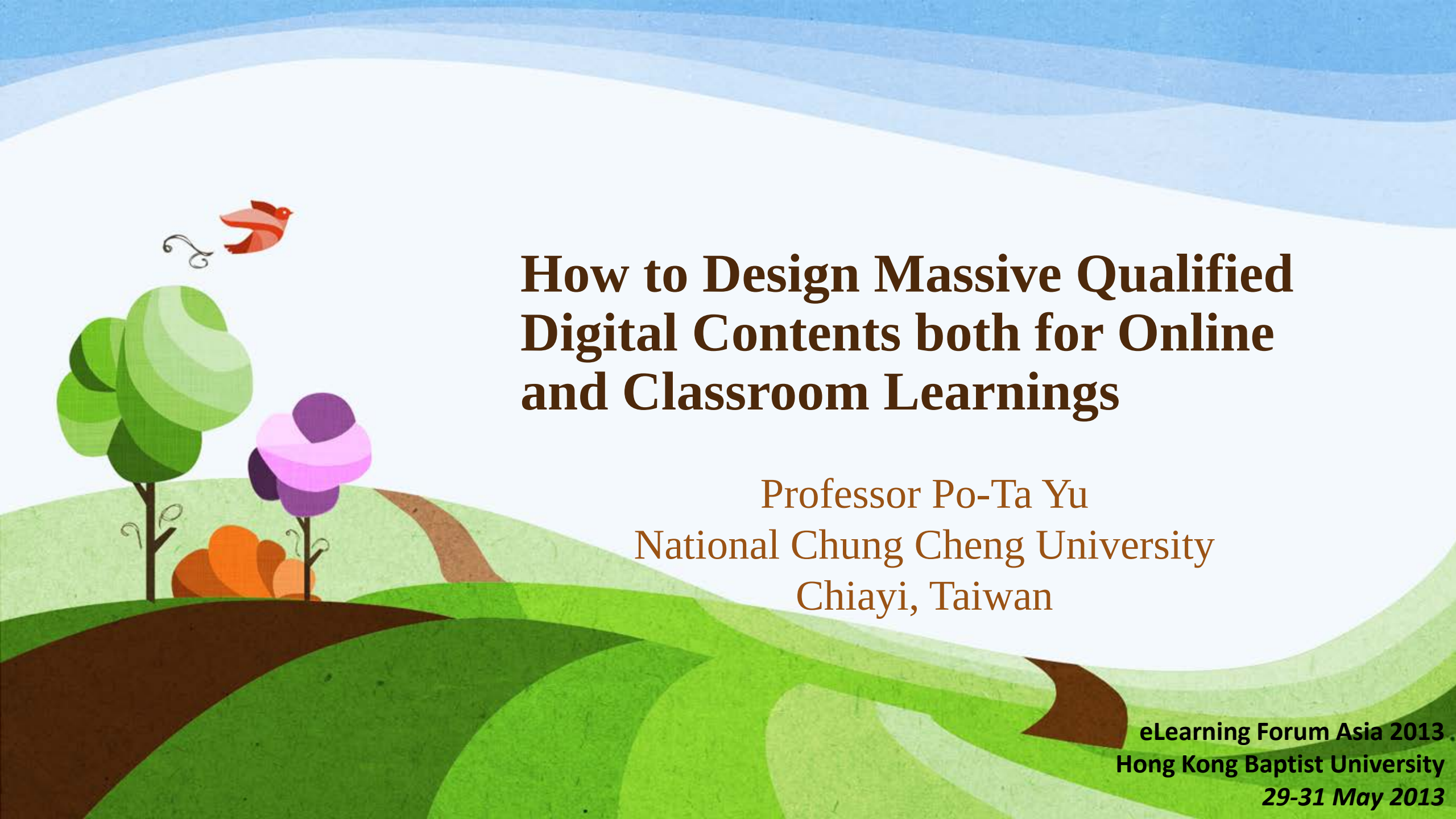

How to Design Massive Qualified Digital Contents both for Online and Classroom Learnings

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Outline

- MOOCs
- The Flipped Classroom
- Situated Learning
- Design of Micro Video (micro course)
- Conclusion

MOOCs

How MOOCs Work

- Massive open online courses—MOOCs— are online courses that are free and open to anyone, with essentially unlimited enrollment.
- MOOCs are online courses where lectures are typically “canned,” quizzes and testes are automated, and student participation is voluntary.
- Students often rely on self-organized study and discussion groups.

