



**Where TEE is today and where it is going over
in 5-20 yrs**

Old wine in a new bottle?

**Prof. Okhwa Lee
Chungbuk National University
2013. 6.18 Boston, MIT LINC**

Contents



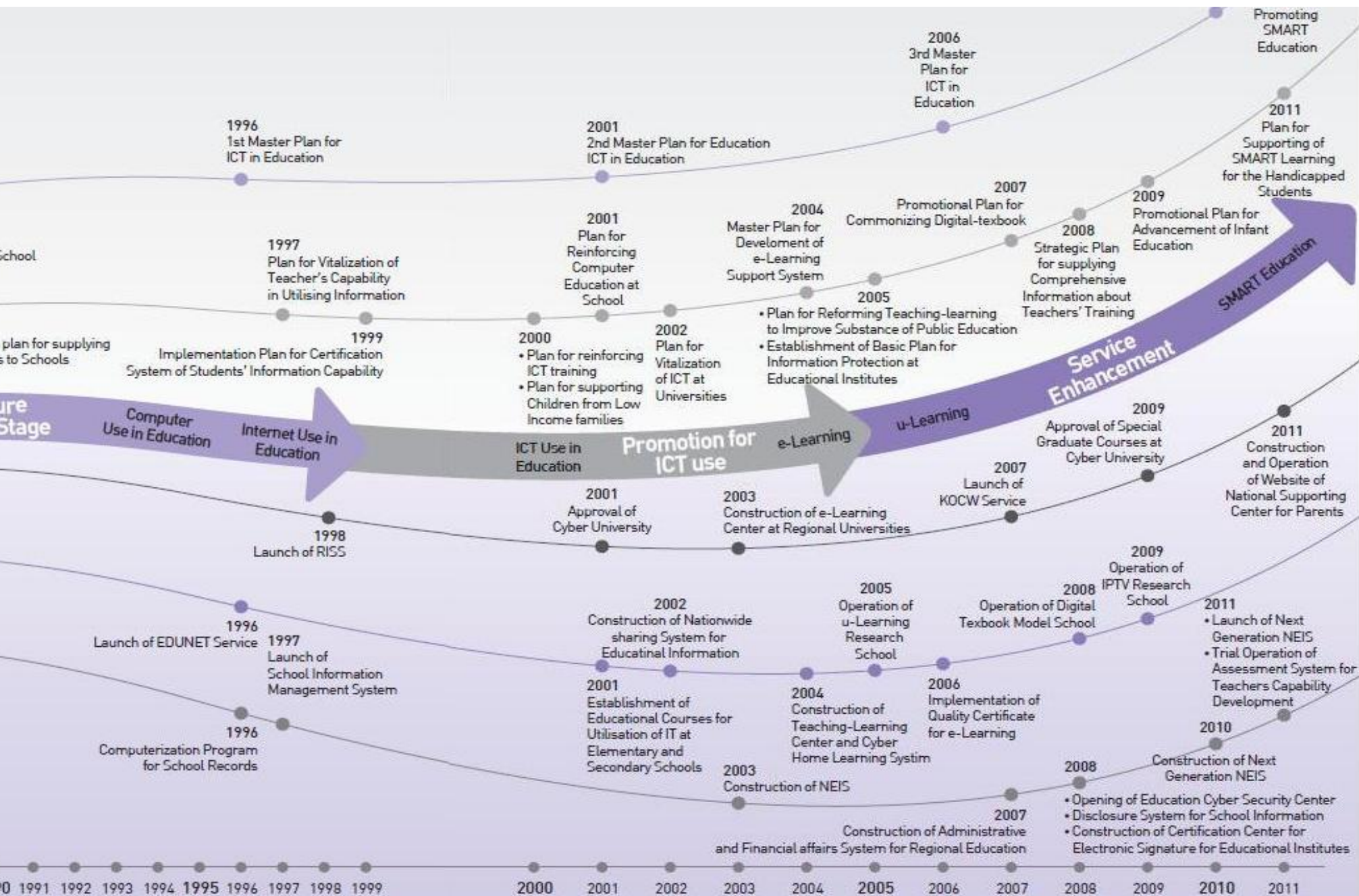
Policies for ICT in education

understanding of MOOC

Challenges for MOOC



Policies for ICT in Education



※ Source : KERIS(2012), Adapting Education to the Information Age (Whitepaper)

ICT in education as the national priority



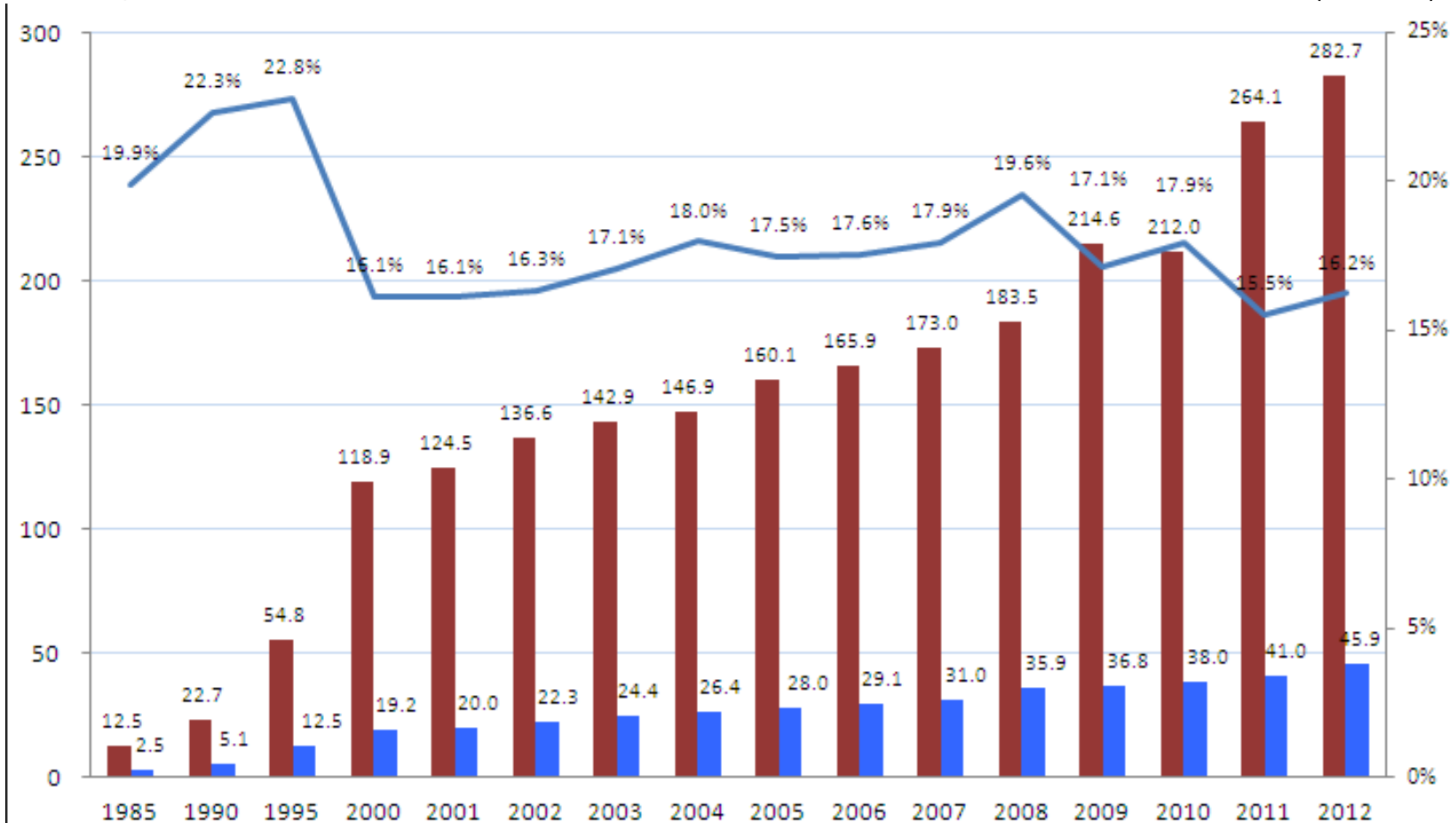
Inaugural Ceremony of Former President Kim Dae Jung (February 25, 1998)

