Review of: "Gamification of the overexploitation of natural resources. An operational game based on System Dynamics"

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This manuscript concentrates on overexploitation in terms of phenomenon explanation, the significance of the current topic, and the modeling approaches. The authors also conducted the gamification tool to disseminate overexploitation. The current topic reflects the relatively updating needs for better natural resource arrangements. Besides, the authors presented the corresponding rationale and academic support for the experimental procedures. However, this manuscript still reveals some main weaknesses, as follows.

First, the type of this manuscript is ambiguous. Even if the current manuscript reported the empirical procedure, the current manuscript still features literature reviews about the background, theories, or descriptions of the topic and the experiment materials. Research should contain sufficient reports of statistical findings to support the research hypotheses.

Second, the current manuscript does not contain a sufficient report of the experiment results. The report of statistical findings is an essential section of the manuscript to test the corresponding hypotheses and draw a conclusion. Besides results, the authors should also investigate the precision of the results to guarantee reliability associated with the persuasiveness of the study.

Third, the current manuscript still lacks interpretations of the research findings. Separated from the report of results, the interpretations could discuss the potential significance of the current results and the potential meaningfulness of the findings. Comprehensive interpretations can contribute to the validity of the current research.

Fourth, this manuscript did not sufficiently explain gamification. Even if this manuscript aims to emphasize overexploitation in terms of gamification, the current manuscript does not contain "gamification" as the main explanation or discussion contents juxtaposed with the topic "learning about overexploitation". The authors could highlight the association between the gamification mechanism and the quality of learning about overexploitation. Such an association could demonstrate the equally important role of "gamification" and "overexploitation" topics.

Last but not least, the current manuscript fails to present the potential facilitating effects of gamification on learning quality. Since this manuscript aims to reflect how gamification can efficiently facilitate learning, the experiment design should imply the effects of gamification on learning based on the quantification of the target domains. For example, the authors could conduct a quasi-experiment involving an experimental group employing the gamification tool and a control

group without gamification.

Overall, the current manuscript still reveals some major weaknesses, even if it reflects the updating topic. It is recommended that the authors prepare a major revision for better presentation, comprehensiveness, and persuasiveness.