Central Message of the Book
Simulations can aid in the attainment of the general educational goals of (a) transfer of knowledge, (b) skill development, and (c) the application of both knowledge and skills.

This book is a very good introduction to designing and using simulations, especially scenario-based simulations. On the downside, the writing is sometimes clunky and jargon filled. It also ignores, for the most part, computerized simulations, a growing and important type of simulation.

Chapter Highlights and Notes
Chapter 1 – Why Simulations Further Educational Goals
• Motivation
  1. We need to find modes of creating motivation prior to transmitting information. Simulations provide a problem that interests both teacher and students.
  2. The learner must be an active participant in the learning process, rather than a passive recipient of information.
  3. Instruction must be individualized such that learning is at the appropriate pace for each learner.
  4. There must be prompt feedback on success and error.
Bridging the Gap(s)

- Education simulations can also help bridge the gaps between disciplines, which makes them particularly useful for capstone courses that attempt to bring together the essential learning objectives of multiple courses within an academic or professional discipline.

Chapter 2 – What is an Educational Simulation?

- The authors don't settle on a single definition of simulations, but instead offer five basic characteristics of simulations:
  1. Simulations are problem-based units of learning that are set in motion by a particular task, issue, policy, crisis, or problem.
  2. The subject matter, setting and issues inherent in the simulation are not textbook problems or questions in which answers are cut-and-dried and determined quickly.
  3. Participants carry out functions associated with their roles and the settings in which they find themselves.
  4. The outcomes of the simulation are not determined by chance or luck. Instead, participants experience consequences that follow from their own actions.
  5. Participants experience reality of function to the extent that they fulfill their roles conscientiously, and in a professional manner, executing all the rights, privileges and responsibilities.

The Teacher's Role(s)

- The teacher is less that of an expert and more of a facilitator of learning.

Chapter 3 – Designing a Simulation

Design of the simulation and its lessons should be reality-based.

- Ingredients
  - Learning Objectives
  - Number of Students
  - Time
- Write About What You Know
  - Sources of Scenario Stories
  - Scenario Characters
- Student (Role) Interactions
  - Scenario Setting
  - Scenario Documents
  - Simulation Rules

Chapter 4 – Managing an Education Simulation
• **Assigning Tasks**
  o The most important rule your students must adhere to during the simulation is to act professionally, always representing the interests of their roles.

• **Distributing Information**
  o 2 choices: provide all of the information to everyone involved at the same time or prepare separate role descriptions and provide them only to those simulating that role.

• **Instructor Management Role**
  o Instructors should function as "facilitators" during the conduct of an education simulation. Instructors should generally disengage from direct action in the simulation.

**Chapter 5 – Debriefing an Education Simulation**
• Debriefing is a process in which people who have had an experience are led through a purposive discussion of that experience.

• **Planning a Debriefing**
  o Debriefings can assume a variety of formats: oral or written, individual or group, immediate or delayed, or any combination of these. Most debriefings are conducted as guided discussions.
  o Debriefings provide a source of feedback for the facilitator and participants. It is important to bring up real life applications embedded in the simulation.

**Chapter 6 – Responsible Assessment**
• It is important to aim for embedded assessment, assessment practices that amplify the learning without being merely "add-ons." For a course intended to transfer knowledge and build professional skills, you might require written papers and oral presentations from students.
  o Simulations, as group activities, also lend themselves to assessment of how well each student worked with others. Simulations also lend themselves well to peer evaluation.
  o A number of other assessment techniques are provided and described.

**Chapter 7 – An Extended Simulation**
• The final chapter takes readers through the process of a complete sample simulation extending over several sessions.

DESIGNING AN EDUCATION SIMULATION

WHAT IS AN EDUCATION SIMULATION?

2
Student Roles

Panshin and Feinberg identify four primary roles for students: (1) consumer, (2) collaborator, (3) co-instructor, and (4) critic. These roles are outlined in detail in their book "The Student As Consumer, Collaborator, Co-Instructor, and Critic." The consumer role involves students as passive recipients of information, while the collaborator role emphasizes active participation in learning. The co-instructor role encourages students to take on a more active role in the learning process, and the critic role fosters critical thinking and evaluation of information. According to Panshin and Feinberg, these roles are crucial for effective learning and should be integrated into the educational experience.
WRITE AWAY WHEN YOU KNOW

Incorporating the concept of "write away when you know" into your own writing process can be especially beneficial when working on longer projects or when you're struggling with a particular section. This technique encourages you to capture your thoughts and ideas as they come to you, even if they're not fully formed. By doing so, you can avoid the frustration of writer's block and ensure that you don't lose valuable ideas that might otherwise slip away.

