Research and Development of Innovative Teacher Education Curriculum to Promote the ‘Learning to Live Together’ with the Production Process of Audio and Video Materials

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Change of Era and its Effects on Education
Change of Era

1. Mature Economical Society
2. Globalization
3. Less number of children
4. Going aged
5. Going highly information-oriented
6. Movement on living together with environment
7. Strengthening the Human rights
8. Independent and decentralization in political and social system
Effects on Education in General

Weakness in

• respecting others and works done by others
• cooperative works
• active participation
• logical thinking
• integrating experiences to present
• communication including listening, writing, reading and presentation skills
• multi dimensional thinking
Some Evidences

No of Students Going Abroad

Source: MEXT Japan 2011 by OECD and UNESCO data
Some Evidences (cont’d)

• MEXT has opened the website ‘PUROGURAMIN’ in August 2010.
• MEXT announced the plan to implement assessment tests for the university students in order to examine the improvement of their Logical Thinking and Critical Thinking abilities on 15 February 2012.
• MEXT has launched the website ‘Engeki-maker’ in May 2012.
Some Evidences (cont’d)

Implementation Plan for the University Reform

- university to become the driving force of the change of society -

June 2012, MEXT, Japan
Vision of Human resources requested from the Society

Diversity of human resources being able to respond in any kinds of situations by self-regulated learning and consideration

What is required to the university education – Realization of student’s self-regulated learning -

By practical increase and ensure of learning hours,

(1) Train to professional knowledge and general ability needed to find ‘Open-ended problems’ and to draw best solution

(2) Technology and skill based on the intellectual foundations by the education through practice and activity by experience

University change in quality

Change into the education with the active learning by problem-solving through communication between teachers and students in considering:

- Systematization of curriculum
- Implementation of systematic education
- Syllabus functioned for the pre- and post-teaching/learning activities

Improvement of the education management to upgrade teaching ability of teachers and learning environment

2012/11/28

16th UNESCO ABEID International Conference, Bangkok Thailand
Teaching Professionals

On the Comprehensive Strategic Plan for the Upgrading of Teachers’ Competency throughout the Teaching Professional Life

- Recommendations –

28 August 2012, Central Education Council, Japan
• Teachers who are respected and trusted by society
• Teachers who own practical teaching ability to cultivate thinking skill, decision making skill, and presentation skill
• Teachers who respond to issues in collaboration with colleagues and peoples in the region
• Teachers who have ability to inquire and are to be keeping on learning
(1) Sense of responsibility, ability to inquire, and throughout teacher’s life ability to keep on independent learning or self-learning

(2) High-level knowledge and skill as professional
   a. High-level knowledge on subject matters and professions (incl. knowledge and skill to respond issues on globalized and information-oriented society, inclusive education, and others)
   b. Practical teaching skill to carry out newer learning (aside from acquiring fundamental and basic knowledge and skill, teaching abilities to design the learning activities utilizing knowledge and skill, the inquiring learning and the collaborative learning for the purpose of cultivating thinking, decision making and presentation skills)
   c. Relevant practical ability to teach subject matters, guide student in their life and manage classroom activities

(3) Comprehensive and humanitarian ability (rich in humane and social relations, communication skill, cooperation skill to respond in team with colleagues, and collaboration and making relations skill with variety of groups in regions and society
How ICT or AV education can Contribute to the issue on Learning ‘To Live Together’
‘To live together’ in our daily life may require tolerance with respect, reliance and value-sharing mind, all of which are related to the non-cognitive aspects of our life, so as to participate in and co-operate with others, which youngers tend to be weaker in but is one of the fundamental attributes of quality teachers especially in carrying out the teaching-learning activities in schools.
Issues in the Contemporary Education

• Learning in the non-cognitive/affective domain: zest for living, independent self learning
  learning will/desire, mind to persue
  fostering learner’s interest and curiosity
• Instruction and nurturing in education
  instruct       nurture
  B.F. Skinner   C. Rogers
Issues Related to Non-cognitive Domain

- Effects of visual images on motivation, interest, attitude, sense of values
  ..... Effects on the emotions
- New education issues: learning desire, interest, attitude, view of life, taste etc.
- Instruct: Nurture
## Variety of Educational Media

