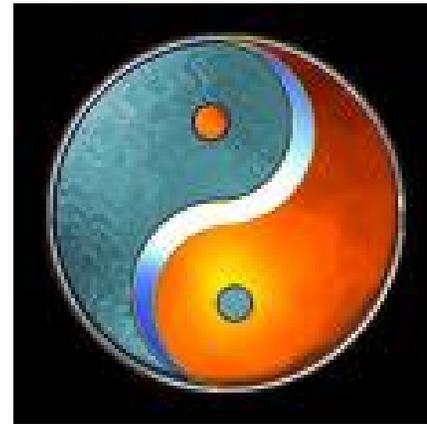# Blended Learning: where it came from and where it heads to

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:
  Bersin (2004), Graham (2006)

Definitions

- ## Many definitions
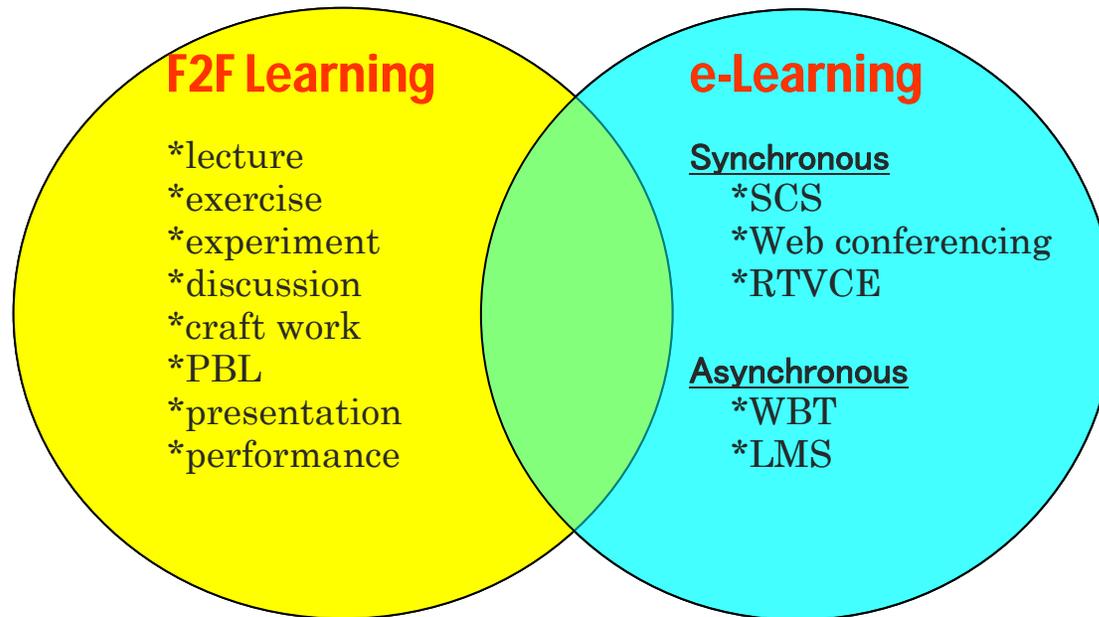
  - See G. Wilson (2008) for a dozen of different definitions.

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
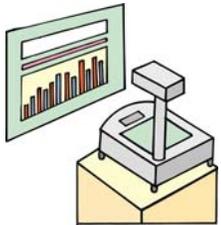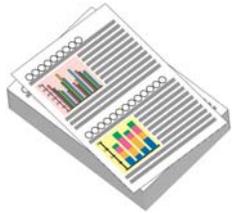*LMS = Learning Management System

Definitions (broad sense)

Blending methods of learning

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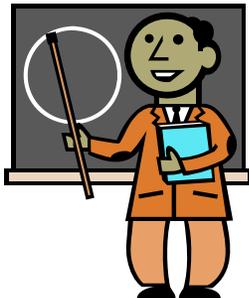
Definitions (broad sense)

