Blended Learning and Curriculum Design in Medical Education

Blended Learning Design Tool - BLEnDT©
#BLENDTImperial

Saturday 11 April 2015

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School of Medicine
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>9:00</td>
<td>Introduction to the session</td>
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<tr>
<td>9:10</td>
<td>Group introductions</td>
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<tr>
<td>9:20</td>
<td>What is your main interest in relation to this Workshop?</td>
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<tr>
<td>9:35</td>
<td>Overview of Learning Domains</td>
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<tr>
<td>9:50</td>
<td>Group Exercise: match Learning Outcomes to Learning Domains (Surgery course)</td>
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<tr>
<td>10:15</td>
<td>Overview of the Blended Learning Design Tool BLEnDT©</td>
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<tr>
<td>10:35</td>
<td>Design a Blended Learning course for surgical education using the Blended Learning Design Tool (BLEnDT©)</td>
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<tr>
<td>10:45</td>
<td><strong>BREAK</strong></td>
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<tr>
<td>11:05</td>
<td>Report back on group exercise</td>
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<tr>
<td>11:15</td>
<td><em>Continuation</em> - BLEnDT© research, partners, main findings</td>
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<tr>
<td>11:45</td>
<td>Evaluation and Close</td>
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BLOOM TAXONOMY – LEARNING DOMAINS

- Cognitive – Knowledge
  (Bloom, 1956; Anderson and Krathwohl, 2001)

- Affective – Attitude
  (Bloom et al. 1956; Bloom, Masia and Krathwohl, 1964)

- Psychomotor – Skills
  (Bloom, 1956; Dave, 1967; Simpson 1966; Harrow, 1972)
BLOOM TAXONOMY – LEARNING DOMAINS

Cognitive – Knowledge
(Bloom, 1956; Anderson and Krathwohl, 2001)
CARDIO-PULMONARY RESUSCITATION (CPR)

Source: NATO Training Mission-Afghanistan - CC: BY-SA 2.0
GROUP EXERCISE – Learning Domains
How BLEnDT© determines the split (self-guided vs collaborative activities)?

- Learning outcomes are selected.
- The learning outcomes selected are then associated under the different Learning Domains.
- BLEnDT© runs an algorithm.
- The blended learning split (self-guided vs collaborative) is then generated and presented.
- Different learning activities are then suggested for the self-guided and collaborative learning activities.
How BLEnDT© determines the split (self-guided vs collaborative activities)?
BLEnDT© - A Blended Learning Programme for undergraduate medical students supported by the use of iPads

N=283 students Year 1: MBBS course
BLEnDT© - A Blended Learning Programme for undergraduate medical students supported by the use of iPads

Linear regression

After taking into account the scores of the students that completed the self-guided module in Blackboard and the Pre Quiz, there is marginal evidence of an increase in the final respiratory mark as the Post Quiz scores increases.
Main findings

• BLEnDT provides the platform to initiate curriculum design dialogues.

• The study mentioned earlier shows evidence of learning gains as students engage in a blended learning programme designed using BLEnDT.

• BLEnDT provides a systematic way of designing blended learning courses - more robust process for analysing evidence.
Current Collaborations

- Centre for Technology Enhanced Learning – King’s College London
- The Applied Medical Sciences BSc/MSc. – University College London (UCL)
- The School of Health Sciences - City University London
- Lee Kong Chian School of Medicine – Singapore
- School of Medicine – Imperial College London
- Faculty of Engineering – Imperial College London
- Educational Development Unit (EDU) – Imperial College London
More information about BLEnDT©

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