Blended Learning: where it came from and where it heads to

Hideto D. Harashima
Maebashi Institute of Technology, Japan
Blended Learning: aka

- Hybrid Learning  ハイブリッド型学習
- Integrated Learning  統合型学習
- Eclectic Learning  折衷学習
When did it first appear?

- Not a new idea, but ….

- Lamb, J. 2001:
  "Blended learning’ is the new buzz phrase"
  
  FT. com, Online.

- It’s practice began around 2002:
Definitions

Many definitions

Definitions (narrow sense)

- Blending e-learning and face-to-face learning
  ------ Morita (2004)

- Blending online learning and traditional methods of learning
  ------ Thorne (2003).

- Blending campus-based learning and distributed learning
  ------ Bonk and Graham (2006)
**Blended Learning Concept**

The union

**F2F Learning**
- lecture
- exercise
- experiment
- discussion
- craft work
- PBL
- presentation
- performance

**e-Learning**
- Synchronous
  - SCS
  - Web conferencing
  - RTVCE
- Asynchronous
  - WBT
  - LMS

*PBL = Problem (Project) Based Learning
*SCS = Space Collaboration System
*RTVCE = Real Time Virtual Classroom Environment
*WBT = Web Based Training
*LMS = Learning Management System
Definitions (broad sense)

Blending methods of learning

i.e. individual learning, lecture audition, pair lesson, group discussion, exercise, experiments, cooperative learning, etc.
Definitions (broad sense)

- Blending various media or "technology" in a learning environment

- Technology = all physical tools in the classroom: furniture, rooms, handouts and visual aids, in addition to electronic equipment and networks

Hinkelman (unpublished paper)
Definitions (broad sense)

- Blending real learning environment and virtual learning environment

  e.g. Sloodle = SecondLife + Moodle
Definitions (broad sense)

- Blending learning and working
  - Real-time work flow learning (RTWFL)
Blended Learning Concept

F2F Learning
- lecture
- exercise
- experiment
- discussion
- craft work
- PBL
- presentation
- performance

e-Learning
- Synchronous
  - SCS
  - Web conferencing
  - RTVCE
- Asynchronous
  - WBT
  - LMS

*PBL = Problem (Project) Based Learning
*SCS = Space Collaboration System
*RTVCE = Real Time Virtual Classroom Environment
*WBT = Web Based Training
*LMS = Learning Management System
Some reflections on e-Learning

- Students tend to get isolated; many of them give up the course early.
- Facing the computer all the time does not motivate students for learning very much.
- Communication tools are provided, but it’s up to each student to actually use them; lack of communication naturally produces dropouts.
- Teachers get too busy and too tired with online material development and individual caretaking online.
- Students don’t get chances to learn from “real” experiences such as lab experiments, guided exercises, and social interactions with classmates.
- Information infrastructure is not the same with every student; this could create unfairness.
Necessity for blending

By blending face-to-face learning in a classroom setting with e-learning, it is expected that we can complement some, if not all, of these setbacks.

-- Macdonald 2008

c.f. “reactive” blending – Brodsky 2003
Necessity for blending

- More traditional interpretation
  - F2F learning can be complemented by e-learning
    - F2F --- main,  e-learning --- sub
      (Bersin 2004, Kusanagi 2004, Sharma and Barrett 2007)
    - Lecture-complementary Learning (講義補完型学習)
      -- Morita 2004
    - “The Other Blended Learning”
      -- Wilson and Smilanich 2005
## Benefits of Blended Learning

### 1. Prevents learner isolation and save cases of dropouts.

<table>
<thead>
<tr>
<th>E-learning fears:</th>
<th>F2F learning strength:</th>
</tr>
</thead>
<tbody>
<tr>
<td>isolated,</td>
<td>Trust and rapport toward the teacher</td>
</tr>
<tr>
<td>lagging behind,</td>
<td>Encouragement and moral improvement through interactions with classmates</td>
</tr>
<tr>
<td>no encouragement,</td>
<td></td>
</tr>
<tr>
<td>frustration</td>
<td></td>
</tr>
</tbody>
</table>
1. Prevents learner isolation and save cases of dropouts

E.g. Stanford University reports that they succeeded in raising the students’ self-paced course completion rate from a little over 50% to **94%** by incorporating elements of BL (scheduled live events, interaction with instructors and peers, mentoring experiences)

--- Singh and Reed 2005
2. Elevates motivation for learning

- **E-learning catchphrase:**
  Anytime, anywhere, at-your-own-pace learning

- **This could be misinterpreted as:**
  You don’t have to do it now. You don’t have to do it here. You can put it aside until you feel like doing it again.