<table>
<thead>
<tr>
<th>Non-Projection typed</th>
<th>Optical Projection typed</th>
<th>Broadcasting related</th>
<th>Production and Training typed</th>
<th>Response and Measurement typed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chart</td>
<td>Slide</td>
<td>Radio</td>
<td>Tape-recorder</td>
<td>Response analyzer</td>
</tr>
<tr>
<td>Magnetic board</td>
<td>Slide projector</td>
<td>TV</td>
<td>VTR</td>
<td>VTR</td>
</tr>
<tr>
<td>Black board</td>
<td>OHP</td>
<td>Tape-recorder</td>
<td>Recording system</td>
<td>Tape-recorder</td>
</tr>
<tr>
<td>Model</td>
<td>Opaque</td>
<td>VTR</td>
<td>LL</td>
<td>PC</td>
</tr>
<tr>
<td>Still Picture</td>
<td>16mm Film</td>
<td>Wireless equipments</td>
<td>Teaching machine</td>
<td>Internet</td>
</tr>
<tr>
<td>Illustrated story with picture cards, etc.</td>
<td>Film projector, etc.</td>
<td>School broadcasting system</td>
<td>Simulator</td>
<td>Electronic board, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD, LD, DVD, Blu-ray, etc.</td>
<td>PC</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Multimedia, Internet, etc.</td>
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</tbody>
</table>

Each media is said to be CHOSEN/SELECTED based on the Objectives with careful consideration about learner’s Psychological Development, or PROPERLY USED.
Evidences Found in Audio and Visual Education
- Characteristics and Possibilities -

1. to raise interests and motivation
2. to enhance joy to learn
3. to understand better
4. to enhance pleasure to learn
5. to dialogue with reality
6. to know how to look at reality
7. to acquire interests
8. to expand experiences
9. to acquire knowledge
10. to master techniques
Evidences Found in Audio and Visual Education - Characteristics and Possibilities -(cont’d)

11 to cultivate thinking skills and decision making skills
12 to foster imagination and creativity
13 to raise emotion and attitudes
14 to develop practical skills
15 to promote cooperative spirit
16 to raise information processing abilities
17 to let learners how to learn
18 to cultivate how to view moving images
19 to promote individualization in learning
20 to develop one’s originality
21 to recover alienating effects of machinery society
22 to active utilization and production
23 to improve teaching and learning system
### Six Major Functions improved from Windows98 to Windows7

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Stability and reliability</td>
</tr>
<tr>
<td>2</td>
<td>Network capability including security to free access to video images through YouTube</td>
</tr>
<tr>
<td>3</td>
<td>Editing functions on sound, still and moving images</td>
</tr>
<tr>
<td>4</td>
<td>Wide range of TV specifications including HDV and compatibility of variety of audio formats</td>
</tr>
<tr>
<td>5</td>
<td>Large capacity on small media including connectivity to the Internet</td>
</tr>
<tr>
<td>6</td>
<td>Capability to the home appliance including mobile terminals</td>
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</tbody>
</table>

Progress of ‘Windows’ Basic Operating System

2012/11/28

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## Two Types of Curriculum Development Model

<table>
<thead>
<tr>
<th>Technological approach</th>
<th>Rashomon approach</th>
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</thead>
<tbody>
<tr>
<td>General objectives</td>
<td>General objectives</td>
</tr>
<tr>
<td>Specific objectives</td>
<td>Creative teaching and learning activities</td>
</tr>
<tr>
<td>Behavioral objectives</td>
<td>Description</td>
</tr>
<tr>
<td>Teaching materials</td>
<td>Judgment against general objectives</td>
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<tr>
<td>Teaching and learning processes</td>
<td></td>
</tr>
<tr>
<td>Evaluation based upon behavioral objectives</td>
<td></td>
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</tbody>
</table>

**Source:** OECD-CERI, 1975, Issues on the Curriculum Development, Ministry of Education, Culture and Sport, Japan.
Curriculum Developed and End Product
Curriculum Outline in Brief (1/2)

• Title of the Course: Special Lecture and Practices of Educational Technology

• No. of credits: Two, consisting from activities in 15 weeks and 1.5 hours per one week

• Strategies applied: Coaching and counseling strategies
First five weeks when students consider the projects the coaching strategy was utilized in order them to understand course objectives and to develop project proposal with consideration about ESD, while when they tried to expand their original and creative ideas the counseling strategy was taken into account.

For the counseling strategy, for example, the author insisted not to express his opinion but just keep on listening to what they were talking or spoke to themselves.
Production Flow/Process in General
Summer Festival in AOMORI Pref.
-End Product as an Sample -
Towards the Standardization in AP Region
Audiovisual Education Media Training Curriculum Standard

“Teacher Training Model Plan” was developed in AY2006 in order to improve and enhance media education training. This model plan aims to be used by prefectural/government-designated city Boards of Education as a reference to organize training courses. This was the second revision of the model plan since 1992 (the first curriculum was established in 1973).

