Combining Music Practicing with the Submission of Self-made Videos for

Pre-School Teacher Education

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Agenda

- Background
- Teaching Environment
  - classes
  - tool for movie
- Result
  - group lessons
  - private lessons
- Conclusion

Background

- a key role played in learning piano performance:
  - skill transfer through face-to-face instruction
  - voluntary practices themselves
- the case of Pre-School Education course in the universities, the lesson time for a person is a few minuits
- the first paradigm on the viewpoint from hardware
  - Music Laboratory (MLs, since 1980s)
    - some tens of Keyboard/Electric Pianos
    - 1 or 2 students share the Keyboard
  - it apply to
    - learn piano performance
    - elementary music theory, including harmony

Music Laboratory

Electric Piano(Keyboard) students play electric piano with headphone

Teacher she can hear all students sounds. if she wants, she can send her model melody to students or can get students sound.

all Keyboards are connected with teacher's one

Background

- the problems for MLs;
  - it imposes a considerable burden on the instructor from preparation
  - not practical at all for classes with a hundred or so students
    - students' performance can be checked only during the class hour
    - usually, course hours are 90 min. unit.
    - if the teacher would like to check all students' performances each, only few minutes for one student

Background

- Some persons tried to make paradimes on the viewpoint from software:
  - Nakajima(2002)
    - observation by others as a tool to discover their performance problems, and tell to player
    - find solutions in one-to-one teaching
  - Imaizumi(2004)
    - introduced "practice record cards"
      - students recorded details of practice and difficulties encountered (note-taking)
      - as part of private lessons especially for students with no prior experience in playing the piano

The player themselve cannot check their own performance!
→they cannot recognize their improvement points

in this trial

- ○ We tried the practice to students:
  - were required to take videos of themselves playing and singing
  - submit them to their instructor
  - teachers can check their performance anytime they hope
  - apply for their lessons

※In Japan, education field for piano performance is **less** introduce ICT technology

improve the teaching of simultaneous piano performance and singing in a pre-school teacher training institute using ICT
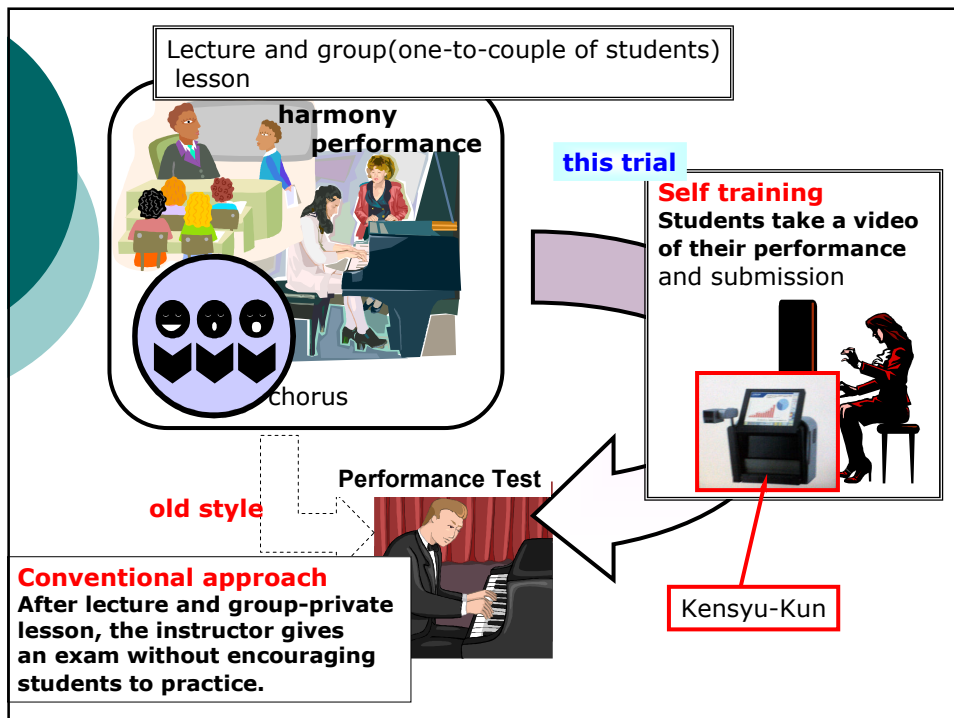
if it success, we get a new paradigm for skill transfer for piano performance

Teaching Environment

- ○ field:
  - Department of Pedology, Faculty of Human Development and Education
  - KWU(Kyoto Women's University)
- ○ class:
  - Music for Pedology I
    - ○ a required subject for 2nd year students
  - 105 students take
- ○ date:
  - mid-June to the end of July, 2006
- ○ class contents:
  - harmony(include music theory) and chorus(2 classes) → mass lecture
  - singing and playing piano→one-to-a couple of students private lessons

Teaching Environment

- score books:
  - choose the 3 scores for performance test from under the books:
    - 200 Songs for Children
    - 200 More Songs for Children
- performance test items:
  - harmony(paper examinations)
  - singing and playing the piano together
    - skill in playing the piano
    - playing posture and facial expression
    - skill in playing and singing together
- the tool for movies:
  - **KS20(Kensyu-Kun),** developed by Fujinon Corp.

