Blended learning in East China Normal University

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Outline

• Profile of ECNU
• Existing situation of blended learning in ECNU
• Blended learning strategies of ECNU
• Issues and challenges of blended learning
• Future directions
Profile of ECNU
East China Normal University

- Founded in Shanghai in October 1951
- With two campuses located in Minhang and Putuo District
ECNU has long been reputed as a "Garden University" for its beautiful campus scenes.
At present, we have 21 schools and colleges, and 5 advanced research institutes. 

58 departments offering 70 undergraduate programs, in humanities, education, science, engineering, economics, management, philosophy, psychology, law, history and art. 

Over 4,000 faculty and staff, more than 1,200 are professors and associate professors, including 14 academicians from the Chinese Academy of Sciences or Chinese Academy of Engineering. 

Currently, the number of full-time undergraduate students is about 14,000 while that of graduate students is 12,000. There are also over 3,700 international students studying at ECNU.
You can know all about us from Website http://www.ecnu.edu.cn/
Existing situation of blended learning in ECNU
Existing situation of blended learning in ECNU

- Situation in Sakai: **327** courses, **172** teachers, **7849** participants
  (Data from Network & Information Center in ECNU)

sakai.ecnu.edu.cn
Case 1  Early adopters and the cases

① Platform: Able

Course: Introduction To Planet Earth
The reason for blended learning:

- Lack of class time (36 hours for 108 hours course contents)
- Features of the subject: need various types of resources that go beyond traditional classroom
② Platform: Moodle

![Moodle Platform](image_url)
Platform: **Moodle + English learning system**

**Background information**

- **Faculty:** Department of College English
- **Course:** College English
- **Target audience:** More than 6000 undergraduate students, 2000 postgraduate students
The reason for blended learning:

- Students from different discipline vary in learning habits and performance
- Self-directed learning
- Teacher support
### Students’ feedback after Blended learning

<table>
<thead>
<tr>
<th>Feedback</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 对我而言，课程平台可以打破物理空间的限制，促进自学，我受益颇多。</td>
<td>41.35%</td>
</tr>
<tr>
<td>2. 我认为现在的数字课程大多是在进行知识的呈现，缺乏能够提升我学习兴趣的活动。</td>
<td>41.35%</td>
</tr>
<tr>
<td>3. 我认为现有的数字课程平台不能很好地为我和老师同学交流提供相关的技术支持。</td>
<td>34.62%</td>
</tr>
<tr>
<td>4. 我希望数字课程平台能成为我日常学习的小助手（例如包含所有课程，每天登陆可看到今日的课程等相关通知、资源）。</td>
<td>63.46%</td>
</tr>
<tr>
<td>5. 我认为现有的数字课程平台功能已经足够满足我的学习需求了。</td>
<td>20.19%</td>
</tr>
<tr>
<td>6. 我认为友好的用户界面和便捷的操作流程是能够提升我的学习兴趣的。</td>
<td>74.04%</td>
</tr>
</tbody>
</table>
Case 2  The distance education programs

➢ A total enrollment of 20 thousands of online students (19 Undergraduate prom. +9 semi-undergraduate prom.)
The distance education:

- Part-time
- Self-regulated online learning
- Face to face coaching + teacher-student online interaction
Case 3  The Master of Education program

The program adopted:

- Online course (each semester)
- Face to face education (summer vacation)
Case 4  Connected open classes

- Synchronous Learning in different classes
- Multimodal interaction (video+audio+text)
- All kinds of application sharing
- The integration of electronic whiteboard
- Automatically generate resources
- Sharing the resources between the two campuses
Blended learning strategies of ECNU
Our vision and mission

ECNU on Cloud

E-learning
E-learning
E-content
MOOC

E-research
数据收集
数据分析软件支持
数据共享/可视化
协作研究共同体
数字实验室共享
成果发布

Social
师生交流
留学生交流
校友会
公益活动
休闲娱乐

ERP
教务信息管理
学生生活信息管理
校园楼宇管理
网络设备管理
软件智能系统管理

Service
公益服务
社会服务
援边
社区教学服务
……

Community Cloud

Public Cloud
The center of digital course resource

- **数字化课程资源中心**
  - 数字化教学平台
  - 系统之间的互联互通、数据资源共享

- **数字化课程资源**
  - 学科教学课程资源
  - 精品课程资源
  - 国际合作教育项目的课程资源
  - 其他专项课程资源

- **数字化课程资源应用与管理**
  - 资源建设与应用服务
  - 资源建设与应用服务
  - 协调知识产权与资源的共享
  - 应用推进机制
  - 管理与维护

- **数字化教学**
  - 课程资源建设
  - 资源应用与管理

- **数字化校园**
  - 统一身份认证
  - 与公共数据库系统的整合
  - 教务处选课系统提供访问接口
  - 学生电子档案袋系统提供访问接口

- **数据仓库和数据挖掘系统**

- **数字化校园基础设施**
  - 数字化课程资源中心
  - 数据交换
  - 系统整合

- **数据仓库和数据挖掘系统**

- **数字化教学**
  - 课程资源建设
  - 资源应用与管理

- **数字化校园**
  - 上网行为管理系统
  - 电子邮件系统
  - 教师个人主页
  - VPN服务器
  - 广域网DNS负载均衡
  - 无线网络
  - 万兆以太网
  - 数字电话