※ Source : http://www.segye.com/Articles/Photo/PhotoNews/Article_Frame.asp?aid=20090818004706&cid=0104010100000

Ministry of Education's Budget

(1 trillion won)

(Percent)



■ The Government's budget
 ■ Ministry of Education's budget
 — Ministry of Education's budget rate compared to the Government's budget

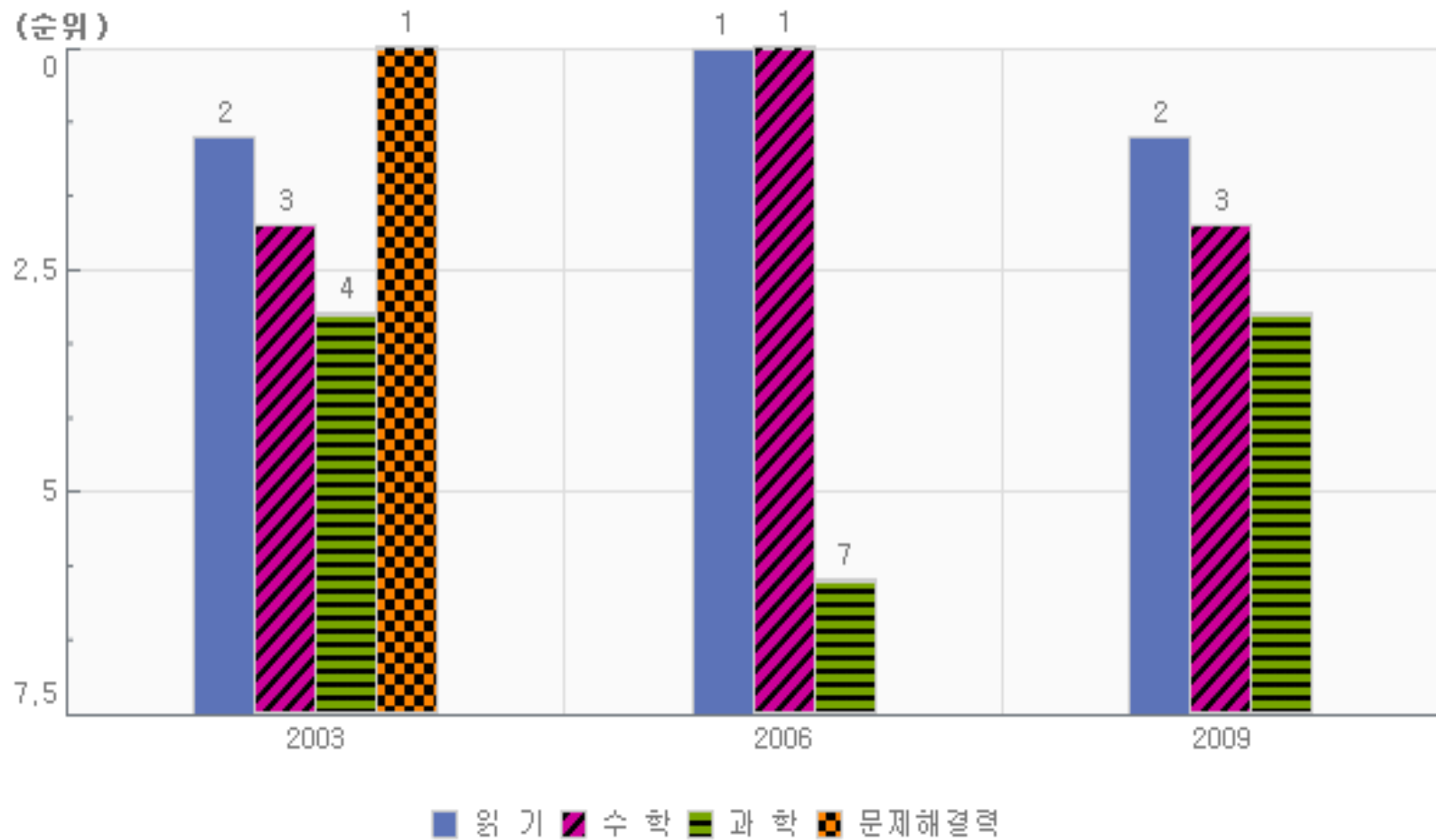
※ Source : KHEI(20123), KHEI Statistics, No.5(2013.5.31)
<http://khei-khei.tistory.com/600>

How is Korean Education Performance?

- OECD PISA study
 - Programme for International Student Assessment
 - international comparative study of high school students achievement (15 years old)
 - Every 3 yrs
- Koreans' performance
 - Reading : 2nd
 - Math : 4th
 - Science : 6th
- 65 countries (37 OECD)
 - Source: OECD, *PISA 2009 Database*



Korean performance in PISA 2009



What makes Korea high performing country?

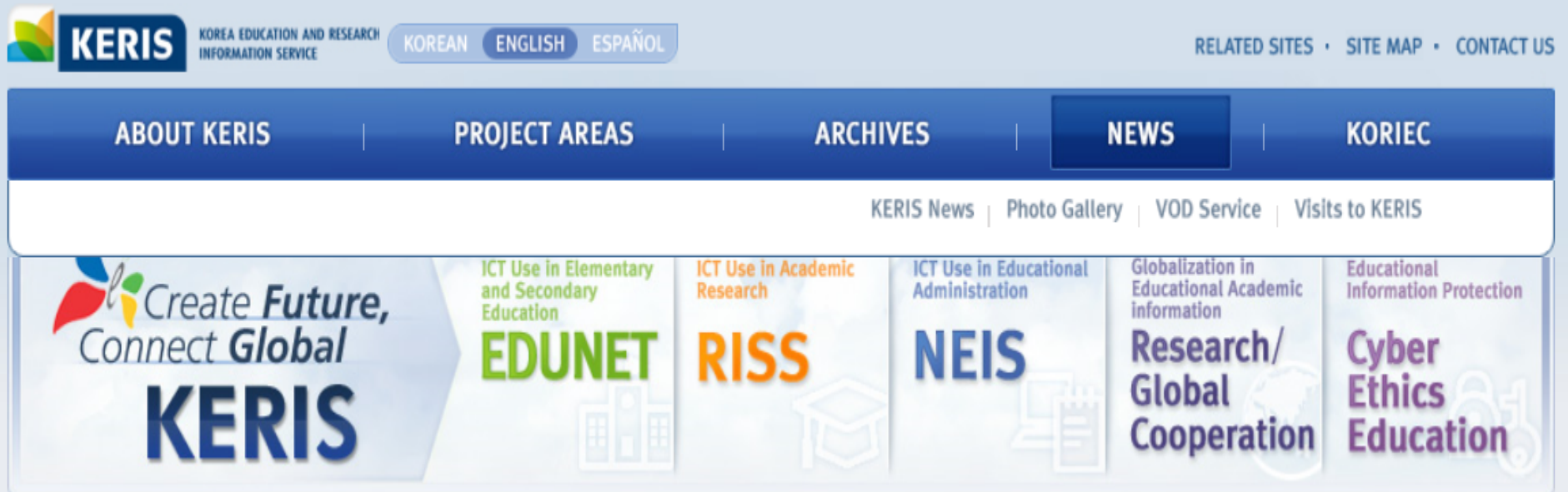
- High investment
 - 8% of GDP (formal and informal)
- Social culture
 - Parents endeavor to education
- High competent teachers
 - Best students to school of education
 - Most of them got Master degree and some Ph.D.
 - Highly paid
 - Socially recognized as the best job
- Educational policy to support teachers
 - ICT for educational infrastructure

Major Policies of ICT in Education

- **KERIS** – an Institution Operating ICI Educational policies

※ Source : http://english.keris.or.kr/es_ak/es_ak_400.jsp

Korea Education Resource Information System (KERIS)



Educational Broadcasting System EDRB



- Educational data resources bank for EBS
- EBS is solely devoted public broadcasting for education
- Open to educational use
- Educational video clips
 - Prime quality broadcasting videos
 - Cut into less than 10 minutes long clips
 - Categorized by theme
 - Classified by national curriculum
 - Simple maintenance of instructional processes

Best Of Best



국 어 네 편이 되어 줄게 (1)

'네 편이 되어 줄게'를 원작을 최대한 살려 만든 드라마이다. 돌아가신 엄마의 병원비로...

