

## **Research, higher education and the quality of teaching: Inquiry in a Japanese academic context**

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### **ABSTRACT**

Higher education plays an essential role in society by creating new knowledge, transmitting it to students and fostering innovation. Research-based education has lately received increasing interest both among researchers in higher education and in public discussion.

The aim of this paper is to develop a thorough understanding of teacher education reform in Japan and its relation to the research development process. To identify whether Japanese teachers are equipped with the conceptual understanding and methodological skills to conduct research, field visits are carried out to some schools and higher education institutions; some content analysis of materials related to their Teacher Education Programs are conducted; twenty-five people (ten professionals, professors, and policy makers, five teachers, and ten students) are interviewed.

Quantitative survey data as well as in-depth qualitative data are collected from survey questionnaires and semi-structured interviews over a period of two months. This research attempts to discuss the research policies, strategies and practices in graduate schools of teacher education and the contributions of research in developing high quality teaching.

Findings of this research is expected to make research-informed contributions to contemporary issues, initiatives and reforms in Japanese higher education, and will at least serve to initiate a debate about research-based teacher education and contribute to the decisions that need to be made regarding the future of higher education in Japan.

**Keywords:** Research-based education, Teacher Education, Higher Education, Quality of Teaching, Education Reform.

## INTRODUCTION

Higher education plays an essential role in society by creating new knowledge, transmitting it to students and fostering innovation. Quality teaching in higher education matters for student learning outcomes. But fostering quality teaching needs higher education institutions to ensure that the education they offer meets the expectations of students and the requirements of employers, both today and for the future (Hénard and Roseveare 2012).

In the last two decades, a great deal of attention has been directed towards developing research in teacher education all over the world. Teacher education is clearly an essential element for the improvement of education by producing highly qualified teachers. Many countries identify the production of “high quality teachers” as the goal and focus of their teacher education programs.

A primary goal of all teacher educators is to provide pre-service teachers with meaningful professional development opportunities that will help them succeed in making the transition into their own classrooms (Diana, T. J. 2013). In most of the developed countries, teacher education has moved from training teachers to transfer knowledge and preparing them to practice a new role of producing knowledge (Stewart, 2011). In other words, in the process of becoming and being a teacher, doing a teacher research not only promote reflection about personal performance in the classroom, but also seem to stimulate a valued process of self-assessment, in challenging future teachers to identify their personal strengths and weaknesses. Thus, in order to help teachers practice this advanced role, teacher education should equip teachers with self-evaluation and problem-solving skills that are based on research-oriented education.

Research in education is necessary in order to provide a basis for educational planning. It is one of the main fields that should be embedded in higher education curriculum (Niemi & Jakku-Sihvonen, 2006). With regard to this, research-based education has lately received increasing interest both among researchers in higher education and in public discussion. Through these experiences, teachers develop the requisite knowledge and skills to become effective classroom leaders capable of implementing the national reform agenda.

In the past ten years, Japan has witnessed many problems in schools. Many of these problems were attributed to a lack of competence among teachers (Hosoya and Talib, 2011) and, as a result, national advisory groups made the improvement of the teacher training the main theme for educational reform in Japan. This reform has made teacher education a national concern. As a result, research on teacher education has become one of the most important fields in education in Japan. Although many teacher preparation programs in Japan have improved in recent years, the literature suggests the need for more substantive improvements. In my opinion, a first step in the improvement process would be to record the perceptions of people engaged actively in teacher education (i.e. faculty members, deans, students, teachers, policy makers etc.). In this respect, the research project presented in this paper attempts to discuss the research policies, strategies and practices in graduate schools of teacher education in the Japanese context. Field visits were conducted during my stay in Japan to identify whether Japanese teachers are equipped with the conceptual understanding and methodological skills to conduct action research in education.

The content of this paper is organized around a number of issues that concern policymakers, educators, and researchers. These include the pedagogical approaches used in teacher education and the contributions of research in developing high quality teaching. It discusses the background of higher education reform in Japan to provide a deep insight into the state of research-based approaches in teacher education, in particular. In addition, the

research methodology and procedures are reviewed and research findings and recommendations are discussed.

To develop a better understanding of my research area, "Research-based Approach in Teacher Education", two universities had been visited: Waseda University and Tokyo Gakugei University and carried out some content analysis of materials related to their Teacher Education Programs (curriculum, fields, courses, subjects); twenty-five people were interviewed; schools and research institutions were visited; some Japanese Higher Education specialists and policy makers have been met (i.e. representatives from Higher Education Bureau; Department of Research Planning and Development at the National Institute for Educational Policy Research of Japan – NIER; Dean of Waseda University Graduate School of Teacher Education; vice-president of Tokyo Gakugei University and Head of the planning board of Japan Association of Universities of Education, JAUE).

The findings from these field studies conducted among students, teachers, university professors, and some higher-education policy makers are reported in this paper. The findings include quantitative survey data as well as in-depth qualitative data, collected from survey questionnaires and semi-structured interviews over a period of two months. The Implications of these findings are also presented here. It is expected that the findings of this study will be used to develop the quality of teacher education in Japan, and enhance the teaching-learning practices related to research-based approaches.

To sum up, it is hoped that findings of my research will, hopefully, inform changes in methods and practices of research-informed teaching contributions to contemporary issues, initiatives and reforms in Japanese higher education institutions. In addition, I argue that this research should at least serves to initiate a debate about research-based teacher education and contributes to the decisions that need to be made regarding the future of higher education in Japan.

## **PART 1: BACKGROUND**

### **Research and Educational Reform in Japan**

Japanese education has been a focus of comparative studies for the past 20 years. Many scholars have attributed the economic success of this industrialized society to a highly literate and well-educated population. Recent studies, however, have tended to be more critical of the Japanese educational system, often concluding that, without major reform, the school system in Japan would be unable to meet the needs of 21st century Japan (Goodman & Phillips, 2003). Most universities in Japan are acutely aware of the need for change and a considerable national effort is being made at institutional change.

The importance attached to the role of research in Educational reform is evident in Japan. Educational research is carried out by a variety of organizations and individuals. The main research activities can be classified into those carried out by national, public and private research institutes, those carried out by academic institutions and organizations such as universities and professional associations, those that make use of Ministry of Education-designated schools, and those undertaken by educational practitioners in a school setting. There is also a network of 283 educational research institutes, called the "National Federation of Educational Research Institutes." The Federation organizes annual collaborative research meetings and symposia as well as publishing educational research reports.

Regarding the links between educational research, educational reform and policy decisions, educational research in Japan constitutes an important resource for policy level decision-making in educational administration. In particular, research resources are routinely

cited throughout debates in such state organs as the Central Council for Education and the Curriculum Council (IBE and NIER, 1995). Although research is a systematic process of collecting and analysing information to increase our understanding of a phenomenon under study, it is also basically a vehicle to produce systematic and analytical knowledge and information designed to aid the understanding of educational phenomena and the planning and practices of educational changes essential for educational reform.

### **Research-Based Teacher Education**

It is now well established that the quality of teacher education is perhaps the most important factor for improving educational outcomes for students. Increasing academic requirements for higher levels of learning necessitate better qualified teachers. High quality teachers are described as having some combination of the following attributes: pedagogical knowledge, subject area content knowledge, skills and attitudes necessary for effective teaching, strong understanding of human growth and child development, effective communication skills, strong sense of ethics, and capacity for renewal and ongoing learning (Burns 2010).

