Open Education activities at Hokkaido University and post covid-19 scenario

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Hokkaido University
Center for Open Education

• University-wide organization
  • Under the Institute for the Advancement of Higher Education

• Objectives
  • Supporting teaching and learning using OER
  • OER research and development

• Unification of initiatives on campus
  • Hokkaido University OCW office
  • E-learning efforts on several departments
Organization of the Center for OE HU

• Two divisions
  • OE Development division: OER development and utilization, MOOC
  • CoSTEP: Research and education of Science communication

• Staff (E-learning division)
  • Director
  • 5 full-time
  • 5+ half-time (including graduate students)
• Encourage understanding of learning topics

• Planning the structure of OER and teaching strategy

• Deal with copyright issues on OER

• Management of LMS and learning analytics

Staff
Facility

- Staff room
  - Project management
  - OER development and video editing
- Special studio for lecture capture
Our function towards improvement of learning

- Faculty and Staff
- Instructional Designer
- Learning Platform
- OER Production
- Copyright Clearance

Improvement Of Learning
Developing OER

• Lecture capture
  • Mainly developed before, become fewer

• Structured OER
  • Committed to instructional design

• Skill training video
  • OSCE (Objective Structured Clinical Examination) for veterinary medicine

• Introduction of virtual reality
Utilizing OER

• Develop OER for faculty
  • For blended learning and flipped classroom
  • Consultation with staff specialized for instructional design, video production and copyright clearance

• Share OER for campus education
  • In Hokkaido University
  • Open to the public: via OCW and MOOC
  • Share with universities around Hokkaido region: cooperatively deliver liberal arts education
Cooperation of universities in Hokkaido

- Utilize distance learning
  - Video conferencing system
  - Special classroom for active learning
- Improve student outcomes
  - Overcoming challenges to increase effectiveness of distance learning
Examples of OER

- MOOC-type materials
- Some OERs are based on existing OER (CMU OLI)
- Open license (CC-BY-NC)
Share OER with multiple platforms
Share OER via LMS for campus education

- ELMS
- Moodle
- Open edX (for consortium)
Share OER via OpenCourseWare
• Develop and publish OER and MOOC
  500+ lectures  2K+ materials  60k+ access / year
• Received Open Education Award (OE Global)

Lecture videos and materials
https://ocw.hokudai.ac.jp
Open MOOC through reusing OER
Open MOOC to reuse OER

- edX and JMOOC
- Develop at least 1 course / year
Research at OEC

• Development of OER for digital literacy
  • Cooperative research with Adobe
  • Focus on 21st century skills
  • Share and reuse on other universities

• Effectiveness of MOOC
  • Assessment of peer-review of essay
  • Analysis existing essays of learners
  • Propose improved strategy for precise scoring
Improvement of learning by team-based efforts

Faculty and Staff

Instructional Designer

Learning Analytics

Improvement Cycle

Learning Platform

OER Production

Copyright Clearances

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Learning Platform

Improvement of Learning

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Learning Platform
2020〜2021
University-wide support for remote teaching

Creating website for Teaching online

- Guidance for selecting appropriate online teaching methods based on instructional design theory
- Viewed by 390,000 people by the end of 2021
- Accumulation of FAQs that aggregate answers to inquiries

Implementation of Seminar

- Sharing advanced educational methods and good practices
- A total of 3,000 participants by the end of FY2021
- Established a Slack group for online learning methods
- Increasing capacity of LMS
- Introducing Zoom university license
- Lending PCs and Wi-Fi routers to students

Information Science Department

https://sites.google.com/huoec.jp/onlinelecture
Hybrid Learning

- Hybrid-flexible learning for students’ flexibility
- Blended learning combining online learning and face-to-face

<table>
<thead>
<tr>
<th>Hybrid-Flexible</th>
<th>Blended</th>
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</thead>
<tbody>
<tr>
<td>Emergency Remote Teaching</td>
<td>Combining online and Face-to-face Learning</td>
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</tbody>
</table>
| • Students have the flexibility to choose where to take classes  
• Teachers give classes to both face-to-face and online students  
• Conduct supplementary lessons online by capture lecture | • Knowledge acquisition and self-evaluation online  
• Active learning and collaborative learning in face-to-face  
• Conducting exams and communication between faculty and students on campus |
Challenges for hybrid-flexible learning

- Giving Students Flexibility in Taking Courses
- Infection prevention
- Increased burden on faculty

<table>
<thead>
<tr>
<th>Student Attendance</th>
<th>Students’ flexibility</th>
<th>Faculty burden</th>
<th>Learning effectiveness</th>
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</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>Easy to participate active learning and communication</td>
<td>Utilize existing teaching methodology</td>
<td>Relatively high</td>
</tr>
<tr>
<td>Synchronous online</td>
<td>Infection prevention</td>
<td>Difficulty to grasp students’ learning status</td>
<td>Relatively low</td>
</tr>
<tr>
<td>Asynchronous online</td>
<td>On-demand learning by lecture video</td>
<td>Time consuming for lecture video preparation</td>
<td>Combining face-to-face learning is desirable</td>
</tr>
</tbody>
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Rebuilding method: Developed by OEC
Transforming existing lecture to blended learning

Blended (Flipped Learning)
- Input (video lecture)
- Output (Individual assessment)
- Collaboration (Group work)
- Mini lecture

Substitute
- Input (Lecture)
- Output (Individual assessment)
- Collaboration (Group work)

Transform (Rebuild)
- Input (Lecture)
- Output (Individual assessment)
- Collaboration (Group work)

Face-to-face
- Input (Lecture)
- Output (Individual assessment)
- Collaboration (Group work)

Synchronous Online
- Input (Lecture)
- Output (Individual assessment)
- Collaboration (Group work)

https://sites.google.com/huoec.jp/onlinelecture/forteachers/toolkit
Rebuilding method : Developed by OEC
Transforming existing lecture to blended learning

Analyze existing lecture
- Reflect learning objectives and classifying teaching activities during class
- Classify teaching activities for five teaching strategies (Input, output, collaboration, communication, assessment)

Select appropriate teaching method
- Consider advantages and challenges to teach online or face-to-face
- Select appropriate teaching methods on each sections

Rearrange sequence (optional)
- Rearrange order considering learning objectives (ex. flipped classroom)

https://sites.google.com/huoec.jp/onlinelecture/forteachers/toolkit
Thank you everyone for your Patience