

**Capacity Building for Pre-service Teachers'  
Online Teaching:  
An Initiative of Korean Ministry of Education**

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Korea National University of Education



## An Initiative of Korean Ministry of Education

- Establishment of Future Education Center
- **Facilities** for online teaching and digital content development
- **Programs** for the following goals:
  - To provides an environment for learning online teaching methods, online lesson design and practices under online education environments
  - To facilitate professional learning community in collaboration with college professors and in-service teachers
  - To prevent learning deficit of underprivileged students and local students through prospective teachers' online mentoring services such as online afterschool programs and learning management

# Facilities for Online Lecture and Digital Content Development

## Type

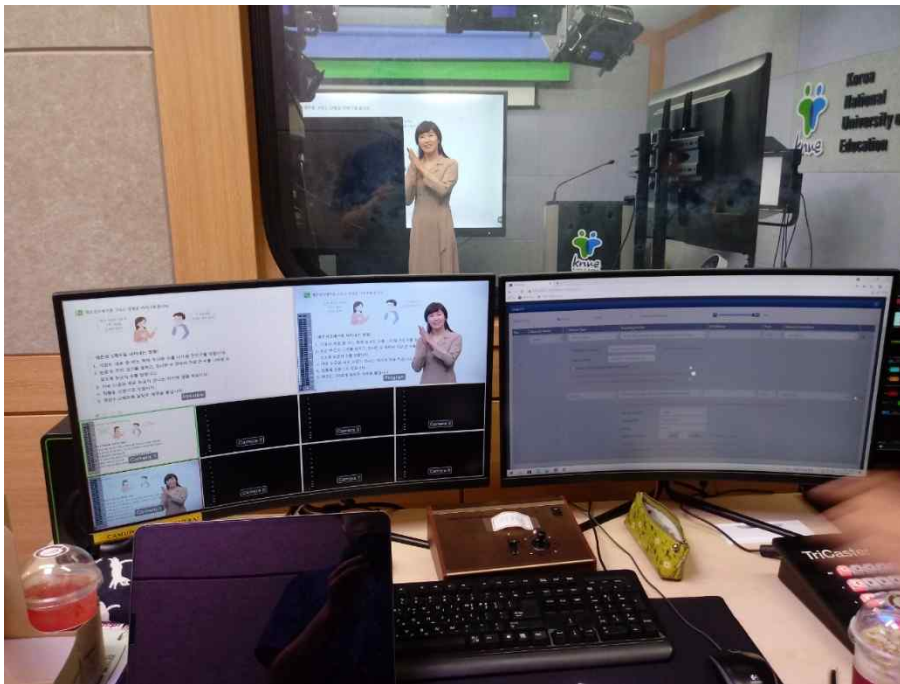
- Online student teaching practice room – Studios



# Facilities for Online Lecture and Digital Content Development

## Type

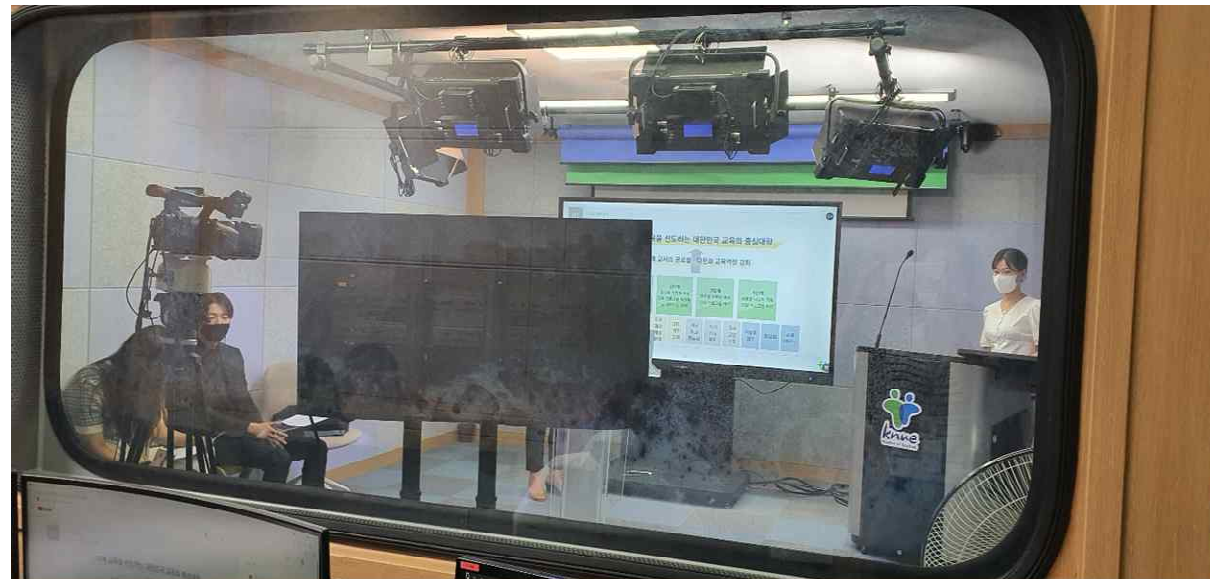
- Online digital content development facilities – Studios & editing room



