

Choose Your Own Adventure: Using Interactive Fiction Software to Facilitate the Case Study Instructional Technique in Postsecondary Agriculture Course

Tyler Granberry, Raegan Ramage, Dr. J. Joey Blackburn, and Dr. Jeff S. Kuehny

Introduction

- The use of case studies as an educational tool, also known as Case Study Technique (CST), has shown promise concerning student performance and perceptions of learning when compared to more traditional methods such as discussion or assigned reading.

(Bonney, 2015)

How it Works

- Quest is an open-source software that allows users to create and upload text-based adventure games.
- Users may include: linkage of video, image, external links, or branching response options.
- ActiveLit is a free source provided by the creators of Quest, which allows the host to develop a self-contained, password-protected webpage to host the case study.
- As the host, the instructor manages access via login credentials and can view student interaction within the case.

Results to Date

- Current implementation in online crop physiology course facilitated through the Alliance for Cooperative Course Exchange in Plant Science (ACCEPS).
- Completion rate of 90.1% on first implementation.
- Participation generated direct application of experience pertaining to course material, inducing higher order thinking skills (HOTS).
- Required participants to analyze, investigate, and formulate conceptualized responses based on the presented case.

Resources Needed

- Quest is provided open-source to public. There is no monetary cost, but the software is rudimentary.
- Time required to format, upload, and administrate access to the case study.
- Development time to create an effective and engaging case study.

Future Plans

- Expansion of Quest and ActiveLit to other courses within the College of Agriculture.
- Further research on the effectiveness of the interactive case study format as an educational tool.

provided students greater perspective and deeper understanding of content

(Yadav et al., 2007)

students more likely to seek information and think critically

(Akins et al., 2019)

the technique has bridged the gap between theory and content

(Popil, 2011)

over 30% of students in online courses preferred case studies as learning activities

(Jayarante, K.S.U., & Moore, G., 2017)

Resources:

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Popil, I. (2011). Promotion of critical thinking by using case studies as teaching method. *Nurse Education Today*, 31(2), 204–207. doi: 10.1016/j.nedt.2010.06.002

Yadav, A., Lundeberg, M., DeSchryver, M., Dirkin, K., Schiller, N., Maier, K., & Herreid, C. (2007). Teaching science with case studies: A national survey of faculty perceptions of the benefits and challenges of using cases. *Journal of College Science Teaching*, 37(1), 34–38. Retrieved from <https://www.researchgate.net/publication/262960630>