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**June 3-5, 2015**

**Expert Meeting 2015**

**Building the Capacity of Higher Education Institutions in Asia-Pacific for Blended Learning**

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# Technological resources

## The integration of resources environment

<table>
<thead>
<tr>
<th>content</th>
<th>Media/Equip.</th>
<th>Tools</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content-specific</td>
<td>electronic dictionary</td>
<td>Courseware, disciplinary knowledge platform</td>
<td>evaluation system, FAQ, embedded help system</td>
</tr>
<tr>
<td>Content-alterable</td>
<td>DVD</td>
<td>Content management system</td>
<td>electronic library, personalized information push service</td>
</tr>
<tr>
<td>Content-free</td>
<td>Television broadcast, Internet, Projector</td>
<td>courseware development tool, search engine, social software</td>
<td>learning management system, Online expert consultation</td>
</tr>
</tbody>
</table>
Teacher and student support

- Personal information
- Course information
- Research information
- Social activities
- Teaching related
- Decision making

ECNU on Cloud

- Personal information
  - Personal skills
  - Honors achieved
  - Accommodation information

- Course information
  - Course resources
  - Question and answer area

- Research information
  - Research results display
  - Data analysis and processing

- Social activities
  - Part-time job
  - Skill improvement
  - Class activities
  - Student exchange
  - Public service

- Teaching related
  - Student-staff support
  - Teaching resources construction
  - Student development planning

- Decision making
  - Course arrangement
  - Teaching resource construction
  - Student development planning
  - Teacher training planning
  - School development planning
Social life and service

➢ Official Wechat

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Building the Capacity of Higher Education Institutions in Asia-Pacific for Blended Learning
Microblog
Teacher and student support
curriculum and assessment

- Project-based learning
- Flipped classroom
- Formative evaluation
Goal of blended learning

• tap the best aspects of both face to face and online instruction.

• Classroom time can be used to engage students in advanced interactive experiences.

• The online portion of the course can provide students with multimedia-rich content at any time of day, anywhere the student has internet access.
Research study of group cooperation
In-class scenario
Course materials

- BBS, assignment, External web links
- PPT list
- Video lecture list

Learning support: Discussion board

- Instructor-student interaction
- Student-student interaction
- Peer assessment

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Formative evaluation

Sakai platform statistics

Student interview survey 1

<table>
<thead>
<tr>
<th>Perception of flipped classroom</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video lecture is understandable, in good quality and useful to support project-based learning</td>
<td>7</td>
</tr>
<tr>
<td>Video lecture support different learning pace</td>
<td>1</td>
</tr>
<tr>
<td>Video lecture is inadequate, need more explanation about the code</td>
<td>3</td>
</tr>
<tr>
<td>Prefer open course videos</td>
<td>1</td>
</tr>
<tr>
<td>Prior knowledge in programming is needed to adapt to flipped classroom</td>
<td>2</td>
</tr>
<tr>
<td>Suitable for high motivation student</td>
<td>1</td>
</tr>
<tr>
<td>Change from passive to active learning</td>
<td>1</td>
</tr>
<tr>
<td>Not get used to ask instructor questions in class</td>
<td>1</td>
</tr>
<tr>
<td>Get used to traditional lecture</td>
<td>1</td>
</tr>
<tr>
<td>Exploratory learning is better than direct instruction</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suggestions</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combine traditional in-class teaching and video lecture</td>
<td>3</td>
</tr>
<tr>
<td>Instructor give answers to common problems (through video lecture format)</td>
<td>2</td>
</tr>
<tr>
<td>Instructor provides personalized support instead of in-class lecture</td>
<td>1</td>
</tr>
</tbody>
</table>
Development tendency: Expository Teaching to Exploratory Learning

- Well-structured
- Meso-structured
- Ill-structured

Expository
Exploratory

Answer defined
Answer undefined

Note: 中构问题- Semi or moderately structured problem
Issues and challenges of blended learning
Does a blended course create a better student learning experience?

How do we measure engagement?

- Quantitatively by increased attendance
- Student opinion data
- Qualitatively by curiosity for more information
- Willingness to 'extra' classes
- Increased motivation, enthusiasm and involvement
- Increased focus on tasks
How do we measure success?

• Not just scores, but connectedness to school?

• Community involvement & social competencies?

• Positive impact on further study and employment?

• Enjoyment of learning?
Future directions
The future development strategy:

• Resource-based self-guided learning + standardized instruction

• Adaptability evaluation + Personalized Learning Service
The types of learning mode:

• Differentiated instruction （+Online Tutoring）

• Group cooperation research study

• Expansive learning of personal interest

• The generative learning of network society
Thank you!