- 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

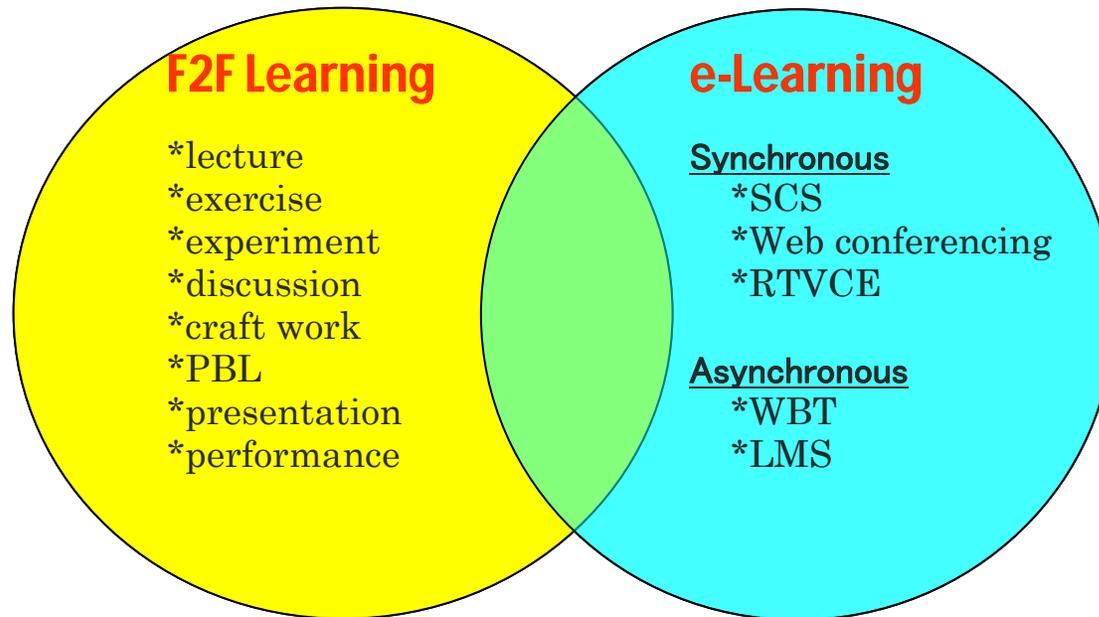e.g. Sloodle = SecondLife + Moodle

Definitions (broad sense)

- Blending learning and working

  ○ Real-time work flow learning (RTWFL)
    --- Singh (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

Necessity for blending

- **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.

E-learning fears:

isolated,

lagging behind,

no encouragement,

frustration

F2F learning strength:

Trust and rapport toward the teacher

Encouragement and moral improvement through interactions with classmates

Benefits of Blended Learning

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

E.g. <u>Stanford University</u> 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

Benefits of Blended Learning

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
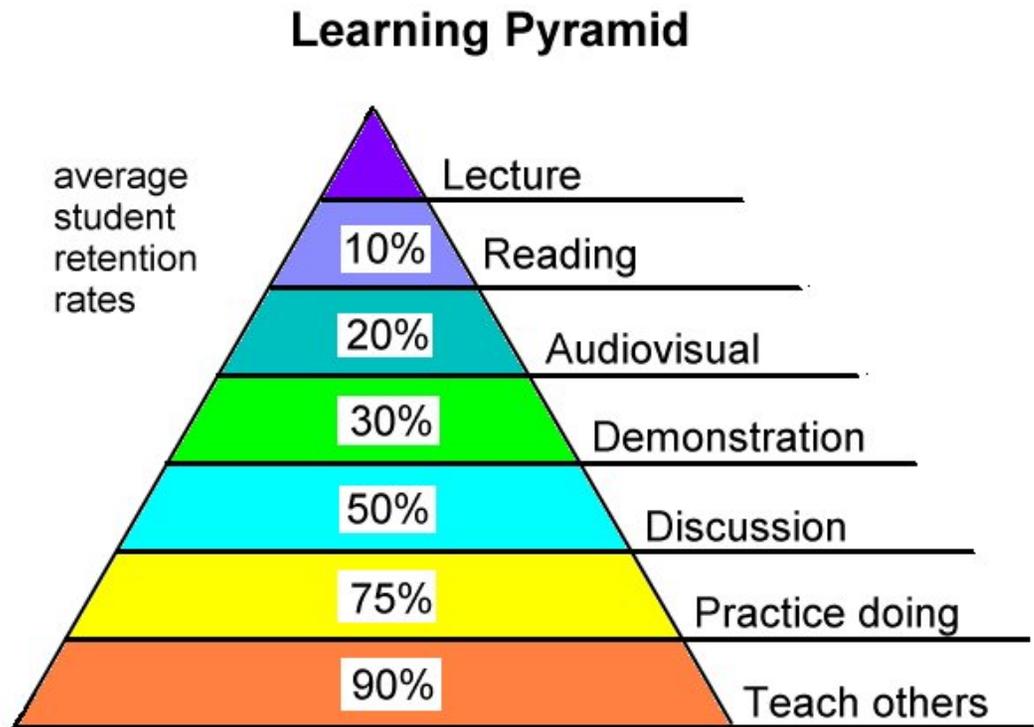
Benefits of Blended Learning

