## A Proposal: ePortfolio for enhancing active learning for the future generation

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#### ABSTRACT 1/4

It is proposed that, the students' meta-cognitive reflection being the key to learning, the development of the students' expressive skills in writing literacy will, indeed, bring about a success in life after graduation. The four years of college education must fill up the "fuel tank of knowledge, wisdom, competencies and skills for lifelong learning", which must not be depleted for over 40 years until retirement. By nurturing the students' writing skills as the artifact or evidence for academic learning through meta-cognitive activities, is it possible to conduct the real education, producing graduates of high quality and caliber. The basic assumption of incorporating the development of writing skills in the college curriculum or program is for the propose of making our culture richer and elevating the value of our heritage for the henefit of the hetter

#### ABSTRACT 2/4

The basic assumption of incorporating the development of writing skills in the college curriculum or program is for the propose of making our culture richer and elevating the value of our heritage for the benefit of the better future in terms of constructive and humanistic communication. It is seen that ePortfolio has potential to grow into such robust ICT enhanced system for the education in a new paradigm fulfilling the need for transdisciplinarity. This proposal is to put ePortfolio into a bigger picture in higher education, namely, in the realm of ePortfolio for academia, in which the process of learning leads to the benefit of career design and life-long learning. It cannot be denied that the proficiency in academic writing will bring students to a success in career as well as in the life long learning. In other words the artifact in writing is the mirror of the

#### ABSTRACT 3/4

- It cannot be denied that the proficiency in academic writing will bring students to a success in career as well as in the life long learning. In other words, the artifact in writing is the mirror of the learning mind.
- As the IFTF (Institute for the Future) claims that the 2020 skills include Global Awareness and Rich ICT, Media Literacy, as well as Digital Communication/ Presentation skills as the essential future skills, the mirror of the reflective learning mind incorporates not only the written information but also the rich media. Thus, the future education fortified with ePortfolio must also incorporate artifact of learning in rich media. While in the past, paper and a pencil were the optimal technologies to reflect the evidence for learning, digital media literacy has been

#### ABSTRACT 4/4

As the IFTF (Institute for the Future) claims that the 2020 skills include Global Awareness and Rich ICT, Media Literacy, as well as Digital Communication/ Presentation skills as the essential future skills, the mirror of the reflective learning mind incorporates not only the written information but also the rich media. Thus, the future education fortified with ePortfolio must also incorporate artifact of learning in rich media. While in the past, paper and a pencil were the optimal technologies to reflect the evidence for learning, digital media literacy has been becoming dominant due to the advancement of ICT. It is believed that the digital media have been providing us with richer ways of communication and presentation of the learning mind.

#### e-Portfolio

No culture to make use of portfolio system in education in

Asia

Portfolios turned in by the medical degree candidates.

Portfolio reading process University of Dundee





Evaluation of
Portfolios: two
examiners read
Portfolios individually

- Two examiners independently read student portfolio
- Independently grade the student in terms of the 12 outcomes
- Before portfolio review ...
   Examiners meet and reach agreement on strengths and weaknesses to be explored during portfolio review



Prep-meeting by all examiners: agreement formation for standardizing the evaluation measures

Source: Portfolio System by Emit Japan

### e-Portfolio:: 3 Types:

- ■1. Student e-Portfolio
  - ■Show cases for proofs of achievements
  - ■Purpose: career development, course accomplishment
  - **■**Collection of artifacts
  - ■Place to share representations, reflections, improvement processes.
- ■2. Faculty Development e-Portfolio
  - ■Show cases for proofs of academic achievements by professors
  - ■Teaching strategies to be shared with other colleagues
  - ■Purpose: professional development as educators
- ■3. Institutional e-Portfolio
  - ■Collections of student e-Portfolio and faculty development e-Portfolio
  - ■Evidence for learning and accreditation

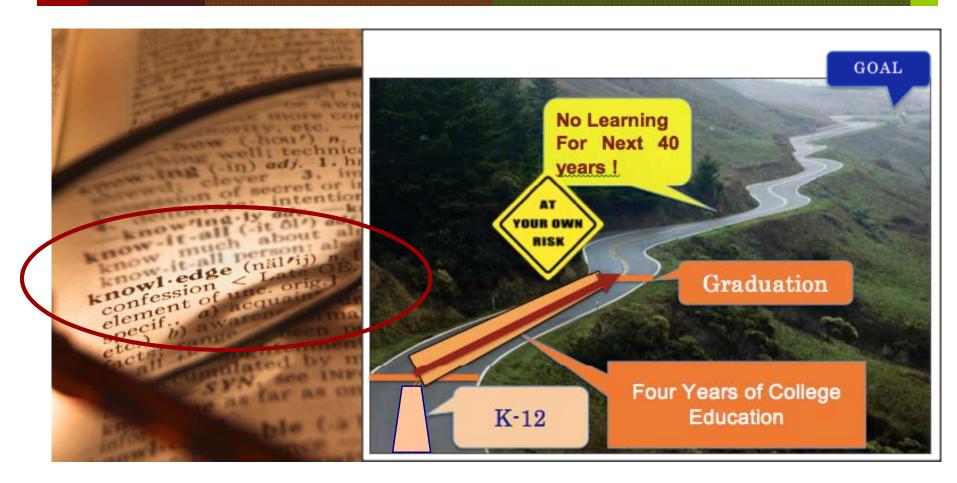
#### What is e-Portfolio?

