

Debriefing tactics: A study of interaction in game-based military education

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Debriefing has long been considered one of the most important aspects of efficient use of simulation games for learning and education (Crookall 2010; Lederman 1992). The debriefing is “the occasion and activity for the reflection on and the sharing of the game experience to turn it into learning” (Crookall 2010, 907). Through a well-executed debriefing the players can coalesce their experiences, formulate knowledge, reflect on skills and share all of this with fellow players. The debriefing session can be considered as an integral part of the game itself and the pedagogical design of game-based education should take this into account (Crookall 2010). As such, the debriefing is important for achieving knowledge transfer between the game environment and the domain in which this knowledge should be utilized. However, debriefing has often been overlooked in research on simulation gaming, leaving it somewhat underdeveloped as a topic for games research.

The study presented here is an ongoing empirical study of debriefing sessions in military education, with some discussion of preliminary findings. It is an exploratory study, aimed at documenting and gaining knowledge of how debriefing sessions are conducted and the methods used by players and facilitators to engage in meaning making, learning and instruction in these situations. Debriefing (or alternatively, but not synonymously, *after action review*) has a long tradition in military service and education. Similarly, the use of wargames in the military has a long history, used both for educational and analytical purposes. However, there is a dearth of empirical research of how wargames are actually used in military education, and even less on the use of debriefing in such education. The literature in the area often explains the merits of educational wargaming - authors will often give provide rich description and analysis of their experiences of using wargames in higher education, but it will only occasionally be based on rigorous empirical studies (see Sabin 2015).

Furthermore, even studies that show positive effects of using wargames in military education will gloss over much of the interaction both in the game and in any surrounding contextual structures (such as debriefing). The interaction that make up both gaming and debriefing is being put in a metaphorical black box –the interactional work that is fundamental to the gaming remains unknown. In line with prior studies of debriefing in simulation-based education (for example Johansson et al. 2017), it is the

aim of this study to open up this black box of wargaming in order to understand the work of players and facilitators in debriefing.

The study has been conducted at the Swedish Defence University (SEDU), where military student officers (*cadets*) take part in game-based education of military tactics. To date, the main part of the data has been of naval cadets. However, data collection is ongoing, adding data from wargaming-based learning of air warfare as well as joint operations.

The platform used is developed locally at SEDU, the *Simple Surface Warfare Model*. In the case of naval cadets' wargaming being studied, it is played with the *Sisyphos* scenario. The class, of roughly 40 cadets, play in a single team, controlling a naval task force. The team is in turn subdivided into three separate units, each in control of a smaller task group comprised of ships, helicopters and marine infantry. Instructors play the opposing force in the scenario. The students collaborate in maneuvering units, communicating with the commanders and other task groups, and in using their units' sensors and weapons. The game is played in real time, and over the course of three weeks the students attempt to accomplish their mission (defending the coastal area of a country). Each day, a summary discussion is held by the team (led by a facilitating teacher), and each week is ended by a discussion seminar. After the three-week gaming period a longer debriefing is conducted with all students. Video recordings have been made of all of these types of discussions, a data set comprised of around 10 hours of recordings so far.

The study uses a video-ethnographic method, along with participant observation. Debriefing sessions following gaming sessions are audio- and video recorded, and transcribed using conventions from video-based interaction analysis (Heath et al. 2010). The focus is on the interaction between participants, exploring their use of various interactional resources to accomplish the work of a debriefing session. While there is a relatively small number of studies of gaming that utilize this approach, it has found more ground in simulation studies. Unpacking the interactional work of for example maritime and nursing education (Johansson et al. 2017; Sellberg et al. 2021) has found that debriefings are arenas for narrative engagement that connect the simulation to the simulated domain, as well as being places where participants can demonstrate *reflection-in-action*, which is known to be integral to the work of a reflective practitioner (Schön 1983).

Using ethnomethodological and interaction analytical perspectives on instruction and learning (see for example Hall et al. 2019), this study is based on empirically driven analysis of debriefing interaction. The overarching research question is *how is debriefing interactionally accomplished in military game-based education?* From this additional question will be developed as the project gathers more data, including focusing on reflection-in-action (Schön 1983), professional vision (Goodwin 1994) and affordances in military tactics (Granberg et al. 2015, see also Linderöth 2012)

Preliminary results of participant observation in debriefing sessions at SEDU show that debriefing is conducted in an ad hoc fashion, with little preconceived structure or process. The discussion often veers off from explications of military tactics, to assessments of the cadets' communication and leadership. Through a detailed examination of the debriefing sessions this study will be able to ascertain the ways in which the interaction can make military tactics the salient learning object of the game-based education. Additionally, it will be able to identify the interactional processes of debriefing that may hinder desired learning outcomes, and fashion pedagogical interventions that can provide more effective debriefing in the future.

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