The Fifth International Blended Learning Conference
"Developing Blended Learning Communities"

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Blended learning: A strategy to enhance students' learning experience and engagement

Authors

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Under the theme:

• Supporting and enhancing different aspects of the curriculum
Background for this research

- This research projects project is funded by NTU's institutional-wide funding scheme 'Scholarship Projects for Undergraduate Researchers' (SPUR) project.

- SPUR is initiative of the NTU Working Party for Research-Informed Teaching.

- This Working Party links the University Research Committee and the Academic Standards and Quality Committee.

- This Party was established in 2006 with the aim of exploring and enhancing the links between teaching and research at NTU.

- The scheme is intended to be a prestigious award gives undergraduates a unique opportunity to engage directly with the cutting-edge research of the University.
Background for this research (cont'd)

• It is hoped that the SPUR scheme will identify scholarship students as future researchers and potential academics

• Raise general student awareness of academic research and related career options and the role of research in learning and teaching, both within and outside Nottingham Trent University

• This project is based on Round Two of the SPUR scheme

• The research was conducted in July to November 2009

• Joanna Poon and Paul Royston other academic applicants for the SPUR project

• Donald Morrison is the SPUR student scholar
Aim of this paper

• Review applications of blended learning in NTU’s UG and PG programmes
• Examine the benefits that blended learning provide to students’ learning experience
• Identifying successful factors for blended learning
• Explores how students ‘receive' and 'utilize' blended learning
• Provide recommendations for the development of blended learning as learning and teaching method
Research method

• Semi-structured interviews with academics from diverse backgrounds
• Questionnaire survey with students from diverse backgrounds
• Interviewed academics sent an on-line questionnaire to their students
• 8 out of 9 interviewed academics agreed to send questionnaires to their students
• 260 students' questionnaires were received
## Description of interviewees

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Subject areas</th>
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<tbody>
<tr>
<td>1</td>
<td>Property Investment</td>
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<td>2</td>
<td>Environment Management</td>
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<td>3</td>
<td>Construction Technology</td>
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<td>Building Technology</td>
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<td>5</td>
<td>Bioscience Science</td>
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<td>6</td>
<td>Secondary Education</td>
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<td>7</td>
<td>Sports and Exercise Psychology</td>
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<td></td>
<td>(Did not sent questionnaire to students)</td>
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<tr>
<td>8</td>
<td>Law</td>
</tr>
<tr>
<td>9</td>
<td>Political Science</td>
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</tbody>
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Interview questions to academics

- Background information of interviewee
- Knowledge and experience on blended learning
- Design and use of blended learning
- Resources needed for blended learning
- Evaluation of using blended learning
- Other comments
Questionnaire questions to students

• Background information about respondents (Answers choose from a list)

• Identify the advantages for using blended learning as a teaching method (Answers choose from a list)

• Experience of using blended learning (Yes/ No)

• Received training and guidance of using blended learning (Yes/ No)

• Quality and amount of interaction between students and between students and tutors (Likert scale)

• Blended learning teaching method is sufficiently explained in a module handbook (Likert scale)

• A module handbook provides sufficient resources for this specific blended learning module (Likert scale)
Questionnaire questions to students (cont'd)

• Given the opportunity, the student would take another blended learning module in the future (Likert scale)

• Have overall satisfaction with the use of blended learning as a teaching method (Likert scale)

• To describe the relationship between the online learning and in-class learning (Answers choose from a list)

• Identify the most effective aspect of the use of blended learning as a teaching method (Open question)

• Identify the least effective aspect of the use of blended learning as a teaching method (Open question)

• To provide suggestions to strengthen the blended learning that you experienced (Open question)
Research findings
Information about academics

Years of teaching experience

• 5 years to 29 years
• Average: 19 years

Experience using blended learning

• Shortest time - one year
• Longest time - Throughout the whole career (more than 20 years) – different forms of blended learning, not restricted to online learning
Information about students

Mean = 2.13
Std. Dev. = 1.438
N = 260

1 = 1st year
2 = 2nd year
3 = 3rd year
4 = 4th year
5 = Postgraduate
Mean = 1.19
Std. Dev. = 0.39
N = 258
Mean = 1.28
Std. Dev. = 0.576
N = 260
Applications of blended learning in NTU’s UG and PG programmes