Teacher education has increasingly become the remit of degree-granting colleges or universities; the duration of training has increased; and the teaching practices have become increasingly important. Traditionally, teachers had been taught in normal schools of education; however, in 2008, one of the teacher education reform initiatives in Japan was the establishment of the "Graduate Schools of Teacher Education." These are now twenty-five Graduate Schools of Teacher Education set up in universities with teaching training programs. It is worth noting that the teaching training programs vary in content from one university to another. These newly-established universities of teacher education were designed as "universities for an exclusive purpose of in-service teacher education, and conducting research at high level, which have faculties in which school teachers are trained" (Tanaka, 2011). Further pursuits of quality education were called for and that the better qualified teachers were needed. There has been a demand for better teacher education to improve teachers' qualifications, and calls for better education at graduate schools.

Qualifications for on entry into a teacher education program vary considerably, and most countries have multiple entry points into the field of teaching. Entry varies by type of preparing institution and by the school level for which candidates plan to teach whether elementary or secondary. In Japan, the main entry requirement is that students already have a bachelor's degree. These graduate teaching programs are usually one to two years in length and students receive postgraduate diplomas in teaching or a master's degree. Most of the graduate schools of teacher education in Japan do not require any research thesis. In this regard, students learn about research only through elective subjects and/or through the various subjects they have undertaken through their study. At the graduate schools, research skills are mainly learnt by students through self-study and there is little attempt to develop research skills explicitly through required research skills subjects etc.

In teacher education programs, research-based approaches have lately received increasing interest both among researchers of teacher education and in public discussion. This is based on the notion that the knowledge base of the study program is dynamic and that student teachers are active processors of knowledge (Zeichner & Conklin, 2005). The idea is to integrate the theoretical aspects with practice during their studies, and that research-based thinking is viewed as the connecting factor in this process. In this respect, and for the purpose of my research project, the concept of research-based teacher education refers to university teaching that is based on a piece of research work that can be done by teachers to enhance

their experiences and pedagogical thinking. Identifying pedagogical elements and asking pedagogically meaningful questions in educational situations are among the most important skills a future teacher needs.

To conclude, the research-based approach aims to develop inquiry-oriented future teachers and that through research one gains results and evidence, which can be used as guidelines for further development of teacher education.

## **PART II: THE RESEARCH PROJECT**

### **Research Design**

The study presented here was a part of a wider research project, which aimed to gain a greater understanding of the characteristics of research-based approaches in Japanese teacher education programs and this was investigated from various different viewpoints.

### **Title**

The Research project was entitled “Research-based Approach in Teacher Education: A Comprehensive Field Study in a Japanese Context.”

### **Aims and Objectives**

The main objective of this research project was to develop a thorough understanding of Teacher Education reform in Japan and its relation to the research development process. A comprehensive field study on action research in teacher education was carried out to find out whether teachers in Japan are equipped with the conceptual understanding and methodological skills to conduct action research in education.

### **Research Questions**

The study examines:

1. How much do educators, policy-makers and teachers understand and appreciate the research-based approach in teacher education?
2. How action research is experienced by teachers in their higher education studies?
3. What courses/subjects related to research methodology and practice are undertaken by teachers during their studies?
4. How do teachers perceive their education and their role in relation to action research?
5. What policies and/or actions are undertaken to promote research in Teacher Education?

### **Research Methods**

A mixed methods approach was adopted. Both qualitative and quantitative data were collected through surveys and interviews. A content analysis of teacher-education program was conducted for two universities. In addition, a sample of university professors, students and teachers were surveyed and interviewed to gain a fuller understanding of the teacher education programs and their relation to action research. In addition, field visits were made to universities, schools, and higher education institutions. Professionals and policymakers were also visited and interviewed.

## **Data Analysis**

The quantitative data obtained from survey-questionnaires were analyzed using SPSS software to generate descriptive statistics (frequencies, means, and standard deviations). Additionally, the qualitative data gathered through interviews was analyzed using a content analysis approach, which involved coding and categorizing the data to look for dominant themes, and counting frequencies of occurrence (of ideas, themes, and words).

## **Need and Importance**

Nowadays, in many countries, there is great interest in promoting action research in the teacher education curriculum (Burns, 2010). Action research is a problem-solving and self-evaluation tool, which can help teachers to improve the quality of their teaching skills and practice.

In teacher education, action research methodology offers a systematic approach to introducing innovations in teaching and learning. It seeks to do this by putting the teacher in the dual role of producer of educational theory, and user of that theory. This is both a way of producing knowledge about higher-education teaching and learning, and a powerful way of improving teaching and learning practice (Burns, 2010). No separation needs to be made between the design and delivery of teaching, and the process of researching these activities, thereby, bringing theory and practice closer together. In this research methodology, teachers conduct research, create a study, collect data and analyze the results to improve the quality of teaching and student achievement in the schools where they work. In this respect, action research can provide opportunities for reflection, improvement, and transformation of teaching.

It is common knowledge that teachers face many problems while teaching, such as problems relating to the school program, the subject specialism, the class environment, the teaching strategies, and students' achievement. Teachers, interestingly, can conduct their own research on different instructional topics. On the individual level, teachers typically formulate a research question or topic based on the day-to-day challenges of their classroom. This may focus on grade level curriculum instructional materials, teaching practices, assessment or learning styles. Conducting action research can greatly impact on a teacher's ability to effectively implement instruction. Topics that may be considered by teachers in the individual level are: the student's success, classroom behaviors or even curricular practices and lesson planning. At the collaborative level, teachers interested in working with other educators to conduct action research may consider themes that may encompass broader issues that affect several teachers. Some action research topics may include school-wide research efforts (Burns, 2010). Instead of simply relying on an individual teacher or a few teachers grouped together, this type of action research looks at issues that relate to the school as a whole. Specific topics or areas of interest may be organizational structure, testing practices, grading issues, parental involvement or curricular integration.

Based on the above, I believe that teachers should be equipped with the skills and the methodological practice of action research for two reasons: First, by conducting action research, teachers can improve their teaching practices, solve their problems and evaluate their teaching performance. Second, teacher-researchers can develop their students' research skills and practices, and should be better able to evaluate their students' research projects. Hence, action research is a problem-solving and self-evaluation tool that can be widely applied in the educational field to help to improve the teaching quality and practices. According to this view, teachers, as action researchers, are critical in the sense that they not

only look for ways to improve their practice within the various constraints of the situation in which they are working, but are also critical change agents for those constraints, and of themselves.

### **PART III: DATA ANALYSIS: QUANTITATIVE AND QUALITATIVE**

To develop a better understanding of my research area, part of my research involved discussions with Japanese higher-education specialists and policy makers. Interviews were conducted to the following: (1) Representatives from the Higher Education Bureau at the Ministry of Education, Culture, Sports, Science & Technology - MEXT; (2) The Senior Researcher of the Department of Research Planning and Development at the National Institute for Educational Policy Research of Japan – NIER; (3) The Dean of Waseda University Graduate School of Teacher Education; (4) The Vice-president of Tokyo Gakugei University and Head of the planning board of Japan Association of Universities of Education, JAUE.

#### **Qualitative Data: Findings from Interviews and Observations**

##### ***Higher Education Bureau***

The Higher Education Bureau promotes the quality of higher education, and supports university education reform. The main mission of the Higher Education Bureau is to enhance teachers' skills of teaching and to provide excellence in teacher training. On an interview with some of the representatives from Higher Education Bureau, I met

- Deputy Director, Office for Teacher Training Planning, University Promotion Division, Higher Education Bureau;
- Deputy Director, Office for International Planning, Higher Education Policy Planning Division, Higher Education Bureau;
- Deputy Director, Educational Personnel Division, Elementary and Secondary Education Bureau.