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

average student retention rates

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

Source: National Training Laboratories, Bethel, Maine

Benefits of Blended Learning

3. Enhance effectiveness of learning

- Supporting Data
  - <u>University of Tennessee</u> "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 <u>eLearning Guild</u> (2003), **73.6 percent** of respondents reported blended learning to be more effective than non-blended approaches."

    (Wilson and Smilanich 2005:15)

Benefits of Blended Learning

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.

c.f. "proactive blending"   -- Brodsky (2003)

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

Benefits of Blended Learning

4. Effective specialization of learning

- <u>Cost reduction</u>
  - 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	Referential Activities
1. Answers are predetermined.	1. Answers are unpredictable.
2. The answers are either "right" or "wrong."	2. There are not always the "right" answers.
3. The same answers are expected from all the participants.	3. Basically done between individuals.
4. Group or class can answer in chorus.	4. Communicative in nature.
5. The precision of forms often becomes the focus of attention.	5. The focus is on meanings or content, rather than on the forms.
6. Answers or results are what really counts.	6. The process is valued as much as the answers or results.

Designing BL （Specialization）

	Display Activities	Referential Activities
How to learn	Repetitive practice and rote memorization	Interactions between participants
Philosophy	Objectivism/ Positivism	Constructionism
Autonomous study?	Suitable	Not suitable
Fit style	E-learning	F2F learning

Designing BL   (models)

- **Two general approaches**

  (Bersin 2004)

- 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

	1st lesson	2nd	3rd	4th	5th	6th
Group A	guidance	online	F2F	online	F2F	online
Group B		lecture	online	F2F	online	F2F

Designing BL (models)

- ## Core-and-spoke model
  - ### selective blending

Adoptable for extra-curricular lessons such as:

- remedial education
- pre-entry education
- career training
- IT skills training
- academic writing

Designing BL   # Five BL models (adapted from Bersin 2004: 85)
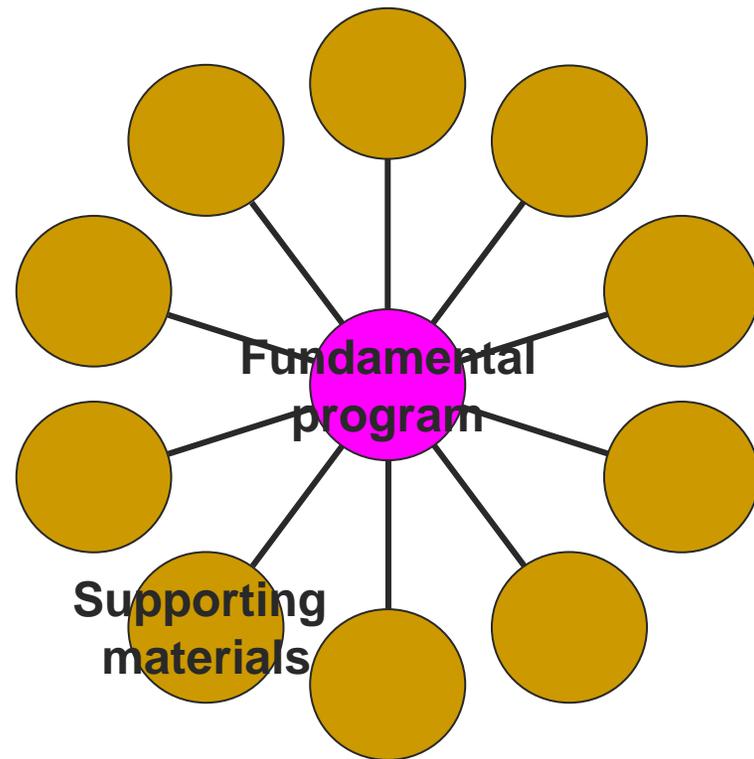
	models	characteristics	benefits	challenges
1	Blending centered around **E-learning self-study**	•Self-study course •No classroom training •Core-and-spoke	•No travel expenses •No scheduling needed •Learners can advance at their own pace	•Can be impersonal and uninteresting •Low motivation • audience size 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

