Online Education and Blended Learning

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清华大学文件

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关于公布《清华大学关于加强在线教育工作的若干意见》的通知

各单位：

《清华大学关于加强在线教育工作的若干意见》已经2013～2014学年度第12次校务会议讨论通过，现将《清华大学关于加强在线教育工作的若干意见》公布，请遵照执行。

清华大学
2014年1月23日

不足的情况下，大力推动优质教育资源的开放和共享，促进优质教育资源的广泛公平使用。

二、加强领导、明确职责，推动在线课程和平台建设

4. 学校高度重视在线教育工作，成立相关组织机构。学校成立了由校长担任组长，分管副校长为副组长的在线教育领导小组。同时，成立在线教育办公室，统筹协调各部门，共同推进学校在线教育工作。成立大面积在线教育研究中心，组织协调我校相关研究力量，开展大规模在线教育前沿技术研究及平台系统研制。学校设立在线教育课程专家工作室，负责在线教育课程设计、建设和质量保障工作。

5. 按照“学校支持、院系负责、教师投入、学生参与”的原则推进课程建设。学校计划在三年左右时间建设100门在线课程，并积极探索制定课程制作标准、课程管理和平台建设规范。各院系要把在线课程建设作为人才培养和学科建设的重要任务，认真组织，积极投入，确保质量。

6. 结合在线教育特点和本单位实际，各单位要积极探索，创新实践。在新学科及交叉学科建设、大数据挖掘、在线教育平台功能拓展等方面加强研究，并结合不同学科内容和形式进行教学改革试点，在课程设计、学生评价、自主招生、推荐就业等方面积极探索新方法和新途径，创新工作模式。
Lay Foundation for the Development of MOOC Platform

- Launched in Oct 10th, 2013
- Improve education quality & promote education equity
- Becoming a Global Leading Platform of Lifelong Learning.
- Converge the learning materials from colleges, enterprises, individuals and all sectors of society, by using a personalized and intellectualized method, to serve the whole world
Establish the Mechanism of Industry-University-Research
Promote the Sustainable Development of Online Education

• Innovation of the Model: One Body & Two Wings

MOE RCOE

MOOC-CN Investment Group

Academic Resources

Partners

Market Resources

Supported by MOE to establish

Established

Share Research Results

Participate in Research

Resources Sharing

Offering MOOCs
### Ranking List of Global MOOC Platforms

<table>
<thead>
<tr>
<th>Platform</th>
<th>Number of Courses</th>
<th>Enrollments (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coursera</td>
<td>2700+</td>
<td>30</td>
</tr>
<tr>
<td>edX</td>
<td>1800+</td>
<td>14</td>
</tr>
<tr>
<td>xuetangx.com</td>
<td>1300+</td>
<td>9.42</td>
</tr>
<tr>
<td>FutureLearn</td>
<td>700+</td>
<td>7.1</td>
</tr>
<tr>
<td>Udacity</td>
<td>200+</td>
<td>8</td>
</tr>
</tbody>
</table>

**MOOCs**: 1341  
**Registers**: 1035万  
**Counties & Regions**: 209

*Data up to 03/20/2018*
MOOC Construction in Tsinghua University

- Tsinghua University has built 246 MOOCs, with 8 million enrollments. Plan to set up 48 new MOOCs in 2018.
Variety Form of Teaching

• Professor Lin Peng, School of humanities Tsinghua University: **Relics of Chinese History**

LOCATION SHOOTING across the country. The course dispaly the culture relic, and using a vivid explanation at the same time to facilitate active learning of students.
Variety Form of Teaching

- Tsinghua University published the first VR MOOC in the world

Professor Lin Zhang, School of Berkeley-Tsinghua University, *Elements of Applied Information Theory*
Variety Form of Teaching

• Professor Ying qiu, school of medicine Tsinghua University: **Introduction to Medicine**

The course are shot in Tsinghua Chang Gung Hospital, Medical calibration center, etc. By using multi-camera to combine the course content and live atmosphere together, make the course more vivid.
Many Courses Enjoyed Great Popularity in the World

Conversational English Skills: Ranked 9th in the 2016 most popular MOOCs on edX

Tsinghua Chinese: Start Talking with 1.3 Billion People: Ranked 2nd in the 2016 global new MOOCs according to Classcentral
How to take full advantage of online courses?

Combine with traditional education model, to improve quality and efficiency of learning —— Blended learning

Face to face learning combined with online learning to reach the goals

- Enhance the interaction between teachers and students
- Transition to “Student-centered teaching and learning”
Blended Learning Construction in Tsinghua University

The blended learning courses covered from basic level to professional level in all different subjects.

- From 2013 Fall semester to 2017 Fall semester, 124 courses taught in blended format
- 89 of undergraduate courses and 36 of graduate course
- The course covers 30 departments

Course Category Distribution in Blended Learning:

- Professional courses: 55%
- General Foundation Requirements: 19%
- Professional Basic Course: 13%
- Engineering Basic Subjects: 8%
- Curriculum for Cultural Quality Education: 5%
- Engineering: 38%
- Arts: 32%
- Science: 9%
- Medicine: 4%
- Business: 17%
- Engineering: 38%

The blended learning courses covered from basic level to professional level in all different subjects.
The Results of Blended Learning

- The examination results comparison between blended learning class and traditional class

![Bar chart showing examination results comparison between blended learning class and traditional class over different years.]
The Transformation of Teaching Concept

- Covered all basic Disciplines → Problem Based Learning/ Challenge Based Learning

The New Trinity system

- Value Formation
- Knowledge Instruction
- Ability Cultivation
• 54 Higher Education Institutions (HEI)
• 471 MOOCs for blended learning

Up to 03/15/2018
Promote Evidence-Based Education: to Refine Teaching

- Tool box for blended learning

Sending learning materials before the class

Students submission, Bullet screen

Quiz

PPT Slides sync to student's cell phone

Sending homework and study materials

Learning data review
According to the teacher feedback, Rain Classroom has made 19 times of updates. Launched on April 1st, 2016, it covers more than 114 countries in the world. As of December, monthly active users have reached 1.25 million.

- 931 courses have used Rain Classroom, covering 41 thousand teachers and students.
Co-developed by professor Maosing Sun and professor Jie Tang research Team’s and xuetangX.
Smart Education Tool Continues to Explore New Teaching Model

More than a classroom: Rain Classroom + Wisdom experiment

• Record the student experiment process, form rich media report automatically.

Rain Classroom wisdom experiment partner
美国国家仪器（NI）全资子公司
Key MOOCs Development Focuses on Newfield Exploration and Technological Innovation

Autonomous Vehicles  Artificial Intelligence  Flexible Display
Explore New Models of Talent Cultivation: Micro-Certificate Project in 'School of Public Policy & Management'

- **Object-oriented**: Social learners work in public sector
- **Certificate**: Students complete five courses to be rewarded a certificate
- **Credits Recognition**: Approved by Tsinghua, teachers are responsible for credits recognition after they enter the school.
- **Launched MOOCs and Course Construction Plan**: 4 courses have been published & 5 courses are ready for construction
Thank you ！