

Curriculum Design for Preparing Pre-service Teachers to Be Creative and Critical Practitioners

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Introduction

- Changing economic systems have impacted the knowledge and skills that workers need to acquire.
- Many countries have been reforming their school systems and curriculums to enable students to learn flexible problem-solving and critical thinking skills in order to facilitate knowledge and skills transfer across a variety of new situations in the real world.
- Ex) OECD Key Competencies, 21st century skills

Preparing our students in 21th century

- Darling-Hammond et al. (2008) pointed out that most students were prepared for jobs that do not yet exist, to use technologies that have not yet been invented, and to solve problems that do not yet exist (p.1-2).
- Students are expected to develop 21th century skills not through traditional rote-learning, focused on basic skills and memorization, but by creative problem-solving in unknown or unfamiliar situations.

The role of Teachers and Teacher Education

- Teachers play a vital role in preparing students for life in the 21st century.
 - To design instruction and materials to create a learning environment and atmosphere
 - To facilitate their students' acquisition of these skills.
- Pre-service teacher training has to be revised to better reflect the 21st century skills and competencies required from students, including teachers' and students' learning, and their lifelong learning and practice once they enter the profession (Darling-Hammond et al., 2017, p. 14).

Purpose of This Study

- This study investigates curriculum designs for pre-service teachers that enable them to become creative and critical practitioners, through a case study of the Elementary Teacher Education Course at Faculty of Education at Shimane University.

A picture of Japanese Classroom



The Japanese School Context

- **The course of study:** It was required that teachers comply with “The National Course of Study,” which outlined the purposes and goals of each subject, contents of what and how to teach, and minimum hours necessary for the lessons.
- **The government authorization of textbooks and the system for adopting textbooks:**
After WWII, the Ministry of Education established the Textbook Authorization System. In 1963, the System for adopting textbooks, in which all textbooks are selected regionally, stipulated that textbooks used for compulsory education should be free of charge. In the selection process, only one textbook is selected for each subject, and the use of another textbook is prohibited.

Contexts of the case

- The faculty of Education at Shimane University has 130 students in each grade (170 students before 2017).
- Freshman students select courses during the spring semester, then begin to learn the curriculum of each course in autumn semester.
- The Elementary Teacher Education Course has about 40 students in each grade.

Curriculum design for preparing pre-service teachers to be creative and critical practitioners

Freshman		Sophomore	
Spring	Autumn	Spring	Autumn
	- Principles of Schooling	- Basics for Elementary Education B (Readings I)	- Basics for Elementary Education C (Readings II)
	- Reading Circles	- Reading Circles	
Junior		Senior	
Spring	Autumn	Spring	Autumn
- Research on Teaching Practices		- Graduation research	- Graduation research
- Basics for Elementary Education D			
- Basics for Elementary Education E			
- Tutors (selected members)			

The table outlines a four-year curriculum. Key features include:

- Course Progression:**
 - Freshman Autumn: Principles of Schooling
 - Sophomore Spring: Basics for Elementary Education B (Readings I)
 - Sophomore Autumn: Basics for Elementary Education C (Readings II)
 - Junior Spring: Research on Teaching Practices, Basics for Elementary Education D, Basics for Elementary Education E
 - Senior Spring: Graduation research
 - Senior Autumn: Graduation research
- Reading Circles:** A box labeled "- Reading Circles" spans from Freshman Autumn to Sophomore Autumn.
- Tutors:** A box labeled "- Tutors (selected members)" spans from Junior Spring to Senior Autumn.
- Connections:**
 - A blue arrow points from "Principles of Schooling" to "Basics for Elementary Education B (Readings I)".
 - A blue bracket connects "Basics for Elementary Education B (Readings I)" and "Basics for Elementary Education C (Readings II)".
 - A blue arrow points from "Graduation research" (Senior Spring) to "Research on Teaching Practices" (Junior Spring).

“Basics for Elementary Education B and C” (Readings I and II)

- In “Readings I,” each student reads assignments and writes reports connected to issues in Japanese school contexts and their solutions. Students discuss assignments with each other and their reports. These assignments include serious social issues such as the relationship between economic disparities and educational disparities, and critical education.
- In “Readings II,” students rethink the subjects they will teach.