The aims of this interview were: firstly, to investigate the efforts made for promoting the quality of higher-education programs, in general, and teacher education program, in particular; secondly, to discuss the research-based approach in teacher education curriculum; and thirdly, to investigate the future plans/projects to enhance research in education both nationally and internationally.

To promote the quality of higher education in national and public universities, MEXT has been working on the following themes: to create a relationship between all stages of education from kindergarten to senior high school; to enhance lifelong education, science education and teacher education; to reinforce the quality of teaching. The Higher Education Bureau also supports university education reform, particularly the reform of teacher education. In relation to this, interviewees noted that they support the universities financially, and they assist their progress through evaluation. A Research-based education is one of the main approaches that should be considered in higher-education curriculum. This approach has a big role in developing the quality of teaching. However, in Japan, research-based approaches are not commonly found in the teacher education curriculum, as one of the interviewees noted, “*We do think of research-based approaches, but we don't include it into the curriculum.*”

As discussed above interest in educational research has increased greatly in recent years especially in teacher education. However, the Higher Education Bureau specialists

revealed that they had no interest in promoting research in education for undergraduate and graduate schools of teacher education, and had no intention of teaching it as a compulsory subject. This can be inferred from the following comment by one of the interviewees *“Through learning different subjects and practical education, students can learn about research.”*

As has been noted above, research methodology has not been taught in most university education, and on the occasions it has been taught, it has been taught as an elective (not a compulsory subject) especially in teacher education. One of the interviewees noted that *“universities are responsible for promoting research in education.”* In Japan, there has been a great interest in developing research in science and technology, but there has been a lack of interest for developing research in education. The reason for this, as one higher-education specialists mentioned, was that:

*“In science and technology, it is rather easy to support their research because they ask us to buy some instruments and materials so their goals are visible. While in education research, however, the goals are rather invisible.”*

As the Higher Education Bureau provides support for the improvement of the quality of graduate education, and now there were teachers who were master degree holders, "they did not get the chance to practice researching," as the interviewees assured. Many studies have provided evidence that there is a relationship between research and the quality of teaching, and the interviewees from the Higher Education Bureau realized that action research was needed in the teacher education curriculum. In relation to this, one of the interviewees stated *“It is very important that teachers conduct research while teaching.”* However, ironically, when they were asked if they had any intention to enhance research in higher-education institutions, they answered *“No.”*

As discussed above, the Higher Education Bureau has been actively working to set up research centers that could meet the highest international standards, but there are no apparent future plans or projects to establish research centers in graduate schools of teacher education. When asked directly about this, one of the interviewees stated *“No, there is no such plan.”*

### **National Institute for Educational Policy Research of Japan - NIER**

Within the National Institute for Educational Policy Research (NIER), the Department of Research Planning and Development is responsible for promoting research in education. This department plans, coordinates and carries out research projects that contribute to Japan's education policy. At NIER, research is undertaken in relation to issues that affect government policy. Project research is conducted by project teams formed of a wide range of researchers from both NIER and outside institutions. As part of my research, I interviewed the Senior Researcher in the Department of Research Planning and Development at NIER. The interview aims to determine NIER's policy and plans regarding research in education, to investigate the place of research in educational planning and to investigate the research plans and projects related to promoting action research in teacher education in particular. The interview revealed the following findings:

NIER had identified six mid-term goals/projects, which were supposed to be carried out in the six years from April 1, 2011 to March 31, 2016. Among these goals, NIER is planning to evaluate teacher education programs. The Senior Researcher revealed that Teacher Education had been considered in NIER's goals and plans for the first time this fiscal year. This meant that teacher education, accordingly, had been explicitly considered in NIER's policy and practice only very recently. Furthermore, in recent years there had been renewed interest in international collaborative research, including research projects on

contemporary issues in education. Many different kinds of long-term research themes were being studied in connection with future educational policy-making at the national level. In the case of NIER, these were classified into special research, policy-oriented research and commissioned research. In addition to the above, the Ministry of Education had designated some specified schools as being suitable for research aimed at contributing to the improvement of the existing education system. In addition, the Ministry of education had developed a system of pilot schools, which were to facilitate the development of new curricula and new teaching methods designed to meet the varied demands on school education that were the result of rapid and radical changes in society in recent years.

Regarding the teacher education curriculum, the Senior Researcher stated that universities were provided, by the Ministry of Education, with the layout of the program and the format of the teaching courses, while the content of each course was left to be determined by the faculty of each university. NIER were planning to study the content of the Teacher Education courses and suggest new content if necessary. NIER research projects are usually conducted by internal staff members but sometimes NIER asked university scholars to conducting research on NIER's behalf. NIER research projects cover all levels of schooling from elementary and secondary education to higher education and lifelong learning. The Institute was formally responsible for promoting research in education. In government schools, for example, research was promoted through the school curriculum, especially through general subjects which are taught in elementary and junior high schools and called in Japanese "Sougoutekina Gakusyuno Jikan." This subject is designed to enhance students' ability to carry out research in different fields of study.

While discussing the importance of research for teachers, the senior researcher agreed that there was a relationship between research and the quality of teaching, and acknowledged this by saying "Now I recognize the importance of action research for teachers." He agreed that teachers needed to carry out research while teaching. For him, research teachers would be better able to evaluate how good or bad their teaching was.

In Japan, the priority in education is to learn the main subject matter. There is too much emphasis on teaching these subjects, and research skills are taught almost as a by-product of learning these different subjects. The senior researcher noted, "In Japan, graduate schools want students to focus on studying teaching only regardless of the usefulness of other subjects." This suggests that research education is a secondary consideration at best.

NIER is also responsible for promoting partnerships and cooperation with research institutes in Japan, particularly with local education research institutes and education centers. There was currently no collaboration or joint research projects between the research institutes in Japan and school teachers. However, there was collaboration with some university scholars. In relation to this NIER conducts some research projects with researchers from a number of universities. In his experience, the Senior Researcher thought that there was a need to develop a curriculum that was better able to cope with the requirements of the 21st century and this meant one that developed students' ability to carry out research and to help each student develop his or her ability. He also noted that actions needed to be taken to promote research in education in teacher education.

## **Japan Association of Universities of Education (JAUE)**

### ***Tokyo Gakugei University (TGU)***

As part of my research, I interviewed the Vice-president of Tokyo Gakugei University and Head of the Planning Board of JAUE. The aims of the interview were as

follows: to gain better insights into the Teacher Education Program in Tokyo Gakugei University; to better understand the position of action research in teacher education; to better understand the plans and projects of the Japan Association of Universities of Education (JAUE) in relation to promoting action research in the graduate school of teacher education.

According to the Vice-president, the mission of the Teacher Education Program in Tokyo Gakugei University was to foster school leaders who could coordinate between teachers to develop and continuously improve elementary or lower secondary school curriculum. The Education Curriculum and course content for teacher education at the university supported this mission. In addition, the Vice-president agreed that there was a relationship between research education and the quality of teaching. In relation to this, he pointed out that the courses in the Graduate School of Teacher Education were based on problem solving approaches, self-evaluation techniques, and research methodology. He stated that,

*"In Tokyo Gakugei University, there is an interest to promote research in teacher education for both undergraduate and graduate students. In this university, research education is one of the most important parts of the curriculum and teachers are trained in research methodology in each discipline."*

However, as in Waseda University, Tokyo Gakugei University students' are not required to submit any research thesis in order to get their master's degree. The Vice-president stated that every undergraduate student should get at least four units in research methodology. The courses of master's programs at graduate school are classified into three clusters; the educational practice development cluster, the research methodology in education cluster, and the educational content cluster, of which every student must elect at least two courses from the first and second cluster.