(examples of use)

① to plan/organize new training courses
② in case the target group is determined but the content of learning is not
③ in case the target group and objectives are determined

reference materials for organizing training courses:
“model course matrix”
“56 course models: listed by target groups and objectives”

http://www.mext.go.jp/a_menu/shougai/media/index.htm
**Course Model (Training Course for Media Experts/Leaders)**

**Aim:** to acquire knowledge and skills about the current situation of technology development (e.g. information about cutting-edge technologies, national educational policy, issues of copyright) in order to work as educational trainers and media education promoters

1. **Objective of the Course**
   - to acquire information about cutting-edge technologies and to improve one’s mind so as to work as educational trainers and media education promoters

2. **Training Period:** 12 hours (2 days)

<table>
<thead>
<tr>
<th>(Category)</th>
<th>Division</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>I . General Theories of Media Education</td>
<td>• current status and issues in media education</td>
<td>2 hours</td>
</tr>
<tr>
<td>III. Broadcasting (Radio and TV)</td>
<td>• features and services of digital terrestrial broadcasting, digital satellite broadcasting, Hi-Vision</td>
<td></td>
</tr>
<tr>
<td>V . Visual Equipments/Systems</td>
<td>• current status and issues about HD DVD recorders</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>• current status and issues about large-size projectors, LCDs, Plasma TVs</td>
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<tr>
<td>VI. Visual Materials</td>
<td>• basic knowledge about digital cameras (including recent trends)</td>
<td>1</td>
</tr>
<tr>
<td>VII. Introduction to Computers</td>
<td>• current status and issues in education utilizing computers</td>
<td>2</td>
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<tr>
<td></td>
<td>• types and features of removable media (e.g. card readers, portable HDDs, USB Drives)</td>
<td></td>
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<tr>
<td>X . Distance Education</td>
<td>• trends and the mechanism of GPS, navigation systems</td>
<td>1</td>
</tr>
<tr>
<td>XIX. Issues of Copyright and Security, Moral issues in Information Science</td>
<td>• moral issues in information science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>• current status and issues in copyright</td>
<td></td>
</tr>
<tr>
<td>XX . Training Programs for Educational Trainers</td>
<td>• current status and issues in media education expert training</td>
<td>1</td>
</tr>
</tbody>
</table>

*notes: (to apply this model plan)*

In order to develop media education promoters and to promote information education, we need to collect the most advanced and developed case examples in and outside our country. We also believe that the Government should play a focal role in holding in-service training courses, because it is difficult for the local prefectural governments to collect a wide range of information. We would like to provide new information so that we all can cope with the rapid progress of technology development.
Conclusions and Recommendations (1/3)

- Based on the simplified Kirkpatrick’s Evaluation Form, (1) Reaction, (2) Learning, (3) Behavior, and (4) Results are all shown highly positive.
- In this regard, this course and its related workshops done in the Philippines, Indonesia, Thailand, Mongolia and in Japan will be continued with more careful attention to the combination of coaching and counseling strategies, aside from the consideration about local environments including local wisdom.

- At the beginning, guide learners to devote to try to know that seeds of ESD are existing around us in our daily life and to create visual images with the use of relevant free software such as Ms MovieMaker.
- At the beginning and throughout the course, just request them to try to question to themselves stimulating their own imaginations at every moment upon receiving information; for What, When, Why, to Whom, for Whom, Where, and How to expand and integrate information into their experiences with the use of relevant free software such as Free Mind. Brainstorming among persons from different sectors will be also highly recommended.
Conclusions and Recommendations (2/3)

• Carry out the daily classroom activities with keeping mind about the key-words ‘to combine,’ ‘to integrate,’ ‘beyond,’ to step forward,’ ‘to expect synergy,’ ‘to challenge,’ ‘to innovate,’ taking for examples.

• Carry out research on IT education coping with both current education and technology issues in the consideration about present and future environment under budgetary constrained society but within their capacities and with the concept of spiral approach.

• Collect and develop resource materials utilizing teachers’ and learners’ curiosities with the use of simple media such as digital still/movie camera, cellar phones for examples.
Conclusions and Recommendations (3/3)

- Design and Develop DB in collaboration with specialists in each specific subject matters.
- Develop locally-dependent Indexes for information retrieval of ESD in collaboration with specialists from several different areas like TV stations to make them standardized from the global points of view.