

# GLOBE Tabletop - Capability Development through Pre-Exercise Learning for Humanitarian Missions

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## **Abstract**

Simulation exercises play a significant role in training for humanitarian missions and provide suitable space for appropriate preparation of humanitarian personnel. It was observed that participants in the GLOBE simulation, a humanitarian crisis simulation exercise, lacked fundamental knowledge concerning structure and process organization, situational awareness, and complex planning tasks. Thus, this paper explores the concept of capability development through pre-exercise learning, suggests improvements of the efficacy and effectiveness of learning for individuals engaged in humanitarian mission simulations, and provides implications for improving the overall effectiveness and outcomes of simulation exercises. The conceptualization of pre-exercise learning with gamification and tabletop exercise elements prior to participation in the simulation exercise is expected to lead to enhanced capability development during the simulation of humanitarian missions.

**Keywords:** *Pre-exercise learning; Tabletop; Simulation games; Gamification; Crisis management; Humanitarian mission*

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## **1. Introduction**

Due to the demanding nature of humanitarian missions, prior capability development and appropriate preparation for deployed personnel are crucial (Haverkamp et al., 2022). Simulation exercises and serious games provide a suitable space for such learning (Harteveld and Suarez, 2015). The primary objectives of this paper are to explore the concept of capability development through pre-exercise learning, suggest improvements of the efficacy and effectiveness of learning for individuals engaged in humanitarian mission simulations, and provide implications for improving the overall effectiveness and outcomes of simulation exercises. In order to limit the scope, the main focus will be put on capability development through pre-exercise learning

on the example of an innovative tabletop exercise. This paper will be organized in six sections. Section 1 and Section 2 will be devoted to the introduction and theoretical background regarding simulation exercises, pre-exercise learning and gamification. Section 3 then presents the learning environment, including the presented exercises' learning objectives and how they were attained. Section 4 explains the applied method. The resultant findings and discussions will be presented in Section 5. Finally, Section 6 concludes the paper and identifies limitations and future research directions.

## **2. Theoretical Background**

Sections 2.1. and 2.2. provide a background on the relevance of simulation exercises and gamification for effectively conveying skills and knowledge. Thus, they set a theoretical basis for the exercise formats described in Section 3.1. and Section 3.2., in which those concepts are applied.

### **2.1. Relevance and Potential of Simulation Exercises**

A simulation exercise is a case study in which participants are confronted with the reality of functioning in an arranged environment (Thavikulwat, 2009). Simulations are very effective in achieving learning outcomes since they provide efficient means of comprehending the future (Day and Reibstein, 1997). The main advantages of simulation exercises include practice in a risk-free environment, reduced decision-making time, improved cross-functional understanding, and increased knowledge of subject content (Scherpereel, 2005).

### **2.2. Relevance and Potential of Gamification**

Deterding et al. (2011) find that “Gamification is the use of game design elements in non-game contexts.”. Games are a powerful tool for humanitarian learning and dialogue, hence participants should be fully immersed in the topic and acquire skills and knowledge through application (Harteveld and Suarez, 2015). This is a valuable method to increase motivation and engagement in different learning contexts (Sailer et al., 2017). It is crucial to select game elements that are suitable for the concept to avoid ineffectiveness of the gamification (Voit et al., 2020; Sailer et al., 2017).

## **3. Learning Environment and Objectives**

In the following, two different formats of GLOBE exercises will be described. Both exercises have the goal of capability development for humanitarian missions. One is a simulation exercise and the other one is a tabletop exercise, which is used as an example to explain the idea of pre-exercise learning (OTH Regensburg, 2024).

### **3.1. The GLOBE Exercise: Simulation of a Humanitarian Mission**

The GLOBE exercise is a multi-day simulation exercise of humanitarian coordination, which is part of the study program *International Relations and Management* at the University of Applied Sciences (OTH) Regensburg (Bresinsky and Willner, 2019). After Bresinsky introduced the concept of GLOBE in 2013, students organized, planned and carried out the exercise under the supervision of the professor. Since its introduction, 21 runs of the GLOBE exercise have successfully been executed (OTH Regensburg, 2024). During the GLOBE Exercise the Training Audience (TA) is divided into groups, each representing entities of the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA), such as the UN OCHA Headquarters, an UN OCHA Country Office, and additional think tanks based on TA size. The TA is given a scenario, providing the framework of their work and posing tasks and challenges they have to tackle through collaborative problem-solving (OTH Regensburg, 2024).