- What is e-Portfolio?
  - 7 The basic concepts of e-Portfolio.
- Assessment Strategies: The position we take here.
  - Realm of e-Portfolio
  - What to Assess? ----- Corpus for Assessment
  - How to Assess?: Reliability and Validity
  - 7 How to Visualize Results

#### What we focus on here

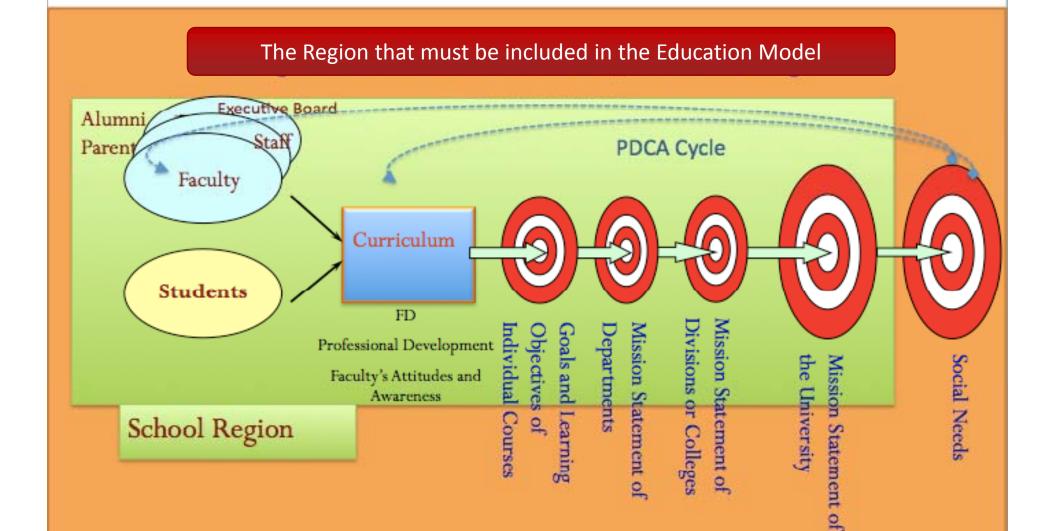
- We choose the Learning e-Portfolio (#1 & #3 below).
  - 1. Student e-Portfolio
    - Show cases for proofs of achievements
    - Purpose: career development, course accomplishment
    - Collection of artifacts
    - Place to share representations, reflections, improvement processes.
  - 2. Faculty Development e-Portfolio
    - Show cases for proofs of academic achievements by professors
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  - 3. Institutional e-Portfolio
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    - Evidence for learning and accreditation

#### The Role of a University: Gas Station for life? Filling the knowledge tank in the students' brain for the life-long career?



