Mix and Match: Blended Learning for Learning Continuity

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What I am sharing...

- **Learning Continuity** in Singapore institutions
- Planning for business / learning continuity
- Blended Learning in the context of Learning Continuity
- Use of Learning Activity Management System (LAMS) for blended learning design and development
- Case examples
Learning Continuity Situations

• Aftermath of Natural Disasters

  - Flood
  - Fire
  - Hurricane
  - Mass movement
  - Tsunami

• Pandemic Crisis

  - H1N1 Pandemic
  - Flu Outbreak
Learning Continuity Situations

- Distance Learning programmes
- Virtual Schools
- Adult and Continuing Education workshops
- Planned eLearning Week(s)
- Lecturer on leave (sick, urgent, holiday)
- Overseas conference
- Students on overseas attachment
Planning for Learning Continuity

- **Nation wide**
  - Triggered by authorities and preparedness policies.
  - National disaster and pandemics affect school closures and limited access to campus or learning zones.

- **Institutional level**
  - eLearning Week exercises
  - Home Based Learning

- **Teacher/Professor**
  - Self development to pilot new learning technologies for teaching purposes
  - Meet school policies on student engagement and collaborative learning
  - Absence from class due to sick, away for conference, etc.
eLearning: a solution for LC

- **eLearning** is usually the solution for learning continuity when institutions plan for campus closures or off-classroom learning events.
- **eLearning** is one method used by lecturers to deliver their lessons and engage the students outside the classroom.
- **eLearning** is a solution that students are used to since their early schooling years.

Is your institution or company ready for Learning Continuity?
Readiness Assessment

• Preparing the teachers, students and school leaders
  ▫  Communication channels
  ▫  Training students (and parents), lecturers in the use of LMS, communication and distance learning tools
• Learning resources, activities and assessments
  ▫  Build or invest in digital content and learning materials
  ▫  Check workload demands on student across courses
• Technologies and platforms
  ▫  LMS, LAMS, video streaming and web conferencing platforms
  ▫  Licensing and availability of software applications for student home PCs
• Learning Support
  ▫  Helpdesks an tutor support
• Management
  ▫  Policies – payment, learner loading
  ▫  Assessment of learning – types, limitations, online exam polic
## Case 1: NTU Business Continuity Plan

<table>
<thead>
<tr>
<th>GREEN</th>
<th>YELLOW</th>
<th>ORANGE</th>
<th>RED &amp; BLACK</th>
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</thead>
<tbody>
<tr>
<td>• Lessons and exams as per normal.</td>
<td>• Lectures, tutorials and laboratory sessions continue as per normal.</td>
<td>• Stop mass lectures/activities and replace by e-learning, if possible.</td>
<td>• E-learning only via remote access for students from hall (foreign students) or homes.</td>
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<tr>
<td>• LOA students to access materials from e-learning system.</td>
<td>• HQO students to access materials from e-learning system.</td>
<td>• Tutorials and laboratory sessions continue as per normal.</td>
<td>• Hold exams on e-learning system if possible, otherwise postpone exams.</td>
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<td>• Isolate LOA and sick students for exams.</td>
<td>• Isolate sick students for exams.</td>
<td>• HQO students to access materials from e-learning system.</td>
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<td>• Isolate sick students for exams.</td>
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<td>• Hold exams in small rooms or on e-learning system if possible.</td>
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<td>Postponed exams, if necessary.</td>
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<td>• Research activities as per normal.</td>
<td>• Research activities as per normal.</td>
<td>• Research activities to continue, if possible.</td>
<td>• Stop research activities.</td>
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**BCP formulated in 2006**
NTU’s Learning Continuity Model: Selected Core Learning Tools

Core Learning Activities

- Lectures
  - aculearn
  - preseNTUr

- Tutorials
  - acuConference
  - Virtual Classes

- Project Work
  - Blackboard Discussion Groups
  - eUreka Project Work Management System

- Assessments
  - Blackboard Assessment Engine

Lab-based sessions exempted
# NTU eLearning Week

## eLearning Weeks Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Break</th>
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Supported by Blackboard Connect for mass notification purposes
Case 2: SP eLearning Contingency plan

- SP had conducted **campus-wide** eL Week exercises per semester from 2005 to 2007
- Swine Flu (H1N1) crisis in 2009 eLearning Contingency plan calls for lecturers to prepare a minimum of 3-weeks eLearning tasks, such as

<table>
<thead>
<tr>
<th>Week 3</th>
<th>Virtual classrooms</th>
<th>Week 2</th>
<th>Week 1</th>
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<tbody>
<tr>
<td></td>
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<td>types</td>
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<tr>
<td>Week 2</td>
<td>Web research, simulations, higher collaborative tasks</td>
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<tr>
<td>Week 1</td>
<td>Enhanced learning materials; Formative assessments; Basic communication and collaborative tasks.</td>
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- Enhanced learning materials – eg. PPT with voice over (Camtasia, Voicethread)
- Collaborative tasks – blogs, wikis, group submissions
- Virtual classrooms – audio/web conferencing, live chats (skype, Centra)
- Module Maps for each course are updated for the
### Scenario for Week 1: content-ready

**Announcements**
- Staff Information
- Module Information
- Learning Resources
- Library Resources
- Groups
- Mass Briefings

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics/Learning Outcomes</th>
<th>Activities/Assessment</th>
<th>Learning Resources</th>
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<tbody>
<tr>
<td>1st week of Closure</td>
<td>The topic we are doing this week is on <strong>Topic 4: High Level (HL) GUI (with voice narration)</strong>&lt;br&gt;On completion, you will meet the Specific Learning Outcomes for this week:&lt;br&gt;1.1 List all the HL GUI in JME.&lt;br&gt;4.2 Develop a simple game with HL GUI.</td>
<td>Complete your <strong>Tutorial 4</strong> and upload your answers for Q5 and Q6 through this link by end of Week 1.&lt;br&gt;Test your understanding on Topic 4 with this <strong>Self-Assessment</strong></td>
<td><strong>Video on Programming in JME</strong></td>
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**VoiceThread**

**Camtasia**

**Annotated notes, narrated with Natural Reader**
Scenario for Week 2: higher order collaborative tasks

The topic we are doing this week is on Topic 5: Low Level (LL) GUI (with voice narration). On completion, you will meet the Specific Learning Outcomes for this week:

- 5.1 List all the LL GUI in JME.
- 5.2 Develop a simple

2nd Week of Closure

Complete your Tutorial 5. No submission is needed.

