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Volume 3, March 2017

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Contents

Special Articles

- Questioning and Preparation for Teachers of History**1
Linda S. Levstik
- Experiential Learning through the Arts**7
Gina Alicea

Original Articles

- The Process of Overcoming Difficulties Faced by Novice Home Economics Teachers
in Elementary Schools**13
Yuka Nishimura and Keiko Ito
- The Issues and Problems of Multi-Cultural Education in Japan:
Focus on Formation of Pluri-Identities**27
Norio Ikeno
- Effects of Sentence Constraint on Processing of Auditorily Presented Words in Chinese Intermediate
Learners of the Japanese Language:
An Experimental Study with Manipulation of Orthographical and Phonological Similarities between
Chinese and Japanese Kanji Characters**43
Xiaodong Fei and Haipeng Li
- Developing Mentoring Programs Supporting Curriculum Design by Japanese History Teachers**
Teruko Ishikawa59

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Questioning and Preparation for Teachers of History

Linda S. Levstik

When history education researchers discuss historical inquiry they describe a process of asking questions about and investigating human experience using skills and concepts from history and the social sciences. Classroom teachers often see inquiry quite differently. As noted in *Teaching History for the Common Good*, purpose has a great deal to do with how (or whether) teachers implement practices as challenging as historical inquiry. Purpose alone, however, cannot prepare a teacher to conduct instructional practices for which their own experience as learners has ill-prepared them. Questioning, for instance, is an often over-looked feature of historical inquiry. Too often teachers do not see questions as opportunities to engage students in reflective, disciplined inquiry—using historical skills and concepts to build a deeper understanding of the world or encourage civic engagement. Rather, their purposes focus more on motivating students to learn content covered on a test. As a result, teachers tend to be less interested in students building evidence-based interpretations than in whether students got the “right” answer for a test. Drawing on a number of studies that examine this and other challenges involved in formulating questions that motivate and sustain historical inquiry, this paper argues that teachers must themselves learn skills, concepts and content so deeply that inquiry initiated by historically compelling questions becomes normal practice.

Keywords: History Education, Questioning, Inquiry, Teacher Preparation, Aims and Purposes of History Education

Generally, when history education researchers discuss historical inquiry they describe a process of asking questions about and investigating human experience using skills and concepts from history and the social sciences. The extent to which that process is open-ended, cross-disciplinary, thematic, or guided by civic and disciplinary purposes, however, shifts across grade levels and over time, and often frustrates our ability to make sense of its various classroom incarnations. As Keith Barton and I have noted in *Teaching History for the Common Good*, purpose has a great deal to do with whether teachers implement any evidence-based practice, much less one as challenging as engaging students in historical inquiry. Purpose alone, however, does not fully prepare a teacher to conduct instructional practices for which their own experience as learners has ill-prepared them. Questioning, in particular, is a crucial but often over-looked feature of historical inquiry.

We find the lack of attention to questioning puzzling on several fronts, beginning with the focus on source work in the history education literature. Questions motivate source use, sustain inquiry and connect inquiry, implicitly or explicitly, to informed civic action. There is no source without a question. There are historical objects of one kind and another, of course, but they only become sources in relation to a historical question.

But not any question will do.

Questions elicit answers in their own likeness. Insignificant questions, pointless questions and silly questions get insignificant, pointless and silly answers in return—and even quite young students recognize such questions for what they are. A group of third graders (age 8), for instance, generated a set of questions they ultimately identified as ridiculous (Levstik & Smith, 1996). Finding out the number of doors or windows in their community, they decided, did not constitute useful or interesting information. Their teacher spent considerable time building their capacity to generate more significant questions, with the result that their final inquiry investigated the historical roots of several local community

issues.

As Keith Barton and I point out in *Teaching History for the Common Good*, problematic questions are often less ridiculous than ahistorical. Asking students how they might have acted in difficult historical circumstances, or if people in the past should have acted differently in those same circumstances, for instance, rarely elicits historically-grounded responses (Barton & Levstik, 2004). Analyzing the agency available to historical actors, on the other hand, more often leads students to reflect on what was possible in the historical moment. When a group of thirteen year olds investigated the differential power and influence of nineteenth century women enslaved as cotton workers, women working in textile mills who spun slave-grown cotton, immigrant seamstresses who turned textiles into garments, and women who could afford to purchase the garments, they were better able to explain labor controversies and the eventual development of protective legislation for women and children. Students were not asked what *they* might have done; rather, they analyzed the choices available to people in the past, and considered the ways in which groups and individuals employed that agency. In the process, they also learned something about the history of effective civic and political action.

Some questions are so confusingly simplistic, they are both ridiculous and ahistorical. Rather than lead students to ask critical questions of the sources they encounter or to consider the complexity of historical knowledge construction, such questions misrepresent the past by oversimplifying it. A world history teacher asks students if *Alexander the Great* was really great. The question is utterly meaningless. First of all, there is no standard that renders a historical figure unequivocally great. Instead, such a question invites ahistorical responses. One student decides Alexander was terrible because he slaughtered elephants during a battle, and current sensibilities render that unconscionable. Another admires Alexander's military prowess, equating conquest with "greatness" and ignoring the perspectives of the conquered

or even Alexander's own people. Finally, a student declares that Alexander was not so much great as narcissistic. In no case did the initiating question generate evidence of deep historical understandings regarding the complexity and consequences of conquest in Alexander's time.

This should not be surprising. Although the dynamics of questionings pivotal role in historical inquiry remains largely untested, a consistent research finding is that students *and* teachers struggle to develop questions that motivate and sustain historical inquiry (Aulls, 2008; James & McVay, 2009; Rossi & Pace, 1998; Rothstein & Santana, 2013). More optimistically, when teachers craft historical questions that require students "to interpret texts, make connections, solve problems, support or dispute ideas, or ask further questions" (Dull & Morrow, 2008, p. 398), even primary age students ask "critical questions of texts and consider the complexity of historical knowledge construction" (James & McVey, 2009, p.348).

Unfortunately, few students have this opportunity at any age. And, when students do engage in such activity, it occurs most often in high-ability, low-diversity schools—an equity issue that should give history educators pause (Dull & Morrow, 2008). Although this is a concern for all students, it is particularly so for minority and low-income students who appear to have the least opportunity to engage in any form of substantive historical study. Ironically change I to in, I some countries, at just the point when we have evidence that children begin developing their ideas about history and the past at an early age, and can engage in cognitively appropriate inquiry even in the early years of schooling, schools provide reduced opportunities to do so (Fitchett & Heafner, 2010).

As teacher educators, then, our obligation is three-fold. First, we have to model the development of well-thought out and historically situated questions that generate curiosity as well as skepticism and require students to integrate complex and divergent information from various sources. Second, we have to engage students in inquiry, not just talk about it. Third, we need to take time

to help our students develop compelling questions for themselves, and use them to develop inquiry-based instruction.

To be good teachers of historical inquiry, teacher candidates must engage in inquiry in themselves. And, just as should be the case with school-age students, teacher educators mentor the process *in class*. Initially, at least, question development takes a great deal of time. If simply asked to generate questions, teacher candidates generally produce questions with the same problems as described above. Over the years, I have developed a progression of experiences for my my teacher candidates (middle level education majors). I start by involving them in an inquiry that introduces them to the process as outlined in *Doing History* (Levstik & Barton, 2015). This past year, my students worked through an inquiry based on a graphic novel, *Abina and the Powerful Men* (Getz & Clark, 2014), based on an 1876 court transcript of a West African woman who was wrongfully enslaved. The initiating question had to do with whether the author's historical and graphic representations of Abina's story were historically justified. The authors provided the primary and secondary sources they used to create their interpretation. I organized my students in pairs and provided templates to help with their analyses. The question of accuracy and interpretation absorbed them even more powerfully than I had anticipated and the final presentations set off considerable discussion about historical interpretation. Everything they needed was provided for them in researching the Abina story. Next, I had my students work through an historical archaeology inquiry. We used the same initiating question and sources that had been used with 10-13 year-old students in investigating Davis Bottom, a working class neighborhood located not far from the education building at the university. I added the requirement that they develop a graphic novel or digital documentary interpreting some aspect of the community through a historical theme (i.e. haves and have nots, uses and abuses of power, population shifts).

Once students have engaged with thought-

provoking historical questions, they can better critique other questions. For instance, I used these three questions collected in seventh and eighth grade (12-13 year olds) classes in the U.S. and had my students edit them.

- Did Abraham Lincoln Issue the Emancipation Proclamation because it was morally right or because it was politically expedient? (Eighth grade U.S. history)
- What does it mean to be human? (Seventh grade ancient world history)
- The Agricultural Revolution: How revolutionary was it anyway? (seventh grade ancient world history)

The second question generated the most conversation: Was it historical? Should the question ask how ideas about being human changed over time? Was it so broad a question as to be meaningless? Might it generate a lot of interesting questions from students? Wouldn't it be a good question to open the study of world history? And so on. Eventually, different groups of students developed inquiry-based units of study around variations on these and other questions they developed—but it took a full two-hour class period to make the questions workable and some groups further edited their questions as they went along.

I think that time was well-spent. The final inquiries were interesting, historically sound and more focused on significant historical content. That said, I have not followed these students into their first teaching positions and I think transferability is an issue if they enter schools where questioning is not a priority and inquiry not a central feature of instruction. One of our doctoral students at the University of Kentucky just completed her dissertation examining how teachers understood and used what she identified as “compelling” questions (Mueller, 2015). The results are not encouraging, and much of the reason goes back to purpose. The teachers in the study saw inquiry as a way to motivate students to learn content on high stakes assessments. Questions weren't so much a way to engage students in reflective, disciplined inquiry—using historical

skills and concepts to build a deeper understanding of the world or encourage civic engagement. Rather, their purpose was to motivate students to learn content that would be covered on the test. As a result, teachers were less interested in how evidence-based students' interpretation turned out to be than in whether they got the “right” answer as established by a questionable test.

Once again, we circle back to purpose, but also to going deeper in our teacher preparation so that teacher candidates learn skills, concepts and content so deeply that inquiry initiated by historically compelling questions becomes teachers' default position—it is not a radical departure from normal practices, but the new normal for effective instruction.

References

- Aulls, M.W. (2008). Developing students' inquiry strategies: A case study of teaching history in the middle grades. In B. M. Shore, M. W. Aulls, & M. A. Delcourt (Eds.), *Inquiry in education: Overcoming barriers to successful implementation* (Vol. 2, pp. 1-46). New York: Lawrence Erlbaum Associates.
- Dull, L. J., & Murrow, S. E. (2008). Is dialogic questioning possible in social studies classrooms? *Theory & Research in Social Education, 36*, 391-412. doi: 10.1080/00933104.2008.10473381
- Getz, T. & Clarke, L (2013). *Abina and the Powerful Men*. Oxford: Oxford University Press.
- James, J.H., & McVay, M. (2009). Critical literacy for young citizens: First graders investigate the first Thanksgiving. *Early Childhood Education Journal, 36*, 347-354. doi: 10.1007/s10643-008-0296-6.
- Levstik, L.S. & Barton, K.C. (2015). *Doing History*. New York: Routledge.
- Mueller, R., (2015). *Questioning as a civic act: An examination of how social studies teachers define, develop, and cultivate questions for inquiry*. Dissertation . University of Kentucky.
- Rothstein, D. & Santana, L. (2013). Teaching students to ask their own questions: One small change can yield big

results. *Harvard Education Review*, 27(5), 1-2.

Rossi, J.A. & Pace, C.M. (1998). Issues-centered instruction with low achieving high school students: The dilemmas of two teachers. *Theory & Research in Social Education*, 26, 380-409. doi: 10.1080/00933104.1998.10505856

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Experiential Learning through the Arts

Gina Alicea

This lecture introduces the theory and practice of art education at the Lab Schools of the University of Chicago. The main tenets of Dewey's educational philosophy that have been implemented at the Lab Schools are discussed: Experiential and cooperative learning, connection to the student's life, and becoming a better citizen. It provides some examples of teaching and learning to demonstrate how those tenets would be put into practice in the 21st century art education in the lower and middle schools.

Keywords: John Dewey, Experiential Learning, Visual Literacy, Citizenship Education, 21st Century Learning

I have been experiencing the world and learning through the arts my whole life as a visual and kinesthetic learner. I am a practicing artist and have been passionate about making art since the age of three. After receiving a Master of Fine Arts degree in Textile Design, I worked as the Executive Director of a non-profit arts center. I began teaching at that time as well, which gave me the opportunity to explore creative learning styles and engage blossoming young minds. I enjoyed teaching so much, I decided to switch careers and went back to school to get a Master's degree in Education. I've been teaching elementary school art since 1996. It is a joy and honor to share my passion for art with the children I teach.

In my current position of Fine Arts Department Chairperson and as one of the art educators at the University of Chicago Laboratory Schools, our mission is to ignite and nurture an enduring spirit of scholarship, curiosity, creativity, and confidence. We value learning experientially, exhibiting kindness, and honoring diversity. The Lab School was founded by John Dewey in 1896.

The main tenets of Dewey's philosophy:

- 1) **Experiential learning**, hands on learning is the way children learn best.
- 2) Activities have to be **connected to student lives** and student interests.
- 3) Activities engage the student in **becoming a better citizen** and learn to **cooperate with others**.

Here are a few examples of how I approach this philosophy.

Experiential learning

University of Chicago Connections

Third-grade students are curious about dinosaurs. We have a professor at the University of Chicago who has discovered many famous dinosaur bones, so I developed a project in collaboration with the Dinosaur Professor and the third grade homeroom teacher. We begin this project with a visit to the University of Chicago's fossil lab. The students go to see and touch real dinosaur bones. We

discover that some dinosaurs had feathers!

Experiential and Cooperative Learning

The students then worked cooperatively to create drawings of two dinosaur heads, one male and one female. Professor Sereno made a cast of the Rajasaurus bones he found in India. The students learn how to use epoxy clay to create the skin covering the bone. Together the students discussed ways to finish the dinosaur with scales and feathers and paint colors.

Architecture and the Surrounding Neighborhood

In the spring quarter of fourth grade, I've been teaching an architecture unit, and I always start this unit with a field trip downtown. Chicago is known for its amazing architecture. It has a rich and varied history in the development of modern architecture, so I partner with the Chicago Architecture Foundation and take my students on a walking field trip to see the spectacular skyscrapers and world class buildings of downtown Chicago. We see classical architecture at the Art Institute, contemporary architecture at the Harold Washington Library, and modern architecture in the Federal Plaza with the Mies Van der Rohe buildings.

We begin the field trip in the lobby of Chicago Architecture Foundation where we look at a three dimensional map of downtown Chicago. We talk about the history of rebuilding Chicago after the great Chicago fire. We discuss the materials used such as terra-cotta and steel and the invention of the skyscraper.

Outside, our field trip continues in front of famous buildings. We discuss the architectural elements of those buildings and have the students draw them. They learn vocabulary words such as pediment, columns, capitals, and acroteria. Another highlight of the trip is when we visit the Harold Washington Library, named after Chicago's first African American mayor.

During our exploration we can't help but notice all the public art that is scattered throughout the downtown streets. It is a city ordinance that new construction projects

include 1% of their budget for public art. In the Federal Plaza, students learn about modern architect Mies Van der Rohe and artist Alexander Calder. The students learn about public art and the importance of having it in a place where all people can engage with the sculpture. In order to absorb and process the richness of these diverse constructions, the students take time to draw and discuss what they are seeing. Although most of my students have been downtown before, our trip makes these familiar sights new and fresh to them as they begin to develop an eye and a lexicon for style, structure, and detail.

When we go back to school, students are now ready to see their own neighborhood in a new way. The Laboratory Schools are located in Hyde Park, a neighborhood on the south-side of Chicago. The original structures in the neighborhood were built during the Victorian era. Frank Lloyd Wright's Robie house is located auspiciously one block away from our school! The students have a natural interest in knowing more about the buildings in their neighborhood, so we do a comparative study between Victorian style architecture and Prairie style architecture. The students learn about the difference in style, emphasis, and ornamentation.

We go on a field trip to the Robie House that was designed by Frank Lloyd Wright in 1908. The students toured the interior and exterior of the building and learn about its unique features. It is a living museum and a quintessential example of Prairie style architecture. The students spend time drawing the building, live on site. We followed this with two weeks of drawing in the classroom to finish the lesson. This lesson ties in with their math lesson on geometry, as I am able to coordinate an integrated curriculum with other teachers.

Connection to Student Lives

Next in the architecture unit for fourth grade, I have a guest speaker from the Obama Foundation visit with my students. The future presidential library will be located in a park near the Laboratory Schools. We discuss the rule for architecture: form follows function. My students

brainstorm all the different ways that the new presidential library could function, and then connect those ideas with their own creative architectural visions for the facility. The students sketch out their ideas for the future Obama Presidential Library Center. Among the ideas are a gallery, library, museum, activity room, screening room, and café! Using recycled materials, the students begin to build their ideas for the presidential library as three-dimensional models. We put these models on display for an exhibit at the end of the school year.

This year, representatives from The Obama Foundation came back to visit the students and interview them about their ideas for the future library. This was an exciting opportunity for students to see their ideas about architecture play a role beyond the classroom. The students shared with the Project Manager from the Obama Foundation and with the younger students from the early childhood education campus.

Becoming a better citizen

Gordon Parks Arts Hall

In 2014, the George Lucas Family Foundation gave \$25 million to the Laboratory Schools for a new arts hall. George Lucas and his wife, financial executive Mellody Hobson, requested the building be named in honor of Gordon Parks, the American photographer, film director, and social justice advocate. We are proud to be the first building on the U of C campus named after an African American.

With the opening of the arts hall came the opportunity to teach about the significant artistic contributions of Gordon Parks. I chose to build a curriculum based upon his social justice advocacy. It is known around the world that Chicago has a gun violence problem. It is always in our news and we are at a teachable time in 2016 where it is critical to have conversations about the complex issues our city is dealing with. I chose to use this Gordon Parks quote to inspire my students: "I picked up my camera because it was my choice of weapons against what I hated most about the universe; racism,

intolerance, and poverty.”

In the Arts Hall, the opening exhibition in our gallery was 13 original photographs by Gordon Parks. It gave us the opportunity to have the children come into the gallery, study the photographs, and respond to the artwork.

Connecting to Student Interests

In the middle school curriculum, we focus on developing the student’s individual artistic voice. So they are prepared when, in seventh grade, I introduce Gordon Park’s work and ask the students to consider a social justice issue that they were willing to take a stand for. I wanted to know what was important to them and have them create a protest poster to represent that idea. The students choose issues such as: peace, non-violent protest, environment, equality, oil drilling, wage increase, animal rights, and gun violence. In this lesson the students were forming their identities and expressing their passions while simultaneously learning about compositional layout and design using the principles of design.

Visual Literacy in the 21st-century

The middle school art program focuses on visual literacy in the 21st-century. Students are bombarded by visual imagery every day on the computer, on their iPhones, on TV, in advertisements, in newspapers and magazines. Students need to learn how to analyze and interpret the visual imagery so they can shift from being consumers to being creators of visual imagery.

In the eighth grade visual arts program, the students are asked to be a curator for a day. They must select a theme for the exhibition, the artist to support that idea, build the model of the exhibition, and present it to class.

I take the eighth-grade students on a field trip to an art gallery to meet with the curator and find out what that job entails. In the Fall of 2015, the students were at the University of Chicago’s Logan Arts Center viewing an exhibition about Borders/Boundaries. After a rich discussion about our gallery experience, the students were asked to look at these essential questions while

conceptualizing their own exhibition:

What do you want to communicate to the audience?

What imagery will you select to support that idea?

The students are then given guidelines for being a Curator:

- 1) Select a theme
- 2) Research your idea
- 3) Select the artists to support that theme
- 4) Design a model for your exhibit
- 5) Build model
- 6) Write research paper
- 7) Present Gallery and paper to class

Some of the galleries that the students created were on the following subjects: Waste/recycled materials, MC Escher, fractal art, illustration art, Peter Bloom, Ai Wei Wei, Bridget Riley, and Charles Schultz work featuring the Peanuts cartoons.

Connection to Student Lives

Sixty percent of our student population is affiliated with the University of Chicago. Our students are the youngest members of University of Chicago’s academic community. Many of the student’s parents work at this Hyde Park campus.

In our eighth-grade art curriculum, we teach perspective drawing. I take the students on a walking field trip of the University of Chicago campus. I asked them to photograph the buildings that they find interesting. Then they must select one building to do further studies and an architectural drawing.

The students must create a composition that is half drawing and half painting. They have the freedom to paint in any style and choose any part of the picture to be drawn in pencil. The students spend six weeks on these drawings and are engaged in weekly critiques of their progress. The results show their understanding of perspective, light, and shadow.

These are examples of Dewey education in action at the Laboratories Schools. The student’s learning is based

on their interests and the environment around them. They are engaged in activities to further develop those interests. They work in cooperative groups to create art projects together. They are engaged in discovering their artistic voice and becoming better citizens in the world.

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The Process of Overcoming Difficulties Faced by Novice Home Economics Teachers in Elementary Schools

Yuka Nishimura and Keiko Ito

The purposes of this paper is to ascertain the difficulties faced by novice home economics teachers in elementary schools and the process for overcoming those difficulties. Our methodology uses the Trajectory Equifinality Model (TEM) to analyze interviews conducted with three newly hired home economics teachers at a public elementary school in H City in fiscal 2014.

When they first assumed their posts, the three teachers had not been uncomfortable teaching classes in home economics, but after gaining the support of other teachers, they reached the point where they were eager to teach home economics classes the following year based on what they learned during their first year. The teachers experienced various challenges during that time. Teacher A had problems mainly with practice classes; Teacher B had problems mainly with how to deal with the students; and Teacher C had problems with practice classes, lecture-type classes, and developing relationships with the students. Although the difficulties experienced by the three novice home economics teachers differed depending on their attitude toward home economics and conditions in the workplace, ways to overcome these difficulties consisted of the following three points: the building of a support system for discussions about home economics; the building of a system to facilitate a better understanding of students' actual lives; and the creation of a system that encourage participation in training.

Keywords: Elementary School, Novice Teachers, Home Economics Teachers, Process of Overcoming Difficulties, Trajectory Equifinality Model

1. Introduction

For a teacher, the first year is a crucial period for building the foundation for growth as a teacher. Sato (1997, p.304) described it as “a period of setting out to find one’s self-image as a teacher, of sketching out the basic composition of one’s life-long activities as a teacher, like a navigational chart.” Yoshizaki (1997, p.20) characterizes the first year as “the period of most rapid growth and development in a teacher’s life, as well as a period of survival where the greatest threats are faced.” A great deal of research has already been conducted on the problems experienced by first-time teachers during this period. For example, in analyzing class journals written by new teachers in their first semester, Asada (1998, p.177) categorized the challenges faced by novice teachers as challenges relating to the teachers themselves, challenges relating to the students, and challenges related to the home and parents. Challenges relating to the teachers themselves include those of workplace socialization (for example, the school administration’s restrictions, collection of school lunch fees, or handling of grades) and those related to class management and teaching plans. Using both quantitative and qualitative analysis, Ishihara (2010) points out the difficulties arising from discomfort with teaching and instructing students. Based on an interview survey, Sato & Maebara (2013, p.77) highlight the difficulties in relationships with fellow teachers, students, and parents and problems with teaching capability, and show that these issues can be overcome thanks to the existence of various other parties. Kihara (1998) points out that some problems are continuous throughout the first year, while others are concentrated in certain periods.

With these circumstances in mind, in its report, “Policy for Enhancing Overall Teacher Competence throughout the Teaching Career” (2012), the Central Council for Education emphasized that one issue that needs to be addressed is the establishment of an “ideal of the teacher as constantly learning” (p.3), and that “with the increasingly sophisticated and complex challenges in the schools themselves, teachers in the early stages of their

careers are experiencing difficulties that they cannot adequately deal with” (p.6), calling for such teachers to be “definitely trained not just in teaching skills, but also in how to deal with a variety of educational issues both correctly and flexibly” (p.20).