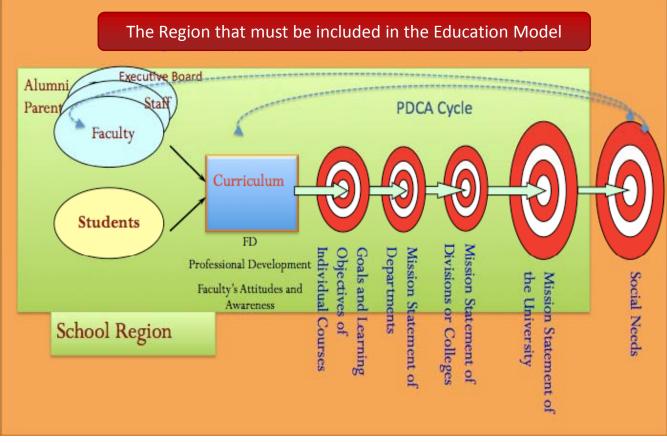
大学教育におけるe-ポートフォリオ 関西大学 教育推進部 山本敏幸

#### Future Design in Education



#### Global Awareness

#### **Future Design in Education**





## the students need to be ... Future Generation learner



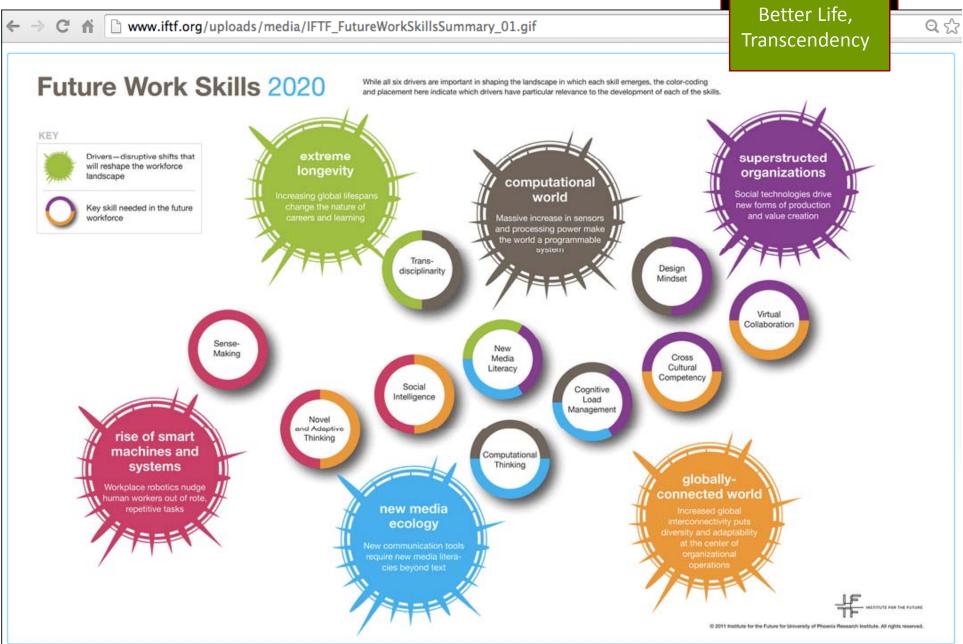
Better Life,

Transcendency

(Future Goal)

## The Future, Better Life, Transcendency

Isn't Learning for making the world / life better?



http://www.iftf.org/uploads/media/IFTF\_FutureWorkSkillsSummary\_01.gif

The Future,

The Future, Better Life, Transcendency

#### 10 Needs for Future Education



ready-here-are-the-top-10-skills-for-the-future Globalization is no longer
 Many of us work globally res, but those who know how ical skill. Many of us work cate and consume information gital entering the workforce tal and social media forms ntal Plans Also On Forbes

New iPhone 6

#### Future Design in Education

#### **■ Constructivism** in Education

"You cannot teach a man anything; you can only help him find it within himself.

The New Paradigm:

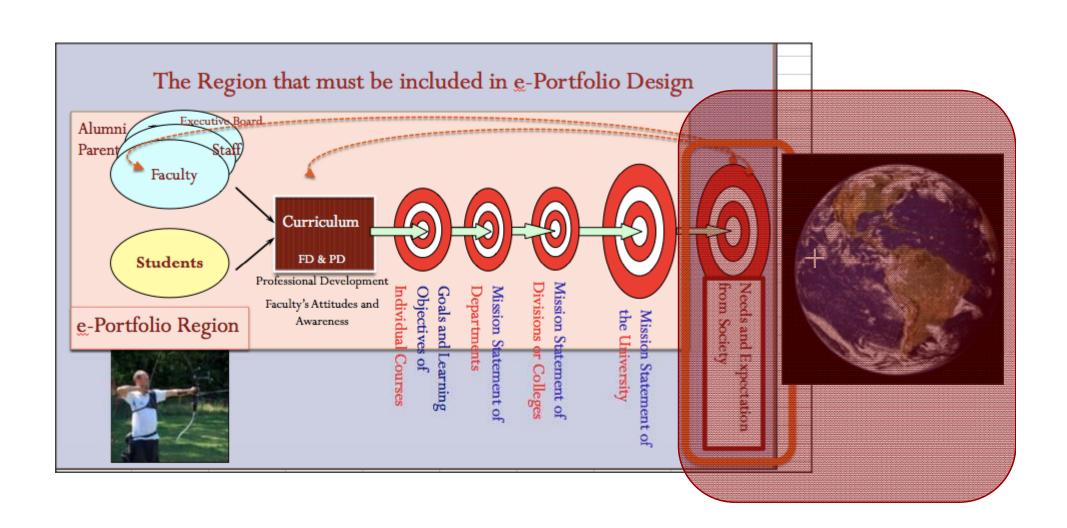
Constructivism

- Learning Effectiveness rather than Teaching Effectiveness
- Active Learning by the Problem Identifying/Solving Strategies
- Collaborative Team-Based Learning
- Learning Outcome from Team Work and Leadership
- Social Aspects in Classroom ...
   Discussion -> Sharing Information -> Identifying the Problem ->
   Decision-Making for the Next Step (Project Design) -> Project

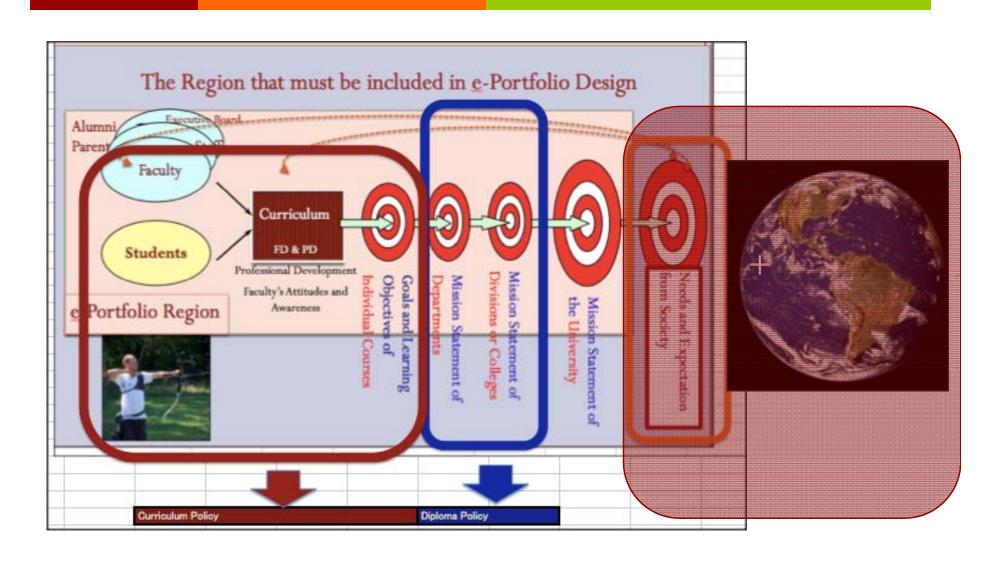
Management -> Reflection (i.e., Plan-Do-Check-Action Cycle)