• 교과분류 : [초등] 6학년 1학기
• 주제분류 : 문학

• Play time : 00:07:30
• 등록일 : 2012-03-24

최신 클립

+ 더보기



✓ 감정의 변화
등록일 : 2013-05-09



✓ 송래문 문화의 ...
등록일 : 2013-05-08



✓ 울주 대곡리 반...
등록일 : 2013-05-08



✓ 신라우물, 12...
등록일 : 2013-04-22

과목별 추천 클립

ID PW [로그인](#)
☐ ID저장 ☐ ID/PW찾기 ☐ 회원가입

☒ 교과분류 ☐ 주제분류 ☐ 제공자보기

과목 학교 학년 [검색](#)

EDRB 활용 사례 영상

학교수업 현장에서
EDRB를 활용한 다양한 사례를 만나보세요.



공지사항

> more

- EBS 시스템 정기점검에 따른 사이트 중단 안내... 2013-06-13
- EBS 개인정보취급방침 변경 사전 안내 2013-06-12
- EBS 사이트 시스템 정기 점검에 따른 이용 안... 2013-04-12

주간 인기 클립

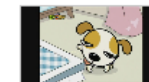
+ 더보기



✓ 눈길, 이청준
조회수 : 630
등록일 : 2012-09-18



✓ 삼각형과 원의 합체, 내심과...
조회수 : 1972
등록일 : 2011-05-12

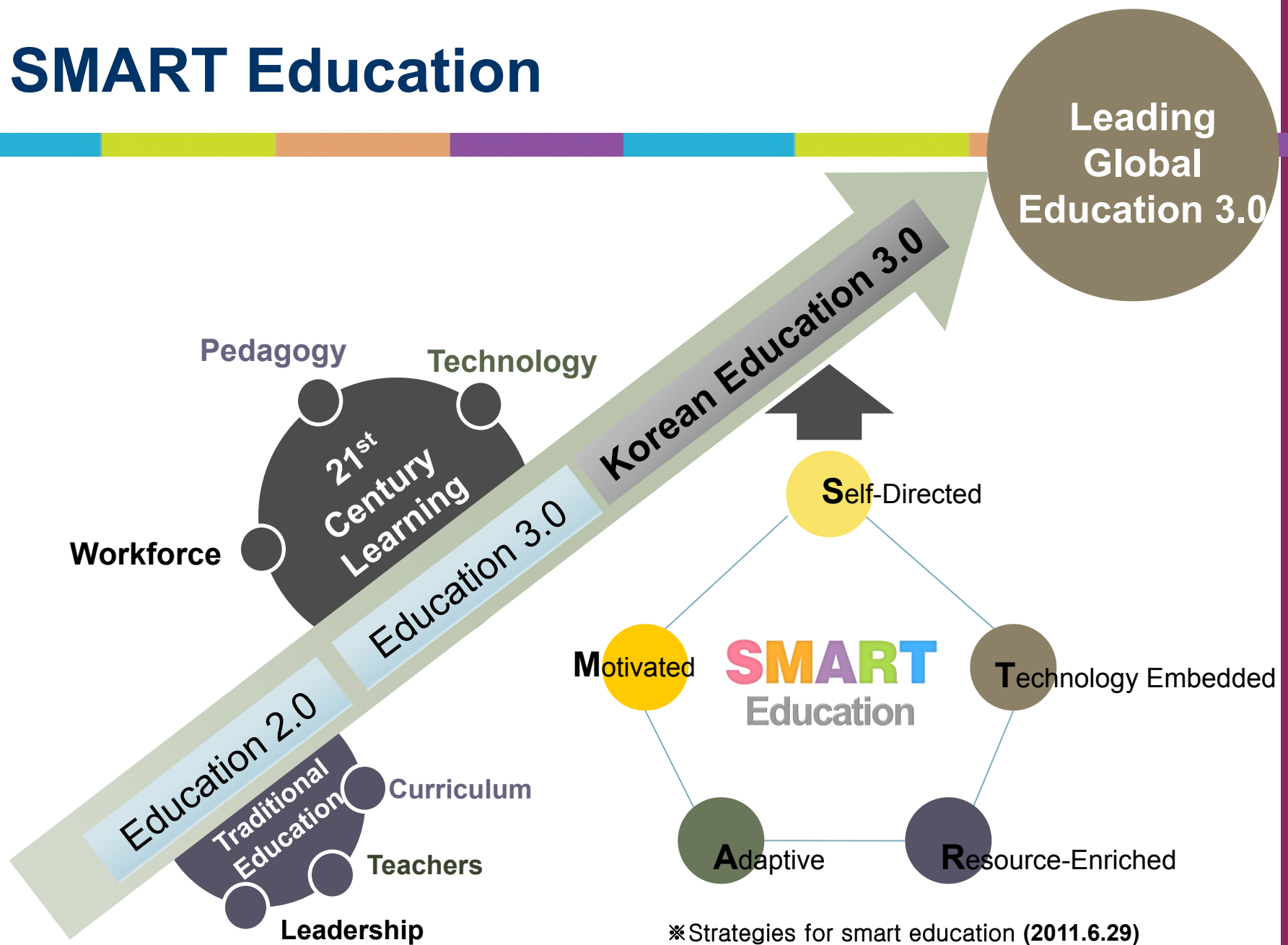


✓ (애니메이션) Do you h...
조회수 : 1228
등록일 : 2011-12-23



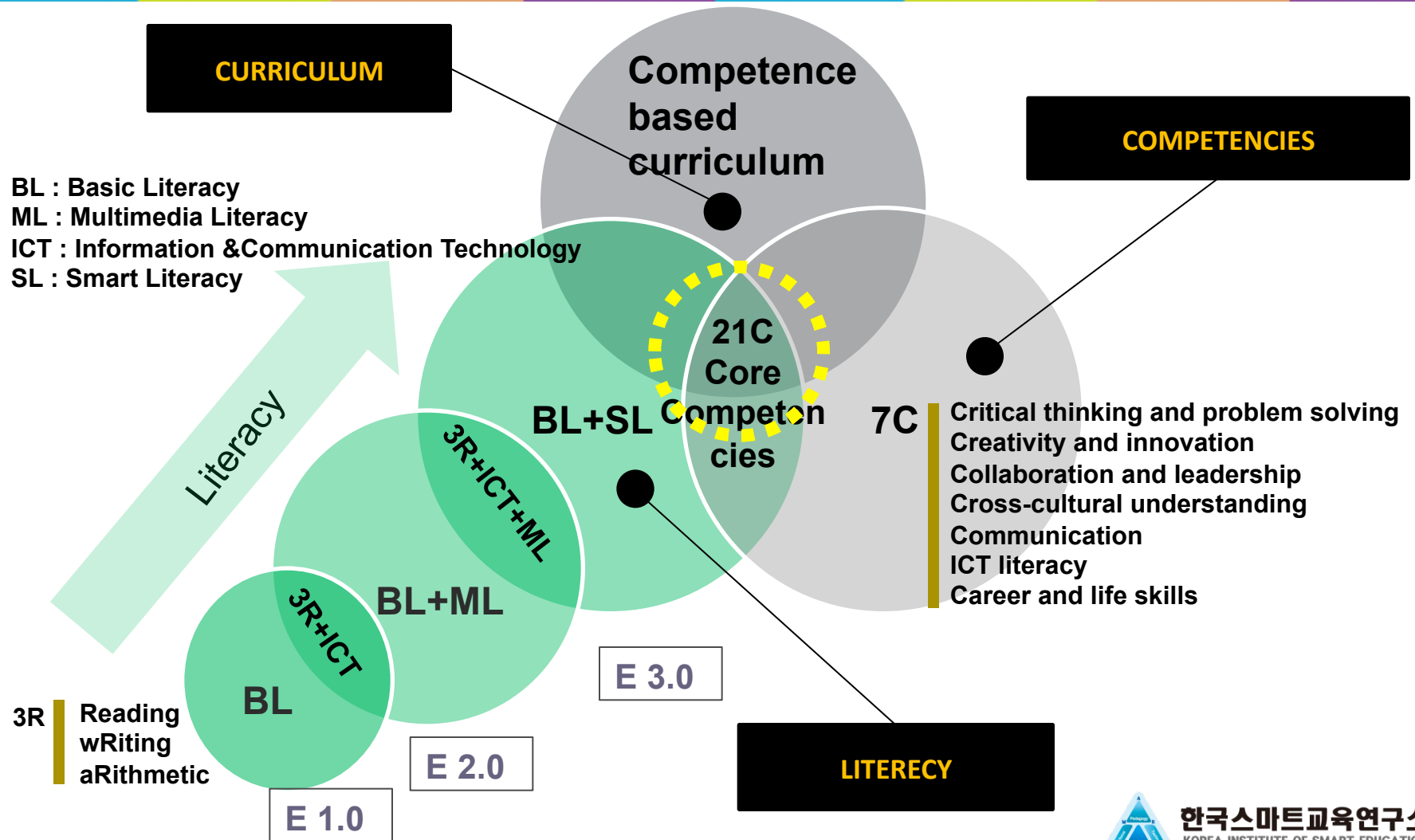
✓ 다문화에 대한 선입견
조회수 : 87
등록일 : 2012-09-17

SMART Education



※ Strategies for smart education (2011.6.29)

Core Skills of SMART Education



eTextbook

Korean, Math, English for primary and junior high schools.