Lecture and group(one-to-couple of students) lesson

harmony
performance

chorus

this trial

Self training
Students take a video of their performance and submission

Performance Test

old style

Kensyu-Kun

Conventional approach
After lecture and group-private lesson, the instructor gives an exam without encouraging students to practice.

the tool for movies

- Kensyu-Kun(KS20)
  - The operation of video recording is the same as that of commercial video recorders
    - **good for student not skilled in computer**
  - The filename of the video file can be read using a bar code
    - **easy management** for video files
  - The user can write text into the video
  - The video recording format is MPEG2, which can be written to a DVD disk

we added the camera cable using endscope technology

http://kensyuukun.jp/

using the tool for movie

camera and microphone

Kensyu-kun

students operation:
1)push start button
2)play piano
3)push stop button

Results

○ Our view point:
  - verified the **educational effect** on teaching of making and submitting videos of simultaneous piano playing and singing in the **education of potential pre-school** teachers
  - 2 types of learning process
    ○ group lessons(all students take Music for Pedology I)
      - only submission videos
      - they get points for submission
      - no comment from teacher.
    ○ private lessons(the students not passed the performance test)
      - submission videos
      - comments from assistant via videos

The correration coefficience
0. 66

Results for the Group Lessons

# of Submissions	# of Students	Average Score	Standard Deviation
0	14	71.9	7.02
1	13	74.0	5.52
2	25	74.0	5.34
3	23	71.4	<u>16.06</u>
4	14	74.6	3.77
5	8		

higher submission, higher average

the student submission 3 times:
・they work hard
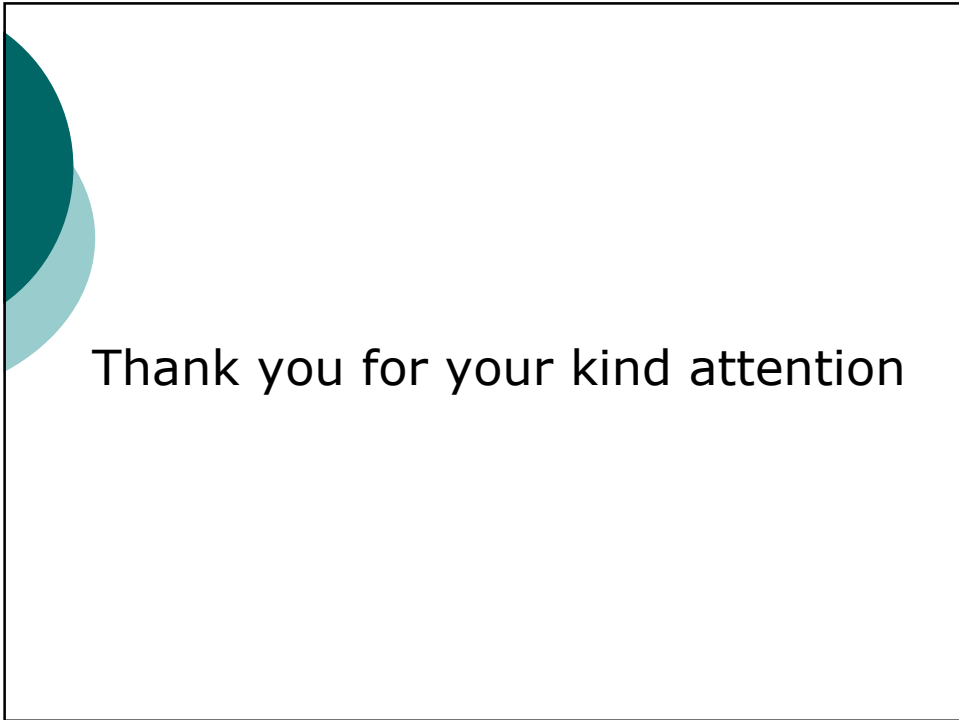・worry about miss performance

Results for the private lessons

- **singing** improved in **60%** of the cases in which comments were given
  - **breathing** and **correctly sustaining the length of note**, both basic skills, were almost completely corrected
  - problems with **pitch** were only partially corrected
- Improvement in **piano playing** was found only in **30%** of the cases where comments were given
  - useful for improving basic playing skills, such as **keeping rhythm** and reducing fluctuations in **playing speed**
  - problems related to the motif of music, such as "**playing chords too heavily**" and "**lack of attention to slurs and phrasing**", were not corrected

if video submission is to be used in conjunction with private training of simultaneous piano playing and singing, it is desirable to aim at improving basic skills.

Conclusion

- the students in a pre-school teacher training institute of simultaneous piano playing and singing were assisted by the submission of videos of practice sessions
- We examined whether the video submissions had a positive effect on students' progress
- the students who submitted videos a number of times showed a greater improvement.
  - In particular, 4 to 5 submissions gave the best results
  - Some students who submitted videos 3 times did so for the purpose of adding to their grade points
- The results of our trials indicated that the training of simultaneous piano playing and singing assisted by video submission is very useful in improving basic skills in both piano playing and singing

Thank you for your kind attention