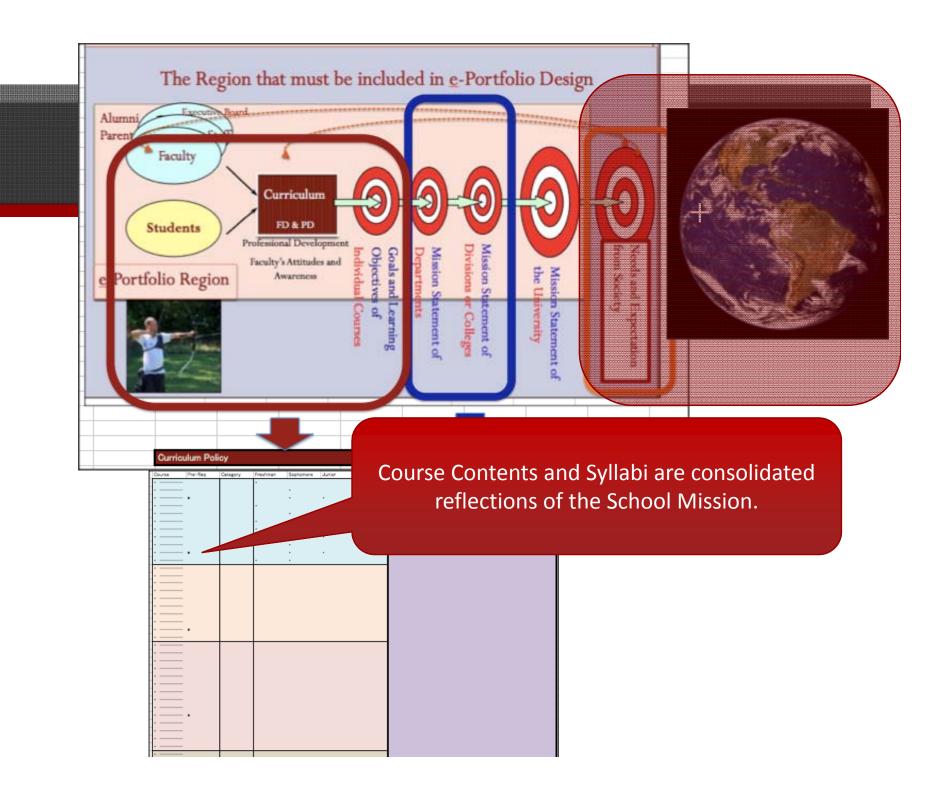
- ■Course Offered by Clear Goals, Objectives, and Planning in terms of Syllabus
- **■**Clearly Stated Institutional Mission and Goal Statements:
- **■**Curriculum to implement the above.

#### Where we are in education TODAY ...



### All parts must be integrated.





## How do we design education with ePortfolio?

- Course -> Curriculum Level
- Department/College/School Level
- Institutional Level
- Life-Long Learning & Career Planning Level

## How do we design education with ePortfolio?

- Course -> Curriculum Level
- Department/College/School Level
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- Life-Long Learning & Career Planning Level
- We need tools to measure the learning results.
- We need tools to trace and monitor the learning.
- We need tools to visualize the accomplishment in learning.

## How do we design education with ePortfolio?

- Course -> Curriculum Level
- Department/College/School Level
- Institutional Level
- Life-Long Learning Level

Active Learners with ICT Literacy!

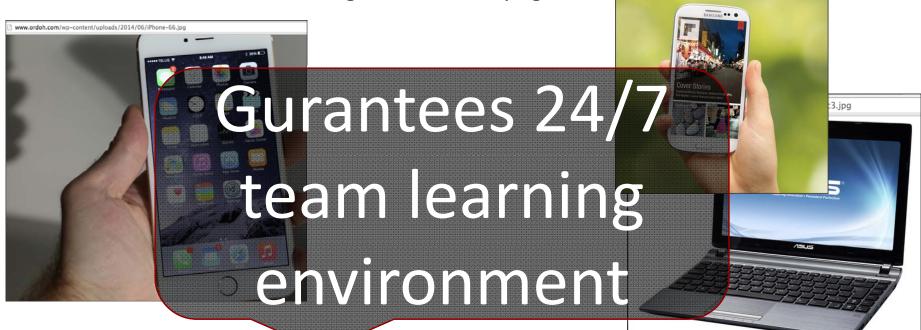
## Future Design in Education at the Course Level

- ■We need a new set of "paper and a pencil" for PBL through TBL.
  - **■**Constructivism in Education
  - ■Active Learning by the Problem Identifying/Solving Strategies

zinfo.in/wp-content/uploads/2015/01/android.