To implement this approach, try the following steps:

1. **Set aside time for writing:** Block out specific times throughout your day when you can focus on writing. This doesn't have to be a long block; even 10-15 minutes can be enough to get your thoughts down on paper.

2. **Carry a writing tool:** Have a pen and paper or a digital device with you at all times. This way, you can jot down ideas or thoughts as they occur to you, even when you're not planning to write.

3. **Use触发器（Trigger） to inspire creativity:** Sometimes, a simple trigger can spark an idea. This could be anything from a conversation with a friend to seeing a unique object. When a new idea or thought occurs to you, write it down immediately.

4. **Keep a writing notebook or journal:** This can be a physical notebook or a digital journal. Having a dedicated space for your thoughts can help you maintain consistency in your writing process.

5. **Free write:** Set a timer for a short period (e.g., 5 minutes) and write anything that comes to mind. Don't worry about grammar or structure; just focus on getting your thoughts out on the page.

By incorporating "write away when you know" into your writing routine, you can enhance your creativity and productivity, and avoid the common pitfalls of writer's block. This technique empowers you to capture your thoughts in a way that feels natural and allows you to build upon your ideas as you work.
1. The learning environment and process on trial

2. The educational and research environment at our university

3. The support and resources provided to students and faculty

4. The collaboration and networking opportunities

5. The cultural and social aspects of the campus

6. The physical and technological infrastructure

7. The faculty and student feedback on the program

8. The impact and outcomes of the program

9. The future directions and plans for the program

10. The role of technology in the learning process

11. The importance of lifelong learning and continuous improvement

12. The overall effectiveness and impact of the program

13. The challenges and opportunities for future development

14. The collaboration and partnerships with other institutions and organizations

15. The strategies and initiatives for sustainability and future growth

16. The roles and responsibilities of the stakeholders in the program

17. The legal and regulatory aspects of the program

18. The ethical and social implications of the program

19. The economic and financial implications of the program

20. The environmental and sustainability aspects of the program

21. The impact and outcomes of the program on society and the environment

22. The implications and challenges of the program for future research and innovation

23. The opportunities and potential for future development and growth

24. The strategies and initiatives for future development and growth

25. The roles and responsibilities of the stakeholders in the program for future development and growth

26. The legal and regulatory aspects of the program for future development and growth

27. The ethical and social implications of the program for future development and growth

28. The economic and financial implications of the program for future development and growth

29. The environmental and sustainability aspects of the program for future development and growth

30. The impact and outcomes of the program for future development and growth on society and the environment
Scuba (Re)-Inflation

While the image is not clearly visible, it appears to be related to the topic of scuba diving, specifically focusing on the process of reinflating a scuba dive tank. The text seems to discuss the importance of proper inflation techniques and the consequences of incorrect inflation.

It's important to note that the text is not completely legible due to the quality of the image. However, the general context suggests that the passage might be warning against the risks of not properly reinflating a scuba tank, which can lead to dangerous situations underwater.

In the context of scuba diving, proper inflation is crucial for ensuring the diver's safety and allowing them to ascend smoothly. Incorrect inflation can lead to decompression sickness (also known as 'the bends'), which is a serious medical condition that can cause joint pain, respiratory problems, and other health issues.

Therefore, it's essential for divers to follow proper inflation procedures and be aware of the risks associated with incorrect inflation. Regular practice and training can significantly reduce these risks and enhance the overall diving experience.
...
MANAGING AN EDUCATION SIMULATION
In this chapter, we explored the skills an instructor needs to manage the conduct of an education simulation. The skills required in a traditional classroom are different from those needed in an education simulation. In a traditional classroom, instructors must determine the extent to which the students have achieved the course's learning objectives. This is measured by the amount and accuracy of the information that the students take away from the simulation and apply to their daily lives. In an education simulation, the amount of information that the students take away is determined by the amount and accuracy of the information that the students take away from the simulation briefing (Loderman, 1986).
I. Did your parents discuss the news?

1. How did you feel about the news?

2. How did you react?

II. How do you feel about the news?

1. What emotions did you experience?

2. What did you think about the event?

3. How did you feel about the people involved?

4. How did you feel about the outcome?

III. How do you think the news will affect your future?

1. What do you think will change as a result of the news?

2. How will you be affected by the news?

3. What do you think is the future of this issue?

IV. Conclusion

1. What is your final thought on the news?

2. What advice do you have for others?

3. How can we move forward from this event?
RESPONSIBLE ASSESSMENT

9

(Continued)


can be measured under realistic training and operation.

OLIVER, 1991)

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