<http://book.edunet.net/ebookSamplePopup.do>

22 / 209 이동

달기

전시편 작품을 살펴보고 자신의 생각이나 느낌과 비슷한 점, 다른 점을 정리하여 봅시다. **해 보기**

이름	독서 감상문 제목	비슷한 점

내용을 입력하세요

만약 글쓴이라면, 글쓴이에게 편지 쓰기, 등장인물에게 편지 쓰기, 독서 퀴즈 문제 내기, 독서 퍼즐 하기, 원고지 형식의 감상문, 4컷 만화로 표현하기, 뒷이야기 이어쓰기 등의 다양한 활동을 할 수 있도록 만들어 놓은...

독서감상문 **테마1**

만약 글쓴이라면, 글쓴이에게 편지 쓰기, 등장인물에게 편지 쓰기, 독서 퀴즈 문제 내기, 독서 퍼즐 하기, 원고지 형식의 감상문, 4컷 만화로 표현하기, 뒷이야기 이어쓰기 등의 다양한 활동을 할 수 있도록 만들어 놓은...

독서감상문 **테마2**

왜, 순간순간 느끼는 소중한 감정들을 잘 잡아서 평생 동안 기억할 수 있는 소중한 기록으로 남겨 봐, 독서 감상문 | 책을 읽고 자기 생각이나 느낌을 적은 글을 말해, 이때 독서 감상문을 쓰는 가장 중요한 깨달은 책을...

독서감상문 **테마3**

한일독서(학)교동학(생) 등을 운영한다. 또한 도서대출, 권장도서목록 배부, 독서지도, 독서토론회, 독서감상문 발표회 등을 개최하고 있다. 도서관 이용시간은, 일반열람실은 오전 7시부터 오후 10시까지...

전시편 작품을 어떻게 감상하는 것이 좋을까요?

친구가 부족한 점을 자신의 생각과 다른 점을 비교해 보는 것도 좋아요.

3에서 정리한 내용을 바탕으로 하여, 읽은 글에 대한 서로의 생각이나 느낌을 이야기하여 봅시다. **해 보기**

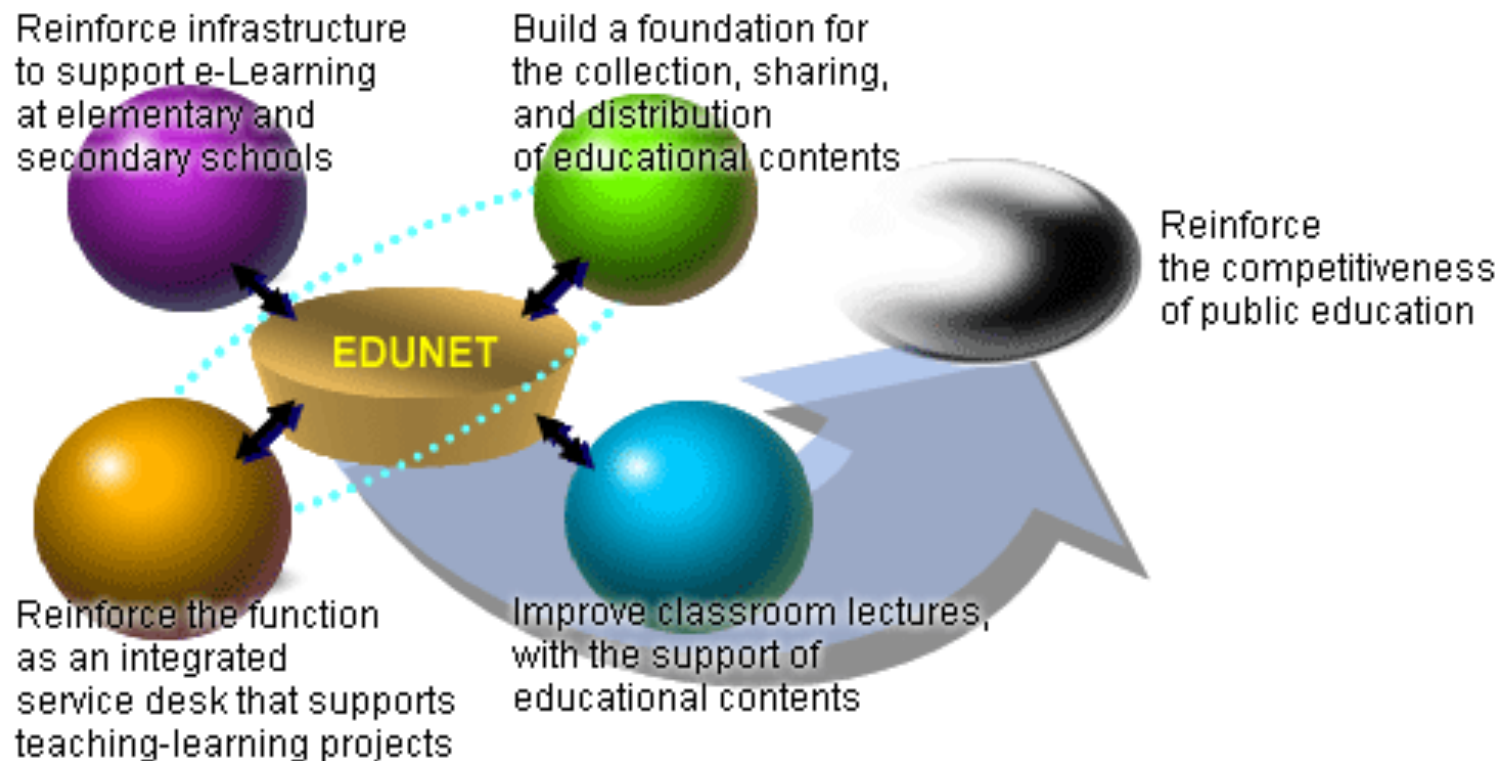
2. 19쪽 2에서 정리한 내용을 바탕으로 하여 독서 감상문을 써 봅시다. 쓴 독서 감상문을 친구와 바꾸어 읽고 잘된 점을 찾아 칭찬하여 봅시다.

167쪽의 독서 감상문 쓰기 자료를 활용하세요.

22 23

Edunet – national educational portal

- **Objective of Edunet**



※ Source : http://www.edunet4u.net/engedunet/ed_01.html?entryway=edunetEng

학생서비스



나만의 열린 통로!
※ 학생서비스는
현재 시범 운영중입니다.

학부모서비스



내 자녀 바로알기
자녀 사랑의 시작입니다.

홈에듀 민원서비스



대국민 생활의
질적 향상을 위한
홈에듀 민원서비스

온라인채용



교육현장에서 함께 할
인재를 찾습니다.

검정고시



당신의 못다한
교육의 꿈을 이뤄드립니다.

전체
메뉴
보기

교육부

한국교육학술정보원

개인정보처리방침 | 대국민서비스 콜센터 안내

나이스 대국민 서비스는 인터넷 브라우저로 익스플로러 7.0~8.0을 지원하고, 해상도는 1024x768을 기준으로 최적화되어 있으나, 사용자 PC환경에 따라 다르게 표현되거나 일부 기능이 제한될 수 있습니다.

