

55 Debriefing depends on purpose¹

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INTRODUCTION

Games/simulations are made to be learned from. All activities, such as designing a simulation or playing it, can help to learn about the real life situation the simulation refers to. However, it is not the case that one learns by merely playing a game/simulation. Participants are not always able to draw conclusions from their experiences acquired during the game, and, subsequently, to apply them to a 'real life' situation. Their cognitive skills may not (yet) be adequate, or the discrepancy between the game/simulation and the reference system (i.e. the real life situation) can be very great, which hinders the effective transfer of experiences. Even more important is the fact that, in general, participants only develop a partial image of what is going on during the game/simulation. However, it is possible to reconstruct what has happened during the game from the perspective of the participants, and, by doing so, to show the limitations of their perspectives.

In order to utilise the opportunities for learning, an evaluative session is often held after the simulation, generally referred to as the final debriefing. In the literature, relatively limited attention has been paid to debriefing (exceptions are, e.g., Lederman, 1992; Thiagarajan, 1992; Petranek et al., 1992; Steinwachs, 1992), and even less attention to the way debriefing can contribute to learning. A few publications focus on particular aspects of debriefing, such as transfer, retention, and differences between participants in terms of cognitive styles and positions. The special issue on debriefing of *Simulations and Gaming, An international Journal*, opened with the observation that: "Debriefing is perhaps the most important part of a simulation/game, and yet it tends to be the most neglected, if not in practice, at least in literature". This special issue, published in 1992, was supposed to be an impulse for renewed attention for the subject of debriefing. Apart from a few publications in the years that followed there seems to have been no big improvement on this point.

Each game/simulation, whatever its objective, should be concluded by a form of debriefing that helps the participants to leave their role and the game in a sound way. In this article, we focus on the function of debriefing in helping people to learn from games/simulations. We assume that the design of debriefing sessions should be tailored to the general and specific goals of a game/simulation. The next section presents a simple classification model for different objectives of games/simulations. Next, we will tentatively elaborate on the purpose and process of debriefing in each of the situations presented.

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A MODEL FOR DEBRIEFING: WHAT SHOULD BE LEARNED AND BY WHOM?

As a starting point for our model for debriefing, we will concentrate on the two questions that are indicated in the title of this section. The first question refers to the aspect: what has to be learned from playing the simulation? It refers to the objectives of the game. These may be well-defined and specified beforehand. The objectives are translated into the criteria which will have to be met by participants' performance. So before the game starts it is known which learning results are to be attained. Debriefing focuses on the discussion how closely the participants' performance has approached the target and what can be done to close the gap between the performance and the target even further. It is also possible that a game/simulation has objectives that cannot be precisely defined. Imagine a game/simulation in which the participants can experiment with various kinds of leadership styles. When they are confronted with the consequences of each of these styles, they will get an insight into the style that suits them best under certain conditions. The objectives of these simulations cannot be translated into criteria that have to be met, and, therefore, it is not possible to judge the performance of the participants against well-defined criteria or targets. Instead, all participants will have to draw their own conclusions about their own performance in the simulation and about their behaviour, attitudes, choices, etc. in future situations. We refer to the two types of game/simulation discussed above as games/simulations with closed objectives and games/simulations with open objectives, or briefly, closed and open simulations respectively. The second question is: which category of actors has to learn from playing a game/simulation? Many games/simulations are played to give the participants or players the opportunity of learning from their experiences in the game. The experiences during the game give them insight into the subject of the simulation and/or in their own behaviour. After the simulation the participants should have acquired new knowledge or insight, either about the simulation's subject, or about themselves. On the other hand, there are games/simulations that have been developed to give other people than the players information. The players play their roles and their behaviour is registered in one way or the other. It is, for example, the client or the facilitator who has to learn about the subject of the game. So, in the end, other people should have acquired knowledge or insight, either about the part of 'real life' the game/simulation was referring to, or about the players in the game/simulation.

The answers to these two questions can be combined, resulting in four types of applications for simulation, as shown in Table 1.

Table 1 Four types of application for games/simulations

Are the performance criteria precisely in advance?/ Who has to learn:	Yes closed simulation	No open simulation
the participants	training/ education	development/ exploration
the facilitator / researcher	assessment/ diagnosis	research

In each of these four cells, debriefing has a different purpose. These purposes can be described as follows: ‘maximize’ (training), ‘judge’ (assessment), ‘optimize/invent’ (exploration), and ‘register’ (research’).

Until now, we have discussed debriefing as the last activity to take place at the end of a game/simulation. In the final debriefing, participants’ performance in the game is evaluated and related to ‘real life situations’. Another kind of debriefing can be distinguished which takes place during the game. Many games consist of several rounds. In between rounds participants may get feedback from the facilitator or other participants, which can also be seen as a form of debriefing. When discussing the debriefing in each of the four cells, we will focus on both forms of debriefing.

DEBRIEFING IN DIFFERENT CASES

In this section we will briefly describe the nature and the purpose of debriefing in training, assessment, exploration, and research

Training/education

Gaming/simulation can be used as an instrument to make participants acquire specific knowledge or specific skills. Since it is known beforehand which knowledge or skills have to be acquired, criteria can be formulated for the knowledge and skills one is suppose to have after the game/simulation. It can be assessed to what degree the participants have acquired the knowledge aimed at, or whether they are capable of carrying out certain actions quickly and accurately.