To follow the curriculum reform in teacher education program, the Vice-president presented a list of some research projects and research grants related to teacher education, such as: teacher-training institutions in other countries, teacher education curriculum model and core subjects, and teacher training for professional graduates ... etc. In his opinion, it was vital to increase the university's budget to promote research in education in general and in teacher education, in particular. The Vice-president explained that JAUE was established on November 15, 1949 by universities with a faculty or department devoted to teacher education in Japan, to improve the quality of university-based teacher education and to promote research in the field of teacher education, and, thereby, to contribute to the advancement of education in Japan, through the cooperation with the member institutions. In line with this mission, JAUE had served as a national forum for the discussion of matters that aim to improve teacher education. As explained by the Vice-president, the projects were as follows:

- (1) To hold the national conference of university-based teacher education providers
- (2) To subsidize research on university-based teacher education.
- (3) To plan, organize, and carry out research projects on university-based teacher education.
- (4) To publish the annual bulletin of JAUE; Journal of Japan Association of Universities of Education.
- (5) To present recommendations and suggestions on teacher education to the Ministry of Education to inform policy making. The president of JAUE is usually the chair-person of the select Committee of Educational Policy.

JAUE had no role in evaluating the policies and/or programs of Teacher Education. He noted that this was done by the Institute for the Evaluation of Teacher Education, an independent organisation at Tokyo Gakugei University (TGU). Thus, to improve teacher

education, the Vice-president wished to develop a framework for integrating the research education activities of the Graduate School of Education and the Graduate School of Teacher Education. In his opinion, integrating such programs together at both undergraduate and graduate level would help the Graduate School of Teacher Education produce better teachers and educational leaders.

### **Waseda University, Graduate School of Teacher Education**

To develop a deeper understanding of my research area, some professionals from Waseda University, Graduate School of Teacher Education were interviewed, they are: the Dean of the Graduate School of Teacher Education; Professors at Waseda School of education. In addition, three faculty members filled in my questionnaire. I also interviewed two students from the Graduate School of Teacher Education and ten students completed my questionnaire.

#### ***The Dean of the Graduate School of Teacher Education***

As mentioned previously, the aim of this study was to find out whether teachers in Japan were equipped with the conceptual understanding and methodological skills to engage in action research. Accordingly, the Dean of the Graduate School of Teacher Education at Waseda University was interviewed. The aim of the interview was; to determine the graduate school's policy and plans; to investigate the position of action research in teacher education and to investigate the plans and projects related to promoting action research in the graduate school of teacher education.

Recent national policies for teacher education reform in Japan aimed at creating some competitive environment for Teacher Education. To determine the standards of the establishment of Graduate School of Teacher Education, Waseda graduate school policy for teacher education, as the dean mentioned, was derived from the laws, which were set in 2003 by the cabinet. The framework for the Teacher Education Curriculum followed the stipulations laid down by a piece of legislation called 今後の教員養成免許制度の在り方について (The future of the licensing system of teacher-training program). The Dean noted, in relation to this, "We have to follow this law, and we developed the framework according to the law." In addition, the dean informed me that the teaching staff were responsible for choosing the content of the courses they were teaching. In other words, it was their decision on what to teach and not to teach in their particular subject specialism. In this case, the quality of the curriculum depends on how well the teaching staff were qualified and experienced in the field they were teaching.

Thus, in order to evaluate whether the teaching staff were sufficiently well-qualified to carry out the task of 'training teachers for quality education', I decided to collect information about the teaching staff regarding their experience, their qualifications, how they were selected for their jobs, and whether they had any previous research experience. In addition, in order to know the minimum criteria and qualifications required to work at the graduate school and whether doing research was a necessary criterion for this, the Dean noted, "No, it is not a necessary thing; we take not only scholars but also experienced teachers." Therefore, it seems clear that research experience was not a prerequisite for selecting the teaching staff for the 'Graduate School of Teacher Education'.

However, recent Interest in educational research suggests that action research is very important as it is strongly related with the quality of teaching. Nevertheless, the Dean revealed that there was no dedicated subject for teaching research methodology in the teacher

education program. This was because, according to the Dean, there was no stipulation for this in the legal framework structuring the content of the Graduate Schools of Teacher education. He noted that "We set up the framework of the Graduate School of Teacher Education according to the law." Although the Dean thought that there was a relationship between research-based education and the quality of teaching, he noted that research-based education in Waseda Graduate School of Teacher Education was so limited. The Dean said, "There isn't any specific course for research methodology, but in some courses, teachers sometimes teach about research to their students."

To conclude, there seem to be no compulsory courses that deal with research methodology in the program. There seem to be only one to two elective courses, which deal with one part of research education, namely using questionnaires (as noted by one of the members of the teaching staff in the Graduate School of Education). Students from both graduate schools (school of education and school of teacher education) were allowed to register for this elective course. Since this course is an elective subject, it is pertinent to ask "Are students in the graduate school of teacher education interested in and understand the importance of the research course?" The answer to this question is given in the discussion below when analyzing the students' questionnaires and interview data. It has been established above that teachers face many problems while teaching, relating to school program, school subject, class environment, teaching strategies, student's achievement and so on. Given the problematic nature of a teacher's work, the Dean was asked if there was any course in the graduate school based on problem solving instruction. He said, "Though we can't tell exactly which subject is based on problem solving instruction, we teach it while teaching the basic subjects."

As research project can bridge the gap between theory and practice, there should be collaboration between learning in the college and teaching in the school. Accordingly, the Dean was asked if there was any joint research project between the graduate school and the schools; "No, there isn't," he replied. When he was, also, asked if the Graduate School of Teacher Education had any intention to explicitly develop students' research skills, so that they could conduct school research, which would lead to their professional growth and development, he answered "No, we are not planning to do so in the near future." He explained that this was because they did not have the teaching staff who could take the responsibility for this type of courses. The Dean thought that conducting research was not so important for teachers. He noted specifically that "Not all teachers need research education; some may need it but others may not."

In addition, the Dean revealed that Waseda Graduate School of Teacher Education did not have any specific plan to enhance action research in their educational instruction. He said, "I think promoting research is important, but I don't think it is essential. We have many other things to do." He said that in order to involve research in teacher education curriculum, the graduate school faced difficulties to find teachers / professors who could teach action research.

### ***Professors of the Graduate School of Teacher Education***

To better understand the strategy of teaching research at Waseda Graduate School of Teacher Education, I interviewed two professors. The aim of this interview was to get a clear understanding of the content and strategy for teaching this course. One of the Professors, who was teaching research as an elective course, noted that the aims and objectives of the elective research course were "to analyze educational data and use the findings for class management." According to him, the purpose was to "... [m]ake students see their education with scientific

eyes." He thought that students needed support when carrying out research assignments. In his course, students need to distinguish between a questionnaire and an interview; they sometimes mix between the two and put what should be asked in the interviews into the questionnaires and vice versa. When writing any academic research paper, there were some criteria that should be followed and the students in Waseda University had the chance to learn those criteria in a course called "Educational Practical Thesis Seminar," as noted.

This Professor believed that there was a relationship between research and the quality of education, and action research could help in educational planning and decision-making. He stated, "action research can tell us what the reality is." He thought that educators were usually too busy to conduct action research; however, it should to be considered in the graduate school of teacher education. He also revealed that they were some barriers preventing the promotion of research in education. He said, "The course we are teaching is an elective one, and there is not really enough time to teach it well." He concluded with a hope that school teachers would be able to engage in action research and use as a tool and share their results with each other.