• Use for part-time courses
• Use for courses delivered via partnership with other institutions
• Use for Regional Foundation Degree (RFD) in FE Colleges
• Use for ‘weekend-block’ part-time courses
• Use for distance learning courses
• Useful virtual school, there are 200 trainees teachers involved in this task
• Use for courses delivered in Central and Eastern European
Benefits to students’ learning experience

- Use work-based learning to enhance students’ practical knowledge
- Recorded lectures onto CDs so students can use a revision guide
- Use of broad range of teaching methods including podcast, online coursework, face-to-face teaching and textbook to assist students in their learning ability
- Students can learn through their pace
- With the support of VLE based assistance, so the teaching materials can be put on the VLE platform. The limited classroom contact time can be used for more detailed interactive sections
- It is particularly useful for part-time students because they have difficulties to attend campus-based lectures
Successful factors for developing blended learning modules

- Prepare enough time for development
- Prepare for 'trial and error' during the development process
- Have sufficient technological support
- Have support from senior managers
- Have various teaching methods, combination of face to face teaching, online teaching and other teaching methods
- Skillfully use of podcasts with lectures, FAQs and a variety of topical podcasts to fill students ‘dead time’
- Enhance students’ engagement
Successful factors for developing blended learning modules (cont'd)

- Consist a good mix of different types of learning process, such as face-to-face teaching, videos, subject specific radio podcasts, giving online directions for suggested readings, actual seminars and laboratory work

- Have good infrastructure/platform for Virtual Learning Environment, such as NOW in NTU or Blackboard
How students’ ‘receive’ and 'utilize' blended learning

Amount of interaction with students

Quality of interactions with students

1 = Increased
2 = Somewhat increased
3 = No difference
4 = Somewhat decreased
5 = Decreased
6 = Not applicable

Mean = 3.65
Std. Dev. = 1.548
N = 144
Satisfied with use of BL as teaching method

Frequency

Mean = 2.58
Std. Dev. = 1.068
N = 144

1 = Strongly agree
2 = Agree
3 = Not sure
4 = Disagree
5 = Strongly disagree
6 = Not applicable
Mean = 2.09
Std. Dev. = 0.876
N = 139

1 = Online / in-class work enhanced each other
2 = Online / in-class work were relevant to each other
3 = Connection between the two was not always clear
4 = No connection between the two
Most effective aspect of blended learning as identified by students

• Information is available online
• Students can do work at their own pace
• Become more independent on own learning
• Students have more interactions with other students
• Use of different teaching methods makes the lectures easier to understand
• Diversity and more engaging
• Flexibility, enable part-time students to work round with work and family commitments
Least effective aspect of blended learning as identified by students

- Make the lecture redundant as all information are on-line
- Less interactive/ lack of direct communications with tutors
Students suggestions for the improvement of blended learning

• Ensure to have instant contacts with lecturers
• Blended learning is beneficial but it should still maintain the interaction with the tutors
• Develop more online resources
• More inputs from students on the development of blended learning
• Give students clear guidance on how to use blended learning
• Have more time set aside to discuss work
Recommendations for the development of blended learning as learning and teaching method

- Blended learning is not an economic measure/approach for teaching

- Be prepared to invest time and resources on developing and maintaining a successful blended learning environment
  - Equipments
  - Staff time on developing blended learning project
  - Administrative time

- Support from senior management is vital

- Ensure the face-to-face contact with students is available as students required re-assurance and ongoing support from lecturers
Recommendations (cont'd)

- Suggested to be slow to incorporate any change
- Need to be more strategic and considering consequence for any changes
- Ensure receiving senior managers support before taking actions
- Keep it simple, so people can see how does the blended learning module work
Recap

Discuss the finding of a blended learning projects conducted in NTU

Covered following areas

• Review applications of blended learning in NTU’s UG and PG programmes
• Examine the benefits that blended learning provide to students’ learning experience
• Identifying successful factors for blended learning
• Explores how students ‘receive' and 'utilize' blended learning
• Provide recommendations for the development of blended learning as learning and teaching method
Thank you