### **3.2. The GLOBE Tabletop as an Innovative Learning Method**

The GLOBE Tabletop was developed as an innovative and complementary format to increase the effectiveness of the GLOBE simulation exercise in the area of capability development for humanitarian missions (Bresinsky and Willner, 2019). By combining a pre-exercise learning approach with gamification and tabletop exercise elements, a sense of preparedness for the simulation of a humanitarian crisis is created (see Section 5). The format is innovative because many other simulations presuppose certain skill sets from their participants and do not offer them preparation beforehand. Skills that are not at hand, are supposed to be learned through failure (Palominos et al., 2021). GLOBE Tabletop, on the other hand, encourages participants to pose all emerging questions and creates an environment of collaborative learning to effectively prepare them for the GLOBE simulation exercise. Angafor et al. (2020) state that the concept of tabletop exercises, including feedback sessions, pre-briefings and debriefings in a non-threatening context improve collaboration and problem-solving skills. A research gap was identified on the topic of pre-exercise learning for simulation exercises, which is defined by the authors as follows in this paper: Pre-exercise learning refers to the intentional process of clarifying learning objectives prior to engaging in an exercise. It focuses on conveying the relevant concepts promptly before the exercise, with the intention of further exploration and reinforcement through feedback. This approach ensures alignment between the learning objectives and the subsequent exercise, fostering a more effective and purposeful learning experience.

The GLOBE Tabletop is a three-day exercise where the participants receive theoretical input which they then apply in tasks that have a gamification or tabletop character, such as analyses of Mali illustrated on table-sized maps. The participants are assigned a mentor for all tasks and the results are discussed together (OTH Regensburg, 2024). At the end of each exercise day, a debriefing is held in which the participants evaluate the tasks and teamwork of the day and

establish rules for the next day's collaboration. The game elements used for the GLOBE Tabletop are based on the Empirical Analysis of Motivating Game Elements (EMPAMOS) (Bröker et al., 2021). This research project analyzes game elements and the associated problems in terms of motivation, which they solve (Voit et al., 2020). The researchers developed a pattern language for game elements to create motivational framework conditions in educational projects (Bröker et al., 2021). Once the learning objectives and content of the GLOBE Tabletop had been defined, the EMPAMOS patterns were used to consider which game elements would motivate participants to learn the most from the exercise in order to be best prepared for the GLOBE simulation exercise.

### **3.3. Learning Objectives of GLOBE**

The principal objective of GLOBE is to train students for real-world challenges and prepare them for the work environment of international organizations (Bresinsky and Willner, 2019). To do so, GLOBE focuses on three general, desired learning outcomes, which apply for the GLOBE simulation exercise and the GLOBE Tabletop. In past years, attempts have been made to achieve these objectives through the simulation exercise alone, but now they are to be accomplished through a combination of tabletop exercise and simulation (OTH Regensburg, 2024). The main learning objectives are defined as follows:

Structure organization focuses on the structure and the elements of an institution (Fischer et al., 2006). It reveals which organizational units exist and according to which aspects certain tasks are divided. Further, it indicates which capabilities are required and which responsibilities are assigned (Fischer et al., 2006). In the scenarios of GLOBE, participants are required to understand the structure organization of UN bodies such as UN OCHA (OTH Regensburg, 2024). Process organization demonstrates how tasks are organized and how work is divided within an institution (Fischer et al., 2006). It describes how individual elements work together to fulfill the requirements of the overall system (Fischer et al., 2006). Situational awareness contributes to a clear, accurate, common, and relevant picture of external circumstances (Nofi, 2000). Furthermore, shared situational awareness facilitates decision-making and therefore enables a fast response to challenges by reducing gaps in the common knowledge network (Nofi, 2000). During the GLOBE simulation exercise, emphasis is placed on fostering awareness of unfolding events and their resultant circumstances and understanding the perspectives and interests of various actors. This holistic understanding of the situation enables participants of the GLOBE simulation exercise to adapt their management accordingly. If structure organization, process organization, and situational awareness are understood, the TA will comprehend the complexity of carrying out a planning task within international organizations as well as the necessities for its success.

During several rounds of GLOBE, the organizing team identified deficits in skill acquisition during the simulation-related debriefings. In addition, an increasingly negative attitude towards

the simulation exercise was evident due to declining participant numbers. It was also recognized that the success and impact of the exercise could be increased if participants understood the above mentioned learning objectives before the exercise, as participants are expected to apply the learning outcomes, even though they may not have fully grasped them. Thus, the organizing team saw the need to introduce these concepts to potential future participants in a pre-exercise. Thus, the new concept of GLOBE Tabletop was introduced.

