Blended Learning

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Disclaimer

- The Blended Learning Unit is having its very first meeting next week.
- Will set objectives, priorities, mission etc.
- Will establish a common vision.
- What you hear from me today is based on my experience and is simply my view of things, related specifically to software development issues and to my research.

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Blended Learning

- A learning programme where more than one delivery mode is being used

Objectives –
- To optimise the learning and cost balance
- The matching of learning objectives, learning style/preference and delivery mode.
Objectives

- Blended Learning
  - What is a blend – and what is not one
  - Blended Learning and Learning Theory
  - How does it all fit together?
  - A framework for Blended Learning
  - Evaluation of Blended Learning
  - Learning Objects
  - Assessment
History

- Off-computer education in UK ~ 1066
- Computers used in education ~1960s
- Programmed Instruction ~ 1970s and 1980s
- Multimedia for education un UK~1991 Windows 3.1
- Internet for education in UK~ 1992
- Web for education in UK ~1995
- blended learning – term used ~1997
- Managed Learning Environments ~ 1997
- “Blended Learning” – term used ~2001
- Evidence for efficacy – not seen any yet!

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What constitutes a blend

For me, a blend involves a strategy which includes the selection of the delivery of the following things:

- Learning activities
- Teaching and Learning methods
- Learning materials
- Information
- Study skills
- Learning objects
- Learning tasks
- Learning strategies
- Formative and Summative Assessment
What is involved

- Online and offline (i.e. computer) working
- Multimedia and other materials & tools
- Tasks and activities – planned activities
- Group and individual working
- Flexibility – self directed, self paced
- Student centred approach
- Tutor as facilitator - manager
- Constructive approach to teaching
- Real life skills – situated in context
- Structured and unstructured learning
- Simulation in protected environments

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What is a blend – and what is not one

- In the past BL was considered simply using e-learning methods within a traditional delivery scheme – *this is not a blend in my view*
- A blend is the **optimal mix** of learning methods for a given situation
- Just having a random mix of on and off-line objects, tasks and activities is not in itself a blend.
- BL it is claimed facilitates the widest possible impact of a learning experience, using a wide range of tools and methods. **Attends to individual style**
How do we get the right mix

- Creating a blend is an evolutionary process
- The objectives of a blend are to ensure as best as possible:
  - Attention
  - Engagement
  - Commitment
  - Relevance
  - Confidence
  - Motivation
  - Satisfaction
  - Support
- These should influence all stages, especially requirements and evaluation.
Approaches to a blend

**Synchronous physical formats:**
- Instructor-led Classrooms & Lectures
- Hands-on Labs & Workshops
- Field Trips

**Synchronous online formats (Live eLearning):**
- eMeetings
- Virtual Classrooms
- Web Seminars and Broadcasts
- Coaching
- Instant Messaging

**Self-paced, asynchronous formats:**
- Documents & Web Pages
- Web/Computer-Based Training Modules
- Assessments/Tests & Surveys
- Simulations
- Job Aids & Electronic Performance Support Systems (EPSS)
- Recorded live events
- Online Learning Communities and Discussion Forums

*(Singh and Reed 2004)*
Reusable learning objects

- These are the goal of many BL enthusiasts
- Problems are many
  - Relevance
  - Context
  - Structure
  - Delivery
  - Instructional intentions
- Lack of theory
Theory – what is relevant?

- Application to existing learning theories
  - Constructive / Instructive mix
  - Cognitive / Behaviourist theory
- Theory of Design
  - Materials multimedia, paper, web,
  - Delivery – various modes
- Theories of presentation
- Theories of distance learning
- Learning styles and preferences
- Theories of integration
Issues that influence a blend

- Audience, type, size and level
- Need for differentiation
- Infrastructure and support
- Content and strategy
- Materials
- Cost and efficiency
Merrill’s 7 factors

The following factors should be taken into consideration:

- Problem-based Learning
- Collaborative Learning
- Activation of previous knowledge
- Demonstration of new knowledge
- Application of new knowledge
- Integration of new knowledge into the learner's world
- Assessment of the learning process and learners' progress
When is a BL approach the right one? - Checklist

- Audience expectation and experiences
- Audience motivation
- Content complexity
- Need to teach physical skills
- Team and group working
- Development time and cost for materials
- Stability of content over time

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When is a BL approach the right one? - Checklist

- Timescale for training – short or long
- Learner flexibility and distance issues
- Access to computers and online content
- Availability of support and instructional designers
- Learners are motivated to work online
The Blended Learning Process

1. Identify Business Challenge
2. Characterize Audience
   Develop Learning Plan
   Develop Measurement Strategy
3. Implement Infrastructure
   Develop Or Buy Content
4. Launch Program
   Track Progress
   Measure Results

Blended Learning: What Works™
Organisation of Blended Learning

- Deployment and support is crucial
  - Management commitment
  - Instructional design
  - Multimedia design
  - High bandwidth connection
  - Access to PCs and the internet for all learners
- Development choices: in-house - outsource
Assessment

- Assessment objects
- A mixture of summative methods
  - Computer-Based Testing, group and peer assessment, practical work, examinations,
- Adaptive testing
- Formative assessment
- Automated feedback
- Production of learner profiles
Evaluation

What is the evidence that BL works?
- Lots of anecdotal evidence
- Lots of champions
- Lots of investment

Needs a realistic approach to evaluation
- Looking at materials, strategies and methods
- Looking at comparison with other approaches
- Looking at learning and evaluation frameworks
- What to evaluate
- What does it prove? – be realistic
- Academic as well as practical issues
- The influence of context
Summary BL

DECISION COMPONENTS FOR BLENDED SOLUTIONS

AUDIENCE
What do I know about my learners?

LEARNING OUTCOMES
What do I want learners to be able to do?

CONTENT
Which learning activity would be best accomplished by which delivery method?

Are there any barriers to technology-based delivery?

Is the organization ready and supportive of blended options?

What other issues unique to this context should I consider?

ORGANIZATION

INFRASTRUCTURE

CONTEXT
Experiences of Blended Learning - see later

- Multimedia – materials development
- Group working – here and elsewhere
- Online systems – working with the OU
- Intelligent systems – student models
- The balance between constructive and instructive environments

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