An associate professor at Waseda Graduate School of Teacher Education was interviewed. He had about 30 years teaching experience, teaching 'Career Education'. He stated "I want students to develop their own careers", he said. In this subject, students are not required to submit any research paper. However, he agreed that there was a relationship between research and the quality of teaching. He did not think that all teachers needed to conduct research while teaching; In relation to this, he said, "Only teachers who face difficulties should do". When this Professor was asked if his students had the capability to write a research paper, he replied, "No, they do not; their schedule is too loaded and the aim of my course is not to conduct a research."

At Waseda University, then, students in the teacher education program are not required to submit a research paper or a thesis. In Japan, as this Professor argued, there was little interest in teaching about research in schools of education in general and in teacher education, in particular. There are difficulties the graduate schools of teacher education faced in promoting research in the curriculum, as he said, "This course is important, but it is also very demanding; and this matter needs to be considered." At Waseda University, students had to finish 46 credit hours in two years. He noted, therefore, that "They have such a high workload that they find it difficult to study their own subjects". This Professor concluded by saying, "I want teachers to have time to think about improving their own careers because teachers who make efforts to develop their own careers have a positive affect on their students' motivation."

### ***Students of the Graduate School of Teacher Education***

In order to get deeper insight into the curriculum and the strategy of teaching of the program of the Graduate School of Teacher Education, two students were interviewed. Students explained the courses they were taking. They had to take about 18 credits as compulsory subjects, and about 16 credits as elective subjects. In addition, the teacher training course had about three credits of teaching practice, which had to be done over 15 days. The student had to choose a theme to be discussed or a problem to be solved. One of the students, for example, was interested in "*the cooperation between elementary schools and local community*" and "*class management*" as a subject, while the other student was particularly interested in "*school counseling*". Both students explained the difficulties they were facing while studying in the Graduate School of Teacher Education of Waseda University. They both agreed that the curriculum is long and intensive and the schedule is

condensed and full of compulsory subjects. Also, in the teacher training course, students were not given the chance to choose the school in which they were to do their teaching practice. Students on the teacher-training program, also, faced difficulties while working on a theme of their choice. Their interest sometime did not match with the school teacher who was responsible for their teacher training program. One of them commented on this and said, *“It was difficult to study about a theme of my interest in the school I was allocated. So, if I want to study my own theme, I need to conduct it in the school I work for, but I am too busy to do so now.”*

The students complained that they were not given the opportunity to discuss the problems they were facing during their teaching practice with their professors. However, the students believed that most of the subjects were beneficial for their career as teachers, especially "class management." In their experience, both students thought that the teachers were not well enough qualified to train them effectively. One illustrated, *“The teachers are unsuitable for our aims and themes, as they are just asked to take care of us. Sometimes, those teachers are chosen by the professors only because they know them personally.”* In other words, the school allocations were made on the basis of personal connection with the school teachers where the training program took place.

Regarding the elective research courses, the students believed that these courses were vitally important for teaching. However, when they were asked about action research, in particular, they revealed that they had difficulty in explaining what it was and how it worked. The only definition they could give was that action research gives teachers information about the schools and the students. The students concluded by stating that they hoped the Graduate School of Teacher Education could take positive action to improve the Teacher Education program, including the curriculum, subjects and the training courses. In particular, the students stated that they needed a better understanding about action research approach, methodology and practice.

## **Schools: Interviews and Observations**

### ***Schools' Visits***

Two schools were visited in Kanuma City (one elementary and one junior-high), attended two English lessons, and interviewed two school teachers (both M.Ed. degree holders). These Japanese teachers were graduates of the Graduate Schools of Teacher Education. The aim of my visit was to get a clearer idea about the teachers' school life, and to see the reality of the teaching system in practice. In addition, I wanted to investigate whether any action research in real teaching was taking place in the school or in the in-service training programs.

During my first school visit, I met the principal of Kanuma Kita Elementary School. We had a brief discussion about the school system, teachers' projects and teacher training programs. Then, the school had arranged a classroom visit for me. I attended one full period of an English lesson monitoring and writing my remarks. After the lesson I had the chance to talk to the teacher and discuss some teaching strategies and practices. Regarding the in-service training programs, the principal gave me some detailed information about the type of programs the school teachers were attending and explained that the need for any particular training program was decided by the board of education. He informed me that no training courses were held for teachers on school-based research/action research, but that teachers could improve their teaching practices, mostly by discussing their teaching problems and challenges with their colleagues in small workshops. During this visit, I visited the teachers'

common room and had a brief talk with some of the school teachers about matters relating to their school, teaching subjects, in-service training and whether or not they were able to conduct any research projects.

To get a broad idea of the teachers' teaching strategies and practices, I was able to visit Kanuma shi Higasi Tyugakko Junior High School, and carry out a classroom observation. These types of observation allow the observer to engage in action research studies. The main purpose of this classroom observation was to assess to what extent research-based teaching strategies were being used, to evaluate the strengths and weaknesses in the teachers' practice, to reflect on the teacher's professional growth and note areas for improvement. From the evidence of the observation, I tried to generate explanations and understandings and predictions related to teacher behaviors, teaching techniques and practices along with student engagement, responses, and work. After the observation, a short discussion with the class teacher took place on issues related to the lesson, and had a good chance to learn about the school system, program and plan. As well as carrying out the observation, the school had arranged for me to interview two teachers who both were master degree holders. I interviewed them separately and the interviews were recorded.

### *Teachers' Interviews*

Both teachers studied for their master's degrees in one of the Japanese graduate schools of teacher education. In these interviews, I intended to discuss some matters related to their teaching experiences, their teacher education and their training program to find out if they had carried out any research projects during their teaching and/or during their studies.

The first teacher is a 9<sup>th</sup> grade class teacher with four years' experience in teaching family education and the art of technology. When I asked him about his teaching experiences, he noted that he liked his subject, his school and his students, but he thought, however, that his teaching "...[n]eeds to be improved." He said, "I am trying to do my best every day." In his opinion, planning for a teaching lesson was necessary, and it was important to be taught as a subject in teacher education programs. For him, classroom management was the most difficult part of teaching and said, "This skill helps me understand my students and control them." Regarding his teacher education program, he explained that the compulsory subjects in the graduate school were useful, but they were mainly theoretical and difficult to apply in practice. "There were not enough practical courses," he said. However, he thought that professors were ready to help when needed; "I received good guidance at graduate school," he said. This teacher revealed that he had not received any instruction in his graduate or undergraduate teacher-education program about problem-solving, self-evaluation, or research methodology. He suggested that the in-service training was important and thought that the in-service training program could improve his teaching ability and practice. Regarding research education, this teacher noted that he thought it was good that he had the opportunity to conduct a research project in his teacher education. His research project was entitled "The Use of Robots in Teaching." However, unfortunately, he was not given the chance to implement the project in his real teaching lessons. He agreed that the quality of teaching requires from teachers to become researchers, but he admitted that he had never heard of "action research."