# Facilities for Online Lecture and Digital Content Development

## Type

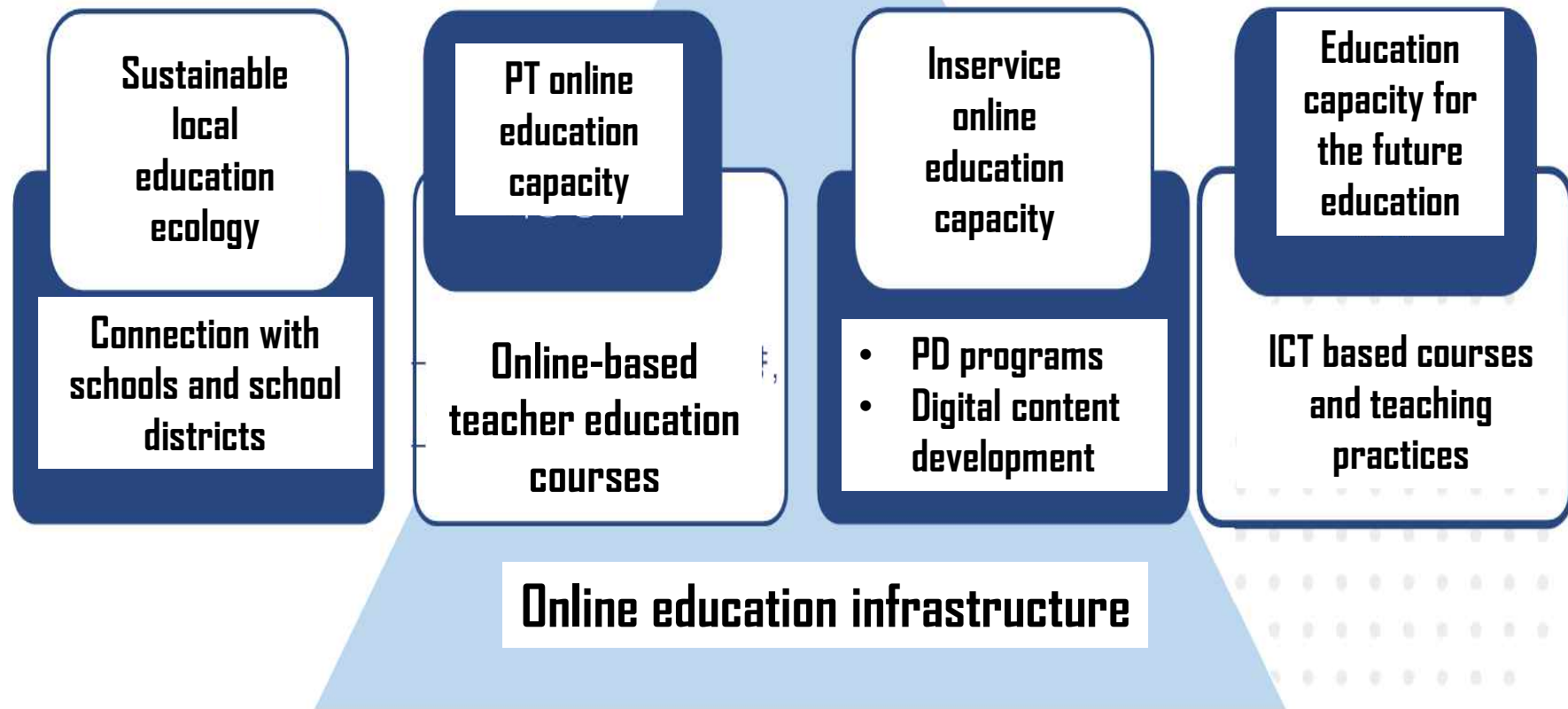
- Real-time online teaching & meeting



# Blended Learning Classroom



# KNUE Teacher Education Model



# Programs

## by KNUE Innovation Institute for Future Education

### Content

- **Regular course innovation**
  - **Faculty initiated course improvement**
- **Informal educational program operation**
  - **Workshops**
  - **Learning Consulting**
  - **Smart education competency (digital technology use in teaching)**
  - **Online education competency**
  - **Collaboration competency**