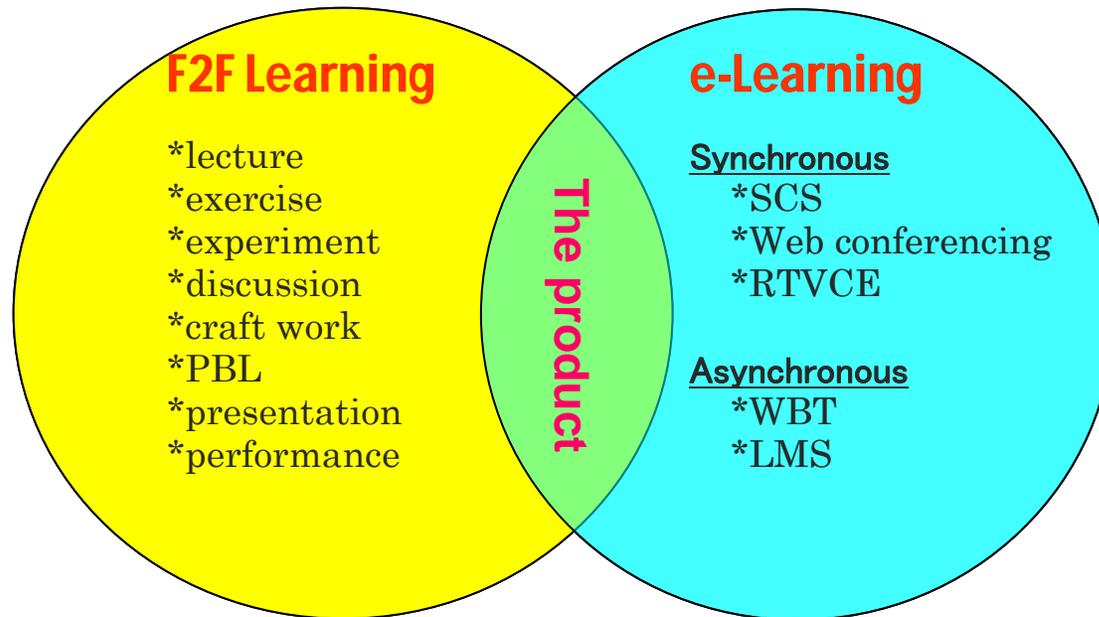# Designing BL (instructional model)
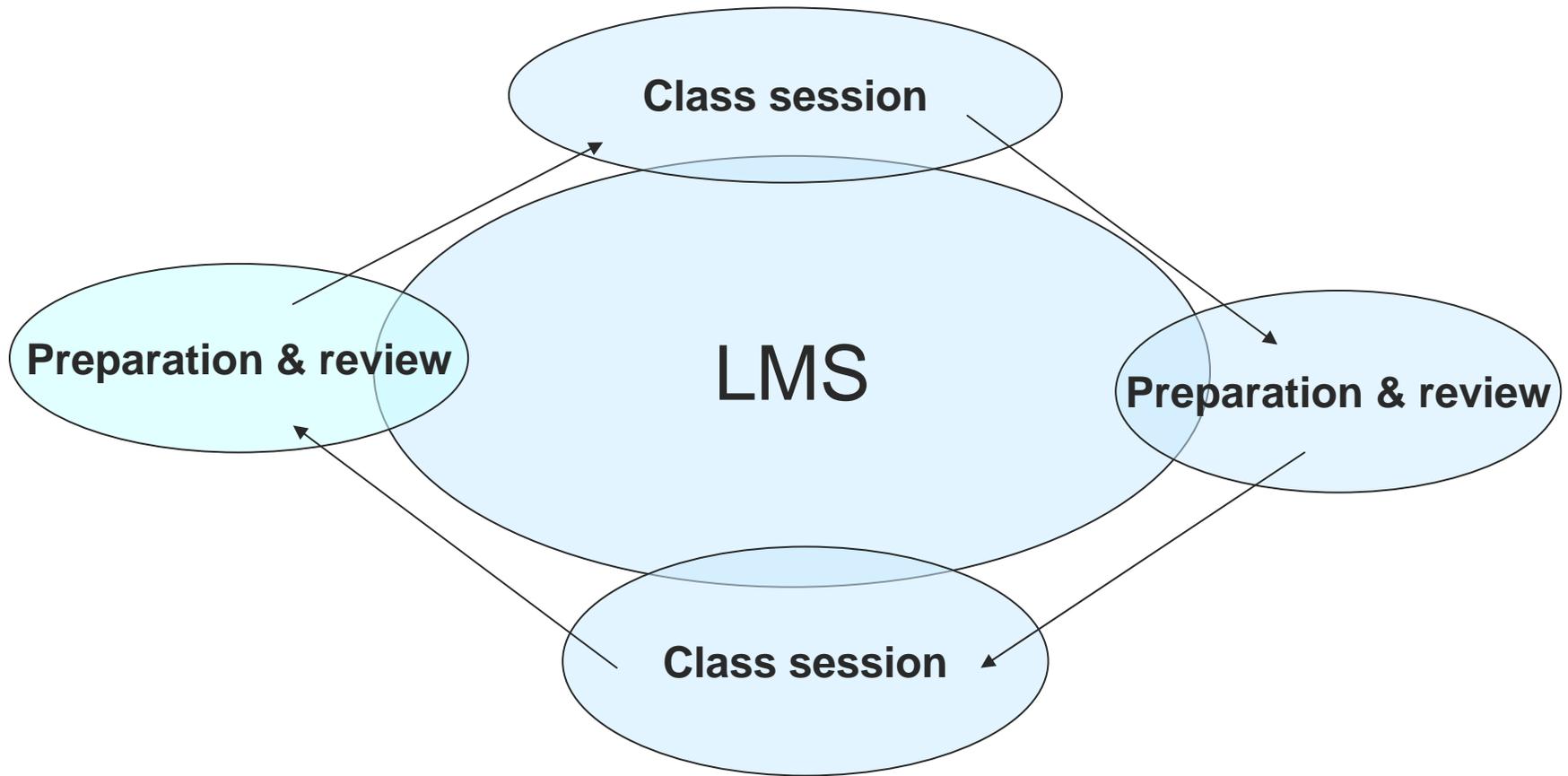
Cyclic BL model (Takeuchi 2008)