How MOOCs Work (cont.)

- MOOCs generate massive quantities of data about learner behavior, which can be used to understand cognitive growth and how to improve instruction.
- MOOCs combine multi-media and cloud technology with lecture to create more new energy around e-Learning.
- On the technology side, the tools enabling web-based instruction are more effective and reach greater scale than ever before.

How MOOCs Work (cont.)

- e-Learning technologies are widely used in MOOCs including:
  - High-quality indexed video
  - Data capture and analysis
  - Delivery platforms that combine the qualities of social networking sites like Facebook with the content delivery, discussion, and grading functions of the traditional learning management system, respectively.

Education Accessibility

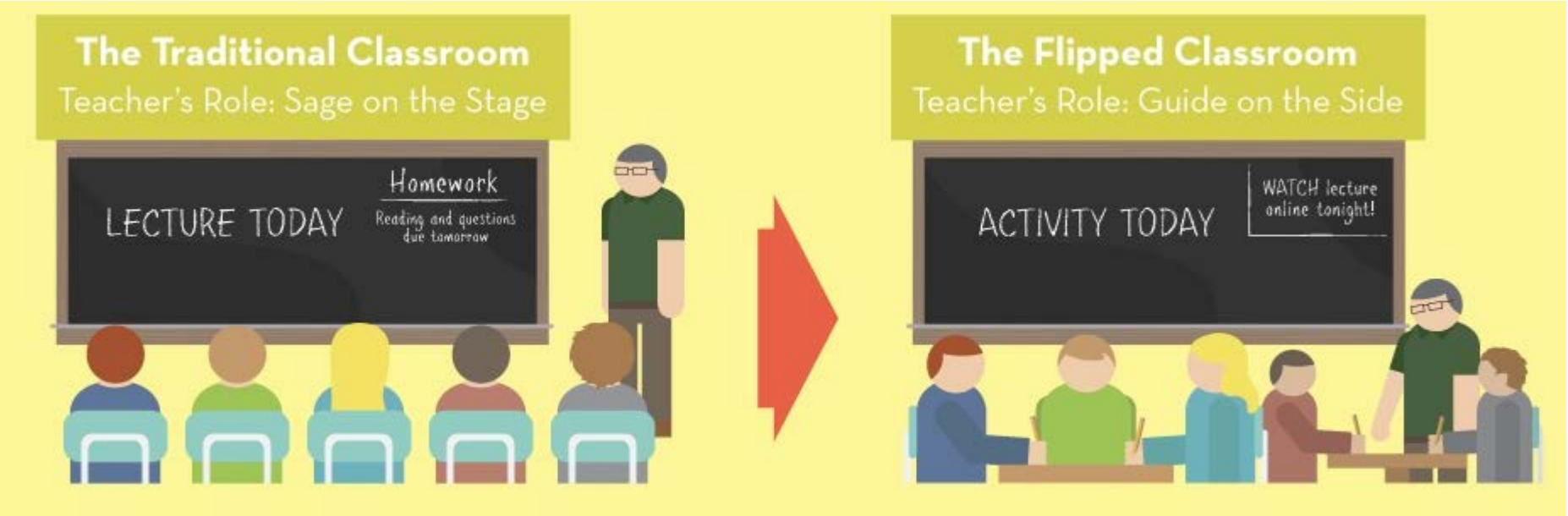
- MOOCs provide a more accessibility to education on a massive and international scale. Currently, most students who enroll in MOOCs are internationals and/or professionals rather than enrolled college students.
- This balance may shift as institutions developing models for integrating MOOCs into students' educational pathways.
- MOOCs can be used as primary or supplementary course material for instructors who wish to weave them into their curricula.
- Biggest Short-Term Impact: Legitimization of Online and Hybrid Learning.