# Regular Course Innovation

## Types

1. Flipped learning courses
2. Digital technology-based (smart education) courses
3. Technological pedagogy-based courses
4. Student project based online or blended courses
5. Virtual or augmented reality based courses

# Faculty Course Improvement (Examples)

← KNUE Learning Management System

The image shows two overlapping screenshots. The top screenshot is from the KNUE Learning Management System, displaying the university logo and navigation tabs for '교육현황', '커뮤니티', and '소개'. The bottom screenshot is from a Google Drive interface, showing a file list of video recordings. A blue callout box on the left identifies the Google Drive interface as an online microteaching sharing system.

한국어

한국교원대학교  
청람사이버

교육현황 커뮤니티 소개

일정

2021.08.16

Drive

Search in Drive

My Drive > ... > 수업시연과제 > 수업시연영상

On September 13, 2021, a security update will be applied to s

Name ↑

- 12월3일수업시연영상.mp4
- 2020-11-26\_수업시연.mp4
- 2020-12-01\_수업시연.mp4
- 2020-12-08\_12월8일수업시연영상.mp4
- 수업시연-평가제출용.mp4

Google Classroom System : Online microteaching sharing

# Informal Educational Program

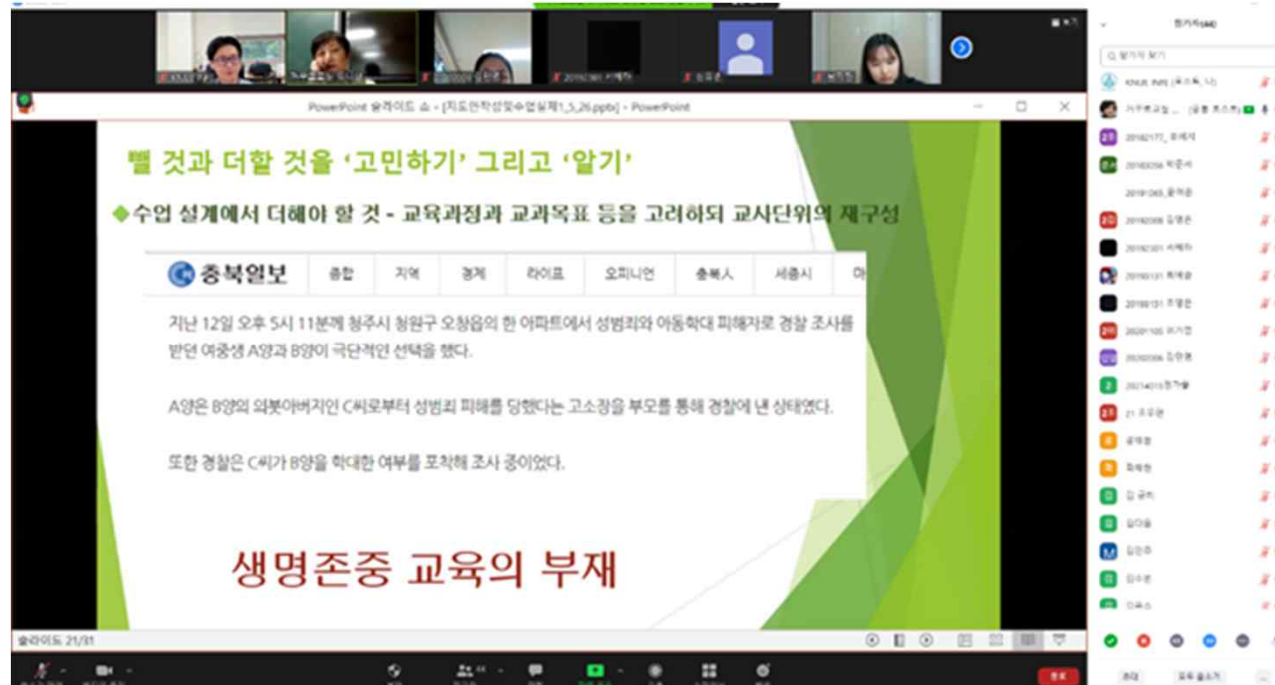
## Types

1. **Workshops**
2. **Learning Consulting**
3. **Smart education competency development (digital technology use in teaching)**
4. **Online education competency development**
5. **Collaboration competency development**

