

Sarkar Arani Mohammad Reza (2006) Transnational Learning: The Integration of Jugyou Kenkyuu into Iranian Teacher Training, In: *Lesson Study: International Perspective on Policy and Practice*, Edited by M. Matoba, K. Krawford, and M. R. Sarkar Arani, Beijing: Educational Science Publishing House, pp.37-75.

Transnational Learning: The Integration of Jugyou Kenkyuu into Iranian Teacher Training

Mohammad Reza Sarkar Arani

Introduction

Japanese education has received widespread attention in western industrialized countries and some nations have begun to use Japanese education as a model to reform their own systems. It is thought, however, that the high quality of Japanese educational practice and teachers' development that are so highly evaluated by the west vary considerably depending on the educational setting. As a result of doing a PhD within the School of Education and Human Development at Nagoya University, I was able to gain insight into the conditions and issues within Japanese elementary schools classrooms. This was where I first came to know and understand the concept of improving teaching through jugyou kenkyuu (lesson study).¹⁾

Moreover, as a result of doing research and practice related to classrooms, I came to understand the various kinds of methods for improving teaching and teachers' professional development. In this setting I become

acquainted with Mr. Ishikawa, a teacher in the Nagoya City municipal Komeno Elementary School, and as part of researching School-Based In-Service Teacher Training (SB-INSTT); I began to investigate the topic of the SB-INSTT in Japan and its focus upon enriching the teaching and learning process through improving the quality of teacher decision-making (Sarkar Arani, 1999a).

Here, the research objective was to empirically investigate the effect that SB-INSTT had upon the quality of educational practice and teacher professional development. In particular, attention was placed upon clarifying the relationship between teacher professional development, teaching quality and the improvement of classroom practice. In order to do this observations were taken from the classroom practice of teachers to see how their decision-making modified as a result of SB-INSTT, and how the quality of their teaching improved. The results of a survey on the teacher decision-making process highlighted, in particular, the post-lesson reflections of teachers. The research also explored how teachers learn from SB-INSTT in which there is post-lesson reflection, and also what quality improvements were made in collaborative classroom activities and practice.

In Iran fundamental educational reform is scheduled to take place in the future, and as an Iranian educational researcher, I have a national responsibility for the reform of INSTT. The proportion of youth, as a percentage of the total population of Iran, is high, 33% are school-age students. For this reason a large number of teachers are necessary. However, in many cases teachers only have a high school education, and there is a need for classroom instruction and learning based upon sound educational practice. Therefore, in Iran improving

the quality of teachers through professional development has become a pressing concern. Of course in Iran, there are several of types of INSTT but there are few examples of the type of SB-INSTT that takes place in Japan. Hence, it may be said that research on INSTT in Japan may provide a new approach to teacher professional development in Iran. Indeed, there is much international interest in topics related to the improvement of educational practice and teacher quality.

I clarify in this chapter what Iran can learn from Japan's experience of *jugyou kenkyuu*, and what we can apply to the Iranian educational context. The chapter also discusses the process, progress and challenges of incorporating *jugyou kenkyuu* into Iranian teacher training. I examine how Iranian teachers and school administrators incorporate the essence of *jugyou kenkyuu* as a shared professional culture that requires teachers to engage in a cycle of questioning, planning, reflecting, acting, observing, reflecting and re-planning.

The Implementation of *jugyou kenkyuu* in Iranian Schools

1) The Creation of a Space in the Ministry of Education

The Organization for Research and Educational Planning, a section of the Iranian Ministry of Education, has been utilizing the *jugyou kenkyuu* model that I adapted for their School Enrichment Project. This project began in April 2000, and has included such programs as "teacher training"; "curriculum development"; "school improvement"; "raising the leadership ability of principles" and "reforming teachers and community relationships." I proposed and implemented the Project as a model for Iranian teacher quality

improvement based on research conducted in Japan. Since my doctoral dissertation was based on research in mathematics teaching at the elementary school level, these experiences were drawn upon to introduce jugyou kenkyuu into Iran for the first time.

It was coincidental that within this project, a jugyou kenkyuu program was being conducted. Two model elementary schools in each of Tehran's nineteen districts were chosen for implementation of the project. The reason why two schools per district were chosen was because after the Islamic Revolution took place in 1979, all public schools from the elementary level were separated by sex, and so for this study, one boys' school and one girls' school in each district were selected. All the schools were national schools and were selected by the Tehran Educational Board to participate in a school enrichment project. The model schools were later expanded to include junior high schools.