In the case of new teachers, home economics at elementary schools in particular is taught not by the homeroom teacher but by the home economics teacher, of which only one is deployed to each school, and virtually no other teachers at the school thus have experience in home economics. Therefore, full-time home economics instructors (hereinafter referred to as “novice home economics teachers”) most likely suffer from both the problem of being home economics teachers in such an environment and the problem of being a novice elementary school teacher. However, we find very little research on what kinds of problems these new home economics teachers face, how they are dealing with these problems, or what kind of support they are receiving during that process. Shedding light on this question will be helpful in developing ways to support new home economics teachers, as well as suggestions whereby the next-generation of novice home economics teachers will be able to solve these problems themselves when they face them.

As part of our research on how to support new home economics teachers, we will describe the difficulties they face and the process of overcoming those difficulties, with the objective of examining the factors involved in overcoming them. Although Yoshizaki (1998, p.168) considers teachers as “novices” until they have about three years of experience, in this paper we regard “novices” as being within the first year since being hired.

2. Methodology

2.1. Survey Methodology

2.1.1. Teachers Surveyed

We surveyed three home economics teachers (Teacher A, Teacher B, and Teacher C) newly employed at a public elementary school in City H in 2014 school year. These three teachers had participated in the U Seminar run

The Process of Overcoming Difficulties Faced by Novice Home Economics Teachers in Elementary Schools

by Teacher U, who holds a major position on the H City Elementary School Home Economics Subcommittee. The U Seminar began when Teacher B had a discussion with Teacher U, who taught elementary school in City H for 24 years and had a long track record as a home economics teacher. Teacher U ran the seminar on a volunteer basis once a week for novice home economics teachers who were having problems in the classroom. Teachers A and C subsequently joined the seminar. U Seminar's activities included conveying, in a practical manner, the basic and fundamental knowledge and skills that Teacher U wanted novice home economics teachers to become familiar with, including how to store, arrange, and use the equipment and apparatus in the home economics classroom, presentation methods, how to prepare annual and semester teaching plans, rules for the classroom, ideas for writing on the blackboard, class design, educational materials, assessment methods, and how to deal with special-needs students. It also offered individual consultations to novice home economics teachers.

The attributes of the novice home economics teachers were as follows. Note that the three also teach music in addition to being home economics teachers. In City H, guidance counselors also provide periodic guidance to newly hired teachers.

① Teacher A (female)

Responsible for home economics classes for one fifth grade class (21 students) and one sixth grade class (16 students). She teaches music to the first through sixth grades, and in April, she was busy with school administration duties in the Life Training Department. She began attending the U Seminar in late April on the guidance counselor's recommendation.

② Teacher B (female)

Responsible for home economics classes for one fifth grade class (40 students) and two sixth grade classes (21 and 23 students). Her music teaching duties are the third through sixth grades. Her administrative duties are in the school's Administration Department, and she was busy preparing for the October music recital. Based on an

introduction from a college friend, she began attending the U Seminar in early April, initially in the form of individual consultations with Teacher U.

③ Teacher C (female)

Responsible for home economics classes for two fifth grade classes (25 and 26 students) and two sixth grade classes (23 and 24 students). She also teaches music to two classes each in grades three through six. She was assigned to the school's Administration Department, but her duties there did not take much time because novice teachers are not assigned much work. She began attending the U Seminar in June based on advice of the Principal and head teacher at the school where she works.

2.1.2. Survey Period and Survey Methodology

In the first phase, toward the end of July, we used two methods to inquire about difficulties experienced during the period from the beginning of employment from April through late July and how these difficulties were handled. The first method was an open discussion with the three teachers. We hoped that this preliminary step prior to requesting written descriptions of individual difficulties would broaden our awareness of the wide range of problems each subject faced. Second, following this discussion, we asked each teacher to provide us by mail by the end of July specific written descriptions in chronological order of things that confused them, things that caused them trouble, things they didn't understand, things they were anxious about, and things they wanted to ask someone about, and in each case from whom they received advice and how the problem was solved.

In the second phase, we conducted semi-structured individual interviews lasting about one hour. The interviews with Teachers A and B took place in late December, 2014, and that with Teacher C took place in mid-January 2015. Bearing in mind the data obtained in the first phase, the interviewers inquired about the annual curriculum, the difficulties experienced between April and the time of the interview, and how these difficulties were overcome.

2.2. Analysis Methodology

With the subjects’ consent, we recorded and transcribed the discussions and the interviews. We then applied the Trajectory Equifinality Model (TEM) to the statements made during the discussions, the responses to the written questionnaire, and the statements made during the interviews to analyze the difficulties faced by the novice home economics teachers and the process for overcoming them. TEM is a “cultural-psychological methodology that attempts to document individual transformation in its social context, without disregarding time” (Arakawa et al., 2012, p.1). It is distinguished by “its reliance on a systems methodology that views humans as open systems (von Bertalanffy, 1968/1973) and its emphasis on the flow of time as experienced by the individual, without ignoring time and treating it as an externality” (Arakawa et al., 2012, p.2). Using TEM reveals the chronological process whereby the teachers dealt with the problems they faced since assuming their posts in April, enabling us to interpret the situation in the context of their teaching careers.

The procedure for analysis with TEM is to 1) extract meaningful clusters from the statements made during the discussions and interviews and the responses to the written questionnaire, and 2) create cleanly-expressed labels for them. These labels are arranged in chronological order to create a TEM diagram. We draw the diagram, as shown in Arakawa et al. (2012, p.3), based on the principle that there “exist multiple” “paths for the behavior and choices of people living in an irreversible flow of time,” and that even if multiple paths are be traversed across multiple bifurcation points depending on the individual, there is a single equifinality point to be reached. In other words, creating a TEM diagram shows the four concepts of irreversible time, bifurcation point (BFP), equifinality point (EFP), and trajectory (Arakawa et al., 2013, p.3), as well as the obligatory passage point (OPP) (Sato, 2009, p.51). Table 1 gives a conceptual explanation of TEM and shows where it fits in our research.

This paper defines the OPP as joining the U Seminar and

the EFP as the desire to continue for a second year with confidence as a home economics teacher. These points were common to the three subject teachers. We define “polarized EFP” (Sato, 2009, p.48) as the loss of confidence in continuing as a home economics teacher.

Keeping in mind the diversity of trajectories toward these EFPs, we establish bifurcation points based on the statements made in the discussions and interviews and the written responses about difficulties and show them in Table 1. In this case, we do not base this on the data obtained in the interviews, etc., and we create labels for possible alternatives that could have been taken but were not. For those that could theoretically exist, we draw the trajectory with a dotted line. On the trajectory, we also show what support was obtained in the form of social guidance (SG) (Arakawa et al., 2012, p.104) and what

Table 1: Conceptual Explanation of TEM and Where It Fits in This Research

Basic concepts	Meaning	Where it fits in our research
Equifinality point (EFP)	The point arrived at no matter which multiple paths are traversed	Desire to continue with confidence as a home economics teacher for a second year
Polarized EFP (P-EFP)	Consider EFP to be a so-called complementary phenomenon consisting of a pair, and not a single point	Loss of confidence in continuing as a home economics teacher
Bifurcation point (BFP)	Point at which a trajectory is generated or bifurcates	Fork in the road for activities as home economics teacher
Obligatory passage point(OPP)	A point that must almost inevitably be passed in order to move to a certain location	Joining U Seminar
Social guide (SG)	Something working as a supportive force	Support for home economics teachers
Social direction (SD)	Something working as a constraining force	Inhibiting factors for home economics teachers

Prepared and revised by the authors based on excerpts from Sato (2009) and Arakawa et al. (2012).

The Process of Overcoming Difficulties Faced by Novice Home Economics Teachers in Elementary Schools

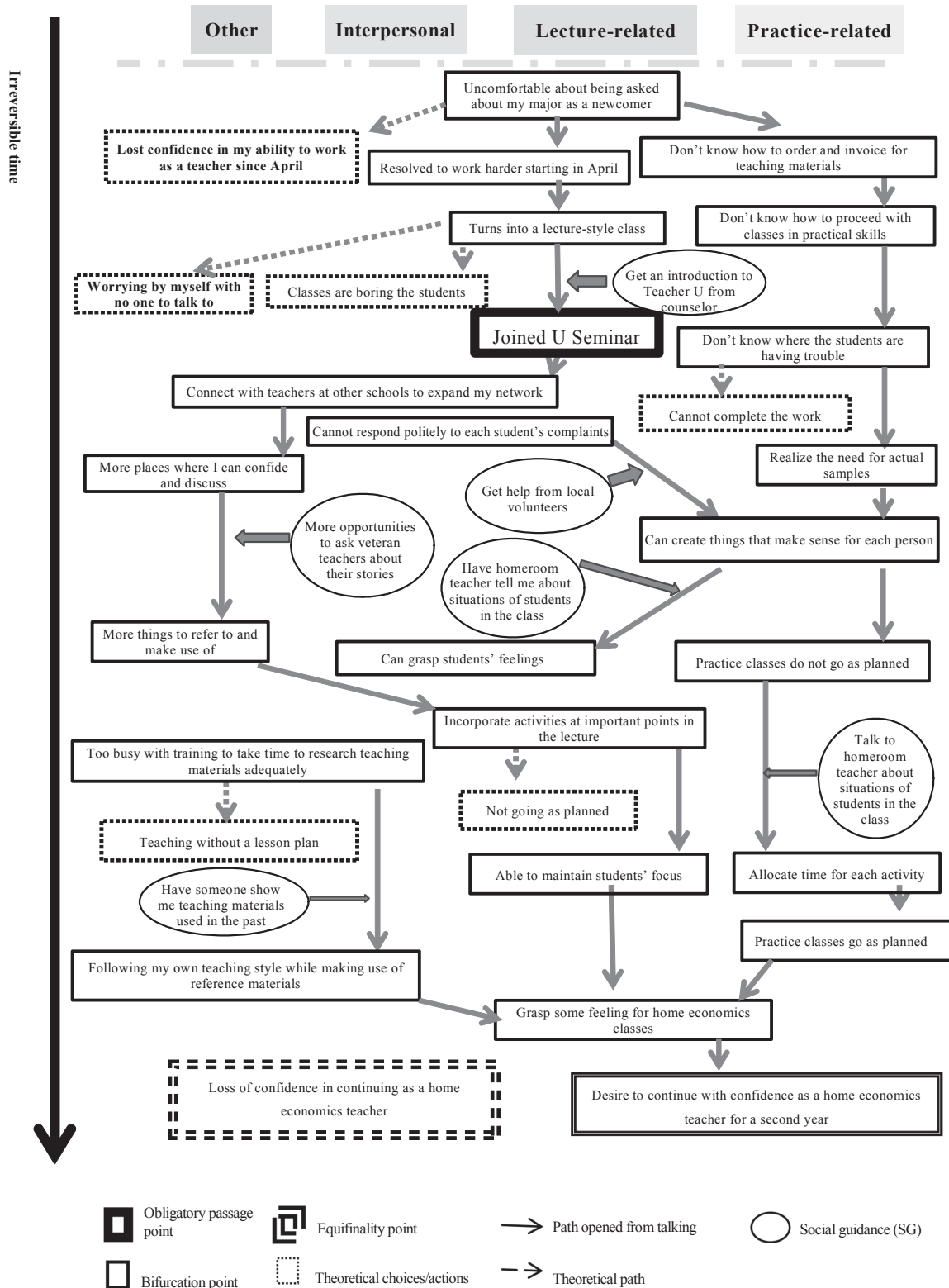


Figure 1: Difficulties Faced by Teacher A and the Process for Overcoming Them

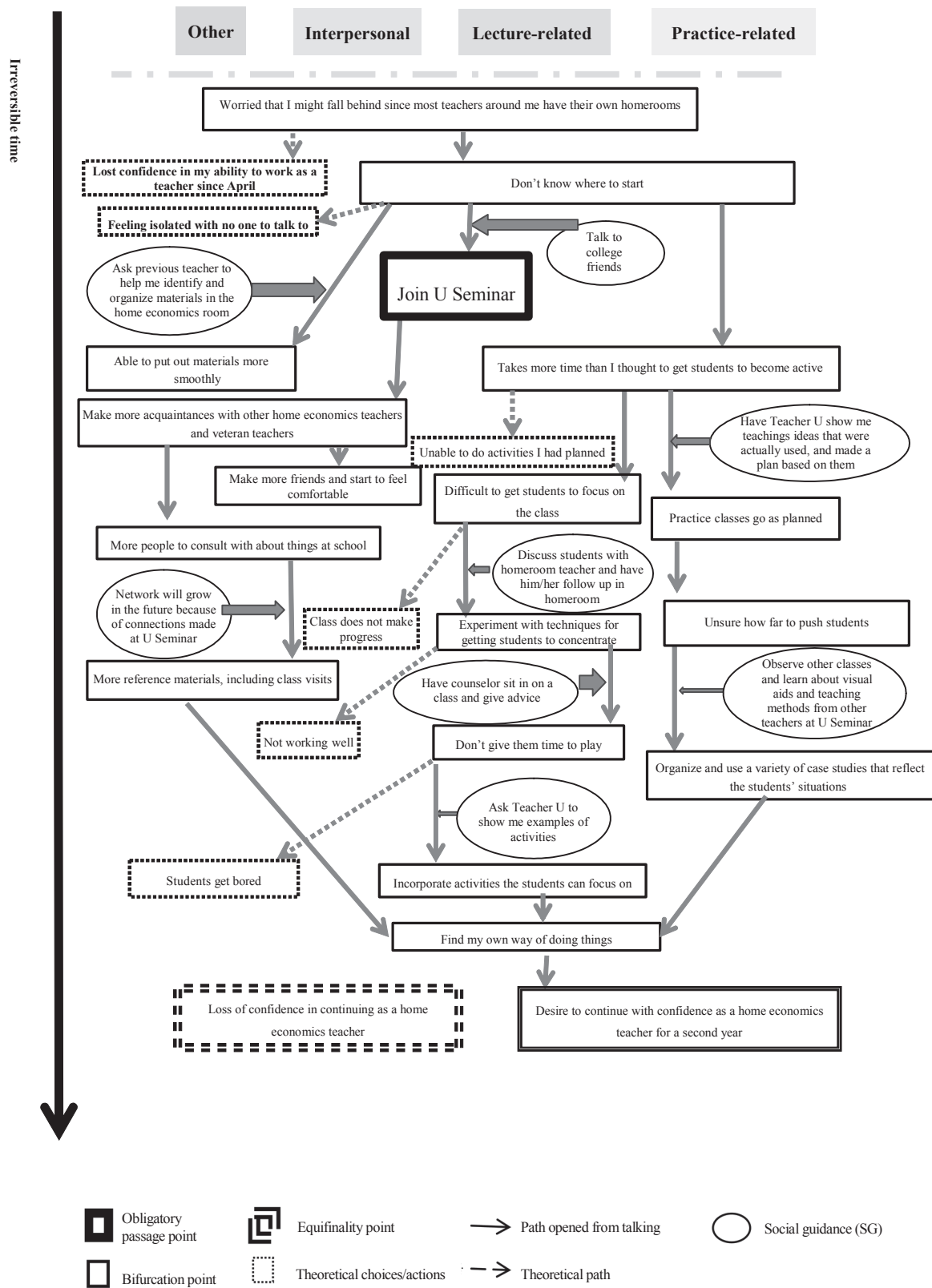


Figure 2: Difficulties Faced by Teacher B and the Process for Overcoming Them

inhibiting factors might be present in the form of social direction (SD) (Arakawa et al, 2012, p.104). Note that we arranged the labels spatially on the vertical columns of the TEM diagram in categories of practice-related, lecture-related, and interpersonal-related.

3. Results

3.1. Difficulties Faced by Teacher A and the Process for Overcoming Them

Figure 1 shows the difficulties faced by Teacher A and the process for overcoming them. At the beginning in April, Teacher A was beset with anxiety about teaching, but at the time of the interview in late December she was displaying motivation, telling us that she wanted to use what she had learned during the school year to become a better home economics teacher next year. The difficulties Teacher A faced were mostly related to practice classes, such as not knowing how to order and pay for class materials and not completing class sessions in the planned amount of time.

Although she did not have as many students in her classes as did Teachers B and C, she struggled with how to deal with “each student’s strong personality.” Even under these circumstances, she succeeded in overcoming these difficulties with the support of homeroom teachers and local volunteers, telling us, “Local people in the school district were very cooperative, so I was able to get help from them even in classes, and I took full advantage of their assistance in practice and other classes requiring extra help.”

In the interview, Teacher A stated, “Mostly guidance counselor helped me with my music classes and almost never directly discussed home economics classes with me.”

At the same time, she told us, “Attending the U Seminar gave me the opportunity to discuss my concerns with other new home economics teachers having the same experiences. Also, I was able to meet Teacher U and other veteran home economics teachers, which increased the number of people I could talk about home economics with

and gave me more opportunities to get help.” With the help she got from veteran home economics teachers, she was able to increase the volume and breadth of her knowledge of home economics and find out many practical ways to teach home economics.

Internalizing the advice, support, and information that she received led Teacher A to improve her own skill levels. In the process of repeating this in practice, she overcame her difficulties by discussing the situation of students at her school with other teachers attending the U Seminar, then adapting them to suit her needs and creating her own home economic lessons.

3.2. Difficulties Faced by Teacher B and the Process for Overcoming Them

Figure 2 shows the difficulties faced by Teacher B and the process for overcoming them. In early April, Teacher B was worried that she might fall behind other teachers because she was not assigned as a homeroom teacher, as were most other teachers hired that year, and she lacked experience as a home economics teacher. In the interview in late December, however, her feelings had changed. She told us that she still had the desire to be a homeroom teacher, but wanted to take what she learned this year and make use of it again as a home economics teacher next year.

From Figure 2, we can see that the difficulties faced by Teacher B were mostly related to the students--concerns about it taking longer than she hoped to get the students moving, how hard it was to get them focused on what was being discussed, and not knowing how far to push them. Thanks to the approachability of the school’s administration (the principal and head teacher), homeroom teachers, and guidance counselors, Teacher B got advice tailored to the circumstances of the students in her classes. This was a factor in helping her overcome her

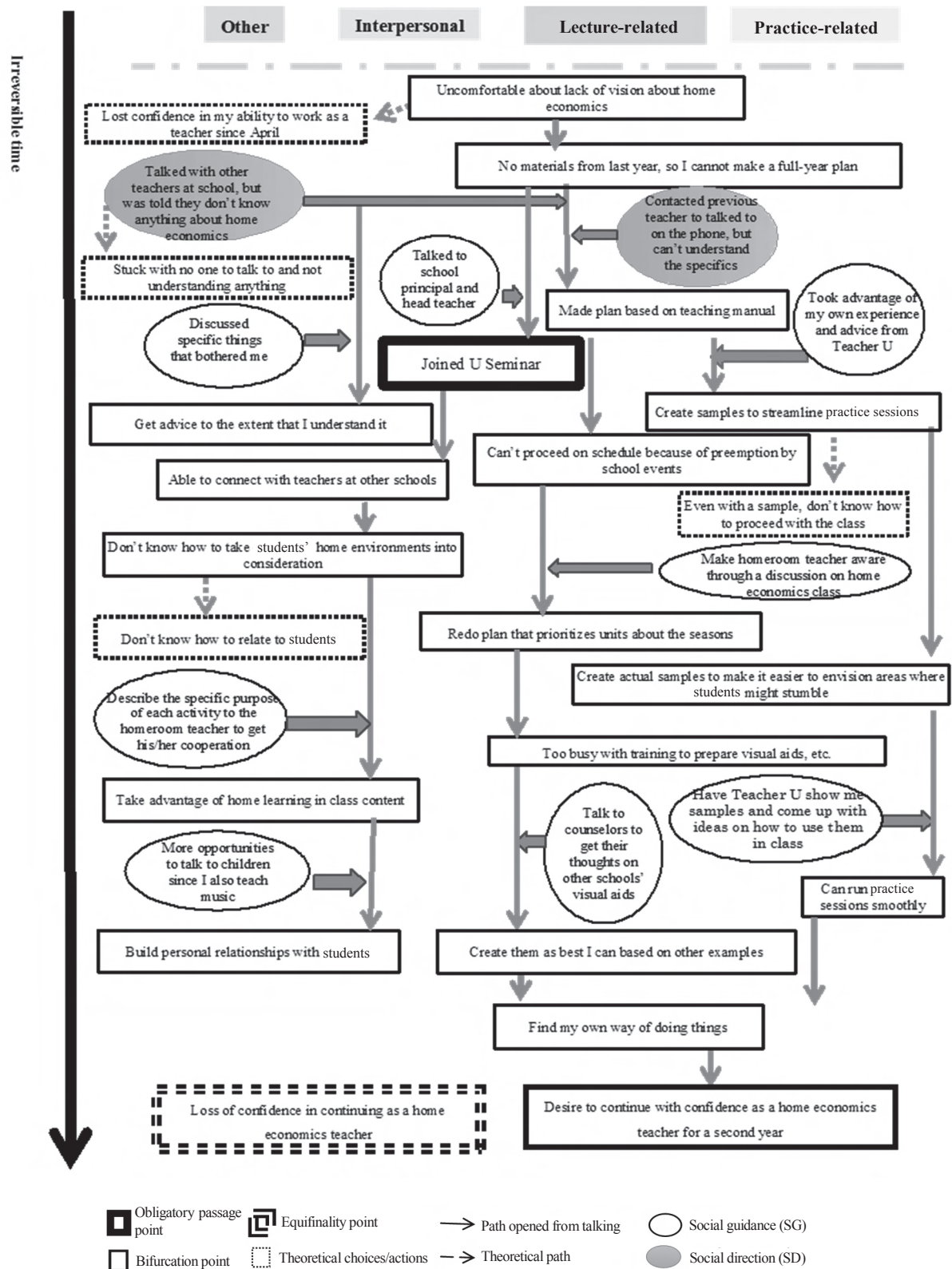


Figure 3: Problems Faced by Teacher C and the Process of Overcoming Them

The Process of Overcoming Difficulties Faced by Novice Home Economics Teachers in Elementary Schools

difficulties. Teacher B's counselor was able to provide guidance about how to respond to situations with the students, even though the counselor was not able to provide specialized guidance on home economics. In addition, being able to discuss home economics classes with veteran home economics teachers at U Seminar allowed her to surmount her problems. By going to U Seminar, Teacher B had the perfect venue for discussing specialized home economics teaching issues, acquired many useful practical examples, and had the opportunity to broaden her home economics network. In other words, U Seminar served as a psychological anchor, giving her the opportunity to get help and thus calm her worries.

3.3. Problems Faced by Teacher C and the Process for Overcoming Them

Figure 3 shows the difficulties faced by Teacher C and the process for overcoming them. Since Teacher C had wanted to be a homeroom teacher, when she found out that she was going to be a home economics teacher, she was "uneasy because home economics did not evoke the image of classroom learning," and her concerns were aggravated by such things as "there were no teaching materials (left over) from the previous year to give me an idea what the year would be like," and "being a home economics teacher gives you less time with the students, so it took me a long time before I understood all of their home situations." In the interview, she said, "For example, it was hard to take into consideration the home situation of each and every student, and it was difficult to gauge how deeply to go into a question." Looking at the columns in Figure 3, we see that Teacher C experienced many types of difficulties, including practice classes, lectures, and interpersonal relationships.