# Learning Strategies Workshops

## Content and Format

- Topics: Edu-tech, AI-based education
- Real time online meeting



The screenshot shows a Zoom meeting interface. At the top, there are several video thumbnails of participants. The main content is a PowerPoint slide with the following text:

**벨 것과 더할 것을 '고민하기' 그리고 '알기'**

◆ 수업 설계에서 더해야 할 것 - 교육과정과 교과목표 등을 고려하되 교사단위의 재구성

**중복일보** | 종합 | 지역 | 경제 | 라이프 | 오피니언 | 송파인 | 세종시 | 더

지난 12일 오후 5시 11분께 청주시 청원구 오창읍의 한 아파트에서 성범죄와 아동학대 피해자로 경찰 조사를 받은 여중생 A양과 B양이 극단적인 선택을 했다.

A양은 B양의 외붓아버지인 C씨로부터 성범죄 피해를 당했다는 고소장을 부모를 통해 경찰에 낸 상태였다.

또한 경찰은 C씨가 B양을 학대한 여부를 포착해 조사 중이다.

**생명존중 교육의 부재**

At the bottom of the slide, it says "슬라이드 21/31". The Zoom interface also shows a list of participants on the right side.

# Learning Strategies Workshops

## Reflection

### • Participant reflection through infographics

**통증? 🧑**  
실질적인 혹은 잠재적인 조직손상과 연관되어서 나타나는 감각과 감정상의 불유쾌한 경험

**학교에서 필요한 건강 이야기**

**통증에 대한 오해**

- 노화에 따른 정상적인 현상?
- 의학적 치료대상이 아니다?
- 참고 견디서 이겨내야 한다?
- 통증 호소는 누군가를 괴롭히는 것이다?
- 통증 조절을 위해 마약을 투여하면 중독된다?
- 마약의 부작용은 위험한 것이다?