Since the Iran-Iraq war in 1980, the population of Iran has grown substantially and now, approximately half of the country's sixty-five million people are of school-age. Currently, there are population controls measures in place. Until relatively recently there had been a constant shortage of schools and teachers. Because of this the Ministry of Education established a system in which anyone with a high school diploma could become a teacher, if they underwent two years of training. For that reason, most teachers, especially at the elementary school level, have not graduated from university. Also, since in Iran men who work thirty years, and women who work for twenty years are eligible for retirement, some women, who having become teachers at eighteen upon graduating high school, are able to retire at the age of thirty-eight. This is

why there are currently few teachers who could be called “veteran teachers” at Iranian schools and this is considered to be one of the main problems affecting teacher quality.

As a result of this situation school teachers in Iranian society are not highly valued and there are many who chose to become teachers because of a lack of other alternatives. The current situation is also related to a decline in teacher motivation for making efforts toward improving their own educational skills and knowledge.

2) The Establishment of Cooperation between Principal, Teachers, and Parents

From my experience, building a better school must start with improving relationships with students’ parents. Given the nature of schools and teachers it is very difficult to create a better school without changing parental expectations. With this in mind when we conducted the project in Tehran, it allowed an opportunity to talk with the parents. This was significant because it is essential that both parents and teachers change their attitudes toward school. As a result of these talks principals and teachers from various schools developed their plans. Parents, as a result of their participation, became more interested in making the school more effective for their students and began to cooperate with principals and teachers. Using this opportunity, jugyou kenkyuu was introduced as a model from which something could be learned. Also, many teachers and parents contributed their impressions, criticism, thoughts, objectives and ways of thinking. In this way a concrete model of jugyou kenkyuu, which includes parental participation, was introduced.

In Iran, even if there is an opportunity for teachers to gather for a discussion, everybody tends to talk continuously about various topics and most people do not listen to each other. However, during my visit they were told that “if you have something to say to the principal, everybody has three minutes,” and then all participants cooperated in taking part in the discussion. The school principal stated “I have been school principal for five years, but what I have learned in this one hour has been invaluable. I am thankful that this model was introduced to us.” Until then the teachers had never been able to say what they wanted to the principal. This point represented the beginning of teachers’ thinking about collaborative research.

At the second general meeting a discussion took place in the teachers’ study group on the objectives, process and methods of *jogyou kenkyuu*, and a detailed review of the *jogyou kenkyuu* technique was clarified, based on the case study research analysis of the Japanese mathematics class. For example, explanations were given for lesson planning methods; techniques for classroom observation; class recording; methods of gathering data; and the role, purpose and use of audio and visual tools in the classroom. In addition, based on contributions from the participants, there were also explanations of the role of each teacher in the classroom, lesson analysis (analytical perspective, division of the parts of the lesson process), methods of holding meetings for reflection and review, school and teachers’ documents and the use of lesson materials and students’ impressions. There was then a discussion of what was needed to prepare the implementation of *jogyou kenkyuu* at each class level, what items should receive the most attention in the first *jogyou kenkyuu* session and how

teachers could use what they learned in their reflection meetings in planning for their next lessons. This was all conducted in the format of a workshop.

The teachers expressed in interest in implementing a practical application of jugyou kenkyuu and they conveyed what they had learned to teachers in other schools, the school boards, education boards and to students' parents in particular. It is apparent that since 2003 a considerable number of parents have begun to visit elementary schools.

At the third general meeting some practical advice was given to teachers for conducting jugyou kenkyuu for the first time in the context of Iranian school culture and society. The most important features of jugyou kenkyuu are collaborative planning, doing and reflecting. This approach requires a friendly and cooperatively environment at school. Even though jugyou kenkyuu is for collaborative occupational development it reflects the culture in which it is carried out. It is very important to fully understand that jugyou kenkyuu is a cultural pathway to improving teaching. According to Stigler and Hiebert teaching is a cultural activity and is a complex system, they emphasize that "The scripts for teaching in each country appear to rest on a relatively small and tacit set of core beliefs about the nature of the subject, about how students learn, and about the role that a teacher should play in the classroom" (1999:87). For effective jugyou kenkyuu to take place it is necessary to create a cooperative occupational culture through collaborative participation. We need to carefully and slowly construct a culture in which teachers can come together in a non-intimidating atmosphere (Watanabe, 2002).

Cooperative discussion and ideas are necessary for the planning of clear jugyou kenkyuu objectives. Discussions are held over what is most important for the learning and research process. Objectives place emphasis upon research problems to be discussed by the group. In this way teachers can have sufficient time to reach meaningful outcomes and to gather insight. The most important goals of jugyou kenkyuu are the enrichment of classroom practices, teachers' professional development and the creation of a school environment for effective learning. These issues are discussed extensively in the all-faculty meetings of Japanese schools in which SB-INSTT, including jugyou kenkyuu, is decided for the year.