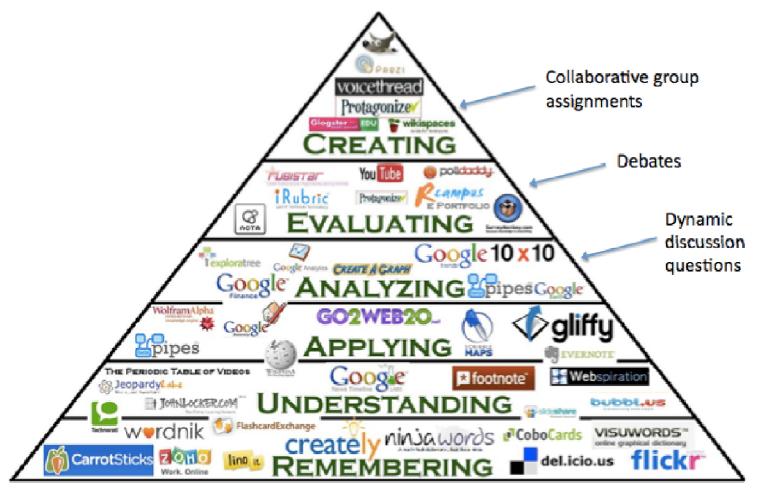
■Collaborative Team-Based Learning

■Team Work: Working on the same page



The Future,
Better Life,
Transcendency

http://catlintucker.com/wp-content/uploads/2012/04/Blooms-with-notes.png



### Bloom's taxonomy Learner's Activities



## Active Learners

Creating		The Cognitive Process Dimension						
		Learner's Activities						
	Analyzing Applying Understanding Remembering		Passive Learning		Active Learning			
			Remember	Understand	Apply	Analyze	Evaluate	Create
			(knowledge) 事実情報の記憶・ 暗記	(Comprehension) 理解する	(Application) 応用(調査)する	(Analysis) 分析する	(Evaluation) 評価(解釈)する	(Synthesis) 新たに得た知識の統 合化・成長
	Knowledge Information given in Class	Factual 事実情報				30.		
The Knowledge Dimension		Conceptual 概念情報						
The Knowled		Procedural 手順・プロセス手 法						
		Meta- Cognitive メタ認知情報 (受講生の成長を 促す学習活動)						

## Active Learners

Creating		The Cognitive Process Dimension						
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	Knowledge Information given in Class	Factual 事実情報	Most 8				, SALVE III ( ) SALVE III	
e Dimension		Conceptual 概念情報	Unive Curric					
The Knowledge Dimension		Procedural 手順・プロセス手 法						
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#### Active Learners

			The Cognitive Process Dimension							
	/	Creating	Learner's Activities							
		valuating	Passive Learning		Active Learning					
		Analyzing Applying	Remember	Understand	Apply	Analyze	Evaluate	Create		
	Unc	derstanding membering	(knowledge) 事実情報の記憶・ 暗記	(Comprehension) 理解する	(Application) 応用(調査)する	(Analysis) 分析する	(Evaluation) 評価(解釈)する	(Synthesis) 新たに得た知識の統 合化・成長		
	SS	Factual 事実情報	Ideally Speaking							
The Knowledge Dimension	tion given in Class	Conceptual 概念情報	The Learner can: Think critically and creatively Reflect upon their learning meta- cognitively							
The Knowled	Knowledge Information	Procedural 手順・プロセス手 法	<ul> <li>View where they stand</li> <li>comprehensively with a bird's eye</li> <li>view</li> </ul>							
	Kn	Meta- Cognitive メタ認知情報 (受講生の成長を 促す学習活動)		• Appred beauty of	ciate the va f life	lue in life a	and the			

### Active Learners

		^	The Cognitive Process Dimension							
	Creating Evaluating Analyzing Applying Understanding Remembering		Learner's Activities							
			Passive Learning		Active Learning					
			Remember	Understand	Apply	Analyze	Evaluate	Create		
			(knowledge) 事実情報の記憶・ 暗記	(Comprehension) 理解する	(Application) 応用(調査)する	(Analysis) 分析する	(Evaluation) 評価(解釈)する	(Synthesis) 新たに得た知識の統 合化・成長		
	SST	Factual 事実情報	Social Constructivism PBL thru TBL							
ge Dimension	tion given in Class	Conceptual 概念情報	Problem/Project Based Learning Thru Team Based Consensus Agreement							
The Knowledge Dimension	Knowledge Information	Procedural 手順・プロセス手 法 Meta- Cognitive メタ認知情報 (受講生の成長を 促す学習活動)		No borde Involving e.g. Regio	and Beyond ers in Learn All Stakeh onal Partne usiness/Ind	ing! olders in tl rship		Community nership		

