

# Northumbria Research Link

Citation: Sloan, Diane, Robson, Andrew, Charity, Ian, Nguyen, Thuyuyen and Purdie, Tony (2013) Can a business simulation game provide support and address learning and assessment criteria? In: 'Innovation and the student experience' - The ABS Learning & Teaching Conference 2013, 23-24 April 2013, Nottingham Conference Centre.

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Theme assessment and feedback: Can a business simulation game (BSG) provide support and address learning and assessment criteria?

ABS 'Innovation and the student experience'  
Nottingham 23-24<sup>th</sup> April 2013



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# Issues addressing

- The role of business simulation game (BSG) as an educational tool, selection
- Challenges – staff and students (Clarke, 2009)
- How to address programme learning goals
- Effectiveness as an assessment tool
- Effectiveness as a pedagogical tool
- Contribution of BSG to student learning

Provides an overview of current research investigating the impact of the implementation of a BSG with both UK and overseas postgraduate students from a range of business and management disciplines in a post 1992 university.

# Role of business simulation tools

Underlying theory:

- Theoretical perspectives
  - motivation (Aldrich, 2003)
  - analytical skills (Chakravorty, 2005)
  - decision making and adaptable learning (Aldrich, 2005)
  - behavioural (Sherpereel, 2005)

# Methodology

Voluntary survey - 300 Masters students targeted using BSG as summative assessment, 190 initial responses

- Scale questions to assess:
  - teaching environment anxiety, cohesiveness, enjoyment,
  - group cooperation and technology adequacy
  - perception of usefulness with respect to investigation, interpretation, analysis and application
- Consideration of final assessment performance
- Assessment of overall experience and satisfaction
- Indicate levels of previous experience relating to:
  - the key business functions
  - aspects of decision making data,
  - provide indication working in teams
  - use of the BSG as a learning tool

# Initial Considerations I.

## Selection of BSG

- Widely used simulation software, based on the European Car Industry.
- Permits decisions on the four key business functions of finance, HR, marketing and operations in the execution of organisational strategy.
- Encompasses a level of uncertainty and associated complexity.
- Work volume requires team engagement.

## Challenges

- Team membership is imposed, rather than voluntary, accounts for gender and nationality mix.
- Equity of input/participation in teams, assessed by classroom monitoring and anonymous questionnaire, potential for staff to join group meetings.
- Biggest single challenges – business theory (45%), the simulation itself (36%), relatively less problematic fellow team members (19%).

# Initial Considerations II.

## Link to programme learning goals

- Central to the assessment of specific PG goals and objectives, for all Masters students.
- Group presentations (given by participants on a rolling basis) used to assess leading discussion and communicating complex issues.
- Demonstration of decision making and problem solving, alongside knowledge of the key business functions.
- Demonstration of working in diverse teams and making a personal contribution to team effectiveness.

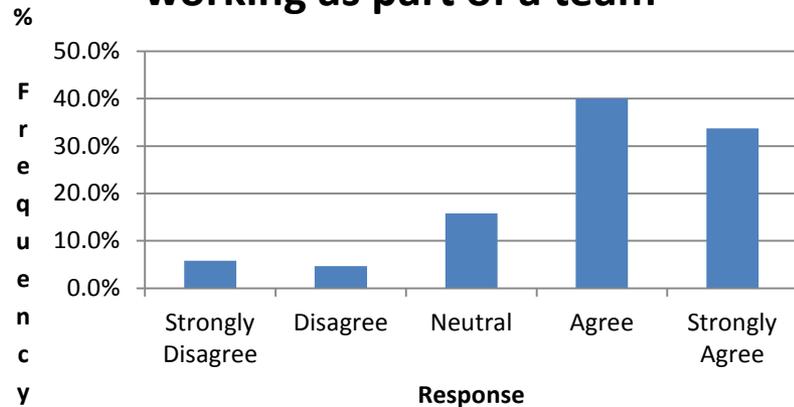
## Effectiveness as assessment tool

- Allows the demonstration of the linkage between theory and practice.
- Playing over a number of game rounds, permits the development of trends in KPIs, with consideration of breadth of organisational assessment.
- Critical evaluation of strategy realisation, decision making and team working.

# Findings I.

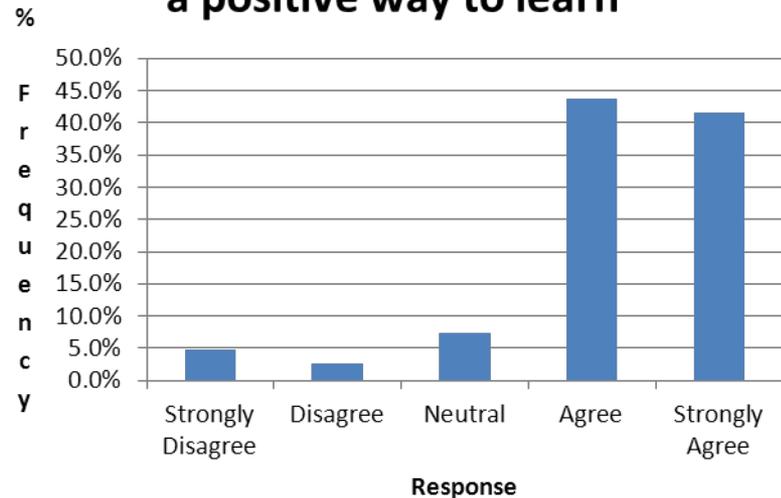
## Effectiveness as a pedagogical tool

I had a positive experience working as part of a team



## Contribution to student learning

I consider a business simulation a positive way to learn



# Findings II.

- Limited significant differences in potential for voluntary take-up of a business simulation, except males being more positive (1% level).
- Limited significant differences in seeing the positive value in working in a team, except the older the age-band, the more positive (1% level).
- No significant differences in viewing simulations as a positive way to learn.
- All three areas above are independent of previous subject (functional knowledge and decision making approaches) experience.

# Challenges

- Preserving positive outcomes relating to team working, but look at its perception amongst the younger students.
- Reinforce greater understanding of the mechanics of the simulation, its assumptions and interpretation of its output.
- Make more explicit the link between the business functions and associated theory with the practice of strategy and decision making.

# Further Research and the Future

- Further roll out of the survey instrument.
- Assessment of the linkage between the learning environment, student attitudes towards the BSG and performance in summative assessment.
- Qualitative considerations by means of student interviews around the key challenges of the game – experiences, linkage of theory to practice, the simulation and team working.
- ***Any questions?***

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