The jugyou kenkyuu process conducted in Japan predicts the thinking and the learning activities of students. Jugyou kenkyuu requires that teachers carefully consider such factors as students' characteristics, responses, self-learning, participation, and group activities. Students study the learning objectives, and consequently, objectives for improving teaching are linked to the improvement of student learning. We must keep in mind that improvement in student's learning in schools is closely linked to teacher professional development (Darling-Hammond, 1998; Sarkar Arani, 1998).

Teachers choose appropriate lessons based on group expectations and objectives. If group objectives differ widely from the actual jugyou kenkyuu, this could be troublesome when the time comes for setting up the next jugyou kenkyuu. It is necessary to carefully select appropriate lesson plans and subject matter and to obtain teachers' cooperation and support at the meeting to review lesson plans and teaching. In case of Mr. Ishikawa, he taught the lesson plan

over the course of two lessons - one lesson was in a typical classroom, the second lesson took place in a science laboratory.

A report that includes reflections on teaching is necessary for applying unified, clear and appropriate formats, guidelines and rules at the planning stage. Such guidelines include, for example:

- the kind of lesson plan;
- the teaching materials and the role of textbooks;
- the teaching methods used;
- the observational skills necessary;
- the detailed role of participants;
- the method for evaluating the teaching-learning process;
- the method of recording classroom activities (ethnographic notes, tape-record, video record);
- the method of writing a manuscript of all classroom activities transcribed from recorded data;
- a discussion of the most important points and classroom activities at the feedback sessions;
- the method of reporting, learning from, and using teachers' opinions about jugyou kenkyuu in the next lesson (Fernandez and Chokshi, 2002).

How can video or cassette recorders be used to record classroom activities?

In jugyou kenkyuu materials appropriate to the class are chosen. An appropriate time is chosen for all involved to create plans outlining how they will participate in jugyou kenkyuu. In the planning session teachers decide how classroom activities are recorded and who should be responsible for this.

Recently research on jugyou kenkyuu at Nagoya University has emphasized observation skills and fieldnotes for recording classroom activities. The main reason is because when teachers are using tape and video recorders

they feel that have nothing to do because the machines are recording everything. The Nagoya University research group asked schoolteachers to observe classroom activities and write ethnographic notes. The research group has a collaborative project with the Tokai City Board of Education in Aichi Prefecture to develop an ethnographic approach that effectively observes, records, analyzes and reports jugyou kenkyuu. In a case study of Fukushima Junior High School in Tokai City, the contents of the jugyou kenkyuu process were recorded and analyzed. The researchers examined records and transcript data and compared teachers' shorthand and ethnographic notes focusing on their discussions at reflection meetings. The research group found that teachers created a number of new strategies for changing teaching styles, understanding students and for designing learning materials (Hibi & Matoba, 2004).

The limits and the possibilities of jugyou kenkyuu are predicted by school conditions, facilities, quality levels, teacher specialties, the number of students, the relationship with the community, teachers' quality and class standards. Moreover, national and private schools in Japan have their own way of delivering jugyou kenkyuu and this model of improving teaching is more popular in elementary schools level than it is in junior and senior high schools.

Jugyou kenkyuu can be initiated after transferring the positive aspects of cooperative activities from previous school improvement programs. There is no need to insist on new approaches, rules, or guidelines. There is, however, the need to pay attention to mutual learning by engaging cooperatively in activities related to the teaching and learning process. Supporting one another and finding the positive aspects of new programs is important for jugyou kenkyuu.

A number of teachers think that they should comment at length regarding every aspect of the jugyou kenkyuu process, but it is more important to narrow the focus, and share opportunities to make comments with other teachers. Data that is precise and detailed provides a more fruitful discussion for all participants. Through jugyou kenkyuu all teachers actively participate and share their experiences.

Jugyou kenkyuu can be thought of as a means of action research. Therefore, there is a demand for meaningful and influential case studies. There is a need for experiences concerning improvements in teaching methods, more effective methods of curriculum development, and the expansion of classroom activities. The School Enrichment Project has provided an opportunity to report the evaluation findings of jugyou kenkyuu in practice; what is now needed is the creation of an environment for learning from other experienced individuals in cooperative research activities. The Project also reports problems involved with the importation of jugyou kenkyuu into different countries that have diverse school cultures.