During the final debriefing session a link is made between the knowledge and skills used in the game/simulation and the knowledge and skills required in the corresponding ‘real life situations’. The debriefing focuses on the question whether the participants’ performance meets the criteria formulated beforehand. Debriefing in a simulation-as-training focuses not just on the extent to which the criteria have been met, but also helps the participants to see how big the gap is between their performance and the target. During debriefing sessions in between rounds the facilitator can give guidelines to improve the performance of the participants and help them in determining what to do in the next round to reduce the gap and meet the criteria. The purpose of getting the participants’ performance as close to the target / criteria as possible can be described as ‘maximizing’.

Assessment

Simulation can also be deployed as an instrument to give other people information about the performance of participants. Mostly, there will be a predetermined model or a set of criteria to which the performance is measured. In such a case we have a closed simulation and another person than the participant has to learn from the simulation. An example of assessment is the organizational diagnosis. The use of gaming/simulation as a tool for assessment of personnel is another example. Here the question is whether players (i.e. applicants) possess a combination of knowledge and skills required for a specific function. In these cases, the performance of the participant is compared to some sort of ideal model.

Here, the debriefing does not aim at learning by the participants, although this can be a side effect. Instead, the debriefer can form an opinion about the performance of individual participants (in the case of a personnel assessment) or of the organisation (e.g. in case of an organizational diagnosis). This opinion is formed by comparing the performance observed with an ideal model of desired behavior. If this comparison can be made on the basis of measurements of behavior, debriefing is not necessary, unless it is considered necessary to finish the simulation with a session that helps the participants to quit their role.

Exploration/development

In a game/simulation-as-exploration the participants have to learn from it, but it is not specifically clear beforehand what should be learned exactly. Exploratory games/simulations may aim at getting to know a certain type of situation, experimenting with your own behaviour in it, testing certain strategies or courses of action in advance, or trying to invent styles of cooperation. In this mode, neither the game designers nor the debriefers have specific ideas about how participants should act or which courses of action are best. The game/simulation only provides a setting in which exploration and experimentation can take place. Participants are explicitly asked to use these options and to find out what they can do within the boundaries and under the conditions in the game/simulation, including perhaps changing these conditions. In the end the participants are the ones who value the different strategies and performances. The debriefing should be tailored to this principle. The debriefing session should help the participants to analyse the developments in the game/simulation and their contributions to it and to evaluate the relevance of the conclusions for real life situations in light of their own value judgments.

As there is no predefined frame for judging or testing performances, this kind of debriefing is the most demanding. Because there are no fixed and pre-specified criteria, the perspectives and interpretations of all participants have to be taken seriously; an extra complicating factor is that these perspectives and interpretations can differ strongly, even after the game is over. This aspect deserves special attention if the simulation is played by a group of persons who also have to work together outside the simulation. In the simulation-as-exploration the participants are made more conscious of their choices and they are challenged and motivated for the next rounds. Feedback or debriefing in between rounds can focus on the diversity of solutions for existing problems, and on the consequences of these solutions. Just as in the final debriefing the values for the different solutions are generated by the participants themselves.

Research

One can devise many applications for games/simulations for research purposes (Vissers et al., 1995; Mastik et al., 1995). The game/simulation is mostly designed in such a way that processes and events enable it to be used to answer a specific research question. The facilitator or the researcher registers what happens and draws his conclusions. Whether the participants learn something from playing the game or not is of minor importance. Debriefing for cooling down and, possibly, for desensitising is mandatory. From the perspective of conducting a research project properly, it could be advisable that the participants are informed afterwards about the purpose of the game/simulation and the expectations of the researcher. It is also important that the participants are asked 'not to discuss the experiment with others', as Lederman (1992) stresses. From the viewpoint of the researcher, a debriefing session can also be necessary as an additional source of information, for example, to examine to what degree the participants judge their acting in the game/simulation to be realistic or to validate the interpretations and conclusions of the researcher), or simply because the research is focused on debriefing or group interaction processes. Whether the debriefing should take place in between rounds depends on the objective of the game/simulation. In some settings feedback may be unwanted in between rounds, since this information may steer the behavior of the players. In other instances the researcher may be interested in the effect of feedback on the players' behavior in the game. The researcher can 'freeze' the game and ask the participants for their considerations. Another possibility is that each round of the game is followed by handing out a questionnaire or using another instrument for data gathering; this will give the researcher insight into changes in behavior, opinions, attitudes and the like. During the final debriefing as well as during debriefing in between rounds it is not intended that participants should make a link with their own real life situation; there is a one way flow: information flows from the game and from the participants towards the facilitator/researcher.

CONCLUSIONS

There is no doubt about the relevance of debriefing in gaming/simulation. Nevertheless the subject is not elaborated on very much in the literature. In the previous sections, we have developed a simple model to distinguish games/simulations with different objectives. On the basis of two questions, 'What has to be learned?' and 'Who has to learn?' we were able to distinguish four types of applications of games/simulations. The nature and purpose of debriefing in the four typical applications of games/simulation were described subsequently. We also pointed at some differences in the orientation of the debriefing.

The distinction made in this article can be a good starting point to investigate the phenomenon of debriefing further. This investigation should, of course, address the question as to how to translate the options identified into specific approaches and techniques for debriefing. Firstly, however, a lot of questions about debriefing have to be answered, such as the relation between debriefing and game design; debriefing and individual and collective learning; debriefers' knowledge of the game/simulation; and the differences between the debriefing in between rounds and final debriefing. Elsewhere we will elaborate these themes and try to

formulate some answers.

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