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KOCW (Korea Open CourseWare)

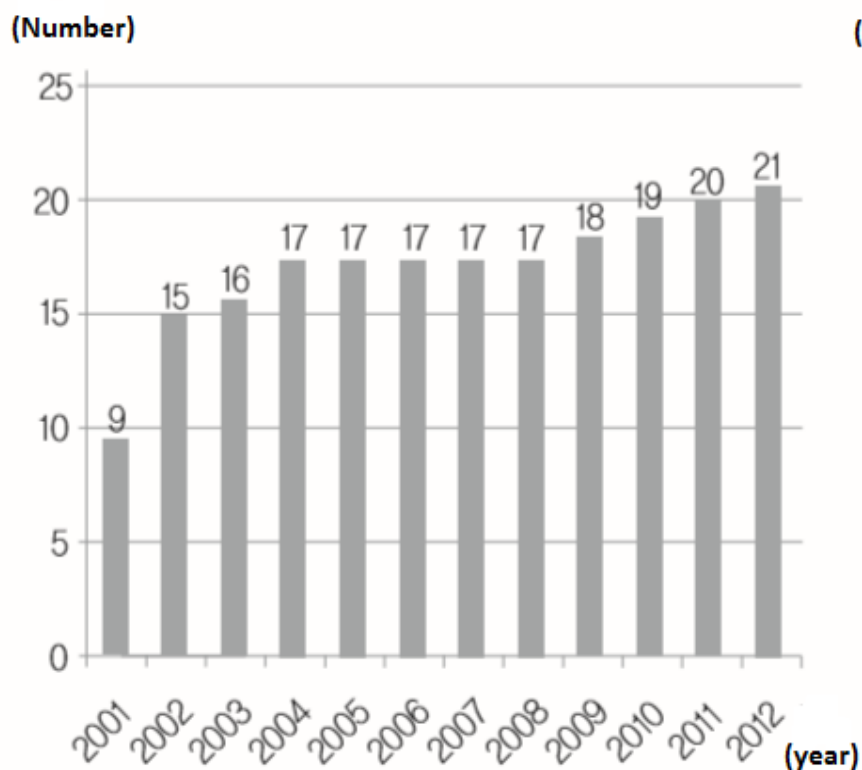
- Lectures from Korean universities : 4,746
- KOCW course materials : 196,644
- **List of foreign OER associations**
 - GLOBE
 - ARIADNE
 - LORNET
 - NIME-glad
 - MIT OCW
 - Open CourseWare con

※ Source1 : <http://www.kocw.net/home/introduce/in>

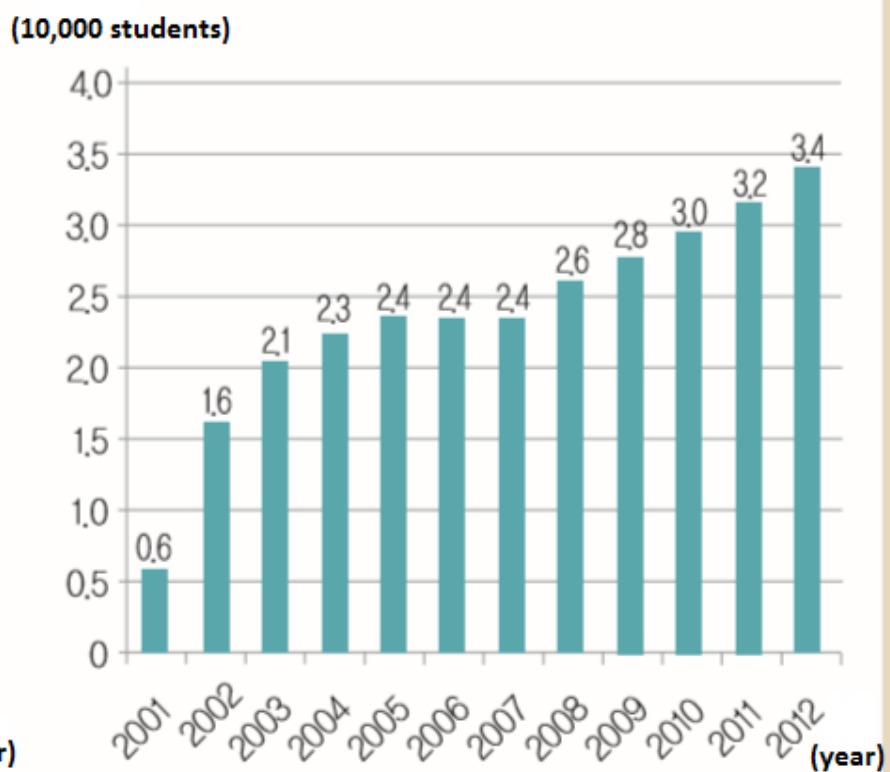


Cyber Universities

■ The Number of Cyber Universities



■ The Entrance Quota



※ Source : KERIS(2013), Adapting Education to the Information Age (Whitepaper)

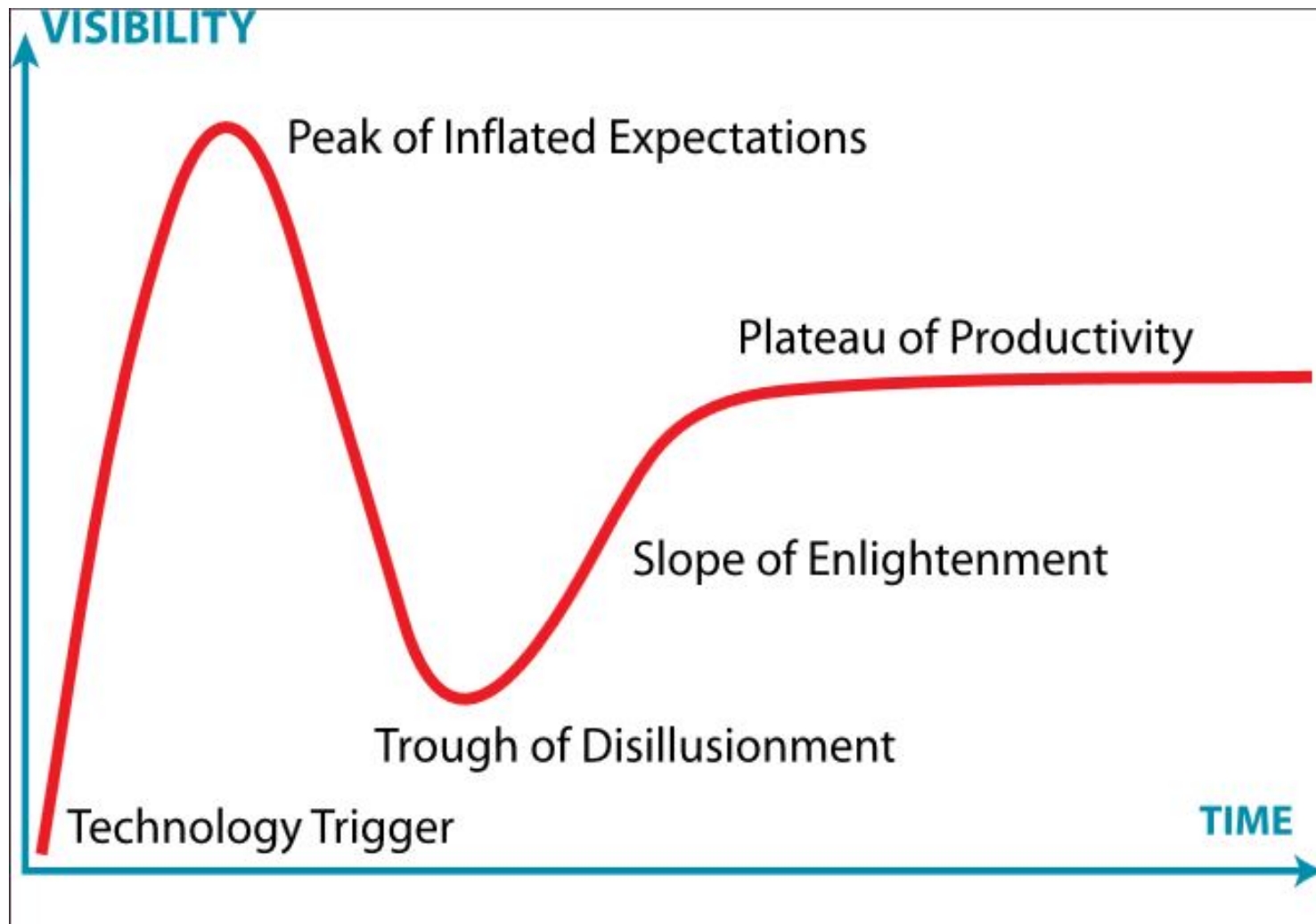
ASEAN Cyber University (ACU)

- Korean governments' initiation to establish global cooperation in education (June, 2009)
- To promote the development of higher education in the ASEAN region through ICT



http://upload.wikimedia.org/wikipedia/commons/9/94/Gartner_Hype_Cycle.svg

Gartner's Hype Cycle : Emerging Technologies



What we have learned



- Teachers are the most important agency
- Bottom up approach vs top down approach
- More investment for promotion
- Accept the slow start
- Parents are as important stake holders as sts
- Education first, then technology
- Education transformation is agreeable but not the details
- Quality comes from quantity



Understanding of MOOC

What is MOOC ?