As a result:

- Procrastinator reproduced
- Motivation fade away
Benefits of Blended Learning

2. **Elevates motivation for learning**

- **F2F learning could improve moral**
  - steady learning habit:
    -- meeting at the same time, same place,
  - socializing with other classmates
  - receiving inspiration/advice from a knowledgeable teacher
Benefits of Blended Learning

3. Enhance effectiveness of learning

- Social constructionism
  - People create new knowledge and learn most effectively through social interaction and exchanging information for the benefit of others.
Benefits of Blended Learning

3. Enhance effectiveness of learning

Learning Pyramid

- Lecture: 10%
- Reading: 20%
- Audiovisual: 30%
- Demonstration: 50%
- Discussion: 75%
- Practice doing: 90%
- Teach others: 100%

Average student retention rates

Source: National Training Laboratories, Bethel, Maine
Benefits of Blended Learning

3. Enhance effectiveness of learning

- Supporting Data
  - University of Tennessee “demonstrate an overall 10 percent better learning outcome than by using the traditional classroom learning format alone.”
    (Singh and Reed 2005: 323)
  - “In a blended learning best practice survey conducted by the eLearning Guild (2003), 73.6 percent of respondents reported blended learning to be more effective than non-blended approaches.”
    (Wilson and Smilanich 2005:15)
4. Effective specialization of learning

- By dividing activities and materials to the areas of strength of each EL and F2F learning, we can expect more effective learning and cost reduction.

Benefits of Blended Learning

4. Effective specialization of learning

EL strengths
- Knowledge-based learning
- Learning by memorization
  - Less chance for overlooking and mishearing
  - Rote practice
  - Repeat many times
  - Study by one’s own pace

F2F strengths
- Productive/creative activities
- Thoughts/knowledge building activities
4. Effective specialization of learning

- Cost reduction
  - By moving part of F2F learning to EL, travel expenses can be reduced.
  
  - By moving some of media-rich content to F2F learning, the cost for material development and infrastructure rigging can be reduced.
Designing BL (Aim)

- optimizing achievement of learning objectives by applying the “right” learning technologies to match the “right” personal learning style to transfer the “right” skills to the “right” person at the “right” time (Singh and Reed 2005: 315)

- to get the right content in the right format to the right people at the right time (Singh 2003: 52)

- strategically select “channels and venues to optimize a learning program” (Hinkelman 2005: 19)
Designing BL (Aim)

- **EL**
  - Anytime, anywhere learning

- **BL**
  - Right time, right place, right delivery learning
Designing BL (Specialization)

**Display Activities**
1. Answers are predetermined.
2. The answers are either “right” or “wrong.”
3. The same answers are expected from all the participants.
4. Group or class can answer in chorus.
5. The precision of forms often becomes the focus of attention.
6. Answers or results are what really counts.

**Referential Activities**
1. Answers are unpredictable.
2. There are not always the “right” answers.
3. Basically done between individuals.
4. Communicative in nature.
5. The focus is on meanings or content, rather than on the forms.
6. The process is valued as much as the answers or results.
## Designing BL (Specialization)

<table>
<thead>
<tr>
<th>How to learn</th>
<th>Display Activities</th>
<th>Referential Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetitive practice</td>
<td>Repetitive practice and rote memorization</td>
<td>Interactions between participants</td>
</tr>
<tr>
<td>and rote memorization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philosophy</td>
<td>Objectivism/Positivism</td>
<td>Constructionism</td>
</tr>
<tr>
<td>Autonomous study?</td>
<td>Suitable</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Fit style</td>
<td>E-learning</td>
<td>F2F learning</td>
</tr>
</tbody>
</table>
Two general approaches