List of assignments of “Readings I”

- “Why teachers teach, Why student study” (Hirota 2011)
- How we express logically (Takagi 2001)
- “What are social forces?” (Kadowaki 1999)
- Social inclusion and exclusion (Iwata 2008)
- “Criticism of modern education” (Matsubara 2008)
- Teacher work and school culture between Japan and US (Usui 2001)
- “Unequal Education and the Reproduction of the Social Division of Labor” (Bowles 1980)
- Cultural Capital (Bourdieu 1994)
- “Pedagogy of the Oppressed” (Freire 1972) etc.

"Research on Teaching Practices"

Social Issues

"Basics for Elementary Education B and C"

Teaching method and Lesson planning

"lessons for teacher certification"

Teaching Practices
reflected on Social Issues

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graph LR; A["Social Issues  
\"Basics for Elementary Education B and C\""] --- B["Teaching method and  
Lesson planning  
\"lessons for teacher certification\""]; A --- C["Teaching Practices  
reflected on Social Issues"]; B --- C;
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"Research on Teaching Practices"

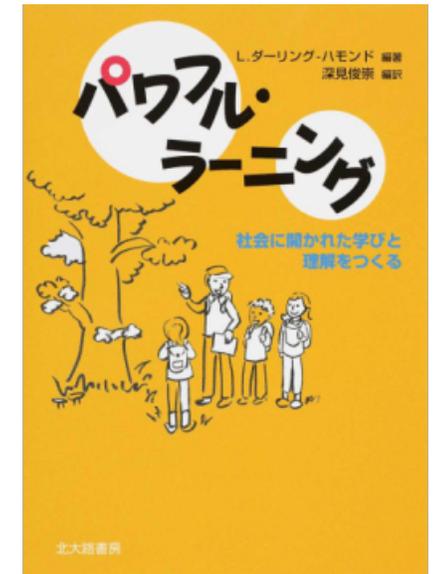
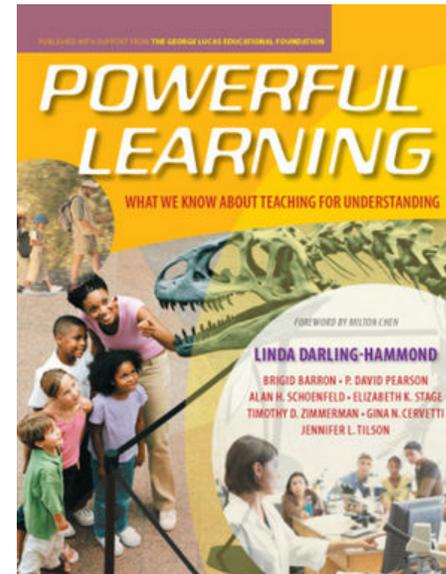
- Students have to reflect upon their practice teaching
 - the idea of public education educating students with civic responsibility
 - to combat social problems derived from social inequalities such economic disparities, gender differences
- Format of "Research on Teaching Practices"
 - Presentation and discussion of the concept and plan of the lesson (20min.)
 - Micro teaching (30min.)
 - Reflection and discussion (40min.)

“Basics for Elementary Education D” and “Basics for Elementary Education E”

- “Basics for Elementary Education D” and “Basics for Elementary Education E” are intended to convert theory into practice.
- Students are educated about learning theories and project based learning, and they design and plan a curriculum based on authentic learning and 21th century skills in “Basics for Elementary Education D.”

“Basics for Elementary Education D”

- Overview of learning theories
- Overview of assessment
- Inquiry-based learnings
- Collaborative group learnings
- Reading for Understanding
- Mathematics for Understanding
- Teaching science for Understanding
- Creating schools that develop understand