Teacher C went to other teachers at her school to discuss how to solve these problems, but none of them had any experience teaching home economics, so according to her interview, they usually told her they knew nothing about the topic. Teacher C nevertheless was proactive in talking to the teachers around her, even describing in detail

to the grade's homeroom teacher such things as the content, objectives, and problems of home economics classes and issues concerning special-needs students, so that she built an environment for getting help through discussions. She also got help solving her problems by describing the specific things that were bothering her to the counselor and finding out about other schools' classes and visual aids.

She also benefited from her participation in U Seminar, which connected her with home economics teachers at other schools and gave her more reference materials related to home economics teaching, which she revised based on the situation of the students at her school and put into practice.

In other words, Teacher C actively sought support from teachers around her and gradually created an environment where she could gain their help. Ultimately, she transformed her feelings in a way she expressed as "Next year, I want to take advantage of what I learned this year and try teaching home economics again."

4. Discussion

4.1. Difficulties Facing Novice New Home Economics Teachers

The three teachers we worked with had different experiences. Teacher A was concerned primarily with practice classes; Teacher B's problems mainly related to the students; and Teacher C's problems were diverse. We can attribute these differences to each teacher's view of home economics, view of teaching, and the personnel and physical environments at the schools where they worked. These difficulties, however, encompass both difficulties as home economics teachers and difficulties as novice elementary school teachers.

Let us point out three issues related to difficulties as home economics teachers. The first is caused by the fact that since home economics teachers interact with students only during home economics class, it is more difficult for them to get to know the students. Teacher C stated, "We were often told at university lectures and in research that since home economics is a subject connected to the home,

we should take the students' home environments into account, but I had a lot of trouble understanding how I could find out about which issues to take into account," and, "Since I don't know about the students' home environment, I don't know how deeply to go into the home economics learning content." The second is caused by the fact that since most elementary school teachers have no experience with home economics, there are no teachers at their school with whom they can consult about home economics. There is concern that the anxiety felt by novice home economics teachers will lead to mental stress. The third is caused by the fact that "school events interfere with home economics time, preventing us from making the progress we expected" (Teacher C). When home economics classes and school events overlap, home economics teachers will ask the grade's head teacher for make-up time for the home economics class that conflicted with the event, but that leaves the situation in which it is not known when the home economics class will be scheduled.

The difficulty that all three new elementary school teachers shared was relations with the students. This is the "gap that arises from the difference in the picture of the student you paint in your head and the reality of the student in a classroom setting" (Teacher C). The TEM figure also contains such entries as "don't know where students stumble" (Teacher A), "takes more time than I thought," and "hard to get the students to focus on what I'm talking about" (Teacher B).

4.2. Characteristics of the Process of Novice Home Economics Teachers Overcoming Difficulties

All three of the teachers we studied were concerned when they found out that they would be teaching home economics when they started their jobs, but by winter vacation, when we interviewed them in December and January, they had changed to being confident in wanting to teach home economics a second year. As mentioned above, each teacher encountered different difficulties, but the TEM diagrams in Figures 1,

2, and 3 show that all three had a common response with respect to factors (SGs) that help to overcome those difficulties. In other words, they got help for difficulties related to home economics classes from Teacher U, from more senior teachers they met at U Seminar, and from fellow novice teachers who started the same year. It was college friends, guidance counselors, and school administrators who recommended that these teachers go to the U Seminar. On the other hand, such school administrators as the principal or head teacher, fellow teachers, counselors, and local volunteers were consulted to obtain appropriate advice and support regarding actual students' circumstances and difficulties in interacting with the students. This support was not conceptual advice, but information, practical suggestions, and personal discussions about the students in the class, in response to the specific difficulties being experienced by the novice home economics teachers.

Taking an overview of process in our study, two problems need to be considered with respect to overcoming difficulties faced by novice home economics teachers. The first is that these difficulties were overcome because of efforts made by the teachers in this study. As the TEM figures show, before participating in the U Seminar, all three teachers were in situations they characterized as "not knowing how to proceed in teaching practical skills" (Teacher A), "no idea where to start" (Teacher B), and "with no materials from the previous year, I can't build a yearlong teaching plan" (Teacher C). However, attending the U Seminar led them to consult with local teachers and seek their advice. As Shimahara & Sakai (1991, p. 91) argue, it is fair to say that "a teacher's career socialization process takes the form of an apprenticeship." If no supporters had recommended participation in the U Seminar, as they did in this process, the period during which a novice home economics teacher "had no idea where to begin" might have been longer, and they might not have found themselves able to ask for help. The second is that the supporters in this process were people with whom the survey subjects had an informal

The Process of Overcoming Difficulties Faced by Novice Home Economics Teachers in Elementary Schools

relationship through the teachers' network. In their survey research, Yamazaki et al. (2011, p.211) point out that "the overwhelmingly dominant factors supporting teaching careers in their initial stages are daily and informal, such as advice from more senior teachers and experience interacting with students." Because this informal support is coming from nearby teachers, it not only provides practical and suitable advice for dealing with problems, but also promises to provide support that involves other teachers and volunteers. However, given the small number of elementary school teachers with experience in home economics, meeting with veteran home economics teachers, such as Teacher U, for a consultation is not easy.

U Seminar is thus significant for novice home economics teachers in the following ways. First, it provides support for practical education in home economics. These novices did not know about work tasks, planning, advance preparation, and negotiations, which would have been routine if we had surveyed experienced teachers for our study. The novices were able to obtain from Teacher U and more experienced home economics teachers immediately usable teaching materials, as well as practical knowledge and skills in the form of specific advice on such things as teaching techniques and helpful hints. Second is the broadening of personal networks. Over time, U Seminar, which began with a discussion between Teacher B and Teacher U, added other novice home economics teachers who started at the same time, as well as home economics teachers with several years of experience. Participants could interact with teachers outside their own school and go to see and make use of visual aids at each other's school. Third, besides providing help related to home economic classes, the Seminar was a psychological anchor for the subjects, an opportunity for them to feel secure. For novice home economics teachers, U Seminar became a forum for meeting, consulting with, and checking up on progress with other home economics teachers who had started at the same time and more experienced teachers.

4.3. Challenges for Novice Home Economics Teachers in Overcoming Difficulties

While the three teachers we studied differed in the problems they faced, they shared the following three challenges in overcoming their difficulties. The first was building a support system for talking about home economics; the second was building a system to facilitate their understanding of students' actual living situations; and the third was developing a system to promote participation in training.

4.3.1. Building a Support System for Talking about Home Economics

Although City H had an Elementary School Home Economics Study Group, its members varied in age, so that the topics it addressed as a study group did not leave time to deal with the personal difficulties of novice teachers. Teacher U, who led of this study group, provided individual guidance to novice home economics teachers on a volunteer basis.

Teacher U was a nearby presence for the three subject teachers to go to when they wanted to discuss the difficulties they faced in home economics classes. However, teaching is such a busy lifestyle that few veteran teachers like Teacher U volunteer to coach novice home economics teachers so that they can grow. As Yamazaki (2012, p.49) points out, "The places in daily life for nurturing teachers and human relationships have become sparser, and the functions for nurturing teachers that were used in pre-institutional circumstances have been gutted. We can call this the diminution and gutting of developmental support functions resulting from institutionalization." We need to build a system that provides ongoing support to novice home economics teachers with respect to their individual difficulties, instead of having them bear this burden on their own.

4.3.2. Building a System to Facilitate Understanding of the Students' Actual Living Situations

It is extremely important to understand students' actual living conditions when teaching home economics, which is the study of how we live. From the standpoint of

rational thought, it is also crucial to have in-depth knowledge of certain students' lives when teaching them. As Teacher C told us, "When I was looking after almost 200 students as I was in the first school where I taught home economics, it was all I could do just to remember their names and faces, and it was hard to think about each student's home situation, so when they asked me something, it was hard for me to know how deeply I should delve into the matter." Home economics teachers face the same problems as Teacher C, because it is easy for a homeroom teacher to obtain information about the students in his or her class through daily conversation and observation, while a home economics teacher is responsible for many students and has little time to interact with them outside class. Resolving these difficulties requires building a system that can facilitate understanding of students' actual living conditions.

4.3.3. Developing a System to Promote Participation in Training

Shimahara & Sakai (1991, p.86) point out that some more experienced teachers believe that "the only way for new teachers to improve their teaching skills is to be worried," where "worry" refers to the internal conflict that is indispensable to acquiring teaching skills and is a process of integrating the lessons learned through "practice."

It is certainly the case that in some situations teaching skills must be developed through agonized trial and error, but in the case of novice home economics teachers, since home economics is a subject that entails a lot of practical learning, it is necessary to create a system that promotes participation in training as a forum for early practical learning about such things as basic safety, teaching dos and don'ts, and ways to configure and maintain equipment. Such practical knowledge and skills need to be learned before the teacher fails.

5. Conclusion

Our study focused on three teachers and asked them about the difficulties they faced and the process for overcoming these difficulties. We gathered information in two stages using the three methods of discussions, written questionnaires, and interviews. However, the information we obtained from the teachers was limited. If it were possible, we think a more detailed analysis of information from participant observation at the schools where the teachers work would have allowed us a deeper understanding of the process of overcoming the multi-layered and diverse difficulties the teachers faced. In addition, since in this study we wanted to examine the process for overcoming difficulties, we primarily asked the teachers about support they received as social guides (SGs) in the context of the basic concept of TEM, but getting information about social direction (SD) as an inhibiting factor is crucial as well.

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References

- Arakawa, A., Yasuda, Y. & Sato, T. (2012). A method for analyzing with trajectory equifinality model. *Ritsumeikan Journal of Human Sciences*, 25, 95-107. (in Japanese with English abstract)
- Asada, T. (1998). Oshieru koto no taiken [The Experience of Teaching]. In T. Asada, T. Ikuta, & K. Fujioka (Eds.), *Seicho suru kyoshi: Kyoshigaku he no sasoi [Teachers Who Grow: An Invitation to Teaching Studies]* (pp.174-184). Tokyo: Kaneko Shobo. (in Japanese)
- Central Council for Education (2012). Kyoshoku seikatsu no zentai wo tsujita kyoin no shishitsu noryoku no sogotekina kojo hosaku ni tsuite (toshin) [Policy for Enhancing Overall Teacher Competence throughout the Teaching Career (Findings)]. (in Japanese) Retrieved October 25, 2016, from

- http://www.mext.go.jp/component/b_menu/shingi/toushin/_icsFiles/afieldfile/2012/08/30/1325094_1.pdf
- Ishihara, Y. (2010). A study of problems facing newly-employed teachers: Based on a quantitative and qualitative research. *Journal of Poole Gakuin University*, 50, 161-174. (in Japanese with English abstract)
- Kihara, T. (1998). Jibun no jugyo wo tsutaeru: Taiwa to seicho [Passing Along Your Own Teaching: Dialogue and Growth]. In T. Asada, T. Ikuta, & K. Fujioka (Eds.), *Seicho suru kyoshi: Kyoshigaku he no sasoi [Teachers Who Grow: An Invitation to Teaching Studies]* (pp.135-196). Tokyo: Kaneko Shobo. (in Japanese)
- Sato, M. (1997). *Kyoshi to iu aporia: Hanseiteki jissen he [The Aporia of a Teacher: Towards Reflective Practice]*. Yokohama: Seori Shobo. (in Japanese)
- Sato, S., & Maehara, Y. (2013). A Study on the changing process of the difficulties that newly appointed teacher have. *Hyogo Kyoiku Daigaku Kiyuu [Bulletin of the Hyogo University of Teacher Education]*, 42, 77-82. (in Japanese)
- Sato, T. (Ed.) (2009). *TEM de hajimeru shitsuteki kenkyu: Jikan to prosesu wo atsukau kenkyu wo mesashite [Qualitative Research Starting with TEM: Towards a Study of Time and Process]*. Tokyo: Seishin Shobo. (in Japanese)
- Shimahara, N., & Sakai, A. (1991). Nihon ni okeru kyoin kenshu to kyoiku kaikaku: Kako to mirai ni muita kaikaku no yukue [Teacher Training and Educational Reform in Japan: The Past and Future Direction of Reform]. *Bulletin of the Faculty of Education, University of Tokyo*, 30, 83-89. (in Japanese)
- Yamazaki, J. (2012). Current Situation and Vision of Teacher Education Reform: The Seven Deadly Sins and Alternative Ways Raised by a “Study of the Life Course of Teachers”. *Japanese Journal of Educational Research*, 79 (2), 40-51. (in Japanese with English abstract)
- Yamazaki, J., Mochizuki, K., & Sugano, F. (2011). A Study on Professional Development of Young School-Teachers (1). *Bulletin of the Center for Educational Research and Teacher Development Shizuoka University*, 19, 209-222. (in Japanese with English abstract)
- Yasuda, Y., & Sato, T. (Eds.) (2012). *TEM de wakaru jinsei no keiro: Shitsuteki kenkyu no shintenkai [Learning Human Trajectories from TEM: New Directions in Qualitative Research]*. Tokyo: Seishin Shobo. (in Japanese)
- Yoshizaki, S. (1997). *Dezaina toshite no kyoshi akuta toshite no kyoshi [Teachers as Designers, Teachers as Actors]*. Tokyo: Kaneko Shobo. (in Japanese)
- Yoshizaki, S. (1998). Hitori tachi he no michisuji [The Path Toward Standing on Your Own]. In T. Asada, T. Ikuta, & K. Fujioka (Eds.), *Seicho suru kyoshi: kyoshigaku he no sasoi [Teachers Who Grow: An Invitation to Teaching Studies]* (pp.162-173). Tokyo: Kaneko Shobo. (in Japanese)

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The Issues and Problems of Multi-Cultural Education in Japan: Focus on Formation of Pluri-Identities

Norio Ikeno

This paper aims to clarify the current situation of multicultural education in Japan, based on analysis of typical teaching practices in the area related to education for international understanding in Japan, and to identify debates and arising issues. It has clarified the specific characteristics of each form of education. In particular, it focused on differences between each type of education in terms of the way each type addresses culture and identity.

The starting point of the area related to education for international understanding in Japan was education for international understanding, which developed into global education, intercultural education and multicultural education, with a feature of this development being its diversity. In particular, as represented in multicultural education, the focus is on cultural diversity in society, along with plurality of cultural elements, and it can be understood that the 2 aspects of diversity and plurality are important. What is more, research has developed to the point of demonstrating the effects of this cultural plurality on individuals' inner selves. Our complexity as individuals whose inner beings are influenced by culture leads to the formation of identity plurality (pluri-identities) through the compounding of cultures and people, exposing the diverse selves within the self and the identities of those selves, and leading to tension and conflict that need to be managed. The issue of how education related to education for international understanding addresses these problems is an important contemporary issue to be discussed.

Keywords: Education for International Understanding, Global Education, Intercultural Education, Culture and Identity, Plurality

1. Introduction

The aim of this paper is to clarify the current situation of multicultural education in Japan, based on analysis of typical practices in the area of education for international understanding in Japan, and to identify debates and arising issues. For this purpose, the research perspectives used in this research are: (1) historical changes, (2) establishment of plurality of cultures and identities in relation to education for international understanding, specifically, multicultural education, involving (3) examination of the impact of plurality on person's inner selves, and the development of that inner self.

In order to do this, the scope of the paper will be limited to Japan. Section 2 provides an overview of concepts related to education for international understanding, while Section 3 confirms the current situation in schools and society. In Section 4, typical practices in 4 types of education related to education for international understanding, namely, education for international understanding, global education, intercultural education and multicultural education, are analyzed, and the characteristics of each are investigated. Finally, in Section 5, debates and issues arising in the current situation of multicultural education in Japan are explored, and goals for research in the area of multiple identity formation in multicultural education are identified.

Features of this paper are the following topics:

- Examining the current situation of multicultural education in Japan as it has developed from education for international understanding through links with culture and identity;
- In particular, examining the effect of cultural plurality on human development;
- Elucidating practice and study of teaching practice related to education for international understanding, especially the “plurality” that emerges in this process and the social effects this has, from the perspective of formation of identity;
- Examining construction of the inner self through

pluri-identity formation in the context of studying multiple cultures.

2. Overview of Concepts

Multicultural education in Japan is based on education for international understanding. Education for international understanding in Japan began with adoption of UNESCO's education for international understanding after the World War II. Education for international understanding in today Japan is based on this education for international understanding and has been developed as education for intercultural understanding, global education/global citizenship education, multicultural education and so on.

The first task, then, is to define and clarify trends and characteristics of education for international understanding, global education, education for intercultural understanding, and multicultural education.

For the purpose of providing definitions, one representative dictionary of education, the “*Comprehensive Encyclopedia of Contemporary School Education: New Edition*” (2002) is used, together with the “*The Contemporary Encyclopedia of International Education*” (2012), which was edited by the Japan Association for International Education. According to these encyclopedias, the following definitions are given (see Table 1 in the next page).

The focus and goal of each of these 4 types of education related to education for international understanding are different. Characteristics of the foci and goals will be described below.

First, the foci of the 4 types are examined. The main focus of each type of education is nation state (national citizens) or culture. Education for international understanding and global education focus on nation states and the citizens who live there, with the emphasis on understanding each other's countries, or understanding the various countries forming the whole world, with an orientation toward grasping the entirety. In contrast, education for intercultural understanding and multicultural

Table 1: Definitions of Related Education

	Education for international understanding	Global education	Education for intercultural understanding	Multicultural education
“Comprehensive Encyclopedia of Contemporary School Education: New Edition”	Education based on the principle that citizens of different countries in the world should understand each other across national boundaries, respecting and trusting each other as human beings to cooperate, thereby realizing world peace (Arai, 2002, pp.121-122)	Education that fosters the qualities and skills in children living in a gradually forming “global society” to be able to participate responsibly in society as a “global person/global citizen”, with a spirit of global partnership (cooperative relations on a global scale), sharing the global values of democracy, human rights and peace (Uozumi, 2002, p.472)	Through relativizing one’s own society and culture based on understanding of other cultures, understand one’s own culture from different aspects, becoming aware of the distinctiveness and diversity of cultures as well as commonalities and universality (Kimura, 2002a, p.121)	Education designed for the coexistence of different ethnic groups in a single nation state society (Kimura, 2002b, p.547)
“The Contemporary Encyclopedia of International Education”	Education that nurtures the required attributes and skills to live in the contemporary internationalized, globalized world and society (Otsu, 2012a, p.14)	Education that raises awareness of issues related to developing the kind of attributes and sense of values needed in education to deal with an expanding world and society where people, goods, money and information cross national boundaries (globalization), and with the various global issues that arise from this situation (Fujiwara, 2012, p.219)	Education that aims to nurture the capacity and skills so that people of different cultures can understand the similarities and differences between cultures, accept each other’s sense of values and patterns of behavior, and respect each other, so that people of different cultures can live together and cooperate in the world. (Morimo, 2012a, p.217)	The educational principles, practices and reform movements that aim to realize coexistence of different groups and structural equality among people who belong to all cultural groups, including race, ethnicity, social class, gender, sexual orientation and disability. (Morimo, 2012b, p.216)

education focus on culture, classifying culture into one’s own culture and other (plural) cultures, with the aim of understanding each culture. The various types of education related to education for international understanding include society within the range of focus, but do not have society itself as either a goal or a focus. These are the characteristics related to focus.

Second, the goals of the 4 types are examined. Establishing understanding as the fundamental goal, this falls into understanding of nations and their people, or understanding of culture. From the perspective of ways of understanding, there are 3 categories of emphasizing distinctiveness and diversity, emphasizing commonalities and universality, or addressing both. Education for international understanding and global education address both nations and culture, while intercultural education and multicultural education mainly address culture. Intercultural education addresses distinctiveness and diversity, while education for international understanding, global education and multicultural education address both

distinctiveness and diversity, and commonalities and universality. In terms of ways of understanding, this indicates that understanding is central to each type of education related to education for international understanding, but that understanding of the formation and creation of new nation states, national citizens and culture is not a priority goal.

These two sets of characteristics can be portrayed more distinctly if they are mapped in the following way.

Table 2: Typology of Education in the Area of Education for International Understanding, by Goals and Content

Content \ Goals	1. Distinctiveness/ Diversity	2. Commonalities/ Universality	3. Both
A. Nation state	A1	A2	A3 Education for international understanding Global education
B. Culture	B1 Education for intercultural understanding	B2	B3 Multicultural education
C. Both	C1	C2	C3

Indicating the typology of goals and content in table 2 not only classifies types of education related to education for international understanding, but also suggests the potential of these types of education. By distinguishing the focus of understanding in the goals column into nation state or culture, it becomes possible to classify intercultural education into the category focusing on culture, and the other 3 types into the category focusing on both nation state and culture. In terms of understanding nation state and culture, it is also possible to divide types of education into 3 categories according to whether they place emphasis on distinctiveness/diversity, or go beyond this to emphasize commonalities/universality, or address both.

Types of education in Japan related to education for international understanding can thus be classified in this way according to goals and content. Furthermore, if a historical perspective is added, the following 3 trends can be pointed out: (1) The focus has shifted from nation state to culture; (2) Education for intercultural understanding emphasizes distinctiveness/diversity, while the other 3 types of education aim to include both distinctiveness/diversity and commonalities/universality; (3) Goals are shifting from nation state to culture, and from distinctiveness/diversity to both. I cannot call C3 by special name.

From these 3 points, if it is accepted that A1, A2 and B2, as well as C1-C3 are blank, but that A3 and B3 encompass A1, A2 and B2, the following single kind of analogy can be made for the future. This is that C3, which has the goals of both nation state and culture, and aims to cover both distinctiveness/diversity and commonalities/universality, is not in evidence in today Japan, but has the potential to be realized in the future.

Within this context, the following questions are posed in this paper.

Q1: Whether the focus is on nation state or culture, how is society addressed?

Q2: Whether the focus is on nation state or culture, how are the

distinctions between self and other and between self and plurality understood?

Q3: What is necessary in structuring understanding of nation state and culture to promote development of new forms and creations?

Q1 will be addressed in Section III. In Section III, in the context of ways of addressing the societal situation, including schools, the hypothetical view that the situation and role of identity may mark the divergence of paths of types related to education for International Understanding will be proposed.

Q2 and Q3 will be addressed in Section IV. In Section IV, one typical case study lesson from each type of education related to multicultural education will be taken, and analyzed in terms of how it deals with nation state/national citizens and culture. The frame of understanding for each case will be elicited, with discussion of what this shows about relations between self and other, between self and plurality, and links with identity.

3. The Situation Surrounding Schools and Society, and Identity Issues

3.1. Changes in the World and Globalization

Since the end of the 20th century, like the rest of the world, Japanese society has been changing dramatically. This is due to society becoming more complex and more diverse. These changes are continuing now in the 21st century, and may be intensifying further. Take Hiroshima as an example. On 27th May, 2016, United States President Obama visited the Hiroshima Peace Park, offered flowers at the Memorial Cenotaph, and explained his reason for visiting Hiroshima in the following words.

“Ordinary people understand this, I think. They do not want more war. They would rather that the wonders of science be focused on improving life, and not eliminating it.

When the choices made by nations, when the choices made by leaders reflect this simple wisdom, then the lesson of Hiroshima is done.

The world was forever changed here. But today, the children of this city will go through their day in peace. What a precious thing that is. It is worth protecting, and then extending to every child.

That is the future we can choose, a future in which Hiroshima and Nagasaki are known not as the dawn of atomic warfare, but as the start of our own moral awakening.”

This visit to Hiroshima by President Obama was an extremely impressive event. That goes without saying, but while some people think of Hiroshima as the city of the atomic bomb and the city of peace, where prayers are offered, others think of it as the home city of the Carps professional baseball team, or the Sanfrecce Hiroshima soccer team. Food aficionados may associate Hiroshima with oyster production or okonomiyaki (type of savory pancake). It depends on the person and it is not fixed.

Just as different people understood President Obama’s message in different ways, different people interpret Hiroshima and things connected to it in different ways. The same words are taken differently by different people, and understood in diverse ways. This is explained in terms of relations with others and cultural differences. When these differences become wider, they cause problems.