The Second teacher is a 7<sup>th</sup> grade Social Studies teacher with five-year teaching experience who also studied for her MA study in one of the graduate schools of teacher education in Japan. Similar to the other interview, I intended to discuss some matters related to her teaching experiences, her teacher education and her in-service training program. This teacher reported that she liked her subject and that she thought that her teaching had improved compared

to her first year of teaching. She said, “When I started teaching, I did not know how to prepare my materials or even to teach.” She thought that teaching should be “... [e]njoyable, emotional, and fun.” In her opinion, “lesson planning” was an essential part of teaching and “classroom management” was the most difficult one; “I find it difficult to control my students” She said. She believed that the in-service training was very important to avoid such difficulties while teaching. Regarding her teacher education program, she stated that it did not meet her expectations, and it focused too much on theory. She stated “I didn’t know what to do or how to teach at first, I didn’t get enough practical knowledge during my education.” As for the other interviewee, this teacher noted that she had not received any instruction in her graduate or undergraduate teacher-education programs in matters related to problem-solving, self-evaluation, or research methodology. Regarding research education, she had received no research education during her studies and she noted that the university students were mostly dependent on themselves for writing their research. She had written a research paper entitled ‘Farmers’ Financial Management at the End of Edo Period,’ and she noted, “I received good advice on my research,” she said. This teacher reported that she had never heard of “action research” and did not agree that the quality of teaching needs teachers to become researchers. She said, “I disagree. I prefer asking my colleagues about the problems I face during my teaching instead of investigating and researching,” she added “Cooperation with colleagues is important”.

### **Quantitative Data: Findings from Questionnaires**

Students and professors at Waseda Graduate School were asked to fill two different questionnaires about their research experiences in their teacher education programs. In total, thirteen questionnaires were completed, including ten by students and three by professors. The results were as follows:

#### ***Professors' Questionnaire***

Only three professors from the faculty of Waseda Graduate School of Teacher Education answered the questionnaire. The questionnaire consisted of thirteen items (open and close questions, which aimed to ‘get at’ the perceptions of the respondents concerning research use and practice at the Graduate School of Teacher Education; in particular, I wanted to find out if there was a real use of research in their teaching practices.

The findings revealed that professors review or use the following types of research activities in their job at least once per year: course evaluation and research on effective practices. This activity was carried out with the faculty, students and self. However, they had never used or reviewed results from external surveys, or research carried out by experienced teachers, or data on students’ achievement. Professors used research data at least once per year to guide their own decisions about the curriculum, teaching practices, and advising their students. However, they had never used research data to identify academically low-achieving students. They thought that their department used data and research at least once per year in decision-making about issues related to planning, accreditation, and academic program evaluation. However, the professors’ reported that their department had never identified high-failure-rate courses from research data.

When information or data was needed about the students or the curriculum, professors used the following sources: program evaluation reports; data from the college website. Professors could not request data from their department’s database. In their opinion, professors thought that there was a moderate influence on the following bodies for promoting research in teacher education: teachers’ graduate school leadership, the Research and

Development Bureau, and Japan Association of Universities of Education (JAUE). Besides, they thought there was no clear effort to promote research in the teacher education program from the Ministry of Education, the Higher Education Bureau, the Prefectural Board of Education, the National Institute for Educational Policy Research, and the Japan Teachers' Union (JTU). As faculty members, professors had been involved in training or professional development programs in the past two years, related to the following topics: institutional research; program evaluation and assessment; problem-learning approach in teacher education (a pedagogical approach methodology often used in higher education). However, they had received no training in data analysis, research methodology, action research/teacher research or the use of data and research in decision-making. One of the professors noted that, in the teacher education program, there was no training on the following topics: school research, teacher research, self-evaluation and assessment, and action research methodology and practice. Moreover, this respondent thought that theory and practice were not well integrated into the teacher education curriculum. This respondent also noted that the idea of establishing a separate graduate school of teacher education had not been successful and there was also no specific research methodology course in the curriculum.

Regarding research education, the respondent professors thought that teacher education curriculum should cover the various aspects of research. In particular, they noted students faced difficulty while writing research papers. They believed that action research could enhance teachers' ability to self-evaluate, and that a research-based approach could make learning more goal-oriented and constructive (i.e. students would more actively take part in the learning process). Thus, action research could help teachers reflect on and improve their own teaching practice. However, professors thought that students were not getting enough research practice in their university education, and they were not getting research grants. There was little interest in research methodology and practices in teacher education institutions; overall, the respondents felt action research should be given more space and prominence in the teacher education curriculum. In their opinion, the respondent professors believed that teachers in their education should be given enough information about their careers, and should be taught about action research methodology to improve the quality of their teaching. They also thought that a shortage of professional research teaching staff was one of the issues hindering the schools of teacher education.

### *Students' Questionnaire*

In this questionnaire, students were asked to answer questions (closed and open) to provide a deeper understanding of the use and practice of research in their teacher education. In total, ten students (six males and four females) from the Graduate School of Teacher Education at Waseda University completed the questionnaires.

### **Views on Teacher Education Program**

When students were asked about their teacher education, the majority of students (70%) thought that the idea of establishing a separate graduate school of teacher education had been successful; only 40% of students thought that there was insufficient time to apply theories learnt in teacher education to their practice while about 40% of students, also, thought that their work in the classroom had improved because of their teacher education. In addition, 100% of the respondents thought their theoretical knowledge had increased and thought that teacher training had helped them to deal with their teaching problems while 70% reported that the practical part of their course was less than the theoretical part in the teacher

education program. Regarding the teacher education program, 60% of students agreed that there was not enough discussion about teacher's daily work while 50% of them thought that theory and practice were not well integrated into the teacher education curriculum, and that the curriculum was too much loaded. However, students believed that the program supported their goals in classroom work.

Generally speaking, students thought that teacher education program was successful as it helped them in their teaching practice but the theoretical knowledge far outweighed the practical application. Students believed that theory and practice needed to be better integrated. Students received their M.Ed. degree after finishing the program of the graduate School of Teacher Education. The majority of the students (70%) stated that they got their degree through completing course modules/subjects, 60% of students had not been involved in any training programs related to research methodology, data analysis (60%), action research (70%), writing a research report (60%) or the use of data and research in decision-making (50%). About 90% of the students reported that there was a lack of research methodology courses in the university education and 60% of them thought that they had never learnt how to conduct research during their studies. Moreover, 50% of them believed that they were not capable of conducting research. They had never used or come across research done by the faculty or research done by other students in their studies while only 90% of them stated that they liked to engage in research, or found conducting research inspiring.

### **Views on Research in Education**

All the respondents reported that research was often a difficult and complex process; however, they all agreed that it would develop the quality of their teaching. Almost 80% of them thought that research was rewarding and the majority (90%) agreed that conducting research could help teachers reflect on their own teaching practice successfully. About 70% of students reported that tutors did not allow them to practice research methodology and 50% of them did not know how to collect or analyze data, while 80% noted that they had not acquired the research skills. Moreover, 70% had not learnt how to map out a research plan, prepare research questions or design a survey questionnaire. However, they thought that research was relevant to their careers as teachers.

### **Views on Teaching**

All the respondents reported believing that the teaching profession required highly professional knowledge and skills. However, about 60% of them reported that they were not getting enough research practice in their university education, and 70% of them revealed that they faced difficulty in writing their research papers. About 50% of respondents reported that their teacher training was not effective enough. They thought that the quality of teaching needed teachers to become researchers, i.e. teachers conduct researches. However, interestingly, 90% of them were happy that they had become teachers and did not want to quit teaching. Students also listed the most difficult parts of their teaching practice as follows; classroom management, self-assessment, and planning for teaching.

### **Views on University Professors**

The majority of the respondents from Waseda university thought that professors had good knowledge of their subjects (80%) while 60% thought their teachers enabled them to

understand the content of each lesson. 70% thought they related theory to work-based practice well while 80% thought their teachers encouraged discussion. Furthermore, 60% thought their teachers explained their lessons well while 90% thought their teachers gave students time to ask questions. 90% of respondents reported that their teachers respected students' opinions while 80% thought they gave clear guidance and valued students' contributions. On the other hand, 60% of respondents believed that their professors did not ask them to conduct research and gave no credit to research projects.