Collaboration in Course Activities

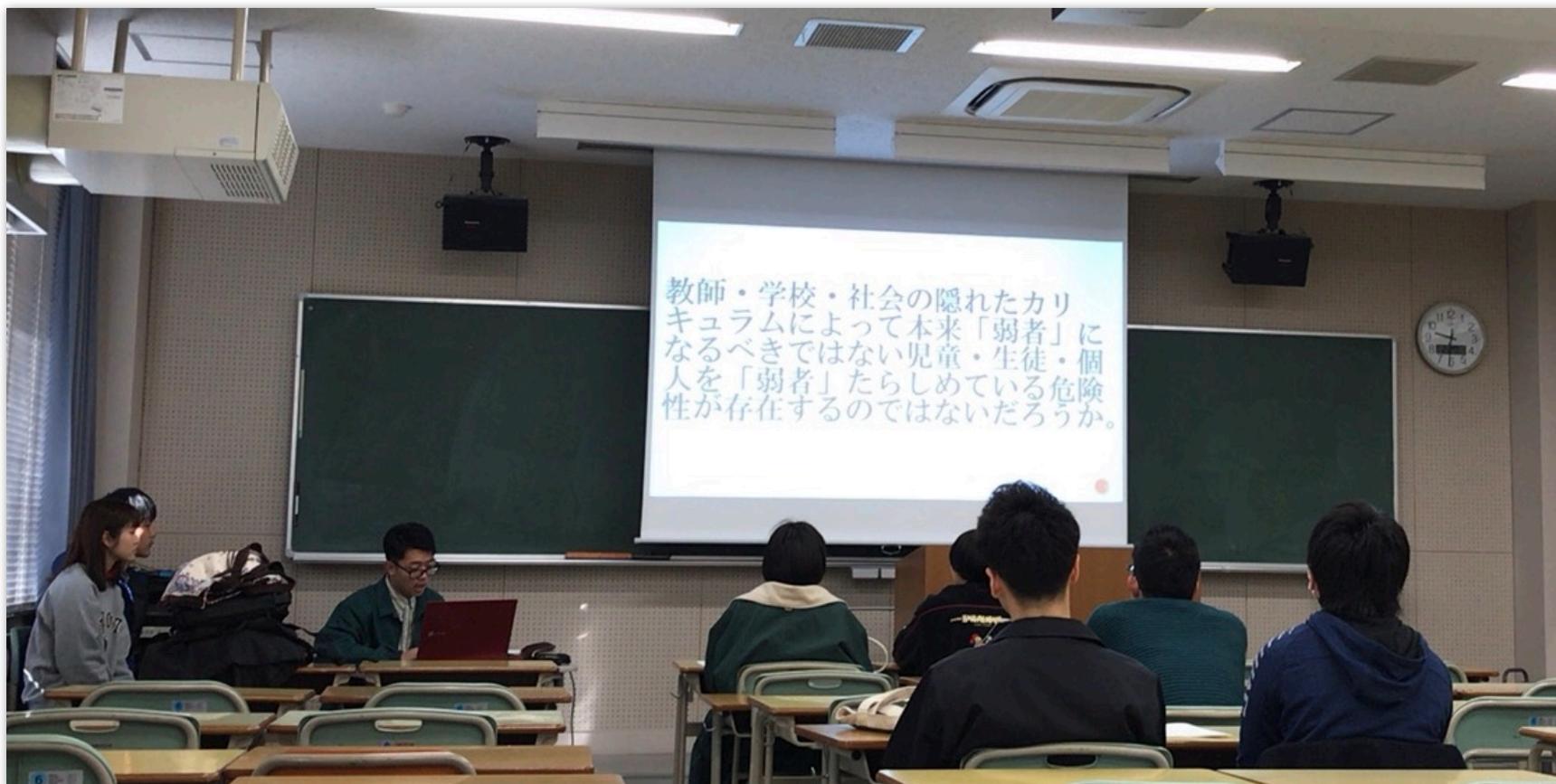
○ Reading Circles

- Sophomore and freshman students collaborate during autumn semester. They are divided into ten groups and discuss books about education and social issues with each other.
- In February, a presentation session is held and they share their learning outcomes.

Interim Presentation (November)



Presentation Session (February)



Collaboration in Course Activities

○ Tutoring Center

- We opened a Tutoring Center in fiscal year 2011. This provides peer support to improve student reports and lesson plans.
- About twenty tutors are selected from both junior and senior students according to their academic records and learning outcomes. They are acknowledged as honors students. They are expected not only to support freshman and sophomore students but also to be a role model for creative and critical students.