3.2. Culture and its Effects: Differences and Identity

It is culture in its widest sense that creates differences in people. Culture includes aspects such as language, communication, customs, habits, religion, learning and arts. These elements of culture work in diverse ways, and create diverse forms.

In particular, language and its communication create these differences. Language is usually represented in the form of words, and as well as creating various cultures, it creates each individual’s understanding of culture.

Language and its use demonstrate the basic structure of cultural understanding.

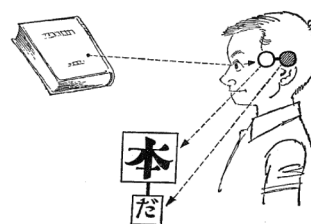


Figure 1: It’s a book.

resource: Miura (1977, p.25)

[note: From top to bottom: “a book”, “it’s”]

This use of the words, “It’s a book”, is an act involving the self-understanding the outside world, and representing this to one’s self and others.

Expression of these words creates the situation (Miura, 1977, p.35, 55).

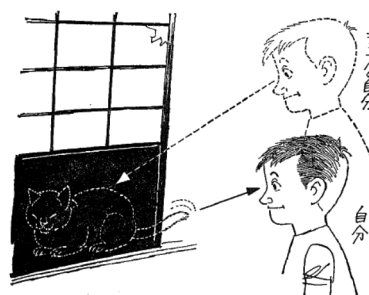


Figure 2: It’s a cat.

resource: Miura (1977, p.35)

[note: From top to bottom: Another self, Self]

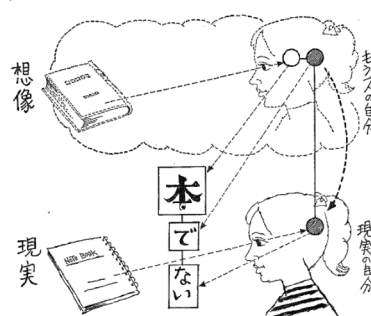


Figure 3: It’s not a book.

resource: Miura (1977, p.55)

[note: Top picture, left to right: Imagination, Another self
Bottom picture, left to right: Reality, “a book” “It’s” “not”,
Self in reality]

In the above scenario (2), in saying, “It’s a cat”, I cannot actually see the cat. I can only see the tail. Another me uses imagination to understand that, “That is a cat” and uses that imagination for the real me to create the whole cat from the tail and express, “It’s a cat”.

In this way, I understand a specific reality through my other self. When doing this, I am duplicated and made plural. This duplicated, plural self accelerates understanding of culture and the world, and also promotes understanding of people. It also serves to multiply my own self. Pluralizing self creates pluralization of identities (Asano, 2002, p.37).

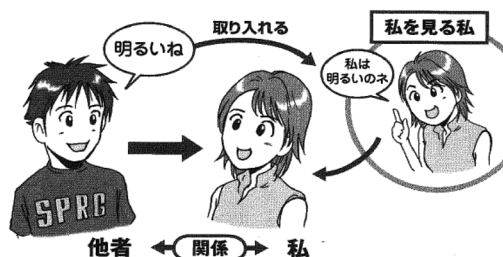


Figure 4: Pluralization of Identities

resource: Asano (2002, p.37)

[note: Left to right, top series: “You’re cheerful, aren’t you?” I take in the comment, “I’m cheerful”, me seeing myself. Left to right, bottom series: Other, relationship, Me]

The structure of another self inside myself is not restricted to a single dimension, but is created across many dimensions, creating diverse forms. There can be myself at this time and myself at that time, myself here and myself there, or the creation of pluri-selves inside myself.

The many and varied worlds and cultures in this world are understood, in this way, by the various selves of my pluri-self. This concurrently leads to the development of pluri-identities.

3.3. Cultural Plurality and Pluri-identities

Cultures exist in the world. Seen on a large scale, in the sense of culture of humankind, there is a single culture. However, there are various cultures within this culture. This is what is meant by multicultural.

Within a nation state, even within a locality, there are various cultures around each individual. Each person learns about and acquires these cultures, they become familiar, and new forms are created. In the world and society, multiple cultures exist. There are also multiple cultures within each individual.

When people assume individual roles, they assume a number of different roles. For example, a person may have different roles such as husband, father, man, teacher and advisor, and carry out these various roles. Sometimes, this can lead to conflicts of interest and contradictions, and problems can arise (Asano, 2002, p.41).



Figure 5: Who am I?

recourse: Asano (2002, p.41)

[note: From left to right, top to bottom: “Me” at work, Who am I?, “Me” with the family, “Me” at the community club, “Me” with friends from my time at the university]

In addition to roles, people have multiple cultures in a number of spheres. One example is language. Many Japanese people only use Japanese, but some people also speak and use a so-called foreign language such as Korean, Chinese, English, German or French, or several languages. Naturally, communication is maintained through these languages, and by using multiple languages, people

understand themselves and cultures through each language. Let us think about the word “本 (“hon”, Japanese word for book)” as an example. This is defined in Japanese conceptually as a written work by an author. The definition is certainly similar in other foreign languages, and the differences in definition are minor. However, the image attached to the definition is different according to the language. The figure above shows a “本, hon” in Japanese. However, if this was in English, or in a situation where communication was being conducted in English, the shape would be the same, but the front cover would be in English, and the word “book” would be used. In response to this, each individual holds concepts and images when they understand “book” and “Japanese”, and they have the role and habit of communicating in Japanese. This can be stipulated as Japanese language identity. In the case of English communication, it can be seen as having an English identity.

Multiple cultures exist in society and the world, and based on the elements of culture, individuals also have multiple cultures within themselves. Going back to the example of Hiroshima given above, President Obama’s visit to Hiroshima and the growing number of foreign tourists are making Hiroshima itself more multicultural, individual citizens of Hiroshima are creating more diverse plural cultures, and there are increasing opportunities for such creation. This applies not only to Hiroshima, but also to many cities in Japan, and probably to various places across Asia and the world.

In particular, this situation has become a social problem in Europe with the refugee problem, and has led to Brexit in the UK and movements to exclude migrants and refugees in various places. Multiculturalism in the world has created multiple cultures and pluri-identities in individuals, and has made relationships more complex, taking relationships between people or within people’s inner selves from being comfortable relationships to being more strained. It would seem that this cultural plurality and complexity are closely associated with the development of multicultural education. Multicultural education in Japan

has developed from the foundation of education for international understanding, and the next section will examine how aspects of cultural plurality and complexity are addressed in typical teaching unit design and implementation in the 4 areas related to education, namely, education for international understanding, global education, intercultural education and multicultural education.

4. Cultural Plurality and Complexity in Education Related to Education for International Understanding

4.1. Discussion of 5 Cases of Teaching Practice

The 4 areas of education related to education for international understanding – i.e., education for international understanding, global education, intercultural education and multicultural education - will be addressed in this section. The cases that will be used to study each type of education are “Study of South Asia: Focus on India” (Nagai, 1989, pp.53-58) and “From One Banana” (Otsu, 1987) for education for international understanding, “Story of the Water Planet” (Ito, 2007) for global education, “Female Circumcision (FC)/Female Genital Mutilation and Women Prohibited” (Matsui, 2010) for intercultural education, and “Issues on Calabash Island” (Fujiwara, 2008) for multicultural education.

4.2. “Study of South Asia: Focus on India” and “From One Banana”: Education for International Understanding

4.2.1. Study of South Asia: Focus on India

This teaching practice was implemented at Hiroshima University High School in its early phase as a UNESCO Associated School. This practice was typical from the period in which education for international understanding was dawning in Japan. As is evident from the title, “Study of South Asia”, a feature of this case is that students conducted research. The structure of the teaching unit for this case is as follows (Nagai, 1989, p.56).

Introduction: Survey on impressions of India, discussion about India

Main Sections:

Social Studies class time:

- Study of secondary reader (“World Geography:South Asia”, Yamada Shoten)
- Lecture
 1. Lecture on India from university Assistant Professor specializing in history
 2. Lecture on India from university Professor specializing in geography
- Independent research

Moral Education class time:

- Individual lives of Gandhi, Nehru, Tagore (discussion based on teacher’s lecture)

Class Activities time:

- Guidance on relevant sources of literature to read

Conclusion: Summary of learning, discussion about research, submission of research report

This teaching unit was implemented over approximately one month from 31st January to 24th February 1962, with lessons structured to provide students with an objective understanding of South Asia, especially India.

Students learned about a region different from Japan, i.e., South Asia, and specifically India, through written sources and lectures, had discussions about India, and built up an understanding of India. The two hypotheses of this teaching unit were as follows (p.54):

- (1)By teaching students about Indian people’s living conditions and efforts to modernize within their geographical, historical, political, economic, social and cultural context, it is possible to foster accurate understanding and desirable attitudes toward Indian people among students.
- (2)Proper understanding of India will be generalized to proper understanding of other developing countries besides India.

The goal is to form an accurate understanding of India and Indian people, and this is created through the means of knowledge in classes. Because this is knowledge, evaluations of accuracy can be made. In addition, the idea is that this understanding and knowledge will be transferred and generalized to other countries. In other words, if objective knowledge and understanding of one specific country can be formed, the knowledge and understanding can be transferred to other countries.

For this kind of hypothesis to be realized, students need to understand their relationship with India as a focus through knowledge, requiring objective study to form objective knowledge of the target focus, and this is how it is done.

4.2.2. “From One Banana”

This teaching unit was implemented as part of Contemporary Society classes (approx. 15 hours) in the Social Studies curriculum of a senior high school. The aim of the classes was “to understand one aspect of the North-South problem specifically through the familiar banana” (Otsu, 2012b, p.189). The basic structure was as follows (Otsu, 1987, p.4).

- Eating a banana
- Where is the banana from?
- From the banana label
- Bananas can be harvested all year long
- Why the Philippines?
- People who work on banana plantations
- Lives of farm workers
- Gerald, a contracted farmer
- Local industries
- Price of bananas
- Bananas and pesticides
- Us as consumers of bananas
- A message

In this teaching unit of 13 sections, using bananas as the focus, students learn about relations between Japan and the

Philippines and about multinational enterprises. Then, they think about the life and economic situation of banana growers from their perspective, about the price of bananas from the consumer's perspective, and about banana production and themselves as consumers of bananas, and then write a reply to a message from Mr. Santos, a banana laborer.

By switching the perspective from producers to consumers while focusing on bananas, this unit aims for "structural understanding of the contemporary issue of the North-South problem" (Otsu, 2012b, p.189). Furthermore, in responding to the message from Mr. Santos at the end, students problematize their own position on this issue, but do not go any further into the realm of culture and identity.

Education for international understanding addresses other countries and current problems, and the aim is for students to learn about these issues objectively and to form an understanding of them. It does not go as far as measures to respond to or resolve the problems, and it does not problematize culture or one's own identity in a culture.

4.3. "Story of the Water Planet": Global Education

"Story of the Water Planet" is a scheme of study of geography at the junior high school level (Ito, 2007). This teaching unit, carried out in collaboration between school teachers and university faculty, is scheduled to cover 64 hours, and is structured in the following way (Ito, 2007, p.176).

Topic I	The water planet: Water as the source of life (2 hours)
Topic II	The present world: Learning about the world's water situation from a training manager (2 hours)
Topic III	The global water crisis: Water shortages and food crises (12 hours)
Topic IV	The global water crisis: Population growth and arsenic pollution in Bangladesh (12 hours)
Topic V	The global water crisis: Population growth in

urban areas and water businesses – market principles and water as commons
(12 hours)

Topic VI The global water crisis: Disappearing lakes – the Aral Sea and the Dead Sea (12 hours)

Topic VII What is virtual water? Japan as a major importer of food, Japan as a major importer of water
(12 hours)

In this unit, students work in groups "to become special correspondents for a newspaper company, visiting the water planet, Earth, and creating reports on water problems in various regions" (Ito, 2007, p.175). As well as understanding the "crisis" situation of water, which is essential for human life, they investigate the need for solutions and how to find solutions. Students have heard about food crises and, based on this knowledge, understand the "water" crisis, clarify the nature of the crisis from the viewpoints of population growth, pollution and business, and produce articles on water crises in the world.

In this teaching unit, the world is taken as a whole from the perspective of newspaper special correspondents reporting on global water problems, water issues occurring in various parts of the world are the subject of articles, and explanations about which issues are "crises" and why are given. In the process of explaining, "the aim is to relate better to others, forming relationships in which students learn from each other and help each other grow" (Ito, 2007, p.175). Learning about the water crises and writing the resulting newspaper articles are an objective study, but the global water crisis can become a part of self as each individual creates another self.

In the process of writing the article, each student as a learner becomes another self, understanding water crises in different areas, exposing his/her own viewpoint in addressing that with others, and becoming plural as each student creates a self in different parts of the world, alongside the self that exists here in Japan. In parallel with this process, pluri-identities are also being created.

In implementation, alongside the objective

learning being carried out, the activity of creating newspaper articles involves plurality of location, creating plurality of cultures and identities.

4.4. “Female Circumcision (FC)/Female Genital Mutilation (FGM) and Prohibition of Women”: Intercultural Education

This teaching unit (2-3 hours) was developed to be implemented in senior high school civics and integrated study classes (Matsui, 2010). It is structured mainly around cultural understanding and human rights. The structure is organized as follows (Matsui, 2010, pp.131-132).

Class 1: Learning about FC/FGM

Making judgments on cultural phenomena in another culture (Are FC/FGM violations of human rights? Or are they traditional culture (customs)?)

Class 2: Similar problems in own culture (1)

Reflection on previous class/ Switching viewpoint from “other culture” to “own culture”. Similar problems in “own culture” (1) Are “liposuction surgery” and “prohibiting women” violations of human rights? Or are they “traditional culture (customs)”?

Class 3: Similar problems in own culture (2)

Reconsidering other cultures, summary (extension learning)

Reflection on previous class/ Make each student self-aware of his/her own viewpoint as a “speaker”, raise awareness of the need for respect for people who belong to the culture concerned, make them aware of the problematic nature of unilaterally criticizing another culture from outside that culture. (Are we lenient when it comes to “our own culture”? Even if “FC/FGM” is a custom that should be abolished, do we need to respect people who belong to that culture?) [Similar problems in our own culture (2) (Based on the history of “prohibiting women” in the area of constraint and abolition of “freedom of work choices”, how far

have women’s rights been expanded?)]

If teaching was limited to comparative study of other cultures, it would not lead to students understanding their own culture. This is done by using a phenomenon in another culture as a basis to address similar phenomena in the students’ own culture, which they evaluate and make judgments about (Matsui, 2010, p.133). The important thing is that they notice their own tendencies to “be critical of other cultures while having a lenient attitude toward their own culture”, and instead adopt “the attitude and ability to see other cultures and their own culture equitably” (Matsui, 2010, p.133).

For this purpose, the following 2 goals are set for attitudes (Matsui, 2010, p.130):

- (1) Be able to evaluate other cultures and one’s own culture fairly;
- (2) How should we deal with “FC/FGM” and “prohibition of women” from now? Ask students to write summary essays.

Intercultural Education aims to develop understanding of one’s own culture and other cultures, together with the ability to make fair evaluations and judgments about all cultures. In this process, multiple cultures are always integrated into learning, and questions about how to make evaluations and judgments of all cultures are always uppermost, as are issues of standpoint and judgments. This type of education also objectively addresses issues of how individuals evaluate and judge each culture, and what criteria are used to make these evaluations and judgments. Objective judgments are required rather than self-identity, and the aim is for students to make such judgments in scenarios where there is conflict and tension between universal and local cultures, and find solutions.

4.5. “Issues on Calabash Island”: Multicultural Education

A typical example of a teaching case in multicultural education is “Issues on Calabash Island”, which was developed by Fujiwara (2008) and repeatedly implemented in various places. These are simulation materials that could potentially be used in any society. When it was only Calabashians living on Calabash Island, there were no major problems, but when the Clatterers and the Paradisians arrived and they all started living together, various problems emerged that had to be addressed. The resolution of these problems is the focus of classes.

“Issues on Calabash Island” deals with the social problems created when these 3 different groups of people came together, at 5 successive levels. The structure of this teaching unit is organized around the development of different levels of social problems (Fujiwara, 2008, p.5).

Outline of “Issues on Calabash Island”

1. I don’t understand their greetings.

Objective: To understand that different cultures have their own habits and values, through experiencing a communication gap

2. The Carnival is coming

Objective: To understand that differences in work values can lead to social problems through the way cultural symbols are interpreted. To be aware that even if differences are recognized, cultural conflict can arise against a background of social problems if the differences threaten one’s own way of life.

3. Calabash education crisis

Objective: To be aware that differences in language and education values can lead to cultural conflict and social problems when the majority strengthens cultural assimilation and minorities clearly assert their differences.

4. Will Little Paradise be recognized?

Objective: To realize that disaffection against the majority can develop into separatism among minority

groups, leading to concentrated and segregated housing areas, and causing financing issues in relation to public safety, social welfare and so on. To understand that there are costs involved in multiculturalism and multiethnic coexistence.

5. Demise of Calabash power

Objective: To understand that population movements cause stress on relationships of “interdependence” in the island’s environment and resources, and that failing to recognize that these are finite and irreplaceable will lead to catastrophe. To realize that coexistence is a choice for avoiding catastrophe.

In this teaching unit, comprising 5 social problems, Calabashians are assimilated from other to self, and the simulation begins. Real self of each students becomes a Calabashian in the simulation, and he/she plays the part of another self. That Calabashian self then begins life collaborating with Clatterers and Paradisians and their societies, encountering pluri-others and forming multiple relationships in the process of resolving a number of issues in the simulation.

This teaching unit comprises self in 3 layers and multiple others, and is structured in a way that self becomes two-fold or three-fold, with self as a learner, another self, and then self in the simulation and another self. For example, in terms of ethnicity, this involves assuming 4 types of ethnicity – Japanese, Calabash, Clatterer and Paradisian – inside the self, and taking them all into consideration to make judgments and take action. In this way, this learning experience involves structuring my real self, another self, self in the simulation and another self as multiple selves, in the creation of thinking and actions to resolve social problems. In this kind of engagement, simulated multiculturalism puts the self into a situation of plural cultures, forming pluri-identities.

4.6. Organization of Teaching Practice Related to Education for International Understanding and Multiple Cultures/Pluri-identities

Typical teaching practices in the area related to education for international understanding have different ways of organizing learning, and different structures for creating culture and identity. To generalize, each type related to education for international understanding forms its own structure and characteristics.

Education for international understanding takes a number of cultures as its focus, incorporating study of other cultures such as the culture of India into learning programs, so that learners are engaged with one or more cultures. In this process of engagement, there are 2 types of learning, which are research and solution-oriented engagement. The research type is an objective study to understand another culture, which exists in a different dimension from me, aimed at creating and transferring frames of cognitive understanding. However, the transfer of frames is hoped for rather than guaranteed. The other solution-oriented type researches the society and culture of other countries in order to solve social problems related to the links between one's own culture and other cultures, forming connections between one's own culture and other societies and cultures through resolving social problems, and taking ownership of these problems in resolving them. In the research type of engagement, problems are solved, knowledge and understanding are deepened, and understanding of multiple cultures is developed, but issues to do with self-identity are not addressed.

Compared with education for international understanding, which takes other countries as the main focus, global education promotes understanding of the world as a global whole by looking at a number of countries and societies, encouraging creation of another world (the globe) within the self, understanding the world (at a global level), and creation of another self through knowledge of self in that world, or the formation of another new self. This is creation of pluri-identities.

Similar to education for international

understanding, intercultural education takes the students' own culture and other different cultures, aiming for understanding of those cultures and of their own culture through the process of understanding other cultures and the relationship of one's own culture with other cultures, but it does not involve multiple cultures of the self or pluri-identities.

Multicultural education takes the students' own culture and other cultures, viewing cultural relations within the self in a multicultural context as a social problem, with resolution of these problems leading to construction of a new society of many cultures, within which each individual creates plurality through new identities within the self, managing pluri-selves and simulating society building through their learning.

This section presented one typical teaching case in each type of education related to education for international understanding, analyzing the way each type addresses the nation state/national citizens and culture, eliciting the frames of understanding, and discussing emerging views of self and others, relations between self and plurality, and links with identity.

5. Conclusion: Debates and Issues Arising in Education Related to Education for International Understanding

This paper has analyzed typical practices in the area of education for international understanding in Japan, and has clarified the specific characteristics of each form of education. In particular, this paper focused on differences between each type of education in terms of the way each type addresses culture and identity.

Multicultural education in Japan, the starting point of which was education for international understanding, has developed into diverse forms, such as global education and intercultural education. However, education for international understanding and global education emphasize the nation state, with global education focusing on (multiple) nation states and the world as a whole. Within this, they deal with society and culture. Education for international understanding and global education are

conducted by asking students to study problems objectively, and asking students to study these problems as their own problems. Global education in particular leads to pluri-identities, as it involves the formation of new identities through self-recognition, and creation of pluri-identities, as well as objective understanding through objective study. However, as shown in the typical teaching case for global education, “Story of the Water Planet”, this is done loosely.

In contrast, intercultural education and multicultural education focus on culture itself, with other cultures already seen as multicultural. In engaging with culture, self-identity and the creation of another identity as the self in relations between self and others also become a focus of study. As represented in “Issues on Calabash Island”, in a situation where there are multiple ethnic groups and races, students learn about tension and conflict among pluri-selves and identities, and learn how to manage and resolve these situations.

In this way, it can be argued that the 4 types of education in the area of education for international understanding in Japan are characterized by the following issues.

The first issue is related to focus. All 4 types of education in the area related to education for international understanding have their main focus on the nation state or culture rather than on society, and problematize the national citizens or people who assume the role of perpetuating the state or culture. That is to say, all 4 types of education highlight the constituent parts of society or elements related to it rather than focusing on society as a whole and its problems. This means that the cultures that connect people who comprise society are addressed, rather than society itself. In the teaching practice described in this paper, in education for international understanding, it's highlighting point is the country of India or the production and economics of bananas, in global education, it's point is people's relationships around the theme of water, and in intercultural understanding, it's point is the way people approach customs of female genital mutilation and

prohibition of women. In terms of dealing with society, the issue is whether to engage with society itself, or with its constituent elements, specifically culture.

The second issue is forms of understanding. In this respect, education for international understanding is divided into grasping the whole, or grasping the discrete elements. The approach seen in intercultural education is a search for distinctiveness/diversity, while the other 3 types, that is, education for international understanding, global education and multicultural education, focus on understanding of both distinctiveness/diversity and of commonalities/universality. Both types facilitate understanding of individual nation states and cultural diversity. If they are carried out through objective study, this knowledge will be incorporated into the self as an individual, creating a different world inside the self, and forming another self, making it easy to understand distinctiveness, diversity, commonalities and universality. Any guarantee of reliability that it will be easy to understand is an issue that remains to be addressed.

The third issue is the formation of individual identity that emerges through engagement with culture or relationship with culture. As shown in the example of teaching practice from the early days of education for international understanding, individual identities are not formed through creation of knowledge gained through objective learning. However, once other cultures and multiculturalism start to be addressed, there is a natural process of creating another self, and pluri-selves are formed. Following on from this, pluri-identities are formed within the self.

Summarizing the above discussion, the starting point of education for international understanding in Japan was education for international understanding, which developed into global education, intercultural education and multicultural education, with a feature of this development being its diversity. In particular, as represented in multicultural education, the focus is on cultural diversity in society, along with plurality of cultural elements, and it can be understood that the 2 aspects of

diversity and plurality are important. What is more, research has developed to the point of demonstrating the effects of this cultural plurality on individuals' inner selves. Our complexity as individuals whose inner beings are influenced by culture leads to the formation of identity plurality (pluri-identities) through the compounding of cultures and people, exposing the diverse selves within the self and the identities of those selves, and leading to tension and conflict that need to be managed. The issue of how education related to education for international understanding addresses these problems is an important contemporary issue to be discussed.