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

The product

e-Learning

<u>Synchronous</u>
*SCS
*Web conferencing
*RTVCE

<u>Asynchronous</u>
*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

- Allan, Barbara: Blended Learning: tools for teaching and training, Facet Publishing, London, (2007).
- Bayston Jr., Tom: Learning-Retention Graphics, Online: http://pegasus.cc.ucf.edu/~tbayston/eme6313/learn_retention.html (2003). Retrieved on June 9, 2009.
- Bersin, J. : The Blended Learning Book, Pfeiffer, San Francisco, （2004）.
- Bielawski, Larry and Metcalf, David: Blended eLearning: Integrating Knowledge, performance support, and online learning, HRD Press, Amherst, (2005).
- Bonk, C.J. and Graham, C. R. (Eds): The Handbook of Blended Learning, Pfeiffer, San Francisco, (2006).
- Brodsky, M.W.: E-Learning Trends Today and Beyond. Online: http://www.troymi.gov/futures/Research/Lifetime%20Learning/E-Learning %20Trends%20Today%20and%20Beyond%20-%20Mark%20Brodsky.pdf (2003) . Retrieved on November 30, 2009.
- French, Deanie et al. (Eds.): Blended Learning: An ongoing process for internet integration, e-Linkages, Austin, (2003).
- Graham, C. R.: Blended Learning Systems: Definition, Current Trends, and Future Directions, In Bonk, C.J. and Graham, C. R. (Eds): The Handbook of Blended Learning, Pfeiffer, (2006).
- Garrison, D. Randy, and Vaughan, Norman D.: Blended Learning in Higher Education: Framework, principles, and guidelines, Jossey-Bass, San Francisco, (2008).
- ハンソン，ヘンリック（西之園晴夫訳）：北欧諸国の高等教育におけるICTの活用とネット学習，Online: http://www.u-manabi.org/oldtype/seminar/2006/061106Hansson.pdf, (2006). Retrieved on June 9, 2009.
- Hinkelman, Don: Blended Learning: Issues Driving an End to Laboratory-based CALL, JALT Hokkaido Journal, Vol.9, (2005).

