Integrating Technology for Collaborative Learning and Knowledge Sharing: Its Implications for Undergraduate Education*

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Introduction

• While the impact of technology on the academic achievement shows mixed results, numerous studies highlight the benefits of the use of technology on class engagement (Piirainen-Marsh & Tainio, 2009), interactional skill (Backlund & Hendrix, 2009), motivation (Yang, 2012).
Introduction

• Games, when adopted properly, brought about positive impacts such as strategic thinking, technical language, and problem solving skills (Gee, 2003; Gros, 2007; Shaffer, 2006; Squire, 2005) and student engagement (Connolly et al., 2012; Perrotta et al., 2013).
Objectives

• to explore students’ perception of the game-making for knowledge sharing
  – In particular we would like to investigate how our research participants make sense of their game-making activities and how they perceive the potential of the group-based game-making for knowledge sharing.
Methods

RD
• Qualitative

DC
• Interviews
• Observation

DA
• Game workshop
• Observation
• Interviews

DP
• Triangulation
• Coding
• Themes
Game Software and Template
Modifying the Game Template

The workshop
The Game Result

The game when played on smartphones
The Game Result

The game when played on smartphones
The Game Result

Question 7.
This location is very popular among tourists because many dramas were filmed in this location.

The game when played on smartphones
Results

Overarching themes

• Games can be a powerful tool for knowledge sharing
• Group dynamic is key in creating the game
• There should be a balance between game modification and knowledge sharing
Implications

Pedagogical approach
- Well-designed activities
- Students’ technology comfort level
- Appropriate features to use

Institutional policies
- Encouraging teachers to use the available technology to increase student engagement in class activities
- Technological and instructional support for teachers
Limitation

• Students’ tight schedule
• Lack of game trainers to supervise
• The game only allows multiple choice answers
• The game should be installed in students’ computer (not cloud-based)
What’s next

• Planning longer workshops (several sessions)
• Designing storyboard samples
• Recruiting participants from different departments
• Recruiting more trainers
• Creating cloud storage where students can work in different locations
References