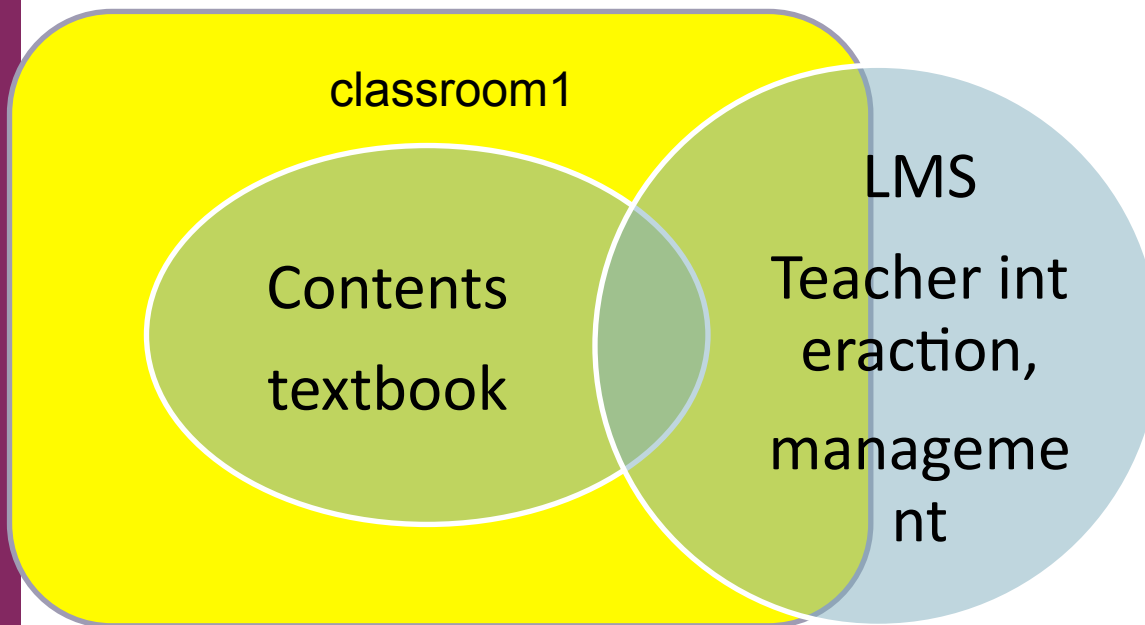
- **Contents**
 - Standardized file format
 - 10 minute short video clips
 - Reference materials
- **Instructional activities (LMS)**
 - Follow up of learning activities
 - Social presence of students and teachers
 - Ownership of the class
 - Learning community
- **Management???**

What is so special about MOOC?

- **Tuition free**
- **Massive number of students**
 - Learning community
 - Interaction is active
 - Immediate feedback possible
- **Mastery based personalized learning**
- **Just in time learning**
 - Immediate feedback
 - Learning community support

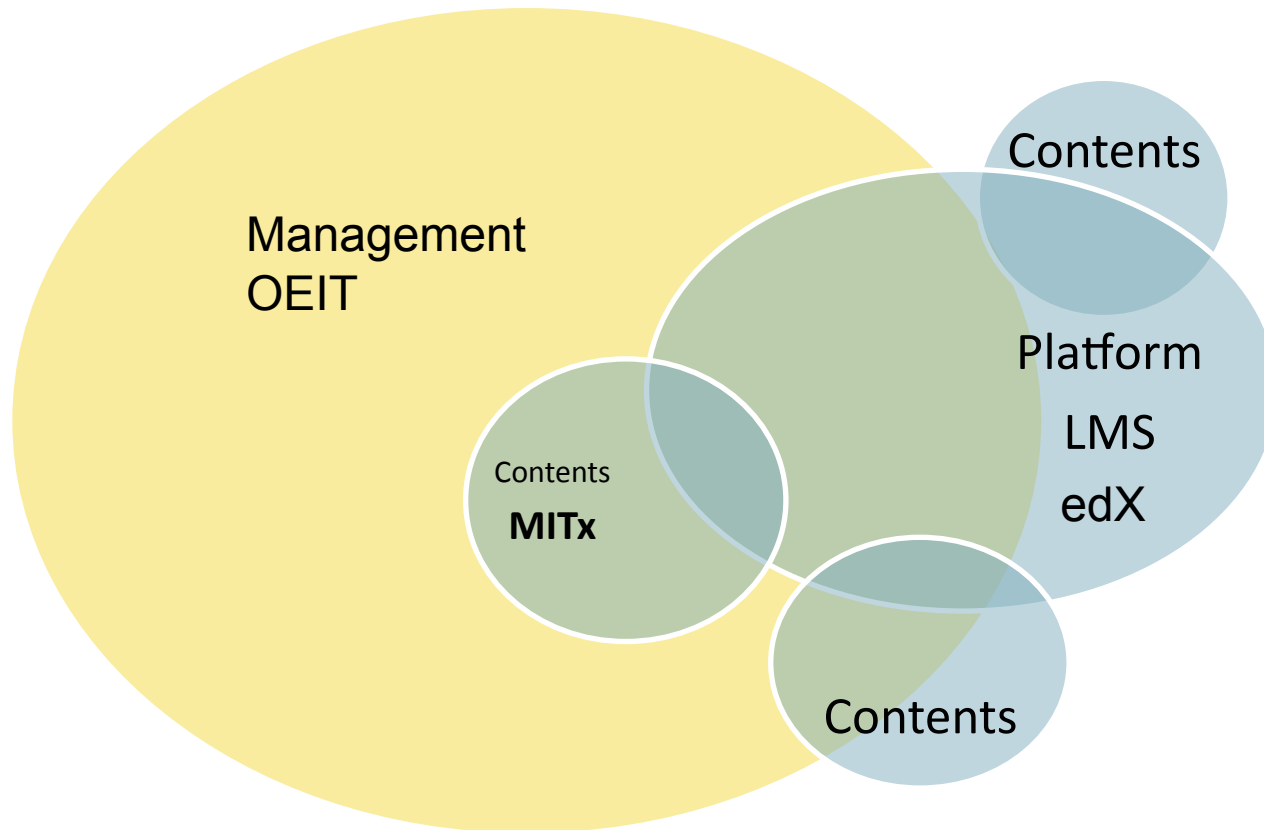
Analogy of e-Learning system to schools

- Contents : textbook (tuition or students pay)
- LMS : instructional activities, platform (tuition)
- Management : school operation, credit (tuition)



**School = lots of
class rooms**

Confusion about MOOC



edX = contents + instructional activities
Management will be the source for confusion

Lack of MOOC model for Campus based university

- Minor among MOOC users
 - Can use any portals ?
 - Can use any contents from portals ?
 - Who pays for what?
-
- Contents : students can pay like textbook
 - Interaction (LMS) : tutor cost ?