References 2

- 穂屋下茂：eラーニングを教育改革のツールに！，北海道大学現代GPフォーラム資料[A-1]，(2006).
- 鄭仁星，他：最適モデルによるインストラクショナルデザイン,東京電機大学出版局,(2008)
- 久保田賢一：構成主義パラダイムと学習環境デザイン，関西大学出版部，(2000).
- Kumar, Swapna; Online Discussions in Blended Learning: Strategies for effective integration, VDM Verlag Dr. Muller, Saarbrucken, (2008).
- 草薙信照：学習モデルとコンテンツ開発―eラーニングをオンキャンパス教育に活用する方法―, 大阪経済大学論集, 第55巻, 第1号, pp. 135-161, (2004).
- Lamb, John: 'Blended learning' is the new buzz phrase, FT. com, Online: http://specials.ft.com/ftit/june2001/FT3M0640JNC.html, (2001). Retrieved on April 22, 2009.
- Littlejohn, Allison and Pegler, Chris: Preparing for Blended e-Learning, Routledge, Oxon, (2007).
- Leung, Elvis Wai Chung, et al.: Advances in Blended Learning, Springer, Berlin, (2008).
- Macdonald, Janet: Blended Learning and Online Tutoring, Gower Publishing, Burlington, (2008).
- 大木充：自律学習と自律学習型CALL, MM News（京都大学平成8年度教育特別経費報告書）No. 8, pp. 27-32, (2005).
- 坂手康志：Eラーニング，東洋経済新報社 (2000).
- Sharma, Pete and Barrett, Barney: Blended Learning, Macmillan Education, (2007).

References 3

- Singh, Harvey: Building Effective Blended Learning Programs, Educational Technology, Vol.43, No.6, pp.51-54,(2003).
- Singh, Harvey: Blending Learning and Work: Real-Time Work Flow Learning, In Bonk, C.J. and Graham, C. R. (Eds): The Handbook of Blended Learning, Pfeiffer, San Francisco, (2006).
- Singh, Harvi and Reed, Chris: Achieving Success with Synchronous Blended Learning Solutions, in Bielawski, Larry and Metcalf, David: Blended eLearning, HRD Press, Amherst, (2005).
- Sturgess, Monica: Teaching the Net Generation: Reflections on the practice of blended learning in first-year post-secondary education, VDM Verlag Dr. Muller, Saarbrucken, (2008).
- 竹内　理（編著）：CALL授業の展開，松柏社，(2008).
- Thorne, Kaye: Blended Learning: how to integrate online & traditional learning, Kogan Page, London, (2003).
- Wilson, Diann and Smilanich, Ellen: The Other Blended Learning, Pfeiffer, San Francisco, (2005).
- Wilson, Gail; Teachers in Blended Learning Environments: Case studies of ICT-enhanced blended learning in higher education, VDM Verlag Dr. Muller, Saarbrucken, (2008).
- 吉田研作，他：コミュニケーションとしての英語教育論，アルク，（1997）.
- 吉田晴世：e-Learning による教員研修を組み込んだ小学校英語教師養成のためのカリキュラム開発，大阪教育大学英文学会誌，52巻，pp. 83-98, (2007).

Thank you.

ขอบคุณ ครับ/ค่ะ

Arigato

- Hideto D. Harashima
- hideto@moodler.com