#### **4. Method**

The first run of the GLOBE Tabletop took place in November 2023 with a total number of 32 participants. At the end of the exercise, 28 of the participants took part in a survey from which the organizing team could draw conclusions about the effectiveness of the exercise. The sample forming the base for the explorative evaluation consists of 28 survey respondents. 25 of those are first-semester students and three are third-semester students from the bachelor's program *International Relations and Management* at OTH Regensburg. The procedure of completing the questionnaires took place from December 06, 2023, until December 31, 2023. In order to have a low entry barrier to the questionnaire, the first question was posed in the format of a simple yes/no question. A ranking and complementary free-text items were used to evaluate the exercise elements. Then participants were asked on a four-point Likert scale (Disagree: 1; Rather disagree: 2; Rather agree: 3; Agree: 4) how prepared they felt for the GLOBE simulation exercise in regard to various aspects. The measures included self-developed questions by the organizing team of GLOBE Tabletop related to several objectives: assessment of the effectiveness of each exercise element in terms of learning success, evaluating the exercise's contribution to the feeling of preparation for the simulation exercise, and finding potential improvements for future GLOBE Tabletop exercises. While data concerning these different thematic areas was collected, only the answers related to the feeling of preparedness for the GLOBE simulation exercise are included in this paper. The collected data is evaluated in a descriptive way.

#### **5. Results and Discussion of the Pre-Exercise Learning Approach**

To attain the previously mentioned learning objectives beforehand, the GLOBE organizing team applied the concept of pre-exercise learning for GLOBE. The aim is to achieve the greatest possible learning effect during subsequent participation in the GLOBE simulation exercise. To validate the idea behind the pre-exercise learning approach through a tabletop exercise, the GLOBE organizing team surveyed the GLOBE Tabletop. The following results were obtained:

- The question of whether they felt thematically well prepared was rated with an average factor of 3.25 and with a standard deviation of 0,56.

- Understanding of leadership processes in international organizations was rated with an average factor of 3.29 and with a standard deviation of 0,59.
- An understanding of the structure of the simulation exercise was rated with an average factor of 3.11 and with a standard deviation of 0,72.

To the yes/no question of whether they would recommend GLOBE Tabletop to others, 100% of participants responded affirmatively. This confirms that the exercise was perceived as a positive experience. From the mentioned points, the participants' self-efficacy in relation to the upcoming participation in the GLOBE simulation exercise cannot be derived. However, they show a tendency for participants to see themselves as capable of applying their skills during the simulation. Even though different opinions exist in literature (Brück and Toth, 2022; Franzen, 2014), the four-point Likert scale was rated by the authors as the most appropriate tool for measurement in this context as no critical questions were asked in order to drive participants into a tendency and ensure that do not express neutrality. Since the presented explorative study only addresses a self-evaluation by the participants, this paper's findings are limited to level 1 of the Kirkpatrick Model which deals with reaction and therefore the extent to which participants found the exercise valuable, engaging and relevant to their area of work. In further studies, the model's other levels, which include learning, behavior, and results, should be assessed (Kirkpatrick & Kayser Kirkpatrick, 2015). The next GLOBE simulation exercise will take place in May 2024 and will provide an opportunity to directly compare the performance of participants who took part in the GLOBE Tabletop with those who did not. Such a comparison will be more indicative of the effectiveness of the GLOBE Tabletop concept.

## **6. Conclusion, Limitations, and Future Research**

Because participants lack fundamental knowledge like structure and process organization, situational awareness, and complex planning tasks, learning processes in the GLOBE simulation exercise were often based on mistakes that could not be categorized by the participants, often resulting in major frustration. By introducing the innovative pre-exercise learning approach, a learning experience based on motivation and preparation is created to train participants for the simulation exercise and maximize capability development. In conclusion, it can be asserted that the integration of pre-exercise learning, composed of gamification and tabletop elements, as a preparatory step for simulation exercises was positively received among participants in the GLOBE Tabletop which indicates increased capability development in the context of humanitarian missions. The full potential of the combined application of GLOBE Tabletop as a pre-exercise and subsequent GLOBE simulation exercise will be further assessed in May 2024. GLOBE Tabletop participants will then engage in the GLOBE simulation exercise. The effectiveness of this innovative approach will be underscored through a comparative analysis between participants who have undergone pre-exercise learning via the GLOBE Tabletop and those who have not. As the approach to capability development through pre-exercise learning

for humanitarian missions is currently in its early stages of development, providing a definitive assessment of its success remains open. The present paper is the first one evaluating this matter, thus it is to be seen as a first step towards a more profound analysis. A more conclusive understanding is expected to emerge through continued research and the practical implementation of this innovative concept. Moreover, exploring the adaptability of this approach to diverse contexts, such as in military or medical settings, holds the potential for valuable insights. This exploration expands the scope of potential applications for the concept, inviting further investigation and inquiry.

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