Challenges for MOOC*

Old wine in a new bottle?
: E-learning pedagogy

* Summer 2013 edition of On Wisconsin "ABC's of MOOC"

Accessibility Coursera hits 1 million students across 196 countries

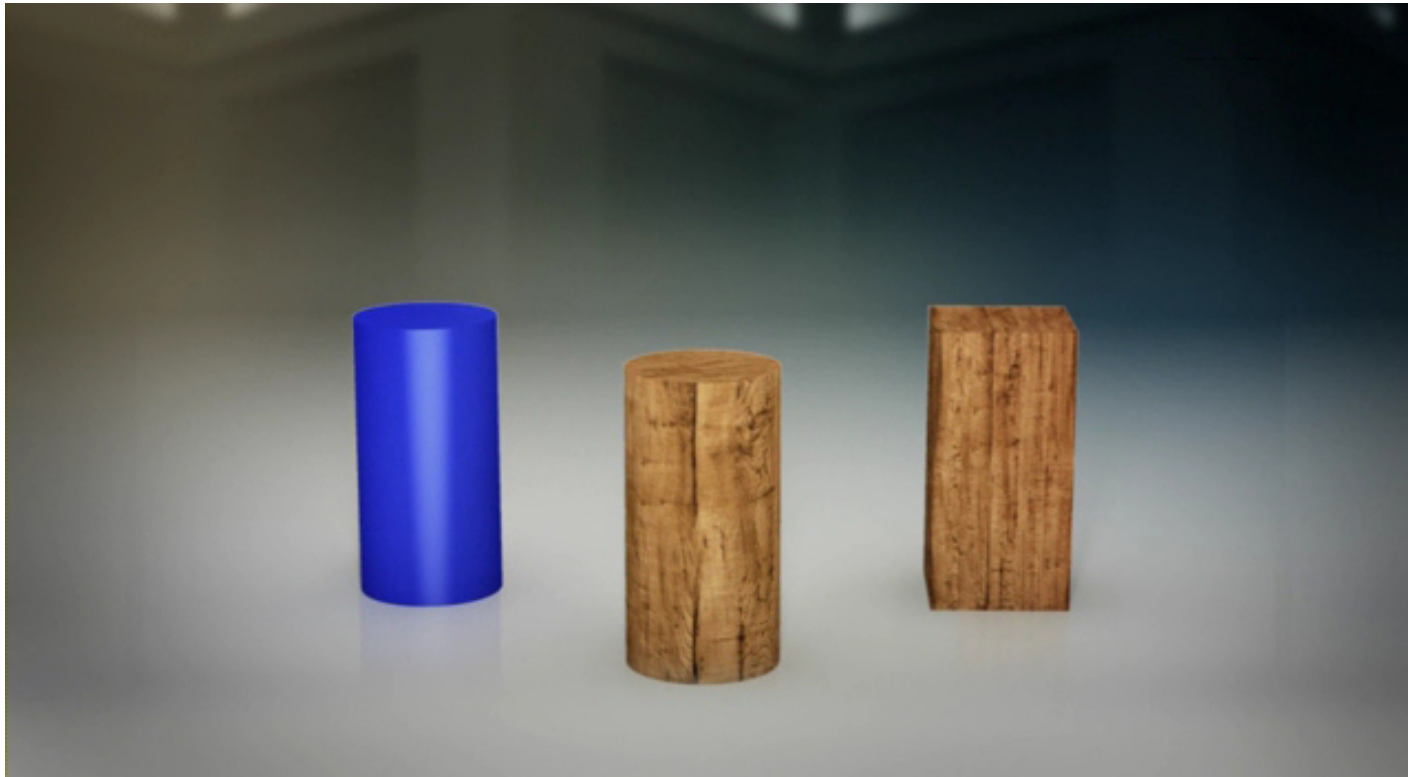


– Polarized nation.

- Network speed ?
- Language ?

- forced to think in certain way

Which ones belong to the same category...?



Nisbett, R. E. (2007). Cognition and perception East and West.
EBS Docuprime EAST and WEST, 2009.10.07~08
<http://home.ebs.co.kr/docuprime/index>

- 1) two round cylinder (blue and brown)
- 2) two brown figures

Properties and relationships

EBS Docuprime EAST and WEST, 2009.10.07~08

<http://home.ebs.co.kr/docuprime/index>

- 1) ANIMAL
- 2) MONKEY AND BANANA

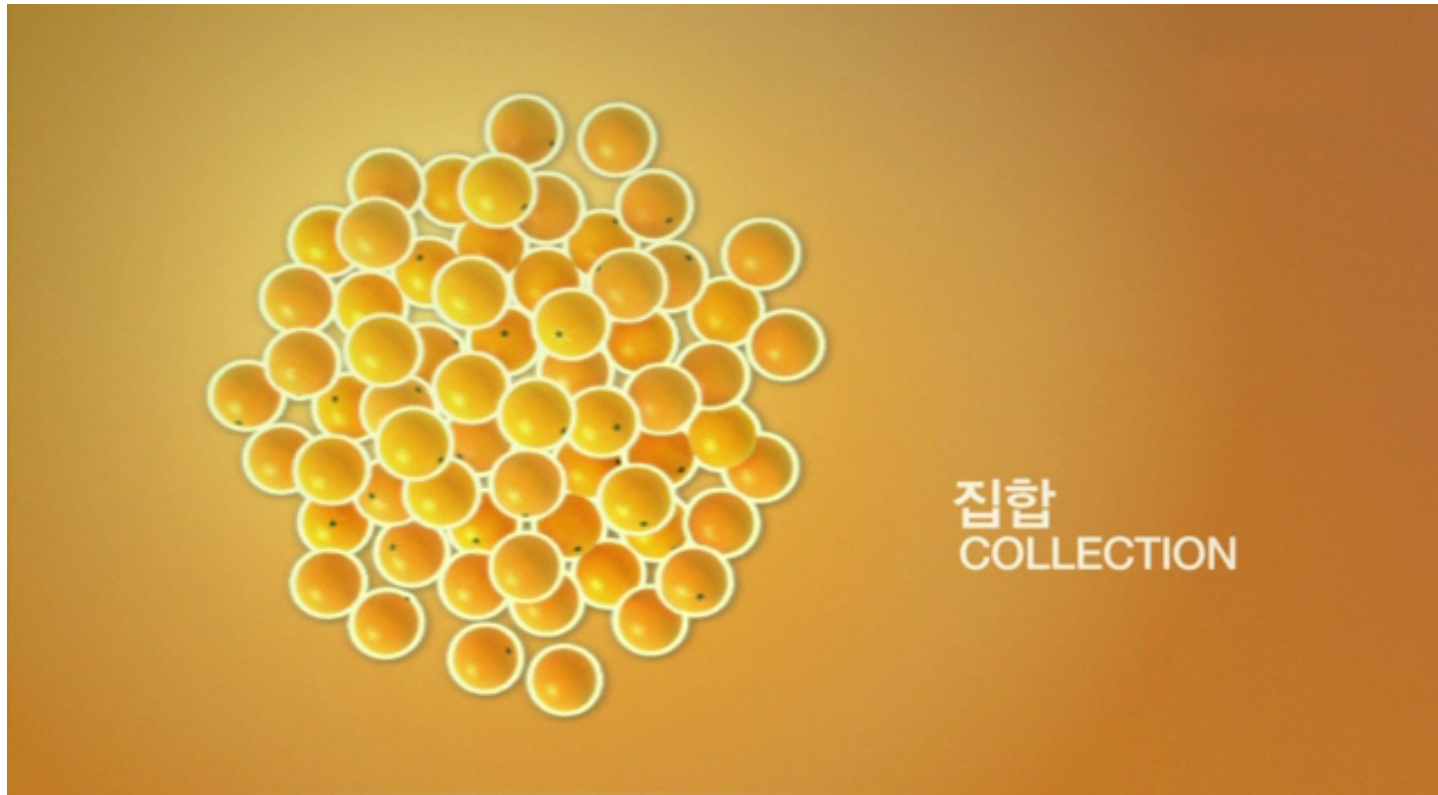


이 중에 두개를 묶는다면?