The Importance of a Large and Complete Materials

- Micro-recording device can achieve two basic objectives:
  - Teachers can easily make a large number of teaching materials and upload to the cloud database.
  - Students can acquire the materials for learning anytime and anywhere.
- In order to meet the future of cloud services, a large amount of teaching materials are required.

The Flipped Classroom

The Traditional V.S. The Flipped Classroom



- Source from: http://www.livescribe.com/blog/education/2012/07/17/the-flipped-classroom-infographic/

What is a Flipped Classroom?

- Guiding lessons and notes for assignments.
- Dynamic or practice exercises in the classroom.
- Guiding lessons may involve video, slide show presentations, web links, etc.
- Notes may include exercise, specific Q & A, or any form of assessment.

Why Use a Flipped Classroom?

- Take the snooze out of a lesson – gives the opportunity to come across in a dynamic way.
- Individualize time made for learning – gives opportunity for more one-on-one time with students.
- Reviewable lessons – students can review lessons at their own pace without pressure from peers, lets them skip ahead, slow down, or mentor other students.
- Change in classroom routine – breaks the regular classroom rhythm, which gets students' attention.

How to: Flip the Classroom

- How to : Plan, Keep it SIMPLE
- **S (Small)** : 2-3 small lessons are better than one large lesson. If the lesson is too large students lose focus. Plus, it’s easier to answer pointed questions about smaller topics.
- **I (Interesting) :** Use color and questions to retain student focus. Speak like you are there to keep them engaged.
- **M (Meaningful) :** Lessons need to have value for students. Your lesson should answer, “why is this concept being learned?” That’s a fair question!

How to: Flip the Classroom(cont.)

- **P (Planned) :** If you’re well organized and to the point, the lesson comes across better and is more effective.
- **L (Learning) :** Identify the 2-3 points you want the student to retain from the lesson. Revisit them with a short assessment at the end.
- **E (Exciting) :** Include outside resources like video and web links. Change it up! Variation is key.

Situated Learning

Situated Learning Perspectives(Hilary McLellan,1996)

- Stories
  - Narratives play a vital role in the transfer of information and discoveries. In general, stories help people keep track of their discoveries and provide a meaningful structure for remembering what has been learned. For instance, the academic development stories and researchers' success stories.
- Reflection
  - We need to reintegrate experiential and reflection cognition as we integrate electronic technologies into education.
- Cognitive apprenticeship
  - This methods try to enculturate students into authentic practices through activity and social interaction in a way similar to that evident- and evidently successful- in craft apprenticeship.

Situated Learning (cont.)