Active Learners

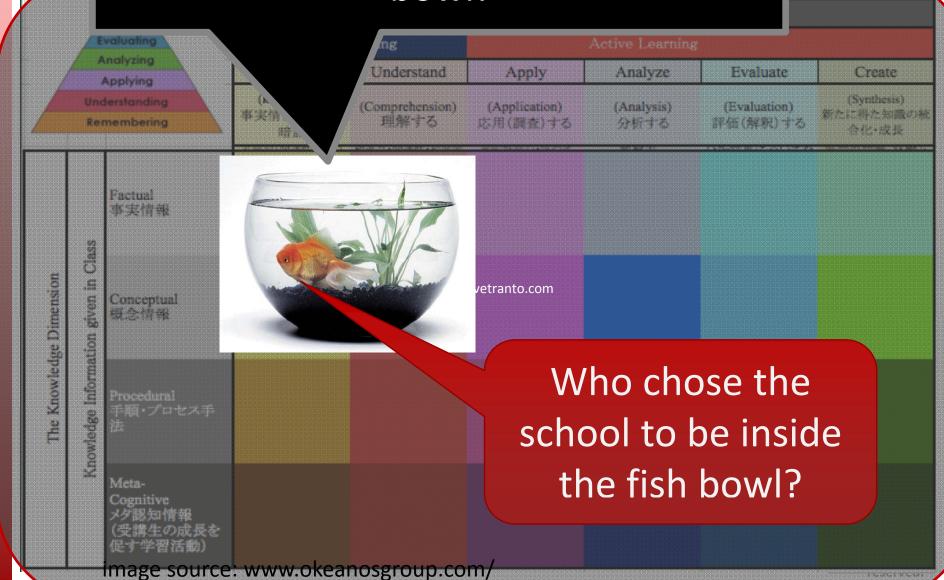
### In other words,

# Learners must be outside of the fish bowl!



Learners must be outside of the fish bowl!

ctive rners

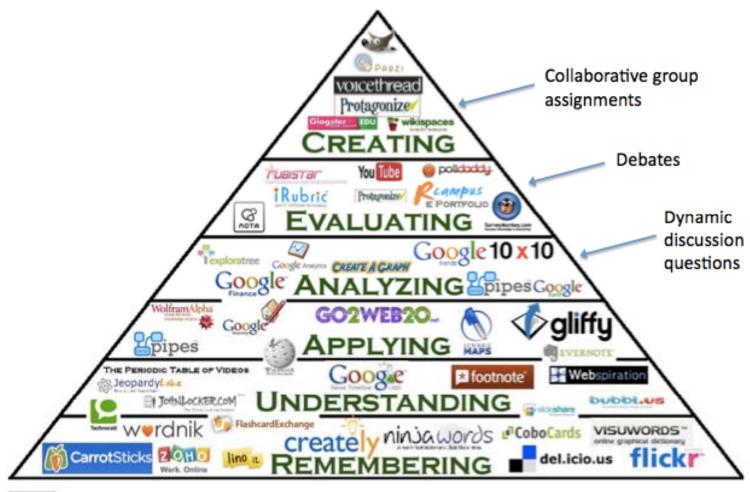


### **Active Learners**



The Future,
Better Life,
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http://catlintucker.com/wp-content/uploads/2012/04/Blooms-with-notes.png



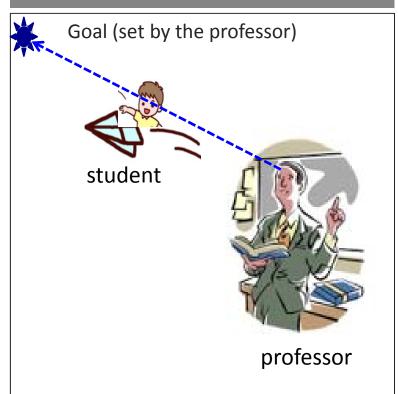


#### Concepts of Learning Portfolio

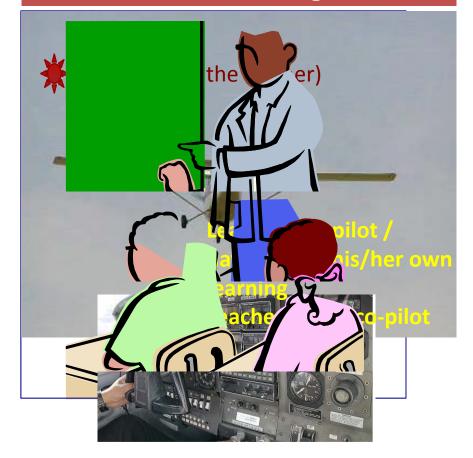
- Learner as a pilot
- Prof as a copilot

## Traditional vs. Active Learning

#### **Traditional Education**



#### **Active Learning**



So far, we have looked at the active learner.

# How do we design education with ePortfolio?

#### **Question:**

#### How can we assess such active learning?

- Course -> Curriculum Level
- Department/College/School Level
- Institutional Level
- Life-Long Learning Level

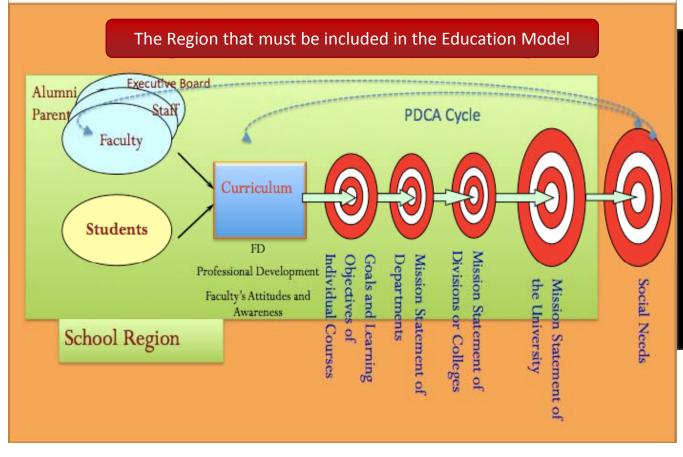
# How do we design education with ePortfolio?