References

- Abiko, T., & Arai, I. et al. (Eds.) (2002). *Shinpan Gendai Kyouiku Gakkou Dai-Jiten [Comprehensive Encyclopedia of Contemporary School Education: New Edition]*. Tokyo: Gyousei. (in Japanese)
- Arai, I. (2002). Kokusai Rikai Kyouiku [Education for International Understanding]. In T. Abiko, & I. Arai et al. (Eds.), *Shinpan Gendai Kyouiku Gakkou Dai-Jiten [Comprehensive Encyclopedia of Contemporary School Education: New Edition]* (pp.121-123), 3. Tokyo: Gyousei. (in Japanese)
- Asano, T. (Ed.) (2002). *Zukai Shakai-Gaku [Illustrated Sociology]*. Tokyo: Chukei Shuppan. (in Japanese)
- Fujiwara, T. (2008). *Simyureshon-Kyouzai "Hyokkori Hyoutan Jima" Tabunka-Kyousei-Shakai Nippon no Gakushu-Kadai [Simulation Teaching Materials: Issues on Calabash Island – Study Materials for Multicultural Coexistence in Japan]*. Tokyo: Akashi Shoten. (in Japanese)
- Fujiwara, T. (2012). Guroubaru Kyouiku [Global Education]. In Japan Association for International Education (Ed.), *The Contemporary Encyclopedia of International Education* (p.219). Tokyo: Akashi Shoten. (in Japanese)
- Ito, H. (2007). Manabu "imi" wo kanjirareru gurobaru-ishu (mizu kiki) [Learning Global Issues Meaningfully (Water Crisis)]. In Global Education Association (Ed.), *Gurobaru Kyouiku no Riron to Jissen [Theory and Practice of Global Education]* (pp.173-178). Tokyo: Kyouikukaihatu Kenkyuzyo. (in Japanese)
- Kimura, K. (2002a). Ibunka rikai kyouiku [Education for Intercultural Understanding]. In T. Abiko, & I. Arai et al. (Eds.), *Shinpan Gendai Kyouiku Gakkou Dai-Jiten [Comprehensive Encyclopedia of Contemporary School Education: New Edition]* (pp.120-121), 1. Tokyo: Gyousei. (in Japanese)
- Kimura, K. (2002b). Tabunka rikai kyouiku [Multicultural Education]. In T. Abiko, & I. Arai et al. (Eds.), *Shinpan Gendai Kyouiku Gakkou Dai-Jiten [Comprehensive Encyclopedia of Contemporary School Education: New Edition]* (pp.120-121), 4. Tokyo: Gyousei. (in Japanese)
- Matsui, K. (2010). Jinken no fuhensei to chiikisei : "Josei sabetu? dentou? dare ni totte? [Universality and locality of human rights: "Discrimination against women? Tradition? In whose eyes?"] In Japan Association for International Education (Ed.), *Gurobaru Jidai no Kokusai Rikai Kyouiku: Riron to Jissen wo Tsunagu [Education for International Understanding in a Global Age: Connecting Theory and Practice]* (pp.128-133). Tokyo: Akashi Shoten. (in Japanese)
- Miura, T. (1977). *Kokoro to Kotoba [Hearts and Words]*. Tokyo: Kiseisusha. (in Japanese)
- Morimo, T. (2012a). Ibunka rikai kyouiku. [Education for Intercultural Understanding] In Japan Association for International Education (Ed.), *The Contemporary Encyclopedia of International Education* (p.217). Tokyo: Akashi Shoten. (in Japanese)
- Morimo, T. (2012b). Tabunka kyouiku [Multicultural Education]. In Japan Association for International Education (Ed.), *The Contemporary Encyclopedia of International Education* (p.216). Tokyo: Akashi Shoten. (in Japanese)
- Nagai, J. (1989). *Kokusai Rikai Kyouiku: Chikyu teki na Kyouryoku no tame ni [Education for International Understanding: For Global Cooperation]*. Hiroshima: Daiichi Gakushusha. (in Japanese)

- Japan Association for International Education (Ed.) (2012). *The Contemporary Encyclopedia of International Education*. Tokyo: Akashi Shoten. (in Japanese)
- Otsu, K. (1987). *Shakai-Ka = Ippon no Banana kara* [Social Studies = From One Banana]. Tokyo: Kokudoshsha. (in Japanese)
- Otsu, K. (2012a). Kokusai rikai kyouiku no gainen to mokuhyou [Principles and goals of education for international understanding]. In Japan Association for International Education (Ed.), *The Contemporary Encyclopedia of International Education* (p.14). Tokyo: Akashi Shoten. (in Japanese)
- Otsu, K. (2012b). Ippon no banana kara [From one banana]. In Japan Association for International Education (Ed.), *The Contemporary Encyclopedia of International Education* (p.189). Tokyo: Akashi Shoten. (in Japanese)
- Uozumi, T. (2002). Gurobaru edyukeshon [Global Education]. In T. Abiko, & I. Arai et al. (Eds.), *Shinpan Gendai Kyouiku Gakkou Dai-Jiten [Comprehensive Encyclopedia of Contemporary School Education: New Edition]* (pp.427-473), 2. Tokyo: Gyousei. (in Japanese)

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Effects of Sentence Constraint on Processing of Auditorily Presented Words in Chinese Intermediate Learners of the Japanese Language:

An Experimental Study with Manipulation of Orthographical and Phonological Similarities between Chinese and Japanese Kanji Characters

Xiaodong Fei and Haipeng Li

The current study investigated the effects of sentence contextual constraint on auditory processing of Japanese *kanji* words in intermediate learners of the Japanese language whose native language was Chinese. In the current experiment, the degree of contextual constraint (high vs. low) of a preceding Japanese sentence (with a blank as a placeholder for a target word) and orthographical and phonological similarities of *kanji* words (i.e., the target words) were manipulated as independent factors. The response time of correctly performed trials in an auditory lexical decision task using the target words was measured. Similar to a previous study in advanced learners of the Japanese language (Fei & Matsumi, 2013), the results of the current experiment demonstrated that cognitive processing of Japanese *kanji* words that were presented auditorily varied depending on the level of contextual constraint of the preceding Japanese sentence. However, the effects of orthographical and phonological similarities on word processing were different from those observed in advanced learners. In addition, the results in both high and low sentence constraint conditions were different from those in the study of Fei (2015) who used a single word presentation paradigm. The effects of orthographical and phonological similarities on lexical information processing of Japanese *kanji* words that are presented auditorily appear to be impacted by context regardless of the degree of contextual constraint.

Key Words: Sentence Context, Japanese *Kanji* Words, Auditory Word Recognition, Chinese Intermediate Learners, Orthographical and Phonological Similarities

1. Introduction

In the fields of psycholinguistics and second language acquisition, research on word recognition by bilingual speakers has been actively conducted. In particular, with regard to Indo-European languages, the cognitive processes not only for target words in a single-word presentation paradigm but also for target words presented within a sentence are being elucidated. On the other hand, there are few studies examining the cognitive process for target words presented within a sentence in Chinese and Japanese *kanji*, both of which are ideograms. Therefore, in the current study, we examined the influence of a sentence on the processing of a target word in learners of the Japanese language whose native language (synonymous with first language, hereinafter, L1) was Chinese. We aimed to clarify the influence of sentence constraint on the cognitive processing of *kanji* words.

The relevant past literature on these two languages has shown that the Chinese language (L1) influences the process of acquiring the Japanese language as a second language (L2) in speakers of Chinese as the L1 language (for example, Cai et al., 2011, Fei & Matsumi, 2012, Matsumi et al., 2012; Fei, 2013, 2015). Many of these past studies used a single-word presentation paradigm in order to elucidate the mutual influence of the Chinese and Japanese languages. Single-word presentation studies enable rigorous examination of the structure of the learner's mental lexicon and activation of the languages. On the other hand, in everyday situations, words are usually used in context except in rare occasions. When an individual processes a word in a sentence, the constraint of the sentence context (i.e., how much a target word is constrained by the context of the sentence that the word is a part of) may have an impact on word processing.

In addition, many studies used visual presentation to study word recognition, while studies using auditory presentation are scarce. Examining the process of word recognition using auditory presentation that lacks a direct input of morphological information of characters in speakers of Chinese as L1, who typically rely on morphological information of *kanji* characters to process them, would be meaningful as it better clarifies the relationship of

orthographical and phonological information between *kanji* characters in Chinese and Japanese. Therefore, the current study aimed to clarify the effects of sentence constraint on processing of *kanji* words in listening comprehension of Japanese sentences.

2. Overview of the Past Literature

2.1. The Past Literature on Phonograms

With regard to Indo-European languages that use phonograms, research studies on word recognition in bilinguals and L2 learners have been conducted since the 1960's. The past literature (in studies using a single word presentation paradigm) has shown that the language information of L1 that is similar with the orthographical and phonological information of L2 words, had an influence when an individual processed the L2 words that were visually presented (for example, Dijkstra et al., 1999; Marian et al., 2008; Schwartz, et al., 2007; Shafiro & Kharkhurin, 2009; Sunderman & Kroll, 2006; Sunderman & Schwartz, 2008; Szubko-Sitarek, 2011; van Hell & de Groot, 1998). It was found that cognates with high orthographical and phonological similarities were processed faster than non-cognates with low similarity, indicating that cognates had facilitation effects on the speed of processing.

Many studies focusing on two Indo-European languages have manipulated the degree of sentence constraint and compared word processing that occurs within a sentence with that observed in studies that used a single-word presentation paradigm. In those studies, the effects of cognates and non-cognates in high- and low-constraint sentences were examined (e.g., Jordan & Thomas, 2002; Duyck, et al., 2007; Schwartz & Kroll, 2006; van Hell, 2005; van Hell & de Groot, 2008).

van Hell (2005) & van Hell and de Groot (2008) examined processing of L2 words in Dutch-English bilinguals where a sentence was presented first with the location of the target word marked with a placeholder (and the target word was subsequently presented). In those experiments, the attribute of words (cognate vs. non-cognate) and sentence context restriction (high vs. low) were manipulated, and the

Effects of Sentence Constraint on Processing of Auditorily Presented Words in Chinese Intermediate Learners of the Japanese Language

reaction times for correct responses in a lexical decision task and an oral translation task were measured. The results demonstrated cognate facilitation effects in low-constrained sentences, while weak (oral translation task) or no (lexical decision task) cognate facilitation effects were seen in sentences with high context constraint. This suggests that the context constraint of the preceding sentence affected the semantic processing of the target word.

Schwartz & Kroll (2006) examined the influence of sentence constraint on word processing in Spanish-English bilinguals using an overt reading task. Comparing the results of high and low sentence constraint, latency for cognate reading was shorter in sentences with low constraint while no such effect was seen for sentences with high constraint. The study confirmed the effects of sentence constraint in an overt reading task where a vocal output was required.

Recently, studies using eye movements as a measurement have made contributions to this field (for example, Duyck et al., 2010; Libben & Titone, 2009; Van Assche et al., 2011). Unlike studies using a conventional experimental method where a preceding sentence is presented followed by a target word, those studies examined processing of target words as an individual read aloud a sentence containing a target word.

Libben & Titone (2009) examined the processing of L2 words in French-English bilinguals using overt reading of L2 sentences (where a target word was presented simultaneously with a sentence containing it). In their experiment, the attribute of words (cognates vs. interlingual homographs) and sentence constraint were manipulated. The results demonstrated a facilitation effect of cognates and interference by interlingual homographs in sentences with low constraint. In the high constraint condition, a facilitation effect of cognates and interference of interlingual homographs were observed in the early stages of word comprehension (e.g., first fixation duration, gaze duration), but these effects were not present in the later stages of word comprehension (e.g., go-past time and total fixation duration). These results are partially inconsistent with the results of Schwartz & Kroll (2006), suggesting that the facilitation

effect of cognates can be observed even in highly constrained sentences.

The previous studies, regardless of their use of a traditional or more recent eye movement methods, have shown that the context constraint of a preceding sentence influences processing of a subsequently presented target word, confirming the effect of sentence constraint on processing of a word.

2.2. Studies on Ideograms

Following the trend of experiments examining two Indo-European languages, research studies that examine processing of Chinese and Japanese *kanji*, which is an ideogram, have started to emerge. Studies using a single word presentation paradigm found facilitation effects by orthographical and phonological similarities (Cai et al., 2011; Matsumi et al., 2012) in visual processing of target words, and a facilitation effect by orthographical similarity and suppression effect by phonological similarity in auditory recognition of those words (Fei, 2013, 2015).

On the other hand, only a few studies have examined the processing of *kanji* words within sentences using Chinese and Japanese *kanji* words which are ideograms.

Cai (2009, 2011) examined the effects of sentence constraint on processing of Japanese *kanji* words that were presented visually or auditorily, respectively, to advanced learners of the Japanese language who resided in China. The results demonstrated shorter response times for target words in sentences with high constraint relative to sentences with low constraint regardless of the modality of presentation, indicating facilitation effects of sentences with high constraint. In addition, an interaction between sentence constraint and word attributes (orthographical vs. phonological similarity) was not observed for target words presented visually, but this interaction existed for words presented auditorily where suppression effects were seen for words with high orthographical similarity (i.e., words with low phonological similarity) in sentences with high constraint.

In those studies, however, either orthographical or phonological similarity was manipulated, and it is unclear how orthographical and phonological similarities interact to affect word processing, and whether the effects would be different between sentences with high or low constraint. In order to address these unresolved research questions, Fei & Matsumi (2013) manipulated the degree of sentence constraint of preceding Japanese sentences that were presented auditorily and examined the processing of Japanese *kanji* words (i.e., target words) that were presented following the sentences in advanced learners of the Japanese language who were residing in China. Orthographical and phonological similarities of target words between the Japanese and Chinese languages were treated as independent variables and manipulated simultaneously. The results showed that the processing of auditorily presented Japanese *kanji* words differed between sentences with high or low constraint, and that the interaction of orthographical and phonological similarities on *kanji*-word processing was observed only in sentences with high constraint. This is different from the processing of *kanji* words that were presented in isolation (Fei & Matsumi, 2012) in terms of facilitation and suppression effects by orthographical and phonological similarities. Those recent studies showed that the effects of orthographical and phonological similarities on *kanji*-word processing varied depending on the degree of sentence constraint during listening comprehension of Japanese sentences.

3. Research Questions and the Purpose of the Current Study

Compared to the studies on Indo-European languages, there are three limitations in the existing research study on Chinese-Japanese *kanji*.

First, there are many research studies using single-word presentation trials. However, few studies have investigated how *kanji* words are processed in relation to sentences. *Kanji* words in sentences are processed by seeing and/or listening to sentences that contain *kanji* words. Therefore, we need to conduct studies

that examine word processing within the context of Japanese sentences, which would lead to further research on understanding the processes of reading and listening comprehension.

Second, many studies have used a visual presentation method, while only a few studies have used an auditory presentation method. Given the characteristics of *kanji*, it is important to elucidate how a *kanji* word is processed when a learner of the Japanese language sees a word. However, it is conceivable that speakers of Chinese as L1 who tend to rely on orthographic information of *kanji* words may have difficulty processing Japanese *kanji* words phonologically. Therefore, it is necessary to investigate the nature of processing that occurs when a word is auditorily presented.

Third, there have been many research studies on advanced learners of Japanese, while there are fewer studies on learners at lower proficiency levels. It is possible that how *kanji* words are processed may change as intermediate learners become more advanced, since intermediate learners would be at different levels of L2 acquisition and have different patterns of L1 usage than advanced learners. Therefore, in order to elucidate the change in the nature of *kanji* processing, it is essential to investigate how intermediate learners of the Japanese language process *kanji* words.

Therefore, the current study examined the *kanji*-word processing of intermediate learners of the Japanese language who spoke Chinese as L1, using auditory presentation of target words with preceding sentences.

We used a lexical decision task of the target words in order to be able to compare our results with the results of Fei (2015) who utilized a single-word presentation paradigm in intermediate learners of Japanese, and with the results of Fei & Matsumi (2013) who utilized a sentence presentation paradigm in advanced learners. The order of presentation of sentences and words was in accordance with Fei & Matsumi (2013), where a Japanese sentence with a blank (for the location of a target word) was presented first, followed by a target *kanji* word. Based on the study of Fei & Matsumi (2013), we sought to add

another component to the analysis. When a learner listens to a Japanese sentence with a blank, it can be expected that the conceptual representation of an appropriate word (hereinafter referred to as a blank word) to fill in the blank would be activated based on the context. It can be expected that the activation would affect the processing of the target *kanji* character word that is presented next. Therefore, the response time for the lexical decision task would reflect activation of the representation when listening to the Japanese sentence *and* the target *kanji* word. In particular, under the high constraint condition, it is highly likely that the blank word and the target word would be identical. Therefore, the outcome is expected to be different from that of the low constraint condition.

Based on the above, the following hypotheses were generated.

[Hypothesis 1] Hypothesis 1 is with regard to the condition where the preceding sentence has high constraint. Because the conceptual representation and the lexical representation of the target word (identical with the blank word) are thought to be activated early by abundant contextual information in this condition (Fei & Matsumi, 2013), the effects of orthographical and phonological similarities would be different from those observed in the study of Fei (2015) who used a single-word presentation paradigm. However, it has been shown that the effects of orthographical and phonological similarities do not completely disappear even when the orthographical and phonological information of the target word are first activated by the contextual information of the preceding Japanese sentence (Fei & Matsumi, 2013).

Based on these two previous studies, we expected shorter response times for words with high orthographical similarities regardless of phonological similarities, indicating facilitation effects by orthographical similarities (Hypothesis 1-1). On the other hand, longer response times were expected for words with high phonological similarity regardless of orthographical similarity, suggesting suppression effects by phonological similarities (Hypothesis 1-2).

Furthermore, it was expected that orthographical and phonological similarities would interact to affect the processing of the target word because orthographical and phonological information of the target word would be activated by the contextual information of the preceding Japanese sentence. Thus, we hypothesized that we would observe a significant interaction of orthographical and phonological similarities (Hypothesis 1-3).

[Hypothesis 2] Hypothesis two is with regard to the condition where a preceding sentence has a low contextual constraint. In this condition, it is unlikely that the contextual information of the preceding sentence would activate orthographical and phonological information of the target word (Fei & Matsumi, 2013). Therefore, we expected that the processing would be similar to that in single-word presentation experiments. Therefore, based on the study of Fei (2015), we expected shorter response times for words with high orthographical similarities, suggesting facilitation effects by orthographical similarity (Hypothesis 2-1). On the other hand, longer response times were expected for words with high phonological similarity, suggesting suppression effects by phonological similarity (Hypothesis 2-2).

However, as there can be small effects of a preceding sentence on the processing of the target word as the learner processes the meaning prior to target word presentation (Fei & Matsumi, 2013), the nature of the interaction of orthographical and phonological similarities may be different in the current study than that observed in the study of Fei (2015) who used a single-word presentation paradigm (Hypothesis 2-3).

4. Methods

4.1. Participants

Twenty-nine (22 women and 7 men) intermediate learners of the Japanese language whose L1 was Chinese participated in the current study. Fourteen (10 women and 4 men) and fifteen (12 women and 3 men) participants were assigned to high or low constraint conditions, respectively. All participants were sophomore students

who were enrolled at a Chinese university and were taking classes in the Japanese language department. They spoke standard Chinese in their daily lives. The participants did not have a prior experience of taking Japanese proficiency examinations. The participants were administered a Japanese proficiency examination and their Japanese proficiency was equivalent to the N2 level of the Japanese Language Proficiency Test. All participants were in their second year of learning Japanese, but they had no experience of visiting and staying in Japan.

4.2. Experimental Design

A two-factorial design was used for each of the two conditions where the preceding sentence had either high or low constraint. The first factor was orthographical similarity of *kanji* words and it had two levels (high vs. low). The second factor was phonological similarity of *kanji* words and it had two levels (high vs. low). Both factors were within-subject factors.

4.3. Materials

<Word Materials> The *kanji* words used in the experiment (i.e., the target words used in the lexical decision task where the correct response was “Yes”) were identical to the ones used in the study of Fei & Matsumi (2013). All words came from the words in levels 3 and 4 of an earlier version of the Japanese Proficiency Test (Japan Foundation & Japan Educational Exchanges and Services, 2002). Four categories were created and they were: (1) words with high orthographical and phonological similarities with Chinese words, (2) words with high orthographical and low phonological similarities with Chinese words, (3) words with low orthographical and high phonological similarities with Chinese words, and (4) words with low orthographical and phonological similarities with Chinese words. Forty-eight words, with 12 words in each category, were used. The words in the four categories were controlled in terms of the level of frequency based on Amano & Kondo (2000). One-way analysis of variance (ANOVA) on the frequency of the

words in each category revealed no statistically significant main effect ($F(3, 44) = 0.16, p = .923, \eta^2 = .01$). All statistical tests were conducted at an alpha of .05 in the current study. We considered the frequency to be equal among the four categories of words. For non-word stimuli (i.e., words used in the lexical decision task where the correct response was “No”), we created words that did not exist consisting of two *kanji* characters. Similar to the target words, we created 30 non-words (read with Japanese pronunciation) considering orthographical and phonological similarities with Chinese words. Table 1 shows examples of words and non-words used in the experiment.

< Sentence Materials > The materials used as the preceding sentences were identical to those used in the study of Fei & Matsumi (2013). The following steps were used in selecting the sentences. First, using the vocabulary and sentence structures in levels 3 and 4 and some level 2 words in the previous Japanese Proficiency Examination, 142 sentences were created consisting of 15 to 21 syllables. These 142 sentences were examined by four speakers of Japanese as L1 who had experience in teaching Japanese and majored in Japanese language education, specifically paying attention to the length and level that may be difficult for intermediate learners of the Japanese language. None of the 142 sentences was judged to be inappropriate for students at the intermediate level.

Next, we carried out an investigation to measure the extent of sentence constraint in each of the 142 sentences. We followed the process used in research studies on Indo-European languages. Specifically, we administered a fill-in-the-blank writing task to 15 learners of the Japanese language majoring in Japanese and 3 speakers of Japanese as L1. These 18 individuals did not participate in any other tasks or experiments in the current study. These individuals were given sentences such as “My father [] in the park near our house every morning” and were asked to fill in the blank with the first word that came to their mind. The sentences in which more than 14 people (including more than one Japanese L1 speaker)

Effects of Sentence Constraint on Processing of Auditorily Presented Words in Chinese Intermediate Learners of the Japanese Language

provided an identical word were considered to be “high constraint” sentences, and those in which fewer than 5 individuals provided an identical word were considered to be “low constraint” sentences. We selected 48 high constraint sentences and 48 low constraint sentences, resulting in a total of 96 sentences (Table 1).

The difficulty level of the 96 sentences as assessed using “Reading Tutor”¹ revealed that all sentences had a “very easy” vocabulary level.

The 48 high-constraint and 48 low-constraint sentences were each divided into 4 categories, taking into consideration the sentence length and difficulty level (12 sentences per category). ANOVAs on the number of syllables in these sentences in the 8 lists revealed that the main effect was not significant in the high constraint ($F(3, 44)=1.74, p=.331, \eta^2=.07$), or low constraint ($F(3, 44)=0.48, p=.701, \eta^2=.03$) sentences, indicating that there was no statistically significant difference among the lists

within each condition. The ratios of words from level 2 of the Proficiency Examination were 6% and 4% among the high- and low-constraint conditions, respectively. Therefore, the difficulty levels of the sentences were equivalent among the 4 lists, and were judged to be appropriate for intermediate learners. Table 2 shows examples of high- and low-constraint sentences, and the corresponding target *kanji* words.