Languages

Docuprime EAST and WEST, 2009.10.07~08 <http://home.ebs.co.kr/docuprime/index>

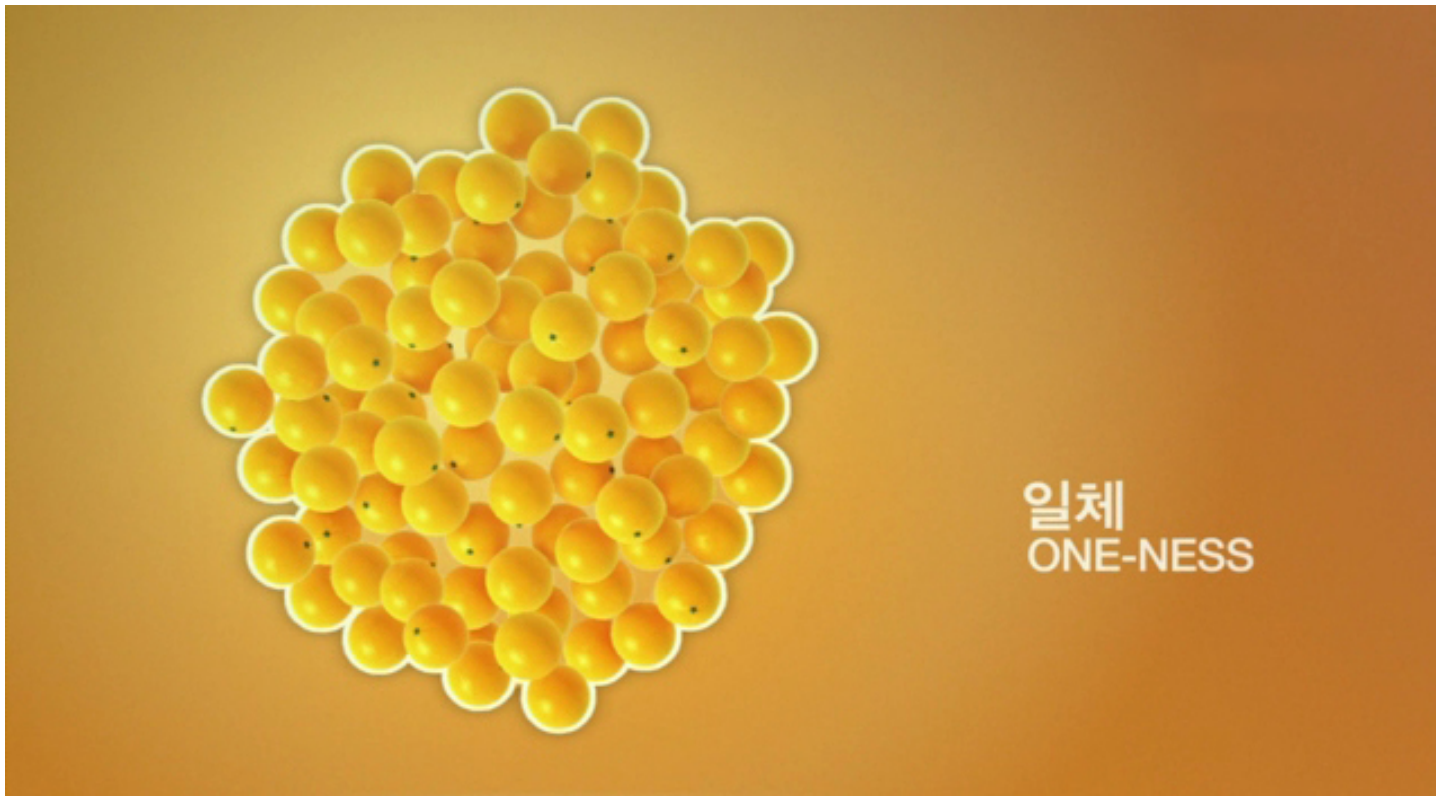
- West : whole is a collection of individuals
- noun rich language



Languages?

EBS Docuprime EAST and WEST, 2009.10.07~08 <http://home.ebs.co.kr/docuprime/index>

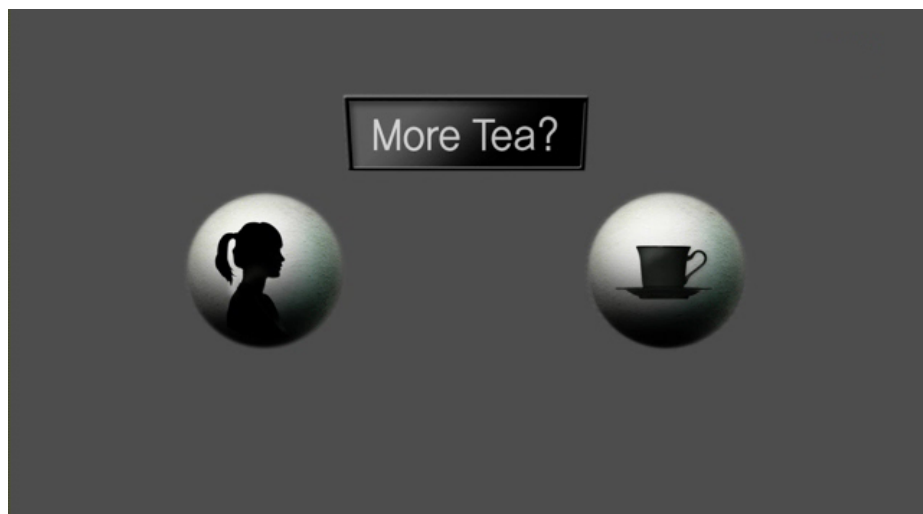
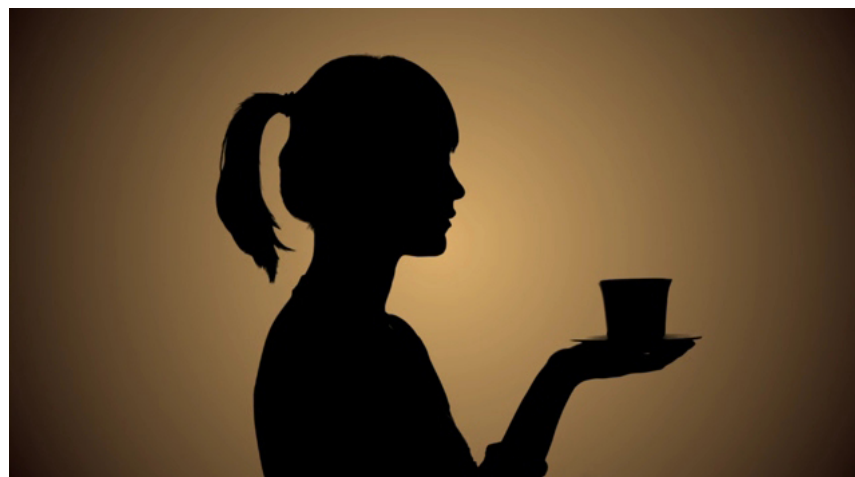
- East : whole is one-ness, not a collection of individuals, verb rich language



Noun and Verb

EBS Docuprime EAST and WEST, 2009.10.07~08 <http://home.ebs.co.kr/docuprime/index>

- More tea vs drink more



Certificate cost for MOOC

MOOC	Certificate
Coursera	<ul style="list-style-type: none">- Statement of Accomplishment(Free, for Open course)- Signature Track (Paid, \$79)
Khan Academy	<ul style="list-style-type: none">- No Certificate
Udacity	<ul style="list-style-type: none">- Downloading a certificate depending on mastery level (Free)
Edx	<ul style="list-style-type: none">-Free Certificate (It will be changed)- Proctored Certificate (Taking an exam with proctor + Completing online courses)- Honor Code Certificate (Completing online courses)
Udemy	<ul style="list-style-type: none">- Certificate only for some courses
P2PU	<ul style="list-style-type: none">- No Certificate, but badges
Venture Lab	<ul style="list-style-type: none">- Statement of Accomplishment (online)
TED-ed	<ul style="list-style-type: none">- No Certificate

Credits / certificates



- MOOC is credit free toward certificates, degree

BUT

- In January 2013, [Udacity](#) launched the first MOOCs-for-credit, in collaboration with San Jose State University.
- In May 2013, the first-ever entirely MOOC-based Master's Degree, a collaboration between Udacity, AT&T and the Georgia Institute of Technology [Georgia Institute of Technology](#), costing \$7,000.

Gate Keepers in Education are Going away

- Dynamics of sts & teachers interaction
 - Evidence based model
 - Why separate sts by age,
 - Why one teacher for 20 sts, why not 2 teachers for 40 sts
 - Peer learning, teaching
 - No separation among subject domains (phys & math, large epic room working on the same problem)
 - One big school, everyone does on their own pace,

New Job Skills for Teachers



- Difficult for PhD to be hired as a professor w/o substantial ability to teach online
- International course enrollment replaces peer reviewed articles in tenure considerations