



## **Learning from geoscience games through debriefing**

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This paper will argue that meaningful and significant learning derived from a simulation/game/role-play (game) is accomplished in the debriefing, as part of the experiential learning cycle. As most game facilitators (gamers) know, debriefing is usually the most important part of a game session.

Debriefing is the time during which participants are able to share, look back on, build an understanding of and extrapolate from their (jointly managed) game experience and relate it to theory, research and reality. It is in the debriefing that participants learn (the most), and on different levels: cognitive, affective, social and behavioural. Gamers who fail to debrief their participants fully are failing in their responsibilities to participants and themselves, to institutions, to their geo-profession and to society.

Just as in their real-world counterparts, engagement tends to be strong and emotions tend to run high in games related to such areas as collective decision making, environmental ethics, resource depletion, climate change, deforestation, plundering of the commons, pollution, sea-level rise, over-fishing and many others. It is also the engagement and affective dimension of games that contribute to deep and meaningful learning and that need to be debriefed in order to evacuate strong emotions allowing clarification of underlying issues and dynamics.

In addition, we believe that a few fundamental principles (should) apply to most debriefing situations. One of these is the crucial distinction between game objectives and learning goals. In turn, this implies that the debriefing protocol is designed, not about the game per se, but for the learning goals. It also implies that debriefing belongs to the participants, not the facilitator; it should be participant-centred. Also, the debriefing can take unexpected twists and turns. Finally, the facilitator is exactly that, not a teacher.

In this paper, we will outline some basic principles related to debriefing games (or rather debriefing participants having participated in a game), and illustrate them with some practical debriefing protocols designed for specific geoscience games.

In addition, if time and numbers in the informal gaming session permit, we might be able to organize a short hands-on debriefing session to bring alive some of the points mentioned.