## 模擬失敗為治理成功之母?FishBanks 情境模 擬教學應用於公共資源困境之啟示

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### 摘要

當前全球化下的環境治理困境已愈發嚴酷,其中最急迫且規模最大的議題之一,便是「共有資源的治理困境」,但過去環境治理教學卻在解決此類問題上有其侷限。本文提議將情境模擬教學作為解決此類困境的方法,在梳理了情境模擬教學的精神、執行步驟以及評估方法後,進一步使用 FishBanks 遊戲作為模擬的情境。研究發現,情境模擬的失敗反而造成共有資源治理的環境教育的成功,一方面,或許因為失敗的挫折,反而能夠加深參與成員深刻的印象,因此提升教學「遊戲化」、「問題導向學習」及透過「仿真」或「同構」促成體驗反省的效果。另一方面,在模擬失敗的過程中,理論研究者也能夠透過決策過程的歸納,蒐集到過去共有資源治理理論中,未涉獵到的有效治理共有資源的談判決策關鍵點。在建構更豐富的共有資源談判理論外,也能協助發展出更多環境教育中實際談判的決策情境。

**關鍵字**: FishBanks、共有資源治理、情境模擬教學、談判學

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# Failure in Simulation Teaches Successful Governance? An Inspiration from Implementing FishBanks Situational Simulation Teaching on Learning about the Predicament of Governing the Commons

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#### **Abstract**

In the face of globalization, the predicament of environmental governance has become worse. One of the most urgent and biggest issues is "the predicament of governing the commons". The environmental governance teaching implemented in the past has shown some limits on resolving such problem. This study proposes that the situational simulation teaching can possibly provide a way out. The study sorted out the meaning of the situational simulation teaching, the procedure of implementation as well as the evaluation methods. Afterwards, the FishBanks simulation game was used to create the scenario for the situational simulation teaching. It has been found that while the game ended up with the renewable resources depletion (the tragedy of the commons), it brought up a successful result in terms of teaching about governing the commons in environmental education field. This is because, on one hand, the frustration of failing the resources in the game might have deepened the participants' impression of the game experiences and further enhanced the learning efficiency through "gamification" and "problem-based learning" and encouraged reflection through "simulation" or "isomorphy"; on the other hand, through induction, the researchers were able to investigate the process of failure simulation to see the

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critical points, which were not noticed in the past, of influencing the negotiation and

decision-making in terms of effective governance of the commons. These findings can

not only be used for enriching the construction of negotiation theories towards

common resources, but also to developing more decision-making situations and

creating more practical experiences for teaching and learning negotiation in

environmental education field.

Keywords: FishBanks, governing the commons, situational simulation teaching,

negotiation

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