- Course -> Curriculum Level
- Department/College/School Level
- Institutional Level
- Life-Long Learning Level

All Levels must be included!

#### Realm of ePortfolio

#### Future Design in Education





## Our Approach

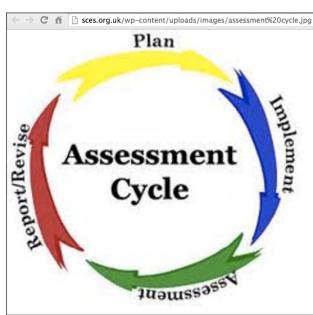
#### Various Assessment Methods

Purpose: Visualize and Share with all stakeholders the information of where we are in the course of development, how we are doing, and how we can improve in education to reach the institutional

mission.



http://businesssolutions.it/en/assessment-center-2/



#### e-Portfolio Way

- Assess what? ---> Corpus
  - Mostly Skills and Competencies specified in the learning objectives
- Based on . . .
  - Students' proofs of accomplishments in reflective writing
  - Sources for the assessment

## Qualitative, rather than Quantitative

- Sources for assessment:
  - Students' reflections of learning activities in the course of learning
  - → What is in he MIRROR of the curious LEARNING MIND?
  - Justing probe questions to extract what students accomplished/learned/mastered/gained confidence.../
  - Students' proofs of accomplishments
- How?
  - Competency based assessment rubrics
  - **7** MGTA
  - 7 NMF

### So far, we have implemented

Writing Programs to enhance and promote students' comprehensive meta-cognitive reflection from learning.



### So far, we have implemented

Writing Programs to onbance and promote students' comprehensive n WRITING:

JPN as Secod Language

**ISGC 2017** 

**ICT-Enhanced Interactive Writing Program** 

for International Students

A Plagiarism-free Writing Program

Tomoki FURUKAWA furukawa@kansai-u.ac.jp

Tosh YAMAMOTO ctltosh@kansai-u.ac.ip

Kansai University



## Academic Writing Program for international students







#### What was found:

The development of Reflective Writing skills in Second language will transfer and reshape the reflective writing skills in the native language.

Win-Win Results!

## So far, we have implemented

Writing Programs to enhance and promote students' comprehensive meta-cognitive reflection from learning.

ePortfolio for enhancing active learning for the future generation

## How to support students' learning and career development

| 2-3. How do students reflect their experience ? | Identified Problems of the current Entry Sheet | system for recruitment | | udents' meta-cognitive reflection to explain

from the view points of various stakeholders
Student Career advisor

- Poor skill of writing and meta-cognitive reflection
- Difficulty to relate his/her learning and experience

to answers of questions of an ES

- →temptation of copying a text of manual and others, and pasting it on his/her ES
- ⇒failure to appeal his/her competencies to work
- ⇒some ESs are not original, clear, correct, credible

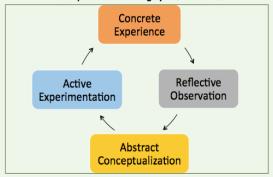
- · Takes a lot of time to correct and give advice
- Visualized data of process of correct and advice are not stored and shared between advisor and student on the computer
- No combination ePortfolio system for enhancing active learning with career support
- →Management of effective and high-quality advice are difficult

Problems about ES

- Difficulty to make a judgement that ES is the original written by the students.
- ·Risk of failure to get promising human resources
- →Nonproductive Recruiting activity
- No combination ePortfolio system for enhancing active learning with career development and life-long learning
- Students' learning outcomes are explained sufficiently to stakeholders in society

what they learned through the experience

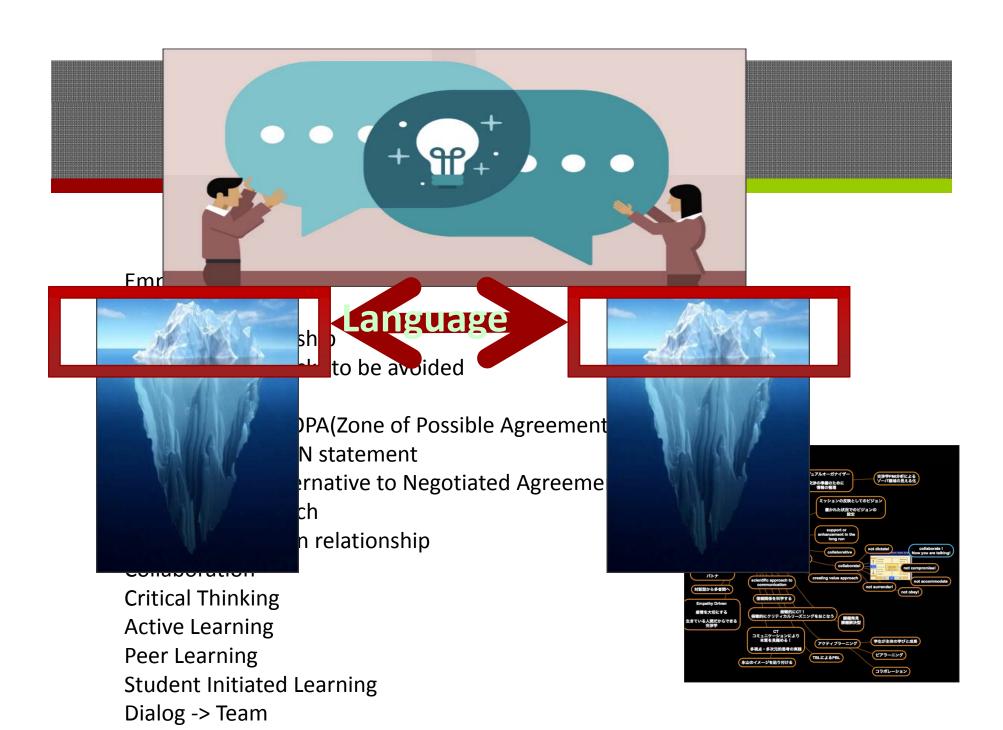
The Experiential Learning Cycle (Kolb 2014)