**통증은 제5의 활력징후입니다. 통증이 있을 때, 빨리 의료 시술을 찾아야 합니다!**

**학교에서 나타날 수 있는 통증들**

- 손목터널 증후군
- 컴퓨터시각 증후군
- 거북목 증후군
- 근근막통증 증후군

**예방 및 치료법**

- 충분한 휴식과 스트레칭 해소
- 운동과 스트레칭
- 올바른 자세
- 물리치료와 약물치료

**빅데이터, 교육과 만나다**

**빅데이터란?**  
기존의 소프트웨어로 처리 불가능할 정도로 많은 데이터

**교육에서의 활용**

- AI 수학 문제 풀이
- 토익 유형 반복 훈련
- 인터랙티브 LMS

**교육 환경 분석에서의 활용**

- 교통 인프라 분석
- 스쿨버스 지원 정책
- 학교 밖 청소년 수 분석
- 학교 폭력 다발 지역 발견

**앞으로의 전망?**

- 연구 목적의 빅데이터 개방 NEIS 등의 활용 가능성
- 빅데이터 처리 목적의 AI 개발 빅데이터 분석의 대중화

# Learning Consulting

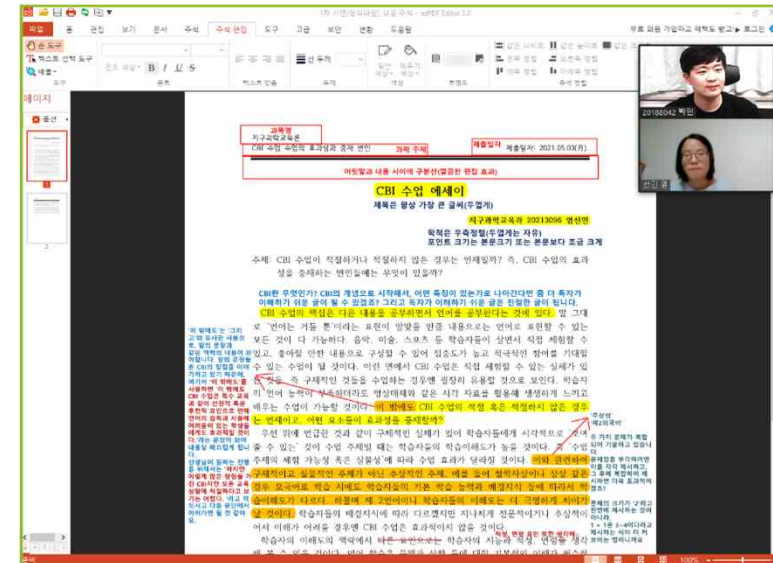
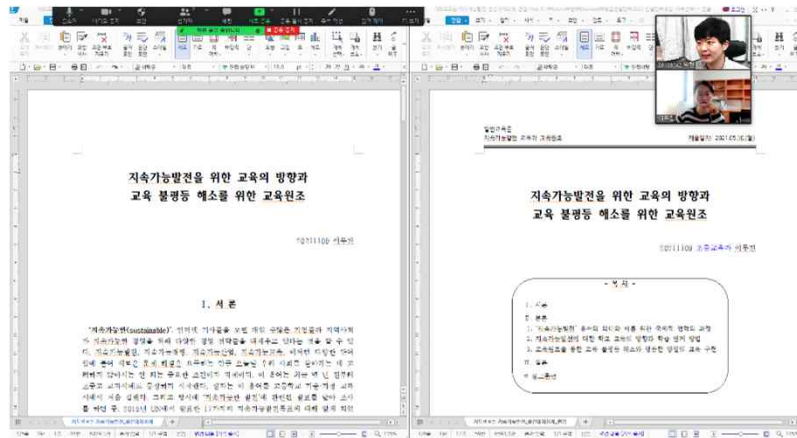
## Content and Format

- **Customized learning consulting by level for pre-service teachers**
  - **Consulting topics: writing, reporting, designing lesson plans, teaching practice**
- **Formats: synchronous (real time online meetings) and asynchronous system (online feedback on materials)**

# Learning Consulting (cont.)

## Examples

- Real time online meetings





# Smart Education Competency Development

## Content and Format

- 1. Supporting small groups for studying and practicing smart education**
- 2. Special lectures on smart education**
- 3. Creation and sharing of manuals, lesson plans, lecture videos**
- 4. Mock Class Contest (preference given to smart education)**

# Smart Education Competency Development (cont.)

## Examples

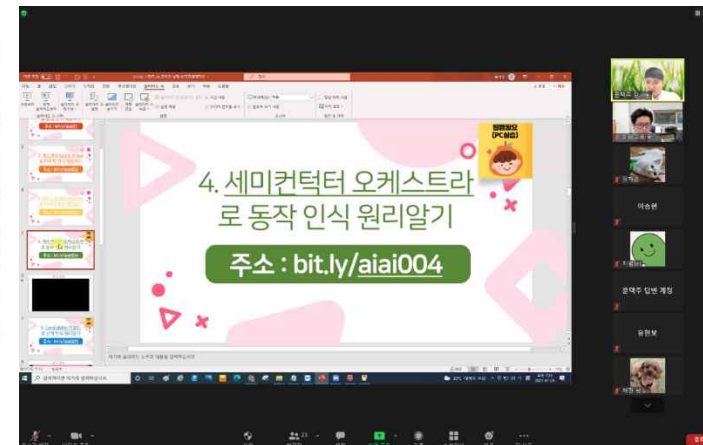
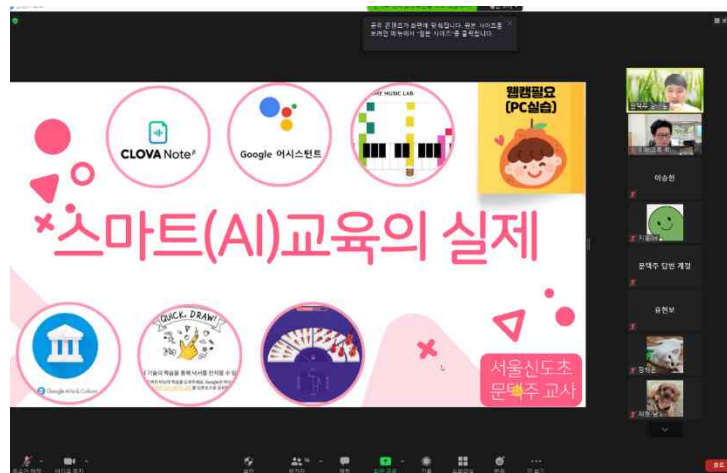
- Small study group meetings