4.4. Apparatus

A personal computer (SOTEC N15 WMT02) and peripheral devices were used for auditory presentation of the Japanese sentences and target *kanji* words, and for automatic measurement of response times in the lexical decision task. The experimental program was created using SuperLab Pro (Cedrus Corporation, Version 4.0). A set of headphones was used for auditory presentation.

Table 1: Examples of Words and Non-words Used in the Experiment

	High Orthographical/ High Phonological	High Orthographical/ Low Phonological	Low Orthographical/ High Phonological	Low Orthographical/ Low Phonological
Words	散歩 (san bu) 安心 (an xin)	作文 (zuo wen) 正月 (zheng yue)	財布 (cai bu) 心配 (xin pei)	泥棒 (ni bang) 台所 (tai suo)
Non- Words	面臨 (men rin) 余額 (yo gaku) 灣絡 (wan raku) 号定 (gou sada)			

※Chinese pronunciations are shown in the parentheses.

Table 2: Examples of High Constraint and Low Constraint Sentences and Target *Kanji* Words Used in the Experiment

High and Low sentence constraint (top and bottom) and target <i>kanji</i> words			
My father takes a () in the park near our house every morning.	walk	There is only 100 yen in my ().	wallet
Our grandmother’s hobby is to take a ().		I bought a new () at a supermarket yesterday.	
I wrote an () with my dream as a theme.	essay	A () stole my money yesterday on the bus.	Thief/thieves
My older brother criticized my ().		There were many () in this town three years ago.	

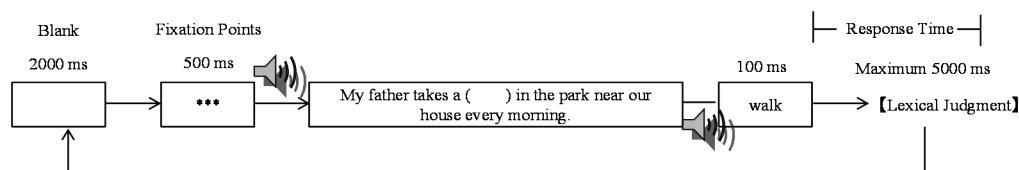


Figure 1: A Diagram of one Trial of the Current Experiment

4.5. Procedures

The experiment was performed individually. There were 5 practice trials prior to commencing the main trials. Figure 1 shows the flow of one trial. Fixation points were visually presented in the middle of the computer screen for 500 ms to signal the auditory presentation of a sentence. Immediately following presentation of the fixation points, a Japanese sentence was presented with a blank (with 2 knock sounds) auditorily through the headphones, which was immediately followed by auditory presentation of the target word. The participant was to judge as fast as possible whether the *kanji* word presented immediately after the sentence was a word or non-word in Japanese. The participant was to press the “yes” key if he or she thought that the word existed, and the “no” key if he or she thought that the word did not exist in the Japanese lexicon. The presentation order of the pairs of a sentence and a word was randomized, and the latency from the onset of the auditory presentation of the word stimulus until the yes or no key was pressed was automatically measured as the response time. The maximum duration of response latency was 5000 ms. If there was a response by the participant within that time window, the next trial started 2000 ms later. If there was no response by the participant, the next trial started automatically after the 5000 ms interval elapsed. After completion of the task, the participant answered a written survey that asked about words that they did not know, as well as their history of learning Japanese.

5. Results

Only the response times of the trials that required a “yes” response were analyzed. Trials with no response, those with a response error, and those with target words

that were unknown to the participant, were excluded from the analysis. For each participant, the mean response time (mean and standard deviation) was calculated, and trials with a response time that was 2.5 *SD* longer or shorter than the participant’s mean response time were excluded as outliers. In the high- and low-constraint conditions, 9.23% and 14.58% of the trials were excluded, respectively.

5.1. High Sentence Constraint Condition

Two-way ANOVA (Figure 2) showed that the main effect of phonological similarity approached statistical significance ($F(1, 13)=4.16, p=.062, \eta^2=.01$). This indicates that words with high phonological similarity tended to require longer response times than those with low phonological similarity. The main effect of orthographical similarity was not significant ($F(1, 13)=0.09, p=.765, \eta^2<.01$). Given the significant interaction of orthographical and phonological similarities ($F(1, 13)=8.62, p=.012, \eta^2=.03$), tests of simple main effects were conducted and they indicated that words

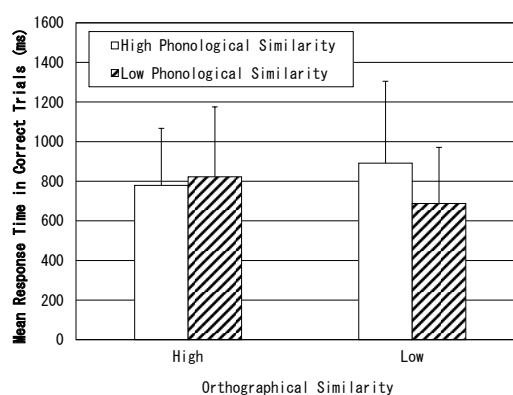


Figure 2: Response Times (Mean and Standard Deviation) in the High Constraint Condition

with high phonological similarity required longer response times relative to those with low phonological similarity in target words with low orthographical similarity ($F(1, 26)=12.54, p=.002, \eta^2=.04$), while no statistically significant difference was observed between words with high or low phonological similarities in words with high orthographical similarity ($F(1, 26)=0.58, p=.454, \eta^2<.01$). Furthermore, response times tended to be shorter for words with high orthographical similarity relative to those with low orthographical similarity in words with high phonological similarity ($F(1, 26)=4.07, p=.054, \eta^2=.01$), while response times were longer for words with high orthographical similarity relative to those with low orthographical similarity in words with low phonological similarity ($F(1, 26)=5.85, p=.023, \eta^2=.02$).

Two-way ANOVA performed on angular transformed error rates in the 4 categories of words (see Table 3) indicated that the main effect of phonological similarity approached statistical significance ($F(1, 13)=3.71, p=.076, \eta^2=.03$), indicating that the error rates tended to be higher for those words with high relative to low similarity. The main effect of orthographical similarity ($F(1, 13)=0.96, p=.345, \eta^2=.01$) or the interaction of orthographical and phonological similarity ($F(1, 13)=0.03, p=.874, \eta^2<.01$) was not significant. There was no speed-accuracy tradeoff where higher error rates were observed for words with shorter response times and vice versa. Therefore, we believe that the response times obtained in the current study reflected the time required to make a lexical judgment.

**Table 3: Error Rates (Mean and Standard Deviation)
in the High Constraint Condition**

	High Orthographi- cal and Phonologica- l Similarities	High Orthographi- cal and Low Phonologica- l Similarities	Low Orthographi- cal and High Phonologica- l Similarities	Low Orthographi- cal and Low Phonologica- l Similarities
Error rate (SD)	8.27 (9.03)	5.29 (7.23)	10.03 (11.10)	6.68 (7.92)

5.2. Low Sentence Constraint Condition

Two-way ANOVA (Figure 3) showed a significant main effect of phonological similarity ($F(1, 14)=7.80, p=.014, \eta^2=.01$), indicating that words with high phonological similarity had longer response times relative to those with low phonological similarity. The main effect of orthographical similarity ($F(1, 14)=0.64, p=.437, \eta^2<.01$) or the interaction between orthographical and phonological similarities ($F(1, 14)=0.02, p=.884, \eta^2<.01$) was not significant.

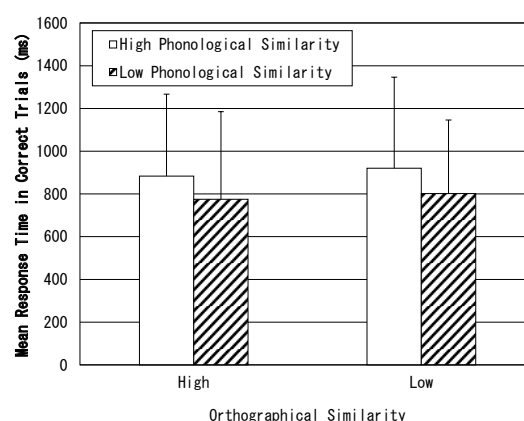


Figure 3: Response Times (Mean and Standard Deviation) in the Low Constraint Condition

Two-way ANOVA performed on angular transformed error rates in the 4 categories of words (see Table 4) demonstrated a significant main effect of phonological similarity ($F(1, 14)=4.15, p=.061, \eta^2=.01$), indicating that error rates were higher for words with high phonological similarity relative to those with low phonological similarity. The main effect of orthographical similarity ($F(1, 14)=0.48, p=.500, \eta^2<.01$) or the interaction between orthographical and phonological similarities ($F(1, 14)=0.00, p=.952, \eta^2<.01$) was not significant. We did not observe a speed-accuracy tradeoff. Therefore, we believe that the response times obtained in the current study reflected the time required to make a lexical judgment.

**Table 4: Error Rates (Mean and Standard Deviation)
in the Low Constraint Condition**

	High Orthographi- cal and Phonologic- al Similarities	High Orthographi- cal and Low Phonologica- l Similarities	Low Orthographi- cal and High Phonologica- l Similarities	Low Orthographi- cal and Low Phonologica- l Similarities
Error rate (<i>SD</i>)	12.29 (9.75)	11.01 (9.78)	13.97 (8.54)	11.96 (9.25)

6. General Discussion

The current study examined the processing of Japanese *kanji* words in intermediate learners of the Japanese language whose L1 was Chinese, by using a sentence presentation paradigm. Specifically, we manipulated the degree of contextual constraint of the preceding Japanese sentence, and examined the effects of orthographical and phonological similarities between the Chinese and Japanese languages on processing of *kanji* words when the learner listened to the preceding sentences (i.e., blank words) as well as the *kanji* words (i.e., target words). Below, we organized the results of the experiment by hypotheses (1 and 2), and will compare the results with those of previous studies that used advanced learners and a single-word presentation paradigm, and discuss our finding related to the auditory processing of *kanji* words in intermediate learners of the Japanese language.

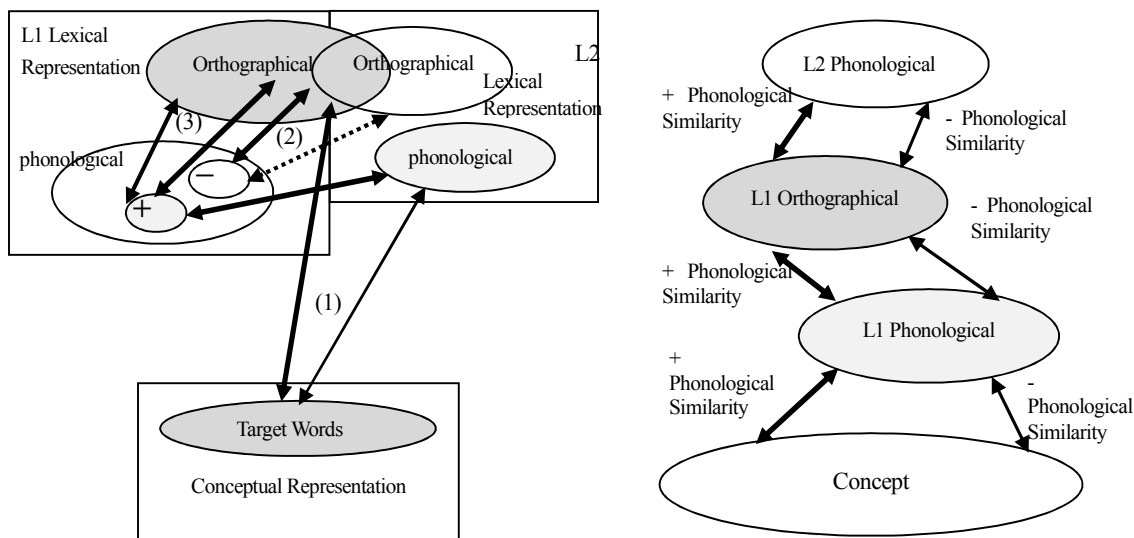
6.1. Word Processing in the High Constraint Condition

When the preceding sentence had high contextual constraint, the facilitation effect of orthographical similarity was not observed, while the suppression effect of phonological similarity was observed. Thus, our hypothesis 1-1 was not supported, while hypothesis 1-2 was supported. In addition, hypothesis 1-3 was supported as we observed a significant interaction between orthographical and phonological similarities, with a different nature of the interaction when compared with that obtained in the single-word presentation study of Fei (2015). Below we discuss word processing under high sentence constraint in intermediate learners of the Japanese

language.

Similar to the study of Fei & Matsumi (2013), the current study indicated that the conceptual representation of the blank word was activated by presentation of a preceding sentence with high contextual constraint. Because it was highly likely that the blank word was identical to the target word, the conceptual representation of the target word was possibly already activated even before presentation of the actual target word. Here we interpret the effects of orthographical and phonological similarities on *kanji*-word processing seen in the current study. Figures 4 and 5 are schematic diagrams of proposed models for processing of Japanese *kanji* words.

We tended to observe a facilitation effect of orthographical similarity in words with high phonological similarity, and a suppression effect of orthographical similarity in words with low phonological similarity. Although the facilitation effect of orthographical similarity was reported by both Fei (2015) who used a single-word presentation paradigm in intermediate learners and Fei & Matsumi (2013) who used a sentence presentation paradigm in advanced learners, we found a suppression effect by orthographical similarity. We interpret this interesting finding in Figure 4.



(a) Activation of Various Representations by the Preceding Sentence (b) Processing of a Target Word Presented Subsequently

**Figure 4: Word Processing in the High Sentence Constraint Condition in Intermediate Learners
(Effect of Orthographical Similarity)**

When learners listen to a Japanese sentence, it is expected that a conceptual representation of the target word gets activated by rich contextual information. Simultaneously or immediately following activation of the conceptual representation, the lexical representation of the target word is activated. We speculate that different from advanced learners in the study of Fei & Matsumi (2013), the orthographical representation gets activated more strongly as the phonological representation becomes activated (Figure 4(a), line labeled (1)). For words with high orthographical similarity, the Chinese phonological representation gets activated regardless of phonological similarity between Japanese and Chinese (Figure 4(a), the solid line labeled (2), and the bold connecting line labeled (3)). For words with low orthographical similarity, it can be speculated that the Chinese phonological representation gets activated for words with high phonological similarity (Figure 4(a), the thin line labeled (3)), but not for words with low phonological similarity (Figure 4(a), the dotted line of (2)). Because words with high orthographical similarity (Figure 4(a), the bold line labeled (3)) share

orthographical representation between the two languages, the degree of activation of the Chinese phonological representation may be greater relative to words with low orthographical similarity (Figure 4(a), the thin line labeled (3)). This activation by the preceding sentence is thought to affect access to the lexicon based on the Japanese sound of the target word (see Figure 4(b)). That is, we speculate that words with high phonological similarity (Figure 4(b), three connections with the plus sign) were affected by the activated Chinese orthographical representation, and that the response time tended to be shorter than the response time to words with low orthographical similarity (Figure 4(a), the thin line labeled (3)). On the other hand, words with low phonological similarity (Figure 4(b), three connections with minus sign) were affected by the Chinese phonological representation that was activated by activation of the Chinese orthographical representation (Figure 4(a), dotted line labeled (2)), and the response times were longer for words with high relative to low orthographical similarity.

With regard to the effects of phonological

similarity, we observed some suppression effect in words with low orthographical similarity, but no effect was seen for words with high orthographical similarity. In the study of Fei (2015) where a single-word presentation paradigm was used, a suppression effect of phonological similarities was seen in words with high orthographical similarity but not in words with low orthographical similarity. We interpret these inconsistent effects in Figure 5.

When learners listen to a Japanese sentence, the conceptual representation of the target word gets activated by rich contextual information. Simultaneously or immediately following activation of the conceptual representation, the lexical representation of the target word is activated. We speculate that, different from the advanced learners in the study of Fei & Matsumi (2013), the orthographical representation gets activated more strongly as the Japanese phonological representation gets activated (Figure 5(a), (1)). For words with high orthographical similarity, the Chinese phonological representation gets activated regardless of phonological similarity between the Japanese and Chinese words (Figure 5(a), the solid line labeled as (2) and the bold line labeled as (3)). For words with low orthographical similarity, it can be speculated that

the Chinese phonological representation gets activated for words with high phonological similarity (Figure 5(a), the thin line labeled as (3)) but not for words with low phonological similarity (Figure 5(a), the dotted line labeled as (2)). This activation by the preceding sentence is thought to affect the lexical access based on the Japanese sound of the target word (see Figure 5(b)). That is, for words with high orthographical similarity (Figure 5(b), three connections with the plus sign), the Chinese phonological representation gets activated regardless of the degree of orthographical similarity (Figure 5(a), bold lines labeled as (2) and (3)), and thus there was no effect of phonological similarity. On the other hand, words with low orthographical similarity (Figure 5(b), two connections with the minus sign) were affected by activation of Chinese phonological representations due to high phonological similarity (Figure 4(a), the thin line labeled as (3)), and the response times were longer for words with high relative to low orthographical similarity (Figure 5(a), the dotted line labeled as (2)).

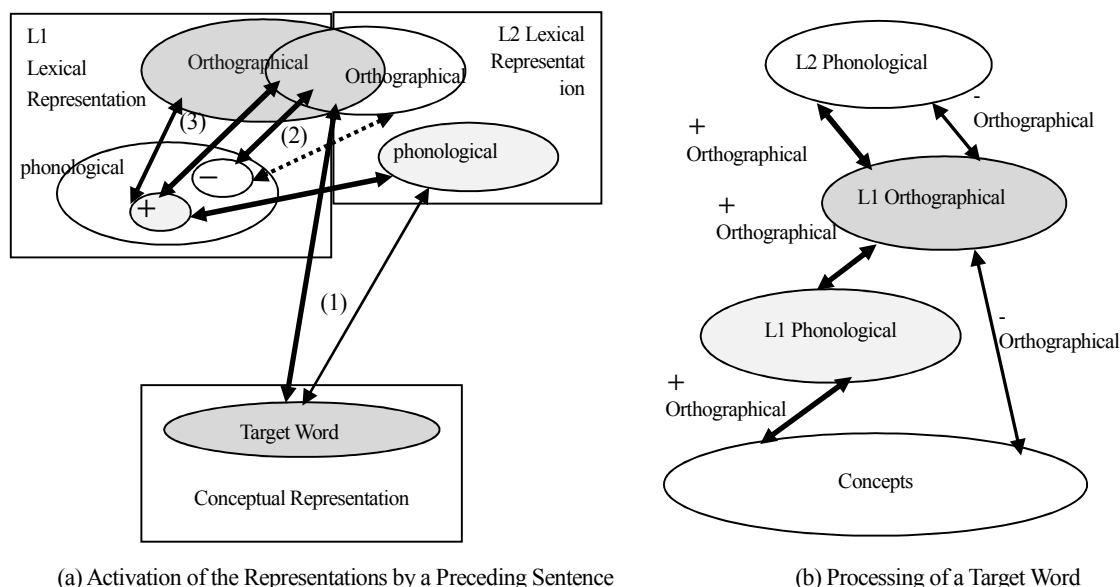


Figure 5: Word Processing by Intermediate Learners of Japanese in the High Sentence Constraint Condition (Effect of Phonological Similarity)

6.2. Processing in the Low Sentence Constraint Condition

When the preceding sentence had low contextual constraint, the facilitation effect of orthographical similarity was not observed and the suppression effect of phonological similarity was observed. Thus, our hypothesis 2-1 was not supported, while hypothesis 2-2 was supported. There was no significant interaction between orthographical and phonological similarities; therefore, our hypothesis 2-3 was not supported. These results were different from those of Fei (2015) where a single-word presentation paradigm was used.

On the other hand, in advanced learners, similar results were obtained between a study using preceding sentences with low contextual constraint (Fei & Matsumi, 2013) and a study using a single-word presentation paradigm (Fei & Matsumi, 2012). We will present below our model for interpreting this common interesting finding among advanced and intermediate learners.

We propose a model for Japanese *kanji* word processing in intermediate learners under low sentence constraint, which is depicted in Figure 6.

As shown in Figure 6(a), there was no facilitation effect of orthographical similarity. This indicates that some

semantic processing occurred at the time of presentation of a low-constraint sentence on the processing of the target word. Fei & Matsumi (2013) only mentioned the possibility of such an effect in advanced learners in their study, but the current study clearly showed the effect. It can be speculated that activation of the Chinese orthographical representation was suppressed by the processing of the preceding Japanese sentence in intermediate learners, and the participants accessed the conceptual representation directly from the auditory input of the Japanese word. As Figure 6(b) shows, one can interpret that the suppression due to phonological similarity occurred because the Chinese phonological representation got activated in the process of lexical access to the conceptual representation using the Japanese sound input. We speculate that words with high phonological similarity had longer response times than those with low similarity due to this mediation by Chinese phonological representation.

In intermediate learners of the Japanese language, it is possible that the workload was higher when processing the meaning of the preceding sentence, which in turn might have produced a different effect of sentence constraint compared to that in advanced learners.

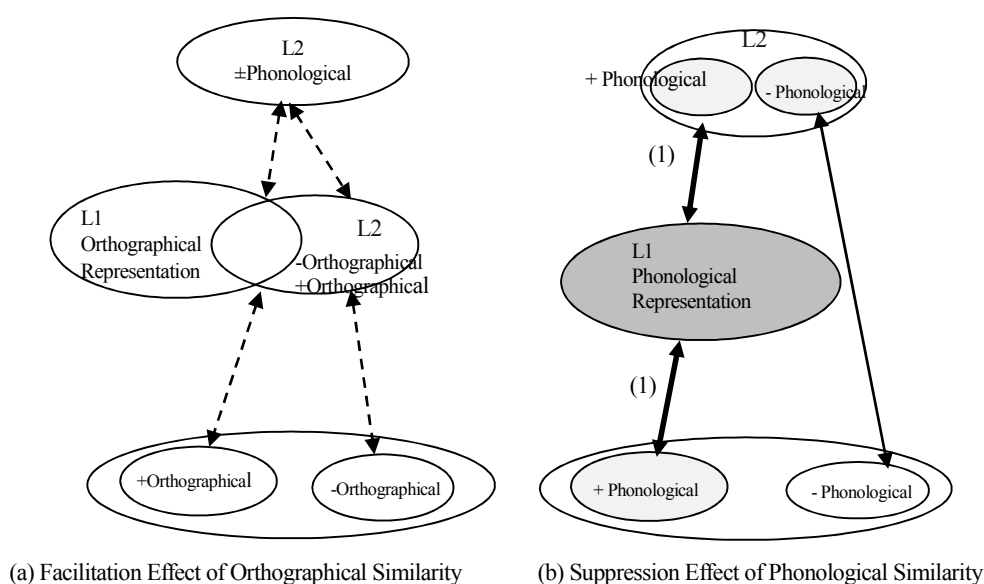


Figure 6: Word Processing by Intermediate Learners in the Low Sentence Constraint Condition

7. Conclusion

The current study investigated the processing of *kanji* words that were presented auditorily after a preceding sentence with high or low contextual constraint was presented in intermediate learners of the Japanese language residing in China.

The mean response time for the high constraint condition (705.23 ms) was shorter than that for the low constraint condition (845.22 ms), indicating that the manipulation of sentence constraint in the current study was successful. On the other hand, our results demonstrated differential effects of orthographical and phonological similarities depending on high and low sentence constraint conditions. The results of both high and low constraint conditions were inconsistent with the results of Fei (2015) who used a single-word presentation paradigm, and it was demonstrated that sentence constraint affected *kanji* word processing.

