).

Conclusion

The aim of our research is to contribute to a better understanding of the trainer's activity in simulation, in order to train and enrich the practice of healthcare trainers. As the literature focuses more on the management of briefing and debriefing, we have chosen to deal in this article with the stage where the trainer manages the simulated activity while anticipating the debriefing. We have chosen to schematize this complex stage, which keeps these two pragmatic concepts in balance, with a conceptual structure of the activity illustrating the strategies deployed by the trainer, but also very concrete subtleties not identified in our readings and not prescribed in the HAS recommendations. While these structures are transmitted "essentially through experience and companionship" (Samurçay & Rogalski, 1992, cited in Vidal-Gomel & Rogalski, 2007, p. 51), they can serve as a support for developing skills and equipping novice or inexperienced trainers in this complex activity. They have enabled us to put into words the complexity of the activity studied, to identify "tricks of the trade" derived from empirical experience, and to propose a mapped process that could be used to train simulation trainers.

Figure 4



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