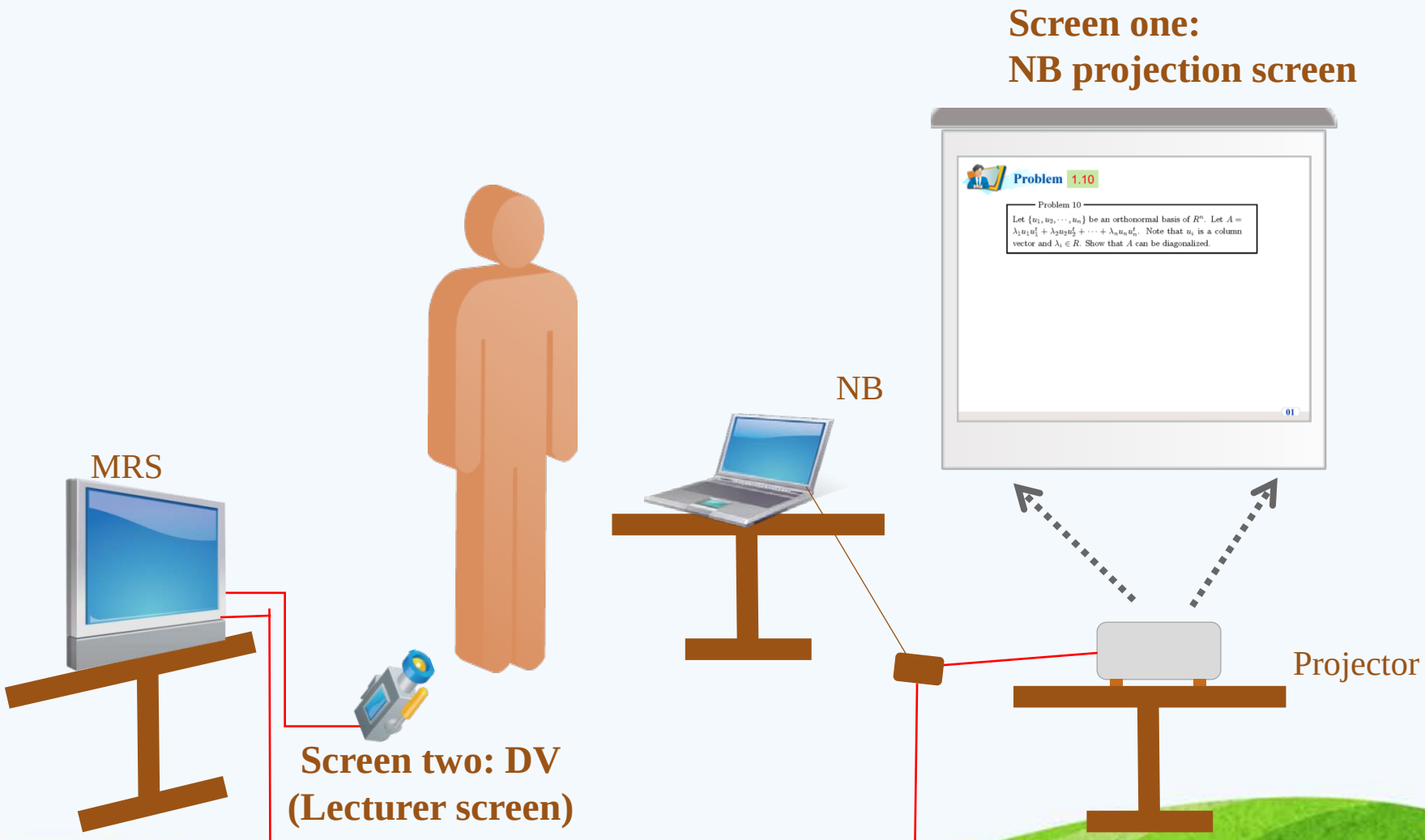
- Collaboration
  - Collaboration skills are increasingly important in the emerging age of telecommunications: computer networking and conferencing, groupware, multi-user simulated environments, and other innovative tools for communication and sharing of information.
- Coaching
  - Coaching consists of observing students while they carry out a task, providing a " guide on the side" who intervenes and provides scaffolding for learning to process when necessary.
- Multiple practice
  - Skills are honed through practice, where the student moves toward flying solo, without the support of a teacher and coach.

Situated Learning (cont.)