# Smart Education Competency Development (cont.)

## Examples

- Special lectures on smart education



# Smart Education Competency Development (cont.)

## Examples

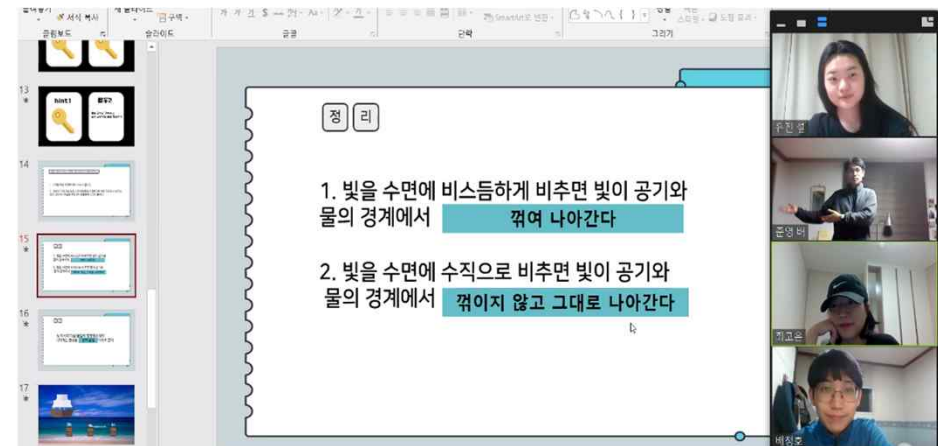
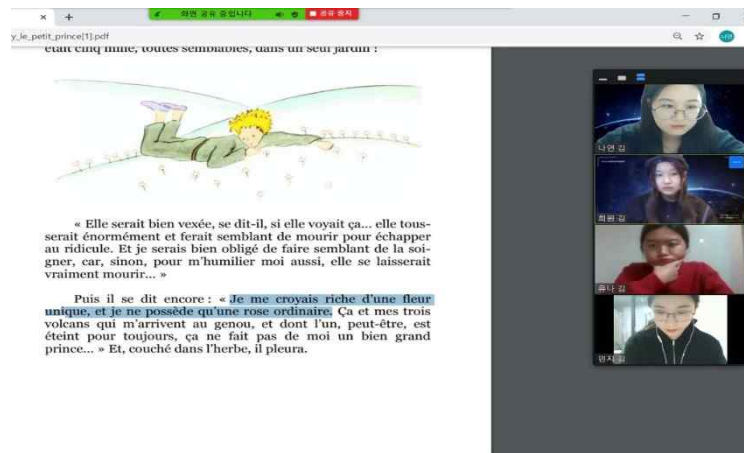
- Mock Class Contest – Using future education center



# Collaboration Competency Development

## Content and Examples

- Cultivating in-depth knowledge related to major courses
- Supporting study group activities



# Evaluation

## ◆ Assessment Framework

1. Basic competence
  - ① Understanding online education
  - ② Content knowledge
  - ③ Student-centered thinking
  - ④ Reflection
2. Teaching practice competence
  - ① Lesson design
  - ② Lesson material development
  - ③ Lesson delivery
  - ④ Student assessment

## ◆ 5-point Likert online survey of users

3. 나는 수업목표에 맞게 원격교육 시설을 적용하여 수업을 설계할 수 있다.\*

한 개의 타원형만 표시합니다.

	1	2	3	4	5
전혀 아니다	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> 매우 그렇다

4. 나는 대면수업과 원격수업의 장단점을 파악하여 효과적으로 혼합하여 수업을 설계할 수 있다.\*

한 개의 타원형만 표시합니다.

	1	2	3	4	5
전혀 아니다	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> 매우 그렇다

5. 나는 인터넷, SNS, 클라우드 등을 통해 학생과 또는 학생 간 상호작용을 유도하는 수업을 설계할 수 있다.\*

한 개의 타원형만 표시합니다.

	1	2	3	4	5
전혀 아니다	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> 매우 그렇다

6. 나는 수업 설계 시 디지털 도구·기술 사용에 관한 개인정보 보호 방법을 적절히 적용할 수 있다.\*

한 개의 타원형만 표시합니다.

	1	2	3	4	5
전혀 아니다	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> 매우 그렇다



감사합니다

THANK YOU