The current results demonstrated that Japanese *kanji* words were processed differently depending on high or low sentence constraint in intermediate learners of the Japanese language. Our results were different from the results of the single-word presentation study of Fei (2015) in the high constraint condition (i.e., the nature of the interaction between orthographical and phonological similarities was different), and in the low constraint condition (where no interaction between orthographical and phonological similarities was observed). The effects of orthographical and phonological similarities demonstrated in the study of Fei (2015) would have been different when sentence contextual constraint was manipulated such as in Fei & Matsumi (2013). In addition, the current results were different from the results of Fei & Matsumi (2013) where effects of sentence contextual constraint were examined in advanced learners of the Japanese language. The current study demonstrated that the effects of sentence constraint on processing of auditorily presented Japanese *kanji* words were different between intermediate and advanced learners of the Japanese language.

Note

1. Reading Tutor is a Japanese Language Reading Tutorial System, designed to help Japanese learners improve their reading skills in Japanese.
(http://language.tiu.ac.jp/index_e.html)

References

- Amano, S., & Kondo, T. (Eds.) (2000). *NTT Deta-Besu Sirizu Nihongo no Goi Tokusei: Dai 2 Ki* [NTT Database Series: Characteristics of the Japanese Vocabulary: Second Phase]. Tokyo: Sanseido. (in Japanese)
- Cai, F. (2009). The Processing of Kanji-words in an Advanced Class of Chinese Learners of Japanese: Using Oral-reading Task of Words with Pre-presentation of Japanese Sentences. *Bulletin of the Graduate School of Education, Hiroshima University. Part 2 (Education and Human Sciences)*, 58, 205-212. (in Japanese with English abstract)
- Cai, F. (2011). The Processing of Japanese Kanji-words in Pre-presentation of Sentences: Focusing on Auditory Identification. *Acquisition of Japanese as a Second Language*, (14), 38-59. (in Japanese with English abstract)
- Cai, F., Fei, X., & Matsumi, N. (2011). The Processing of Kanji-words in Japanese Learners of Chinese: using Lexical-Decision Task and Oral-Reading Task. *Bulletin of the Department of Teaching Japanese as a Second Language, Hiroshima University*, (21), 55-62. (in Japanese)
- Dijkstra, T., Grainger, J., & Van Heuven, W. J. B. (1999). Recognition of cognates and interlingual homographs: The neglected role of phonology. *Journal of Memory and Language*, 41, 496-518.
- Duyck, W., Van Assche, E., Drieghe, D., & Hartsuiker, R. J. (2007). Visual word recognition by bilinguals in a sentence context: Evidence for nonselective lexical access. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 33, 663-679.
- Duyck, W., Van Assche, E., Hartsuiker, R. J., Drieghe, D., & Diependaele, K. (2010). Bilingual visual word recognition in a sentence context. *23rd Annual CUNY Conference on Human Sentence Processing* (p.138).

Effects of Sentence Constraint on Processing of Auditorily Presented Words in Chinese Intermediate Learners of the Japanese Language

- Fei, X. (2013). The Auditory Recognition of Japanese Kanji-Words in Proficient Chinese Learners of Japanese Studying in Japan: The Effects of the Orthographic and Phonological Similarities between Chinese and Japanese. *Journal of International Students Education*, (18), 35-43. (in Japanese with English abstract)
- Fei, X (2015). The Processing of Kanji-words in Intermediate Chinese Learners of Japanese: Using an Auditory Lexical Decision Task. *Journal for Society for Interdisciplinary Science*, (14), 11-18. (in Japanese with English abstract)
- Fei, X., & Matsumi, N. (2012). Auditory Recognition of Japanese Kanji-words in Proficient Chinese Learners of Japanese: The Effects of the Orthographic and Phonological Similarities between Chinese and Japanese. *The Journal of Educational Research*, (11), 1-9.
- Fei, X., & Matsumi, N. (2013). Processing of Japanese Kanji-Words in Proficient Chinese Learners of Japanese when Listening to Japanese Sentences: The Effect of Sentence Constraints, Orthographic and Phonological Similarities of Words. *Acquisition of Japanese as a Second Language*, (16), 107-124. (in Japanese with English abstract)
- Jordan, T. R., & Thomas, S. M. (2002). In search of perceptual influences of sentences context on word recognition. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 28, 34-45.
- Japan Foundation & Japan Educational Exchanges and Services (Eds.) (2002). *Nihongo Nouryoku Shiken Shutsudai Kijun Kaitei-Ban [Japanese Language Proficiency Test: Test Content Specifications. Revised]*. Tokyo: Bonjinsha. (in Japanese)
- Libben, M. R., & Titone, D. A. (2009). Bilingual lexical access in context: Evidence from eye movements during reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 35, 381-390.
- Marian, V., Blumenfeld, H. K., & Boukrina, O. (2008). Sensitivity to phonological similarity within and across language. *Journal of Psycholinguistic Research*, 37, 141-170.
- Matsumi, N., Fei, X., & Cai, F. (2012). Nihongo kanji tango no shori katei: Chugokugo wo bogo to suru chukyu nihongo gakushu-sha wo taishou to shita jikken teki kentou [The processing of Japanese kanji words; an experiment in native Chinese-speaking intermediate learners of Japanese]. In K. Hatasa, Y., Hatasa, M. Kudara, & T. Shimizu (Eds.), *Dai Ni Gengo Shuutoku Kenkyu to Gengo Kyouiku [Acquisition of a Second Language and Language Education, Part I, Article 2]* (pp.43-67). Tokyo: Kuroshio Shuppan Publisher. (in Japanese)
- Schwartz, A. I., & Kroll, J. F. (2006). Bilingual lexical activation in sentence context. *Journal of Memory and Language*, 55, 197-212.
- Schwartz, A. I., Kroll, J. F., & Diaz, M. (2007). Reading words in Spanish and English: mapping orthography to phonology in two languages. *Language and Cognitive Processes*, 22, 106-129.
- Shafiro, V., & Kharkhurin, A. V. (2009). The role of native-language phonology in the auditory word identification and visual word recognition of Russian-English bilinguals. *Journal of Psycholinguistic Research*, 38, 93-110.
- Sunderman, G., & Kroll, J. F. (2006). First language activation during second language lexical processing: An investigation of lexical form, meaning, and grammatical class. *Studies in Second Language Acquisition*, 28, 387-422.
- Sunderman, G., & Schwartz, A. I. (2008). Using cognates to investigate cross-language competition in second language processing. *TESOL Quarterly*, 42, 527-536.
- Szubko-Sitarek, W. (2011). Cognate facilitation effects in trilingual word recognition. *Studies in Second Language Learning and Teaching*, 2, 189-208.
- Van Assche, E., Drieghe, D., Duyck, W., Welvaert M., & Hartsuiker, R. J. (2011). The influence of semantic constraints on bilingual word recognition during sentence reading. *Journal of Memory and Language*, 64, 88-107.
- van Hell, J. G. (2005). The influence of sentence context constraint on cognate effects in lexical decision and translation. In ISB4: Cohen, J., McAlister, K. T., Rolstad, K., & MacSwan, J. (Ed.), *Proceedings of the 4th International Symposium on Bilingualism* (pp.2297-2309). Somerville, MA: Cascadilla Press.

van Hell, J. G., & de Groot, A. M. B. (1998). Conceptual representation in bilingual memory: Effects of concreteness and cognate status in word association.

Bilingualism: Language and Cognition, 1, 193-211.

van Hell, J. G., & de Groot, A. M. B. (2008). Sentence context modulates visual word recognition and translation in bilinguals. *Acta Psychologica, 128*, 431-451.

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Developing Mentoring Programs Supporting Curriculum Design by Japanese History Teachers

Teruko Ishikawa

The objective of this paper is the development and proposal of a mentoring program to help novice high school teachers of Japanese history build expertise for designing overall history curriculum. Learning history, and Japanese History B in particular, presuppose a chronological curriculum; thus, there are limits on the extent to which novice teachers can reconsider the meaning of learning history in their chronological history curriculum. Consequently, the support of a mentor can allow Japanese history teachers to continually reassess their objectives and reflect on their teaching, such that they can reconstruct their curricula, which have come to make the learning history itself their primary purposes.

The mentoring program proposed here is comprised of three phases: I. Creating awareness of the practical purposes of one's classes, II. Increasing alternatives within one's classes, and III. Developing a meta-cognition of one's own growth. There is a five-step mentoring process that is shared by these phases. This fundamental process is: ①Class observation → ②Surveys → ③Dialogs → ④Providing resource materials → ⑤Follow up. This mentoring program has been revised based on the results of a pilot survey that took a prototype developed by the author and implemented it with the collaboration with novice teachers in the same prefecture. The final version has also been adjusted following advice from colleagues and specialists. Since the repeated dialogs on "objectives", which form the nucleus of the mentoring program, are carried out in an on-going process over a fixed period, it allows teachers to form critical consciousness of their own rationales of class, which they would not be able to do over the span of a single session. Hence, we can expect growth for these teachers, who serve as the gatekeepers designing their Japanese history courses, with an understanding of the issues inherent to a chronological history curriculum.

The significance of this paper is that it seeks to specify and visualize the aims of each phase of the mentoring process, which has been something of a "black box" to date. Furthermore, it is also possible to apply the diverse and concrete intervention methods in the mentoring program for Japanese history teachers to other subjects' teachers, as well as guidance for student teachers.

Key Words: Mentoring Program, Teaching Gatekeeping, Curriculum Design, Chronological History Learning

1. Location of the Problem

1.1. The Current State of the Professional Growth Process for History Teachers, and Problems Therein

In schools, where young history teachers develop their professional skills, the following three major problems currently exist.

First, there are fewer opportunities for young teachers to grow. A cause here is the changing circumstances surrounding teachers. Wakimoto (2015) has presented the data on the changing demographics of teachers, increasing workloads, and changes among children and parents/guardians, showing that, in many cases, it is difficult for senior teachers to support younger teachers.

The second major problem is that classroom improvement measures tend to be disproportionately in favor of techniques and approaches that can be immediately implemented. For instance, these include accumulating ideas or stories that will elicit student interest, learning more beautiful ways of writing on the board, creating easier to understand printouts, utilizing ICT more effectively, practicing better ways of stimulating discussions and presentations, etc. Although improving teaching skills is important for teacher development, it tends to be difficult to connect this with deepening the approach to the subject being taught and asking, “Why am I teaching this?” “Why are students learning this?”

The third major problem is that the ideal that young teachers strive for is founded upon their personal experience as students. This is a pronounced problem in history education. What many students think is a “good history (World History/Japanese History) class” is one that “completely,” “efficiently,” and in an “easy to understand (or fun) way” gives a historically linear knowledge of events covering voluminous facts from the past. This is what Osaka & Kusahara (2015) call an “internalized model/ideal” (p.191). If there is no meta-cognition or reflection provided on the classes teachers have taught, it results in going no further than reproducing the “good history classes” that teachers had (or wanted to have) once

as students.

1.2. Possibilities for Mentoring in Teacher Education

In recent years, mentoring programs have received attention for boosting professional skills during teaching training. In the past, the standard training model was to support teacher development through on-the-job training in which young teachers were guided on a daily basis by their senior colleagues and strove to improve their teaching abilities and skills in the workplace. As mentioned earlier, however, this has become more difficult as circumstances surrounding teachers change. Consequently, programs are increasing that provide support through mentoring as part of approaches such as training for first-time teachers and in-school programs for educating young teachers.¹

Within Schön’s context of the “reflective practitioner,” Iwakawa (1994) has redefined the apprenticeship system in education, stating that mentoring is supervision and support by an experienced specialist who fosters the development of a new specialist.

Implementation examples have also been reported of so-called private mentoring that is separate from systematized mentoring and is intended to boost specialization in the subject being taught. For example, Mikami (2006) has proposed an English teacher training program utilizing a mentoring approach. The program basically involves pairs, mentors and trainees, who work on English pronunciation. Mikami himself is actually part of the program, putting in place a mentoring framework requested by mentors seeking support. This teacher training program assumes a four-month term focusing on guidance in English pronunciation and comes under the umbrella of action research aiming to foster better instructors. The current research covered in this paper here is meaningful for its proposal of a teacher training methodology that specifies objectives, thematic focus, and duration. Since the content of Mikami’s mentoring is “weekly e-mail reports by the trainees to their mentor candidates conveying the progress of their action research and any questions or concerns over the implementation of

that research” (p.49), a black box still remains as to whether teacher development would be enhanced based on different timing and different content of the mentor candidates’ advice and support.

Imai et al. (2015) have tried to clarify that support for protégés from mentors in middle school science classes alters their problem solving processes. Protégés have the same lessons (on sunlight and how leaves grow) observed by two mentors, with one of the lessons chosen for discussion by the Classroom Research Committee. It was shown that protégés’ classes improved from the planning stages, thanks to input from mentors given during the observation period and at the meeting of the Classroom Research Committee. The practical research of Imai et al. is significant for its concrete information about the mentoring process—it clarifies the areas in which mentors intervened with protégés and it discusses which comments by mentors impacted which parts of the protégé’s classroom elements, if there was an impact. However, an unbalance can be seen in favor of improving the processes, methods, and techniques for laboratory experiments, such as “identifying a problem,” “observing and experimenting,” and “summarizing results and strategies.” The research does not take into account how protégés can utilize mentoring to reflect on their classes and reassess their objectives. A remaining issue is how mentoring affects the future direction of the class and its content.

Kawamura & Nakayama (2005) have tried to clarify the trajectory of growth for home economics teachers resulting from lesson observations, post-lesson discussions between observers and students (aiming to encourage reflection by students), and interpretations of changes in the statements made by instructors. Although Kawamura et al. do not directly comment on mentoring, it is reasonable to describe the relationship between students and observers as essentially a mentor-trainee relationship. Kawamura et al.’s practical research goes further than simply improving classes, but can be evaluated in terms of how it uses mentoring to deepen instructors’ reflection on the class’ goal of “reconsidering the subject of home

economics.” However, although the research comments on the results and offers discussion on mentoring, concrete support for trainees is only provided as a side effect. If concrete proposals could be added, such as specifying situations, the manner of support, and the nature of expected growth from intervention through mentoring, the approach could become one able to constitute a program for supporting the growth of teachers.

Development of concrete, deliberate mentoring programs that overcome the above issues of prior research (“lack of clarity regarding the growth process for teachers,” “insufficient ventures beyond the improvement of teaching methods and techniques,” and “lack of clarity regarding intervention processes during mentoring”), bears significance as a method for incorporating a focus on reflecting on objectives of the subject being taught and for supporting the improvement of the pedagogical skills of young teachers.

2. Objectives and Methodology of This Study

The objective of this study is the development and proposal of a mentoring program to help young, high school teachers of Japanese history improve their skills for curriculum design in their classes.

For history classes, and Japanese History B in particular, it is standard to follow a chronological history learning² based on textbooks that describe each era or field of history. Behind this approach to the chronological history learning is the philosophy that “cause-effect relationships in history are consecutive and it requires chronological awareness of history, one period after another.” (Okuyama, 2000, p.227). Since this perspective of history is accepted as norm in Japanese history classes, there are limits to how deeply teachers can critically reassess the meaning of studying history by themselves. It is here that the encouragement of supporters (i.e., mentors) helps instructors continually reconsider and reflect on the principles and objectives of their pedagogical approach to Japanese history, such that instructors proactively notice events in their classrooms and re-orient themselves with

regard to their goals set to teach chronological history. Arguably, mentoring becomes an opportunity to improve classes for the sake of achieving the learning objectives of Japanese history.

The mentoring program this study proposes has been devised after completing the following steps:

- (1) The author developed a prototype plan referencing the results of the aforementioned prior research.
- (2) The prototype plan was implemented from May to November 2016. The author acted as mentor and interacted with two young teachers within the same prefecture who agreed to participate in the trial program.
- (3) The prototype plan was revised based on the results from a pilot survey. Recommendations from colleagues and specialists were also incorporated when redesigning the plan. This additional input was instrumental, given that the author acted simultaneously as both developer of the program and a mentor implementing the program.

3. Overall Design of the Mentoring Program

3.1. The Three Phases Comprising the Mentoring Process

Table 1 shows the overall design of the mentoring

program, which is comprised of three phases.

Phase I involves trainees reflecting on their classes and specifically noticing their individual goals. The objective here is for trainees to explain to their mentors what they have emphasized in their classes and why they have emphasized these points, in addition to noticing their perspective of their subject that has informed how they teach their classes. This allows them to reacquaint themselves with what they value in their classes vis-à-vis the particular circumstances of their school.

Phase II involves trainees increasing the breadth of optionality in their classes. For this phase, the objective is to have trainees compare their classes with those of similar content at other schools. They try to notice any differences, explain why there are differences, and relate this to designing classes other than the ones they have already taught.

Phase III involves trainees developing a meta-cognition of their individual transformation. The objective is for trainees to recognize the goals of their units or classes and reflect on whether they have selected, from the available lesson plans, approaches that are suited to circumstances in their class, while also noticing the way those units or classes are situated within year-long

Table 1: Overall Plan for the Mentoring Program

Mentoring	Phase I	Phase II	Phase III
Aim	Creating awareness of the practical objectives of one's classes	Increasing optionality in one's classes	Developing a meta-cognition of one's individual transformation
Rubric	<ul style="list-style-type: none"> - Being able to explain what one emphasizes or values in one's classes. - Being able to notice why those elements are being emphasized and to demonstrate an awareness of one's experiences to date. - Being able to explain why one values those elements in class and how they fit within the context of one's school. 	<ul style="list-style-type: none"> - Being able to notice differences between one's own classes and those of other instructors. - Being able to explain how and why these difference exist. - Being able to design approaches to classes other than those one has already taught. 	<ul style="list-style-type: none"> - Growing an awareness of the objectives of the current units or classes and being able to design classes suited to objectives, choosing from among multiple class plans. - Being able to design units or classes so that they are situated within overall, year-long plans. - Being able to design units or classes with an awareness of the objectives of overall plans.

programs. This helps teachers gain an awareness of how the classes themselves, and their approaches to classes that they direct on their own, are transforming or evolving.

Note here that the relationship between Phases I, II, and III is not necessarily an ordered progression.

For instance, if a trainee does not feel that there are any issues with his or her classes, he or she can begin from Phase I and reflect on their classroom approach. Or, if they are already aware of certain issues and would like to change them, it would be effective to begin from Phase II and then circle around to Phases I and III. Furthermore, if instructors have experienced diverse classes, but have recognized a desire to more fundamentally transform their classes, Phase III can be taken as the starting point to look back on how their teaching has evolved, after which, cycling back to Phase I or II can be considered. Each phase can be chosen targeting the needs or considerations of the trainee, and no fixed path need be followed from any one phase to the next.

As such, Figure 1 shows a graphical representation of the connections between phases.

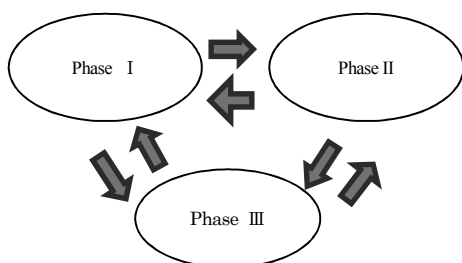


Figure 1: Phrase Relationships

3.2. Five Steps Comprising Each Phase for Mentors and Trainees

The following shows the fundamental mentoring process common to each of the three phases.

- ① Class observation → ② Surveys → ③ Dialogs → ④ Providing-resources → ⑤ Follow-up

Class observation ① is intended as an opportunity for mentors to share their experience ahead of dialogs and

follow-up efforts, while also being a chance for mentors to listen to trainees so that they can interpret their views.

Surveys ② are separated into those carried out at the first and final classes, and those carried out for each mentoring session. The survey for the first class draws on past class experiences, while the surveys for each mentored class draw on results and challenges faced during that particular class. The final class survey takes a comprehensive look at the mentoring overall. In every case, the mentor gathers together the topics that will spur dialog and uses the surveys as a means for understanding the trainee’s awareness of problem points. The objective is also to have the trainee record his or her efforts and reflections.

While surveys allow trainees to contemplate their classroom approach from their own perspective, dialogs ③ have the objective of collaborative reflection between mentor and trainee. Topics of dialogs, which are at the core of the mentoring process, can be chosen in line with the aims of each phase.

Providing resources ④ is carried out in response to the problems the trainee is aware of vis-à-vis the results of surveys and dialogs. To further encourage reflection, mentors can furnish suggestions for instructing students, supplementary materials, and specialized research or scholarly works that help to achieve the goals of each phase. Surveys and dialogs alone are not sufficient for deepening and expanding introspection, given that they are framed by the viewpoints of the two parties, by the flow of the classroom environment, and by the relationship between the two parties. Theoretical data and case studies are called for in order to step outside the mentoring pivot, reflect on class from a “balcony” position, and engage in analysis and comparison. The content and volume of materials that are provided should be selected in line with the trainee’s circumstances. The content of materials can be used as topics for each day’s dialog and follow-up consultations.

The follow-ups described here ⑤ are implemented in person or via e-mail and involved

exchanging opinions related to the resource material with the objective of supporting the design of future classes, units, or annual plans. The follow-ups should especially strive to bring third-party viewpoints from resource materials to bear on the mentor-trainee relationship so that opportunities are created to reconstruct outlooks and reassess the design of classes and curricula. Furthermore, they are chances to encourage the progression toward additional mentoring or to smoothly transition between mentoring phases.

These steps, ① - ⑤, are repeated for each mentoring phase, with approximately one-month gaps left between phases so that trainees can reflect without feeling rushed. Consequently, the mentoring process can be assumed to span approximately six months.

4. The Mentoring Process in Each Phase

4.1. Phase I

Table 2 provides details on the mentoring process during Phase I.

① Class observation:

The objective here is for mentors to understand

their trainee’s outlook on the class and the academic subject. It is not simple for young trainees to reflect on their classes and articulate what they find. It is here that mentors are instrumental in observing classes while preparing questions that will encourage personal insight in dialogs after each class. Mentors should utilize video and note taking to record aspects of the class. These records should be passed on to trainees at the end of the mentoring program and used as material for noticing personal growth.

② Surveys and ③ Dialogs:

The objective here is for trainees to form an awareness of the goals and aims of their classes. However, it is exceedingly difficult for trainees to respond to a sudden question from a mentor such as, “What is your personal outlook toward your classes?” Results from classroom observations and survey answers should be used as hints for launching into a discussion focusing on what a trainee emphasizes and values in his or her class. A mentor should use questions intended to deepen the trainee’s reflection. These can include, “Do the classes you teach resemble or differ from those you had when you were in high school?” “Is there an instructor whom you

Table 2: The Mentoring Process in Phase I

Target situation	Encouragement provided
① Class observation	To determine the aims of the class To provide notes on the class at a later date
② Surveys ③ Dialogs	Primary themes of dialogs: class objectives taking into account the circumstances of the students at the current school Inquiring about the results and challenges of the class Inquiring about the school and the students - Targeting the characteristics of the school, the circumstances of the students, and the desires for progress after graduation - Targeting the pedagogical processes for geography and history classes - Targeting what teachers want to teach students through Japanese history classes
④ Providing resources	Research papers related to teachers’ gatekeeping capacities: Examples: - Kusahara, K. (2016). Mokuhyou-wo Ishiki Shite Naiyou-wo Kosei Dekiru Kyoshi-no Shitatakasa [A Challenge of Teacher who can Reconstruct the Contents with Considerations of Aims] . <i>Social Studies</i> , 688, 12-15. (in Japanese) - Watanabe, T. (2016). Gakushu Shido Yoryo-wo Iksu-mo Korosu-mo Koko-no Kyoshi Shidai [Depending on Teachers How to Deal with the National Curriculum] . <i>Social Studies</i> , 688, 16-19. (in Japanese)
⑤ Follow-up	The mentor and trainee read the two research papers and trade opinions on them during the follow-up meeting. - Targeting thoughts about “gatekeeping by teachers” - Discussing what type of gatekeeping the teacher personally engages in

aspire to be like?” “Have your classes changed or evolved from your previous school to your current school?” etc. The mentor should ask questions like these but refrain from specifying good points, bad points, or areas to improve upon. The purpose here is to stoke expectations for what the trainee can gain from personal reflection and to clearly convey to the trainee that the dialogs are not times for “guidance” or “direction.”