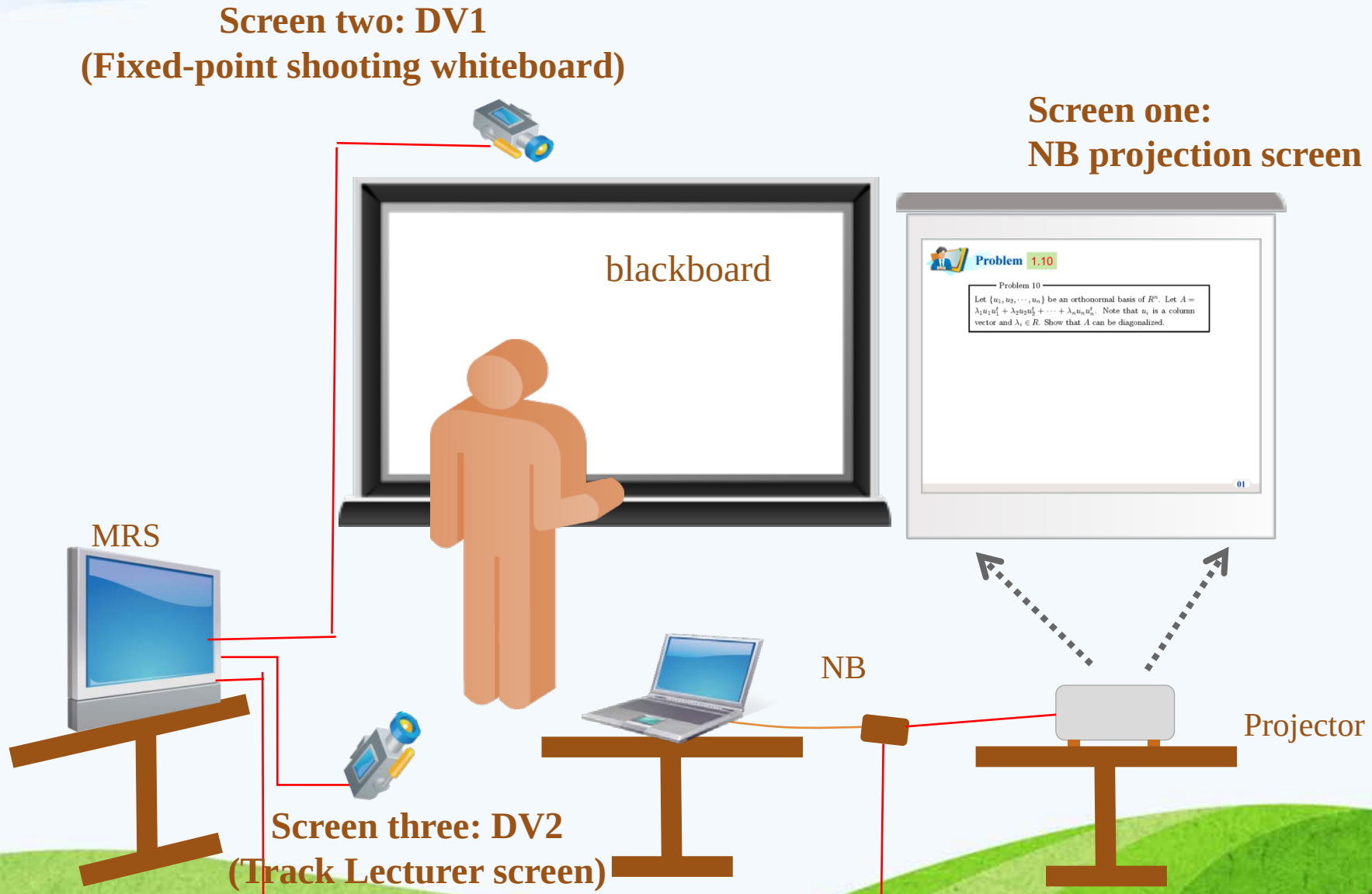
- Articulation of learning skills
  - By articulating thinking and problem-solving processes, students come to a better understanding of their thinking processes, and they are better able to explain things by themselves to others.
- Technology
  - Technology-related skills are important to re-emphasize that knowledge must be learned in context, such as (1) the actual work setting , (2) a highly realistic or “virtual ” surrogate of the actual work environment, and (3) an anchoring context such as a video or multimedia program.