Program flow model
- A step-by-step curriculum that integrates several media into a chronological program or syllabus

Core-and-spoke model
- One fundamental training approach (typically onsite classroom training or web-based courseware) and then delivers other materials, interactivities, resources, and assessments as “supporting materials,” optional or mandatory materials that surround and complement the primary approach.
Designing BL (models)

- **Two general approaches**
  (Bersin 2004)

- **Program flow model**
  - Pre-arranged blending in a linear fashion
    e.g. A BL program at Saga University in Japan

<table>
<thead>
<tr>
<th></th>
<th>1st lesson</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>guidance</td>
<td>online</td>
<td>F2F</td>
<td>online</td>
<td>F2F</td>
<td>online</td>
</tr>
<tr>
<td>Group B</td>
<td>lecture</td>
<td>online</td>
<td>F2F</td>
<td>online</td>
<td>F2F</td>
<td></td>
</tr>
</tbody>
</table>
Designing BL (models)

- Core-and-spoke model
  - selective blending

Adaptable for extra-curricular lessons such as:

- remedial education
- pre-entry education
- career training
- IT skills training
- academic writing
### Five BL models (adapted from Bersin 2004: 85)

<table>
<thead>
<tr>
<th>Models</th>
<th>Characteristics</th>
<th>Benefits</th>
<th>Challenges</th>
</tr>
</thead>
</table>
| 1 Blending centered around E-learning self-study | • Self-study course  
• No classroom training  
• Core-and-spoke | • No travel expenses  
• No scheduling needed  
• Learners can advance at their own pace | • Can be impersonal and uninteresting  
• Low motivation  
• Audience size must be large enough |
| 2 Blending centered around Instructor-led program | • Instructor-led events as core  
• Self-study e-learning as supplement  
• Good blend | • Rich cultural experiences  
• Participants can interact with each other  
• High levels of retention | • Difficulties in scheduling classes  
• High travel expenses  
• Learners must devote a significant amount of time |
| 3 Blending centered around Live e-learning | • Webinar as a core  
• Self-study exercises and references provided as supplement | • Low costs  
• Development is easy  
• Deployment is simple | • Difficulties in scheduling  
• Easily ignored or missed  
• Can be boring  
• Technical barriers |
| 4 Blending centered around On-the-job training | • On the job training with manager or instructor demonstrating the examples or skills | • Improves motivation  
• Gives learners confidence | • Training the managers in the field can be difficult |
| 5 Blending centered around simulation | • IT and application training  
• Simulations and labs | • Reduce travel expenses  
• No worries for errors  
• Scale merit | • Systems can become complex and expensive to build |
Designing BL (instructional model)

Cyclic BL model (Takeuchi 2008)
Designing BL (classroom model)

Blending (sic) Learning Rooms

-- rooms equipped with flexible, movable desks and chairs combined with wireless notebook computers for every student.  (Hinkelman 2005)
Blended Learning Concept

**F2F Learning**
- lecture
- exercise
- experiment
- discussion
- craft work
- PBL
- presentation
- performance

**e-Learning**

**Synchronous**
- SCS
- Web conferencing
- RTVCE

**Asynchronous**
- WBT
- LMS

*PBL = Problem (Project) Based Learning
*SCS = Space Collaboration System
*RTVCE = Real Time Virtual Classroom Environment
*WBT = Web Based Training
*LMS = Learning Management System
Future of BL

- Some BL researchers such as Allen (2007) and Graham (2006) predict that someday in the near future Blended Learning will become just Learning, for blending different methods, media, and materials for education will eventually become a standard practice.
References 1

References 3

- Wilson, Gail; Teachers in Blended Learning Environments: Case studies of ICT-enhanced blended learning in higher education, VDM Verlag Dr. Muller, Saarbrucken, (2008).
Thank you.

ขอบคุณ ครับ/ค่ะ

Arigato

- Hideto D. Harashima
- hideto@moodler.com