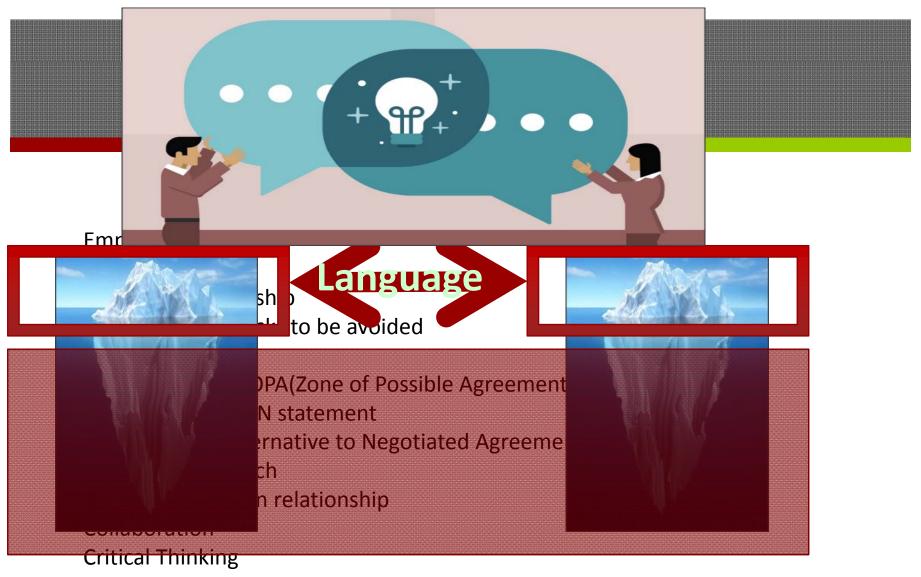


**Company** 

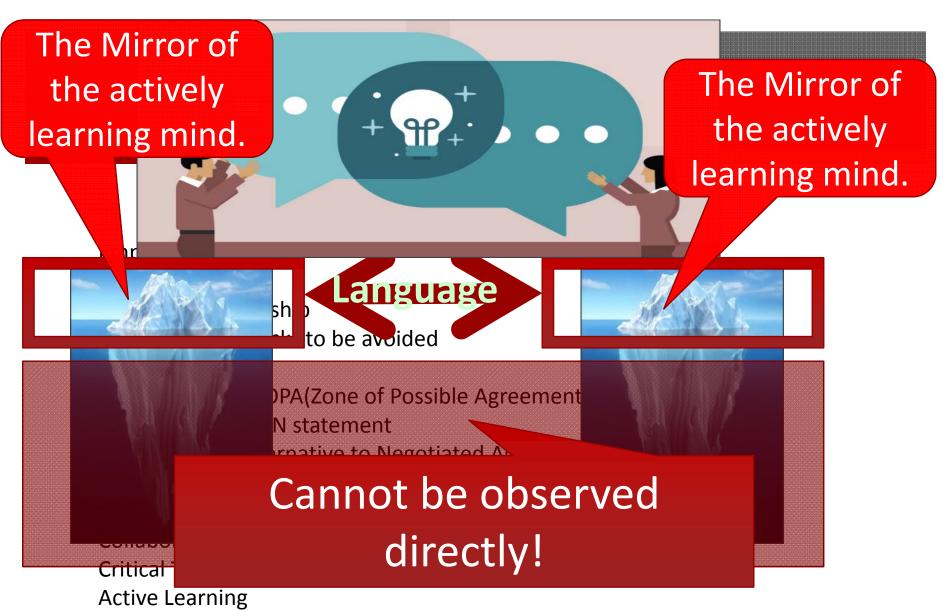
University







Active Learning
Peer Learning
Student Initiated Learning
Dialog -> Team



Active Learning
Peer Learning
Student Initiated Learning
Dialog -> Team

### **Special Thanks**

- This research was partially supported by JSPS KAKENHI Grant Number 26350294.
- **オ** 本研究はJSPS科研費 26350294 の助成をうけた ものです。

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ur attention! Dr. Tosh YAMAMOTO

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Prof. Makonkiin
Thankii Villasakiin

Kansai University