Design of Micro Video

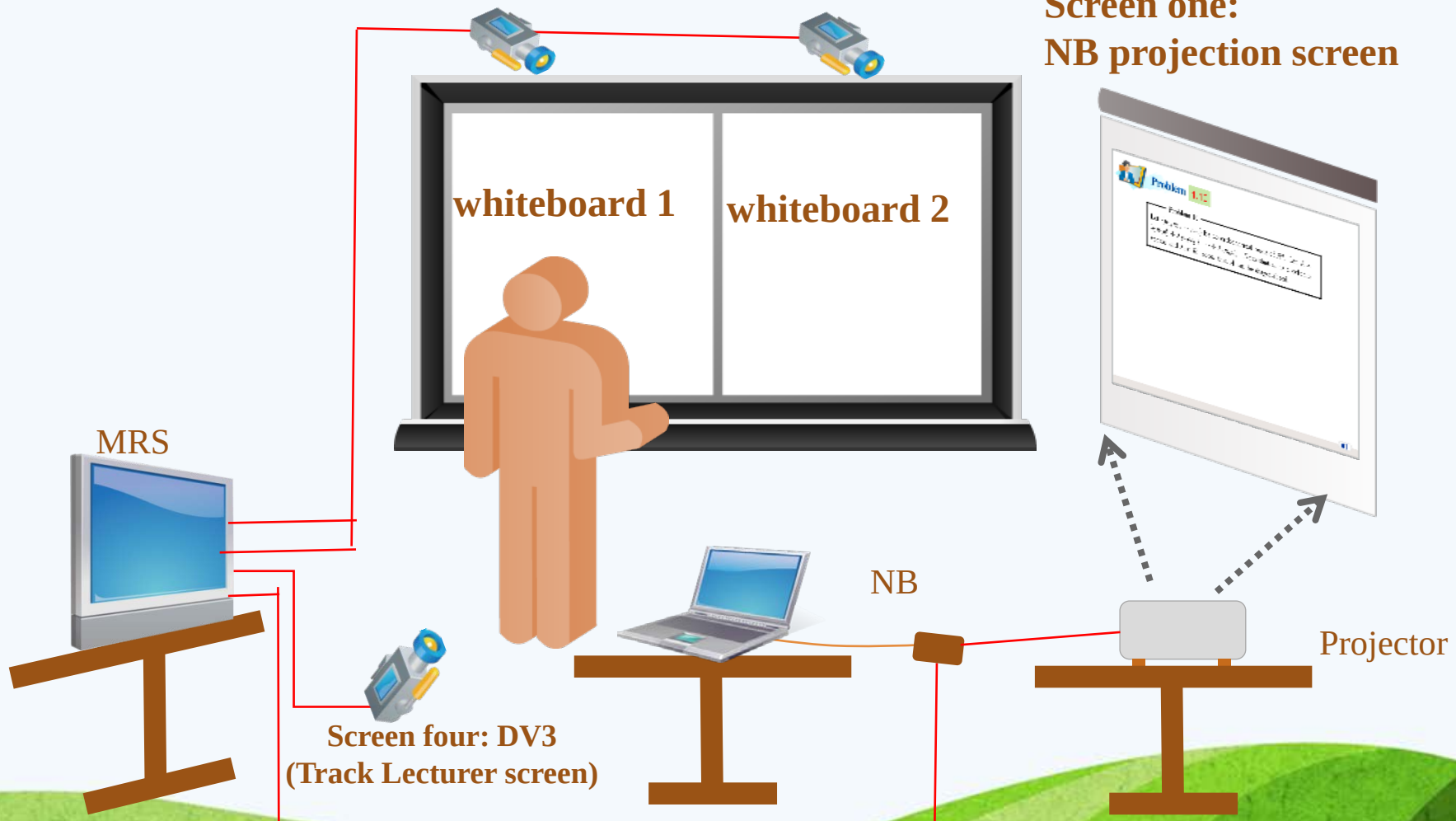
Single Projection Teaching Situation



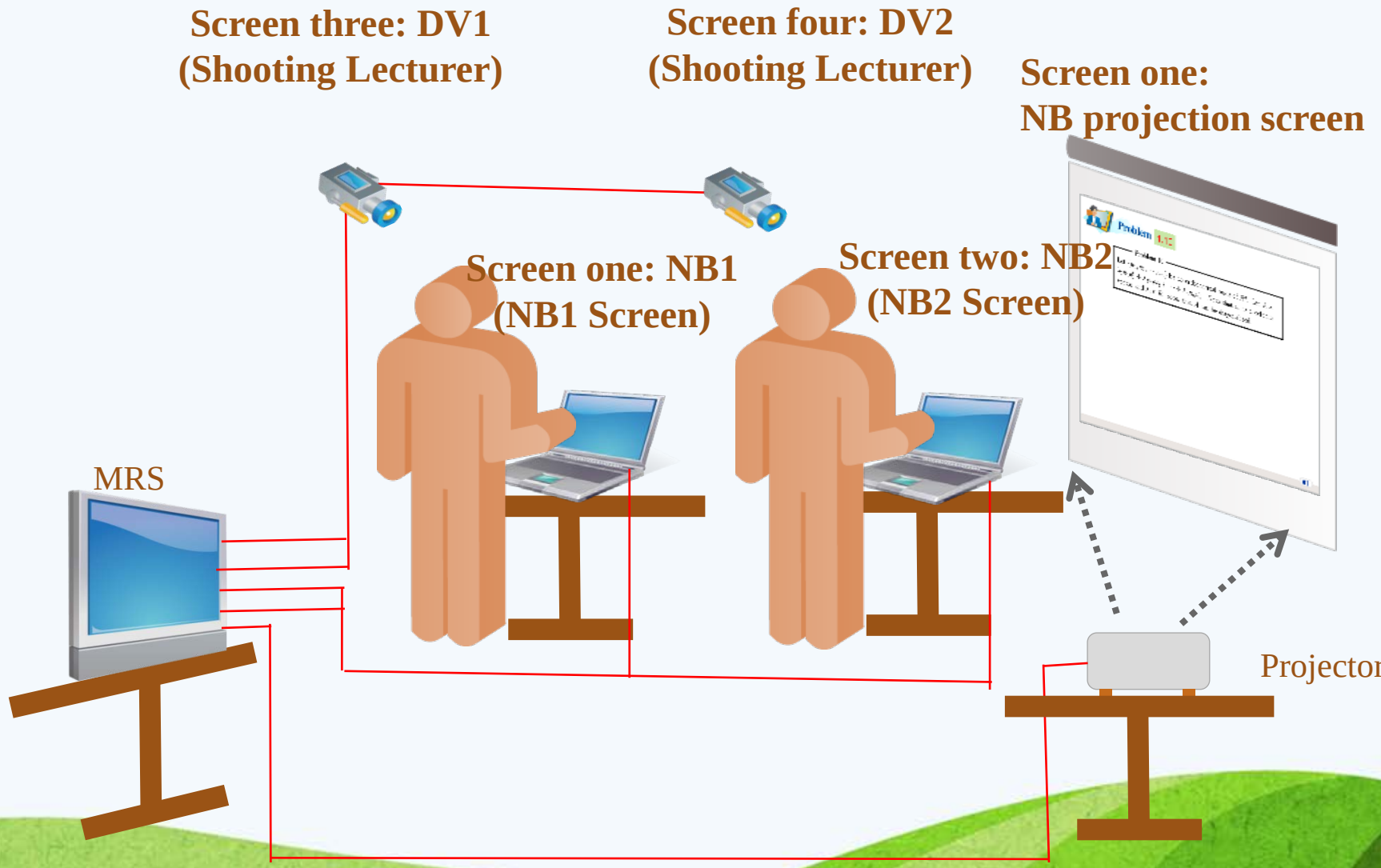
One Blackboard with Single Projection Teaching Situation



Dual Blackboard and Single Projection Teaching Situation



Dual Computer Teaching Situation



Conclusion

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- **Digital learning materials toward the cloud environmental development is an inevitable trend, and courses like micro video will be the first choice to produce a large amount of cloud digital content.**
- **Integrating with the mode of flipped classroom, the cloud digital learning materials demand will be more urgent.**

Conclusion (cont.)

- **The other issues such as rapid design, high qualified materials, easy upload, download anytime and anywhere, and effective learning will be getting important concerning online and mobile learning in the future.**