#### **PART IV: CONCLUSIONS, REFLECTIONS AND RECOMMENDATIONS**

This section presents the conclusions and the interpretations of the findings of my research visit and study. It reports my reflections on this research study, and summarizes the lessons learnt and the insights gained about action research in teacher education program in Japan. It then provides recommendations in light of the findings of the perceptions of the students, professors, school teachers, and policy makers who took part in the study. It also discusses the possible implications of the findings for the development of Teacher Education in Japan.

To better understand the use and practice of research in the teacher education program in Japan, data analysis was compared and contrasted with the findings, the views, issues and research that were previously presented.

#### **CONCLUSIONS**

My study was undertaken in order to find out if teachers in Japan are equipped with the conceptual understanding and methodological skills to conduct action research in education. The specific aims and objectives, and the research questions of my study, produced the following findings.

Regarding their teacher education program, student-teachers revealed that the given subjects in the Graduate School were useful, but they thought they were more theoretical and little to use in practice. School teachers also noted that the teacher education program did not meet their expectations; they didn't get enough practical knowledge during their education, and argued that the program focused too much on theory. In their opinion, school teachers agreed that teacher training was necessary. They revealed that their teaching needed to be improved, and that they faced difficulty in planning for their teaching sessions, and in controlling their students. Accordingly, they reported that "classroom management" was the most difficult part of their teaching. This finding was supported by the student-teachers who stated that "class management" was the most important subject in their graduate school program.

All students believed that their theoretical knowledge had increased as a result of their program, and the practical part of their course was less than the theoretical part in the teacher education program. They noted that theory and practice were not well integrated into the teacher education curriculum, and that the curriculum was over loaded. According to their views on teaching, all student-teachers believed that the teaching profession required highly professional knowledge and skills. Most of them were happy to have chosen to become teachers and did not want to quit teaching. They noted that teacher-training course was not effective enough. Students-teachers listed the most difficult parts in their teaching practice, as follows; classroom management, self-assessment, and planning for teaching. Students-teachers reported that they had not received any instruction in their graduate or undergraduate teacher-education programs in matters related to problem-solving, self-

assessment, or research methodology. They agreed that the in-service training program were important, and that it could enhance their teaching ability and practice.

The majority of student-teachers thought that the idea of establishing a separate graduate school for teacher education had been successful. They thought that their work in the classroom had improved because of this specific teacher education. They also thought that the program supported their teaching goals and that their teacher training had helped them to deal with some specific teaching problems. However, they reported that there was not enough time to apply matters learnt in teacher education to their teaching practice as there was inadequate discussion about teachers' daily work in their teacher education program. Students reported liking their professors in the graduate schools of teacher education. They thought that their professors had good knowledge of their subjects, encouraged discussion, respected students' opinions, gave clear guidance and valued students' contributions. On the other hand, students reported that their professors did not ask them to conduct research and gave no credit to research projects. Some teachers, who reported being able to conduct research in their education, did not get the chance to implement the findings in their teaching practice.

Regarding teacher education, respondent professors noted that, in the teacher education program, there were no training courses on the following topics: school research, teacher research, self-assessment, and action research in teacher education. These respondents reported that they did not think establishing a separate graduate school of teacher education had been successful. Similar to student-teachers' opinion, the professors did not think theory and practice were well integrated into the teacher education program, and also that there was not enough discussion about teachers' daily work. Regarding research education, many studies have suggested that there is a relationship between research and the quality of teaching and most of the interviewees realized that action research was needed in the teacher education curriculum. However, student-teachers received little or no research education during their studies, and they had to depend on themselves in writing their research. Thus, in the graduate schools, it seems professors were ready to help and give guidance when needed.

The majority of the students noted the lack of a research methodology course in the university education. They had never learnt how to conduct research in their university studies, and believed that they were not capable of conducting research. Furthermore, they reported having never been exposed to research carried out by the faculty or other students during their studies. Students reported having not been involved in any training programs related to the following: research methodology; data analysis; action research; use of data and research in teaching decisions. They had not acquired the research skills, did not know how to collect or analyze data, and had not learnt how to write up a research plan, prepare research questions or design a survey questionnaire. Regarding research education, it was positive that some student-teachers had the opportunity to conduct a research project in their graduate school studies, but, unfortunately, they were not given the chance to implement it in their real teaching practice. However, some teachers thought that research was relevant to their career as teachers. Professors, also, thought that students did not get enough research practice in their university education, and they did not get any research grants. Overall, there was little interest in research methodology and practice in teacher education institutions.

On the other hand, the findings suggest the only research was conducted by the faculty through course evaluation. However, they had never used or reviewed results from external surveys, or research done by experienced teachers, or data on student achievement gaps. Professors used research data at least once a year in their decisions about the curriculum, teaching practice, and advising their students. Interestingly, they had never used

research data to identify academically low-achieving students, and could not request data from their department's database, as they mentioned in their questionnaires. In addition, the professors reported receiving no training on data analysis, research methodology, action research, teacher research, and research in teacher education or the use of research data in decision-making. Professors thought the following bodies had a moderate influence in promoting research in teacher education: Graduate Schools for Teacher Education, Leadership, Research & Development Bureau, and Japan Association of Universities of Education (JAUE). They thought there was no clear influence on promoting research in the teacher education program from the Ministry of Education, the Higher Education Bureau, the Prefectural Board of Education, and the National Institute for Educational Policy Research or the Japan Teachers' Union (JTU). Moreover, they reported that there was no specific research methodology course in the curriculum of teacher education.

The professors believed that teachers should be given enough information about research methodology in their education. They reported shortage of professional research teaching staff as being one of the difficulties facing the Schools of Teacher Education in trying to overcome this weakness. They thought that the teacher education curriculum should cover the various aspects of research and they believed that action research should be given an explicit focus in the teacher education curriculum. Professors, also, noted that students faced difficulty in writing research papers, and believed that action research could help teachers reflect on their own teaching practice successfully. In particular, they felt it could enhance teachers' self-assessment skills, and that research-based approaches could make learning more goal-oriented and constructive (i.e. students would be more actively taking part in the learning process).

Some institutions provide support for the improvement of the quality of graduate education. Representatives from The Ministry of Education revealed that they had no intention of developing research in teacher education institutions and had no future plans or projects to establish research centers in each graduate school of teacher education.

Generally speaking, student teachers did not get the chance to practice research in their higher-education institutions, and they faced difficulty in writing their research papers. They admitted that they did not conduct research while teaching and they stated that they did not have the skills to do so. The student respondents reported that they had never heard of "action research." In addition, not all teachers believed that they needed to become researchers to improve the quality of teaching. Some reported preferring to ask their colleagues about the problems they faced during their teaching instead of investigating their problems by themselves. They reported that they had not been trained in problem-solving methods and/or in self-reflective approaches. The majority of student teachers believed that research was often a difficult and complex process; however, they stated that they liked to conduct research, and found conducting research inspiring and rewarding. The majority agreed that conducting research could help teachers improve the quality of their teaching practice, and would positively reflect on their own school work.

In conclusion, some criticism has been leveled at the graduate schools of teacher education in Japan. Some educationalists think that the present graduate schools are not particularly good at developing teachers' practical skills in teaching; others do not think that teachers with the present advanced/premier license with the M.Ed. degree certificate are particularly excellent teachers. In addition, although the interviewed professionals and policy makers showed a shared interest in promoting action research in teacher education and are convinced about its importance in improving the quality of teaching, in real practice there was generally some reluctance in promoting research education in Japanese teacher education institutions.