④ Providing resources:

Trainees are led to recognize the elements that they emphasize and value in their classes and are provided with material that supports reflection on the reasons behind those value choices. Resources should specifically be chosen that cover the concept of teaches as gatekeepers and their concrete implementation of gatekeeping.³ Kusahara (2016), for example, writes that “it is certain that once an instructor abandons his or her individual goals, the class becomes an exercise in simply conveying the indicated material and is something far removed from a directed learning experience” (p. 14), and “the importance of teaching social studies can be amplified to an unlimited degree based upon the gatekeeping of the instructor” (p. 14). Watanabe (2016) has shown that the objectives of the instructor can impart a substantial influence on the content of a unit, and how a unit develops. In his descriptions of two classes studying the period around the Onin War, the first class was designed with the goal of “learning the past” and therefore placed its emphasis on including all events, while the second class was designed with the goal of awareness through discussing current society, and therefore placed its emphasis on the structure of historical periods. Kusahara expounds upon the principles of teachers as gatekeepers, while Watanabe treats the practical aspects. Reading these two research papers as a set stimulates recognition of one’s own decisions and intentions that are intrinsic to one’s role as a gatekeeper and to daily approaches to teaching, while also stimulating reflection on one’s pedagogical perspective. Note that resources provided in Phase I should be selected for their easy accessibility, such as non-specialized/mass market

education periodicals with comparatively shorter articles.

⑤ Follow-up:

Using e-mail exchanges, the mentor and trainee should exchange their opinions regarding the trainee’s philosophy of gatekeeping and personal implementation of gatekeeping. This situation differs from the dialogs in that the mentor accepts the trainee’s ideas while also providing his or her own as well, thereby putting the focus on having an equal footing for exchange of opinions. Perspectives should especially be extracted dealing with the gatekeeping that typically has broad control over Japanese history classes (including the ideas that the course of history should be taught without any omissions or lacunae, that the teacher should use lively presentations that bring scenes to life, and that scenes should be reproduced using realistic props and teaching materials should be used).

For Phase I, the elements shown in Table 1 (“Being able to explain what one emphasizes/values in one’s classes, ” “being able to notice why those elements are being emphasized and demonstrate an awareness of one’s experiences to date,” “being able to explain why one values those elements in class and how they fit within the context of one’s school”) should be covered until each is achieved and a sufficient judgment can be made to move on to Phase II. Furthermore, the trainee should propose ways to expand and design his or her class with content choices cognizant of the class’ objectives.

4.2. Phase II

Table 3 provides details on the mentoring process during Phase II.

① Class observation:

Touching on the mentoring progress made in Phase I, classes should be observed to see whether the trainees are teaching with an awareness of their objectives. In actual practice, it is not predicted that classes will achieve great changes in a short period of time. Notes should be taken so that, in subsequent dialogs, trainees can check whether there is any disconnect between their stated goals and the actual classes.

② Surveys and ③ Dialogs:

While referencing survey responses, mentors ask trainees about the results and challenges of the course. Mentors should focus on how much the effects of the dialogs and follow-up from Phase I are evident, particularly as to whether trainees are learning to evaluate themselves vis-à-vis their individual goals.

Mentors provide instructional suggestions and supplementary resources targeting the next class that will cover the same historical period or events. These items could include the mentor’s own previously used materials, those of other teachers, publicly available resources, etc. Whatever the case, items should be selected that were designed based on different objectives than those the trainee had used for that particular class. Opinions should also be exchanged here as to how the new suggestions differ from previous classes and why those differences exist. Once this has been discussed, mentors should ask,

“Could a different agenda actually be implemented for this class?” and, “What are the objectives of adopting that type of different agenda?” While clarifying the contextual differences, the interaction should review the possibilities for common goals.

④ Providing resources:

Provide trainees with research papers that will challenge their views of Japanese history classes and that discuss the pros and cons of the chronological history learning. The following three papers are concrete examples. Kurokawa (2014) argues in her paper that “it is indispensable to have middle and high school classes teach chronological history following the content of textbooks” (p.46) and is critical of the decreasing number of subject-specialized classes (History, etc.) in teacher training programs. The paper holds that the number of teachers with insufficient specialized knowledge is increasing as a result of the introduction of practical, project-based classes.

Table 3: Mentoring Process in Phase II

Target situation	Encouragement provided
① Class observation	To observe classes from the perspective of “is the teacher proceeding with class with an awareness of the class objectives?” To provide notes on the class at a later date
② Surveys ③ Dialogs	Primary themes of dialogs: targeting possibilities for other kinds of class agendas/plans Inquiring about the results and challenges of the class Exchanging opinions on the other plans suggested - What are the differences with the current class’ plan? - What are the reasons for the differences? Inquiring about possibilities for other kinds of class agendas/plans - Is it possible to implement another plan? - What are the aims of adopting that new plan?
④ Providing resources	Research papers on the chronological history learning Examples: - Kurokawa, M. (2014). The Issues in Training Teachers for History Education. <i>Historical Journal</i> , 774, 46-54. (in Japanese) - Yui, D. (2012). Koko Rekishi Kyoiku-no Kaikaku-to Shikoryoku Ikusei [Reforming the History Education in High Schools and Advancing the Thinking Skills] . <i>Historical Journal</i> , 749, 34-43. (in Japanese) - Moriwake, T. (1986). “Rekishi” Dokuritsuron-no Mondaisei : Genriteki Kosatsu [Problem of “History” as Independent School Subject; Theoretical Consideration] . <i>Bulletin of Japanese Educational Research Association for the Social Studies</i> , 34, 78-88. (in Japanese)
⑤ Follow-up	Reading research papers - Which paper do you most closely associate with? - Which elements of the argument resonate with you? - Which points will you reference when designing future classes?

Yui (2012) takes the standpoint that “it is essential in the systematic teaching of Japanese history to overcome the tendency to seek for the single, correct-answer” (p.43). In comparison of history education in the U.S. and Japan, the U.S. has emphasized the importance of cultivating critical thinking skills by showing students possibilities for varied developments in the past, and the existence of multiple interpretations of the past, while in Japan, the strong trend toward systematic history education has favored a representation of history as a single (linear) path of development. Criticizing this approach, Yui argues for the importance of reforming high school history education into a critical thinking approach more suited to a global society.

Moriwake’s paper (1986) convicted “a chronological history imbue classes with their individual values” (p.86) and it is therefore critical of instructors using this approach. Moriwake argues that teaching a chronological approach to history a single value-injection. This creates a challenge that exists on a fundamental level for such ways of teaching.

The effective judgments of these research papers represent different conceptualizations of chronological history curricula. Kurokawa takes a defensive stance toward linear history teachers, Moriwake adopts an opposing, critical stance, while Yui argues for a dual approach in history education that incorporates a systematic perspective and the cultivation of critical thinking skills. The differences in standpoints toward chronological history are rooted in divergent views of the academic subject and dissimilar philosophies of Japanese history education. Consequently, reading and comparing these papers should provide trainees with an opportunity for reflecting on the fundamental question of “Why am I teaching Japanese history?”

⑤ Follow-up:

After a set period of time, the mentor inquires about the trainee’s impressions from comparing the three papers. The mentor specifically asks, “Which paper do you most closely associate with?” “Which elements of the

arguments did or did not resonate with you?” and “Which points will you reference when designing future classes?” Furthermore, while asking trainees to situate their own approaches to teaching Japanese history within the context of the arguments made by the research papers, the mentor encourages the reconsideration of meaningful objectives for the subject, given that the majority of high school students will not necessarily go on to major in history.

4.3. Phase III

Table 4 provides details on the mentoring process during Phase III.

① Class observation:

This step in Phase III examines how trainees are proceeding with class with an awareness of their objectives, and carries forward class observations focusing on changes following Phases I and II. Since some changes can be expected after three to four months have passed since beginning the mentoring process, mentors should strive to notice these changes and take notes on them.

② Surveys and ③ Dialogs:

In Phase III, opinions should be exchanged on the topic of chronological history as it relates to the class being taught. Specifically, among “the historical flow of the periods,” “the structure of historical era,” “the characteristics of historical periods,” “comparisons between historical periods” and “the relationship with our current age,” trainees should be asked which of these their class objectives emphasized. Additionally, the different standpoints on chronological history and the study of history seen in the resources provided in Phase II should be referenced as the merits and demerits of chronological history learning are discussed.

To this should be added examples of classes that have been attempted within this chronological history framework, asking the trainees which ideas (and to what extent) they might like to extract regarding the possibilities for redesigning classes that had used this approach to the study of history.

④ Providing resources:

There are two types of resources to provide. There are notes on the mentor’s own attempts to teach history from a chronological perspective and there are specific notes from each mentoring step (notes taken during class observation, notes on survey responses, post-class dialogs, follow ups, etc.).

The former—concrete examples of trying to redesign the chronologically historical approach—should be provided with two contrasting samples. One sample, aiming to discuss “characteristics of historical periods,” is a proposal for instructing students on *masu* (measuring containers) in the Middle Ages (Ishikawa, 2014). This class did not target a compendium of historical phenomena, from political to social, economic, and cultural events, but rather targeted the conceptualization of society in the Middle Ages from the perspective of “separation of powers.” This approach had students read and interpret a material showing how different size *masu* were used from

region to region and manor to manor. This made students recognize the significance of *kyomasu*, which instituted a nationwide standard.

Another sample is the study of “the imperial system in modern Japan,” aiming for a meta-analysis comparing and contrasting historical discourses running through each period in Japanese history (Ishikawa, 2007). Students are often not necessarily clear about the simple question of why the emperor, who had unimpressive influence in the Middle and Early-Modern Ages, suddenly gained justification as the ruler of Japan from the Modern Age onward. Since textbooks and classes in Japanese history uniformly use the term *tenno* (literally, “heavenly ruler”) for the emperor, it is accepted as fact that the imperial system is the traditional political system of Japan. However, it should be expected that it was a considerable political challenge for the Meiji government to earn the people’s understanding and acceptance for a new ruling

Table 4: Mentoring Process in Phase III

Target situation	Encouragement provided
① Class observation	To observe classes from the perspective of “is the teacher proceeding with class with an awareness of the class objectives?” To provide notes on the class at a later date
② Surveys ③ Dialogs	Primary themes: possibilities for redesigning chronological history curricula Inquiring about the results and challenges of the class Exchanging opinions on chronological history learning - Among “the flow of historical periods,” “the structure of historical periods,” “the characteristic features of historical periods,” “comparisons between historical periods,” and “the relationship with our current age,” which of these did their class objectives emphasize? - The merits and demerits of a chronological history learning - Is it possible to realistically redesign the chronological history approach?
④ Providing resources	Class that has redesigned the chronological history learning Examples: - Material for a class covering “ <i>Masu</i> (measuring container) in the Middle Ages: conceptualizing the characteristics of historical periods” - Material for a class covering “the imperial system in modern Japan” (said material including instructional suggestions, print outs, material to hand out in class, class analysis, etc.) Notes on each class, survey answers, transcripts of post-class dialogs, e-mail messages exchanging opinions
⑤ Follow-up	Inquiring about comprehensive reflection - Did the trainee’s thoughts change (or not change) regarding class objectives and selection/composition of class content? - Where there changes in how class was implemented? - If there were the above changes, of what nature were they? - If few or no changes occurred, what were the reasons? - How would the trainee like to redesign curricular for classes or units going forward?

system to replace the shogunate in Japan. Hence, having students analyze the process of how the government has won support and not only produced the emperor as a modern symbol but also as a ruling system of an “unbroken imperial line” from antiquity, is arguably an opportunity to reconsider, within chronological history, the roles and functions of an emperor that has always been seen as accepted fact in Japanese history.⁴

The purpose of giving these two concrete examples is to demonstrate, even with a linear approach following the textbook, the possibilities for curriculum design in terms of (1) grasping the structure of a period and (2) engaging in meta-analysis of historical discourse, rather than subsuming phenomena under their respective fields, or pursuing the flow of historical events in order from period to period. Based on the mentor’s experience and track record, he or she should offer the trainee a broad array of options for methods and objectives conducive to redesigning a chronological approach to history. By providing these resource materials, a situation should be created for the trainee allowing the consideration of measures for redesigning these curricula.

Aside from records of classes taught, other notes from previous mentoring should also be made available. At the final follow-up session, the trainee should be allowed to use these references as material for Phase I to III reflections on his or her classes.

⑤ Follow-up:

Here the mentor thoroughly assumes the role of listener while asking the trainee questions to facilitate reflection on the mentoring process. The first questions should ask whether there have been changes in the trainee’s ways of thinking and ways of implementing class, e.g.: “Did your ways of thinking regarding class objectives, content selections, and composition change?” and “Were there any changes in how you implemented your classes?” Next, trainees should be asked to reflect on the reasons for these changes, if there were changes. Last, they should be asked, “How would you like to redesign curricula for classes or units going forward?”

The trainee’s responses to these follow-up questions should help him or her to objectify their growth and engage in self-evaluation. The mentoring cycle ends when the mentor, at a later date, analyzes these dialogs and provides final feedback on his or her perspective of changes in the trainee’s ways of thinking and ways of implementing class.

5. Significance of and Possibilities for the Mentoring Program

Prior approaches to mentoring have aimed to provide support for solving individual concerns and challenges for trainees under diverse circumstances, while systematized individual mentoring arguably has not been well suited to the school workplace. In Japan, the scholastic culture has had experienced, veteran teachers interact with new, young teachers in order to provide advice and professional growth. However, the status quo apparently has been for this guidance and advice to mainly come from experiential and intuitive knowledge, with mentors reproducing the guidance they themselves received without a great deal of reflection or examination. Hence, the primary significance of this paper is to target the “black box” that mentoring has been and to urge practitioners to clarify and visualize the mentoring process so that it can be reassessed in an intentional, deliberate manner.

In this mentoring program, mentors and trainees have repeated dialog over a fixed period. This dialog is based on the observations made during class and target “why the material is being taught,” “why the specific material was selected,” and “why the chosen approach is being used.” Additionally, mentors and trainees repeatedly interact using the records and notes each has taken, as well as the experiences they have had. This reflection may also incorporate input from third parties adding specialized knowledge and reference materials. By systematizing these interactions into three clear phases, mentoring can contribute to voluntary improvement and transformation of classes and of the teacher’s perspective on his or her

academic subject. In light of the issues for curricula for the chronological history learning, another meaningful aspect of this paper is that it has developed a mentoring program for supporting curriculum design for teachers as gatekeepers independently utilizing and reconstructing those curricula.

The diverse methods of intervention and support by mentors in this mentoring program hold possibilities for applications not only to other academic subjects, but also to guidance for student teachers. However, this program is still no more than a prototype based on the results of a limited pilot study. It is necessary to carry out further full-scale research surveys in order to grow this into a program that can be applied to diverse cases.

Notes

1. In the city of Yokohama, “mentor teams” have been established in each school from the fiscal year 2006 in order to foster the development of first-time instructors and instructors with little experience, as well as to build systems for on-the-job training (Yokohama Board of Education, 2011). Although not specifically labeled as “mentoring,” the Ishikawa Prefecture Board of Education has, also since 2006, established groups of one advising instructor and three to five young trainees in a program titled “Project for Boosting Classroom Ability by Learning from Veteran Teachers.” These groups cover multiple schools and involve discussion and practice with teaching techniques through the study of teaching materials, the study of classrooms, and group training sessions (Shimada, 2007).
2. The “chronological history learning” is used in this paper following the definition by Okuyama (2000, p.227): “The chronological history learning is the comprehensive examination of history across all periods, regions, and fields of history.”
3. See Thornton (2012) for details on “gatekeepers” and “gatekeeping.”
4. See Harada (2008) for details on this class.

References

- Fletcher, S. (2000). *Mentoring in School*. London: Kogan Page.
- Harada, T. (2008). Creating New Paradigms and Practices Teaching History in an Era of Change. *Journal of Education in the Social Studies Department*, 20, 239-248. (in Japanese)
- Imai, S., Masuda, H., & Handa, Y. (2015). Research on the teacher’s ability to continue go on learning throughout a science lesson. *Research Report of the Japan Society for Science Education*, 29(7), 43-46. (in Japanese)
- Ishikawa, T. (2007). “Dento” Kochiku-no Mekanizumu-wo Taishoka Saseru Rekishi Kyoiku: “Kindai Tenno sei”-no Jyugyo Kaihatsu-wo Jirei-ni [The History Education Teaching the Mechanism of Constructing “Tradition” : A Case of “Modern Emperor System”] . *Presentation Material at the 56th Meeting of the Japanese Educational Research Association for the Social Studies and a Research Gathering at the 19th Meeting of Education in the Social Studies Department Research Association*. (in Japanese)
- Ishikawa, T. (2014). Dai-ichi Gakunen San Kumi Shakaika Gakushu Shido Keikaku (Chusei-no Masu : Jidai-no Tokushoku-wo Toraeru) [The Third Class of the Seventh Graders, Social Studies Lesson Plan(The “Masu” at the Middle Ages: for Understanding the Characteristics of Era)] . *Kobe Daigaku Fuzoku Chuto Kyoiku Gakkou Sumiyoshi Kosha Kenkyu Kiyo* [Research Bulletin of Kobe University Secondary School] . 33-38. (in Japanese)
- Iwakawa, N. (1994). Kyoshoku-ni Okeru Mentaringu [Mentoring in the Teaching Profession] . In T. Inagaki, & Y. Kudomi (Eds.), *Nihon-no Kyoshi Bunka* [The Culture of Japanese Teachers] (pp.97-107). Tokyo: University of Tokyo Press. (in Japanese)
- Kawaguchi, H. (2014). An Approach of Social Studies Curriculum Design by Teachers: The Case Study of a Japanese History Teacher in High School. *Journal of Educational Research on Social Studies*, 80, 9-20. (in Japanese)

- Kawamura, M., & Nakayama, T. (2005). The development of the home economics teacher: An opportunity for development through the observation of Critical reflection “Home economics goals”. *Journal of Saitama University, Faculty of Education*, 54 (2), 9-22. (in Japanese with English abstract)
- Kurokawa, M. (2014). The Issues in Training Teachers for History Education. *Historical Journal*, 774, 46-54. (in Japanese)
- Kusahara, K. (2016). Mokuhyou-wo Ishiki Shite Naiyou-wo Kosei Dekiru Kyoshi-no Shitatakasa [A Challenge of Teacher who can Reconstruct the Contents with Considerations of Aims] . *Social Studies*, 688, 12-15. (in Japanese)
- Mikami, A. (2006). Application of Mentoring to English Language Teacher Education. *Kinki University Department of Language Education Bulletin*, 6(2), 35-52. (in Japanese)
- Moriwake, T. (1972). Reform in Teacher of History: Teaching of History as Social Science Education. *Journal of Educational Research on Social Studies*, 20, 60-77. (in Japanese)
- Moriwake, T. (1986). “Rekishi” Dokuritsuron-no Mondaisei : Genriteki Kosatsu [Problem of “History” as Independent School Subject: Theoretical Considerations] . *Bulletin of Japanese Educational Research Association for the Social Studies*, 34, 78-88. (in Japanese)
- Ochi, T., & Isozaki, T. (2016). How Do Pre-service Science Teachers Develop Their Teacher Knowledge? : A Qualitative Study Focusing on Teaching Practice in Schools. *Theory and Research for Developing Learning Systems*, 2, 23-33.
- Okuyama, K. (2000). Tsushi Gakushu [Chronological History Learning] . In T. Moriwake, & S. Katagami (Eds.), *Shakaika Jyuyo Yogo 300-no Kiso Chishiki [Basic Knowledge of 300 Essential Terms in Social Studies Education]*(p.227). Tokyo: Meijitoshu Shuppan. (in Japanese)
- Osaka, Y. & Kusahara, K. (2015). Deconstruction of Internalized Norms and Concepts with Respect to Social Studies Education: The Significance of First-Year Education as Transition/Intermediary Education. *The Journal of Social Studies Education*, (30), 191-200. (in Japanese)
- Schön, D. (Sato, M., & Akita, K. Trans.) (2001). *Senmonka-no Chie : Hanseiteki Jissenka-wa Koi Shinagara Kangaeru. [The Reflective Practitioner : How Professionals Think in Action]* . Tokyo : Yumiru Shuppan. (Schön, D. (1983) *The Reflective Practitioner: How Professionals Think in Action*. London: Maurice Temple Smith) (in Japanese)
- Shimada, N. (2007). The mentor in reflective teacher education: A case from the teacher education program in Ishikawa prefecture. *Annual Bulletin of the Japanese Society for the Study on Teacher Education*, 16, 88-97. (in Japanese)
- Thornton, J. S. (Watanabe, T., Yamada, H., Tanaka, S. & Hotta, S. Trans.) (2012). *Kyoshi-no Getokipingu : Shutaiteki-na Gakushusha-wo Umu Shakaika Karikyuramu-ni Mukete [Gatekeeping of the Teacher: For Social Studies Curriculum Producing an Independent Learner]* . Tokyo: Shumpusha Publishing (Thornton, J, S. (2004) *Teaching Social Studies that Matters*. New York: Teachers College Press.)
- Wakimoto, T. (2015). Kyoshi-wo Meguru Konnichi-no Jokyō : Shakai Haikai [The Present Conditions Surrounding Teachers; Social Contexts], In J. Nakahara, (Ed.), T. Wakimoto, & D. Choshi, *Kyoshi-no Manabi-wo Kagaku Suru: Deta-kara Mieru Wakate-no Ikusei-to Jyukutatsu-no Moderu [Scientizing Learning of Teacher: Models of Development and Maturing of Novice Teacher, Implications from Data]* (pp.1-14). Kyoto: Kitaoji Publishing. (in Japanese)
- Watanabe, T. (2016). Gakushu Shido Yoryo-wo Ikasu-mo Korosu-mo Koko-no Kyoshi Shidai [Make or Break?: the Course of Study and Teachers:] . *Social Studies*, 688, 16-19. (in Japanese)

Teruko Ishikawa

Yokohama Board of Education (2011). “*Kyoshiryoku*”
Kojo-no Kagi: “Menta-Chimu”ga Kyoshi-wo Sodateru,
Gakko-wo Kaeru! [The Keys of empowerment for
teaching profession: “The Mentor Team” can Educate
a Teacher, who can Change the School!]. Tokyo: Jiji
Press Publication Service. (in Japanese)

Yui, D. (2012). Koko Rekishi Kyoiku-no Kaikaku-to
Shikoryoku Ikusei [Reforming the History Education in
High Schools and Advancing the Thinking Skills] .
Historical Journal, 749, 34-43. (in Japanese)

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Contents

Special Articles

- 1-5 Questioning and Preparation for Teachers of History
Linda S. Levstik
- 7-11 Experiential Learning through the Arts
Gina Alicea

Original Articles

- 13-25 The Process of Overcoming Difficulties Faced by Novice Home Economics Teachers in Elementary Schools
Yuka Nishimura and Keiko Ito
- 27-41 The Issues and Problems of Multi-Cultural Education in Japan:
Focus on Formation of Pluri-Identities
Norio Ikeno
- 43-58 Effects of Sentence Constraint on Processing of Auditorily Presented Words in Chinese Intermediate Learners of the Japanese Language:
An Experimental Study with Manipulation of Orthographical and Phonological Similarities between Chinese and Japanese Kanji Characters
Xiaodong Fei and Haipeng Li
- 59-72 Developing Mentoring Programs Supporting Curriculum Design by Japanese History Teachers
Teruko Ishikawa

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