Tutoring Center



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Challenges of Japanese School Contexts and Recruitment System

○ Japanese School Contexts

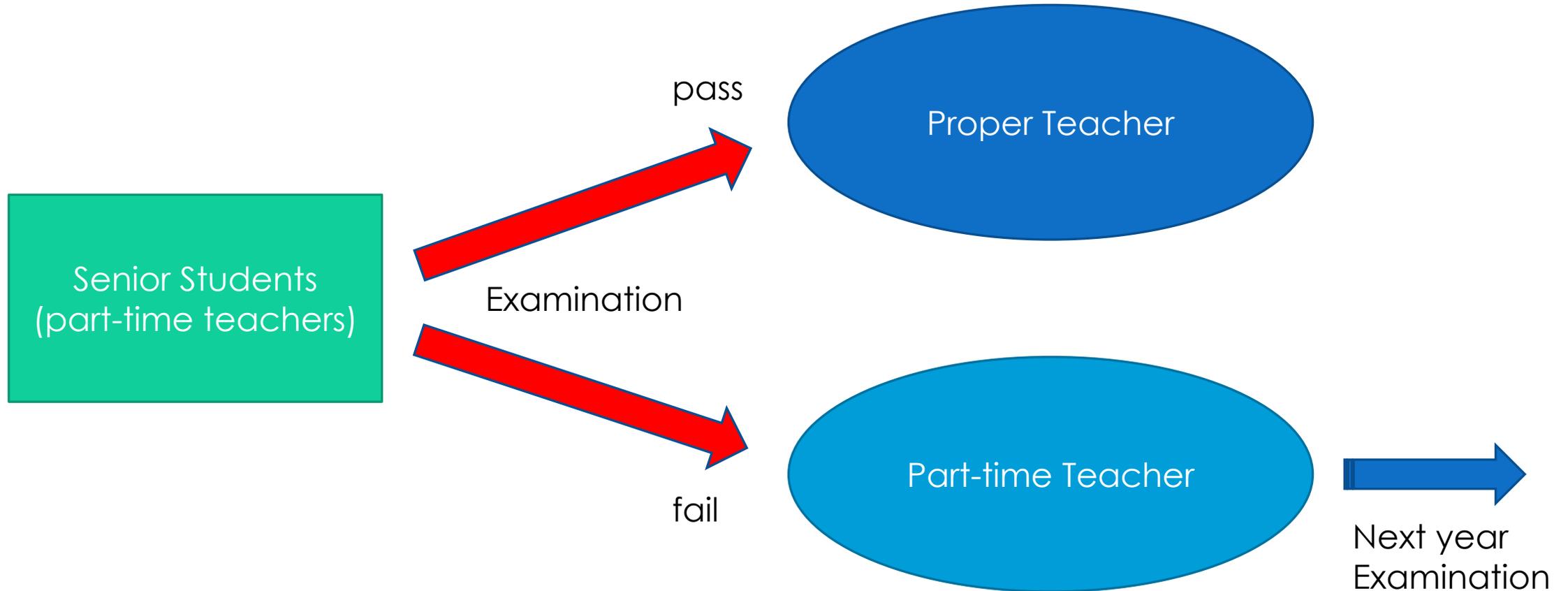
- Teaching students to become creative and critical thinkers is not welcomed. Student teachers are required to imitate the teaching and classroom management style of their mentor teachers.
- Almost all mentors have no critical perspective on their teaching. It is hard for student teachers to make use of such learning outcomes in school contexts where they are discouraged.

Challenges of Japanese School Contexts and Recruitment System

○ Teacher Employment Examination

- During their senior year, students have to focus on learning to pass the teacher employment examination.
- It is a rote-oriented examination and an ability to memorize general education subjects and course of study in Japan is required.
- They then feel too washed out and conservative to become a proper teacher.

The Pathway of Recruiting



Our Hope

- We must send teachers with motivation to change it. If we give up, we will never resolve the problem, and nothing will change at all.
- There are a few students and graduates who try to study abroad for changing the situation.
- Some graduates have study sessions themselves.