## REFLECTIONS

This section reflects on the insights that I have gained about the use and the practice of action research in the teacher education program in Japan and on the conceptions and perceptions of the students, professors, school teachers, and policy makers.

First, for research purposes, accessing existing information on the school of teacher education is difficult. There is no systematic information service in Japanese higher education institutions, which collects, classifies and facilitates the organized use of educational information. In order to create a common understanding linking educational research, educational policy-making and educational practice, there is a need for computer networks to establish a system covering all higher-education institutions and the entire country. With future needs in mind, Japan must also develop a multi-media oriented educational information database to strengthen research networks linking Japan and other countries in general and linking Japanese higher-education institutions to the databases of research centers, in particular. Accordingly, both local and foreign researchers could better understand the present situation concerning educational issues in Japan and other countries. This issue was highlighted by the university professors when they said that educational information and research databases were needed to promote research education in higher-education institutions.

Second, one of the major obstacles hindering the promotion of action research in teacher education in Japan is the lack of a linkage between educational policy and research. In the Final Report of the international meeting on educational reform and educational Research (1995) NIER stated that educational research in Japan is rather poor when grappling with real teaching problems. It was, also, reported that when urgent research issues emerge as a result of social changes, the capacity to provide an immediate response is, at times, very limited. Even where there is a linkage between educational research and educational policy, it is often the case that the needs of practitioners are not adequately reflected. In this respect, there is a need to think about devising a system whereby the voices of practicing teachers can be heard at the research and policymaking levels. Thus, this system will allow a kind of quick response and will help select research themes that anticipate the kind of issues that are likely to arise in the future.

Third, while documenting and critically evaluating the literature, I noted that the development of the Japanese educational system has influenced the development of other educational systems not only in the Western World but also in other parts of the world. Since the development of the modern, post-War Japanese education system was, and still is to some extent, heavily influenced by the American educational system, I felt that it would be beneficial that my research would be based on action research (a conceptual concept that evolved in the USA and in the wider Western world). However, interestingly, despite the feeling that there is a need to start a debate about action research in Japan, my study reveals that there is very little literature about research-based education, particularly, action research in teacher education in this part of the world.

Fourth, throughout this work, I have been dealing with two very different cultures. Certain terms and ideas in both languages cannot be directly translated into the other. For instance, the concepts underlying the English term 'action research' are not part of the tradition of Japanese culture. This term is relatively new to Japan and has been introduced relatively recently, along with other Western concepts and ideas. This may have given rise to uncertainty as to the exact meanings of some concepts that are culturally different and may have resulted in loss of meaning in the process of translation. In Japan, using the English Language caused some problems and uneasiness, which always needed to be translated and

explained. Most of the literature on action research, which I have referred to, is in English. Therefore, all the terms that I used relating to teacher education had to be translated in the research instruments from English to Japanese, which was the language used in the field. The interviews were transcribed in Japanese and subsequently translated into English. Efforts were made to avoid distortion by using back translation.

Fifth, in a Japanese context, the current situation on graduate school education shows a lack of research in teacher education, in particular. The Research Institute for Higher Education (RIHE, 2008) reported that it is evident that much of the necessary research is not available. As experienced, in surveying research on the graduate school of teacher education, one can recognize the shortage of research done by either the academic staff or students.

To conclude, it was a major challenge to get acquainted with the different issues related to research in education. It should be noted that the root of all the problems listed above is both conceptual and financial, as mentioned in the interview at MEXT by the representatives of the Higher Education Bureau. These interviewees stated there was a lack of financial support for educational research purposes. Although Japan has a strong economy, the funding for educational research is far from adequate compared to that provided for the natural sciences and it is difficult to secure top class researchers. In order to improve this situation, it is necessary to conduct more research on matters that are highly needed and appreciated in the higher-education field, to raise perceptions concerning the importance of educational research and to create a system that will generate better research results in the future.

## RECOMMENDATIONS

This section presents a number of recommendations aimed at promoting research-based teacher education and improving the understanding of action research. There is general agreement among educationalists that the higher-education system in various countries and regions needs to evolve in ways that can effectively accommodate the rapid changes currently taking place in all societies and regions. For greater relevance and effectiveness, higher education system should seek to accommodate the emerging social, economic, political, cultural and educational issues and concerns. Research-based education has the potential to make an important contribution to the rational understanding and management of these major issues and concerns. I agreed with Diana T.J (2013) when stated that teacher educators can begin to develop teacher leaders who are capable of implementing a national reform through implementing professional development experiences that focus on research. Hence, educational research, in particular, can play a key role in the decision-making process for policy-makers and for practitioners functioning at various levels within an education system.

With a new emphasis on promoting research in teacher education, the teaching of research methodology and skills must be changed to align with teachers' changing role in society. Conceptions of action research do not develop in a vacuum but are educationally contextualized. Scholars agreed that action research is a systematic inquiry conducted by a teacher researcher to gather information about the ways that their particular school operates, how they teach, and how well their students learn. The information is gathered to gain insights, develop reflective practice, and to effect positive changes in the school environment and improve educational practices and student outcomes. In this respect, the defining features of action research also reflect the qualities of teachers in collaborative cultures of change. These qualities include a deep understanding of their school's vision and insight, a need for new knowledge, a desire for improved performance, and a willingness to effect change

(Stewart 2011). Action research, accordingly, can inform teachers about their teaching practices and empower them to take leadership roles in their local teaching contexts. In this case, successful action research sometimes requires the development of a cadre of teachers working in the field who accept the responsibilities of becoming co-researchers in various projects. They do not have to share the same values, visions, or beliefs, but they must all be prepared to accept the basic premise of action research as a method for improving their collective situation (Wallace, 2006). Such a group is representative of the domain as a whole, and forms the core of the decision-making regarding subsequent activities. Due to this role in formulating plans for action, it is usually referred to as a design team. It should be understood that action research is conducted by teachers and for teachers. It is a small scale, contextualized, localized, and aimed at discovering, developing, or monitoring changes to practice.

In the light of the findings of my study, I argue that the core features of the conception of action research should be understood not only as the product of the ruling strategy and educational policy but also in the way teachers interpret their teaching strategies and practices. The structure and contents of all teacher education programs should have a research and evidence-based orientation. This means that teachers learn to take an analytical and open-minded approach to their work, that they draw conclusions based on their observations and experiences, and that they develop their teaching and learning environments in a systematic way.

To conclude, the findings of my research study demonstrate the need for policy makers and curriculum developers to include the opinions of teachers when formulating policies that affect them. They also need to be committed to promoting action research in schools of education, particularly in teacher education. Education policies should always be adaptable, since they are meant to improve the quality of teaching, and it should be accepted that teachers are not passive but involved in processes of change. In order to prepare teachers for this future role, teacher education program should direct the whole curriculum to meet the new trend of “teachers as researchers.” Thus, there should be a rethinking of the objectives, content, and approaches of teacher education to ensure that they match the changing context and the changing role of teachers in Japan. In addition, in light of the findings of my research, the approaches and methods used for teacher education should provide space for discussion and debate on its curriculum. This discussion and debate are the basis for developing research-based teacher education. As a starting point to evolve new ways of engaging teachers in research, Japanese decision-makers need to develop new educational research practices in Japanese schools of teacher education. In this way, teachers would be able to take an active part in, and express their personal opinions, ideals and attitudes towards their teaching practices.

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