Test your understanding on Topic 5 with this Self-Assessment

Submit your proposal on your gaming project by end of Week 2 through this wiki. Place your proposal according to your admission nos.

Bb Blogs

Bb Wikis
Scenario for Week 3: Synchronous activities

### 3rd Week of Closure

| The topic we are doing this week is on **Topic 6: Network Connection (with voice narration)**. On completion, you will meet the Specific Learning Outcomes for this module. | Complete your **Tutorial 6**. No submission is needed. Comment on at least 2 proposals through this wiki using the Comment tool. |

### Additional Reading Materials:

- **Purchase Tickets Online with Mobile Phones**

  - On Tuesday 3pm, login to your Skype account for the 1st online discussion on Tutorial 6.
  - On Friday 3pm, login to your Skype account for the 2nd online discussion on your proposal.
Issues with Online content

• Lessons are usually delivered as a self-paced, single learner and from teacher-to-student.
  ▫ Instructions not clear or present to guide students on how to learn or where the specific learning content resides.
  ▫ Hyperlinks to resource placed in announcements or other areas can be messy or missed out.

• Lots of learning materials reside in the course-site
  ▫ Level of use (or non-use) by lecturers.
  ▫ Difficult to navigate due to illogical structure of content
  ▫ Content not updated - poor/no ownership if sites change hands

• Online lessons for a particular eLearning Week are poorly designed and lacks certain activity tools to build a similar experience in a classroom-led session.

• Lack of social interaction and engagement often cited as poor experiences with eLearning Week
Blended learning

- Blended Learning is “the thoughtful integration of classroom face-to-face learning experiences with online learning experiences”

- BL courses combine online and face-to-face time in an optimal way to improve student learning outcomes and to address important institutional issues. [Sloan Consortium]

- BL attempts to merge the strengths in both environments to provide more engaged learning experiences for students

- BL requires strong human-human interaction as well as learner-material interactions, thus there are different modes of student engagement
What goes into a blend?

• Course Re-design / Design
  ▫ Analyse and break the course objectives into small but pedagogical learning activities that can be done both online and in the classroom
  ▫ Explore technologies for effective delivery of the learning activities
• Who and type of learners
  ▫ prior competence, motivational level, culture
• Resources
  ▫ include budget and technology infrastructure, tools
• Location where online learning is conducted
  ▫ Physical and pedagogical distance between learners and instructor
  ▫ Timing of activities (synchronous/asynchronous)
• Content & learning activities
  ▫ relevance, stable
Illustrating Blending...

**ONLINE**

Objectives:
- Encourage students to understand diversity of economic situations around the world
- Promote independent research skills & collaborative learning

Activities:
- Individual reading of primary electronic sources
- Group research
- Collaborative writing of case reports

**CLASS-BASED**

Objectives:
- Provide students with theoretical approaches to understanding world economy
- Engage students in evidence-based seminar discussion & debate

Activities:
- Weekly lectures/seminars
- Group presentations

Mix and match ratios may depend on a variety of factors such as lecturer preference and learning outcomes
Blended learning @ NTU

- Propelled by eLearning Weeks and other LC situations in NTU.
- Greater use of technologies to blend online activities with f2f classes.
- Wide range of tools within NTU eLearning ecosystem, with online Blended Learning leveraging mainly on edveNTUre, LAMS and AcuLearn.
Examples
Mix of online and f2f activities

Give clear instructions and guidelines to work with the online content

- Pre-recorded video/audio
- self reflection
- peer review
- presentation in class.
- discussion board
- Final submission
Distance learning course

Online lessons deployed as learning sequences designed with LAMS.
Online lab session

Lecture I - Setup of Experiments and Wind Tunnels

The next activity is a lecture on how to plan and setup an experiment and on how wind tunnels are designed.

To access the lecture click on the link below.

Recorded Lecture - Wind Tunnel (25m 06s)

Package helps students better understand aerodynamics before attending lab session. Professor use lab time to engage students in further understanding and assessments. Documentary style videos also overcome the limitation of putting many students in the wind and water tunnel facility.
Mix and match relevant activities to enhance learning experience!

LAMS activities can be matched and combined to deliver a meaningful learning activity. For eg. a student can watch a video or presentation and submit their answers or reflections to a question within this activity.
Higher quality of learning

LAMS tools are structured such that a F2F activity can be conducted online with similar pedagogical principles. Here, students view answers from other learners only after submitting their own, hence multiple varied answers (good, poor, incomplete, right, wrong, partial) to the same question. Learners are more discerning and professors have a better gauge of students’ understanding.
Summary

• Experiences and lessons from eLWs and HBL exercises – a move towards adopting a blended learning environment.

• Use the right tools for the job (whether it is big or small). Effective blended learning programs start with the instructor designing the right online and in-class learning activities to support intended learning outcomes and assessment strategies.

• LAMS is a good choice to develop typical lesson designs and build expertise for blending online and in-class lessons.
Q & A

Thank you

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