3) The Implementation of Jugyou kenkyuu in Practice

Jugyou kenkyuu was adapted for use in Iranian schools where collaborative learning and cooperative research activities have been lacking. Iranian teachers who have just started to implement jugyou kenkyuu have not had the opportunity to work with Japanese educators. As a practitioner of jugyou kenkyuu I have published research reports, papers and a handbook on Japanese jugyou kenkyuu which can be used to adopt these methods them to

educational circumstances in Iran. I also translated *The Teaching Gap* which Iranian teachers took special interest in reading. This book, written by Stigler and Hiebert, was the first to introduce *jugyou kenkyuu* into the United States educational context as an alternative approach for enriching classroom activities.

As a result of my introduction of *jugyou kenkyuu* into the Iranian education context a new perspective could be gained in the area of teachers' professional development in theory and practice. Iranian teachers are learning for the first time during *jugyou kenkyuu* how they may learn from their classroom and collaborative activities. They recognized that, especially through self-reflection and group-reflection on their practices, they are able to learn more from each other.

As a part of the School Enrichment Project a group of academic advisors was formed consisting of veteran teachers. They gave advice, engaged in activities with teachers, and thought about the best way to effectively implement *jugyou kenkyuu* in Iran. I gave workshops on several occasions to this group who had the important function of developing a shared culture for collaborative activities and to cooperate together on classroom activities.

There are future plans to report the case study findings and also to conduct an in-depth study on the adoption of *jugyou kenkyuu* from Japan to Iran. Iranian teachers, through *jugyou kenkyuu*, understood for the first time that there were ways of learning from classrooms and cooperative activities. They became aware that they could learn more from each other through methods that were both in-depth and effective. Teachers expressed great

interest in both individual and group evaluations. After experiencing jugyou kenkyuu, one teacher told me:

This model of research and training on teaching has been very helpful. I could receive immediate benefits from participation in jugyou kenkyuu because it focuses on our daily activities as a teacher, and real practice in classroom as teaching. We are able learn much more from research we do at our school than from presentations by university researchers (from teacher interview, April 2001).

A senior supervisor of teachers made the following comment to the other teachers regarding his participation in the jugyou kenkyuu workshop:

In the past, we never seriously thought that we could benefit from learning from each other in school, or through observing teaching and learning inside the classroom. Perhaps we just felt shy about the idea that we could learn from one another. Also, we probably need to brush up on our understanding of research methods and process. Jugyou kenkyuu can help us to create a more effective cultural environment for collaborative research activities which would greatly enhance professional development (from teacher interview, May 2001).

Additionally, after the jugyou kenkyuu session, a young teacher wrote for her supervisor:

I have always thought that in the teaching of mathematics, what was most important was for us to emphasize comprehension of the correct answer and the formula. We are pressed for time in the classroom and never have enough time to cover everything. Our culture of mathematics teaching places more emphasis on student achievement and the results of weekly, monthly, and quarterly tests in school. However, through the lesson planning meeting, class

observation and reflection sessions, I understood that we needed to place more emphasis first on understanding the problem and the process of problem solving which are very important. The *jugyou kenkyuu* model enabled us to learn about the learning process of each student (from teacher interview, October 2002).

I examined how Iranian teachers and administrators at an elementary school in Tehran incorporated *jugyou kenkyuu* into their work. A teacher who taught several lessons for *jugyou kenkyuu* reflected:

I was shocked to teach in front of all my colleagues for first time. It was a very difficult and troubling task for me. For the first 10 minutes I forgot our lesson plan and I wasted classroom time. After class, when I watched the lesson's videotape, I was worried about the discussion meeting and being criticized by other teachers. It was hard for me to participate in the reflection meeting on the lesson, but I soon realized that this would not be the last discussion meeting, and that I would also have the chance to reflect on other teachers' work. Still, this was first time for me to learn from my mistakes and from my colleagues. They helped me a lot and I learned so much about my practice. I found a very effective way to learn at school. As a teacher who has more than twenty years experience, I personally felt that school is not only a place for teaching but also a place for learning (taken from fieldnotes of a teacher in Taghwa Elementary School in Tehran, November 2001).

I recorded a lesson of a veteran teacher doing *jugyou kenkyuu*. After the lesson I told the teacher that she had said certain things during the class, she responded "I don't remember saying that", so she was surprised when she later heard the tape recording of herself. In this way, even for veteran teachers, *jugyou kenkyuu* can promote new ways to reflect and become aware of one's own teaching. These teachers were able to discuss the lesson plans

collaboratively and could enjoy their teaching and learning together. As a result of everybody's cooperation, including the principal, teachers were able to support the teaching of other teachers and upon reflection concluded that jugyou kenkyuu had merit for them.

We will need more time to evaluate all our activities over the past two years, but according to the reports of many teachers, jugyou kenkyuu played an effective role in improving the teaching-learning process. The teachers said that they were very interested in what they had learned about teaching and that they discovered many valuable ideas in their environment for improving school education. However, it is too early to claim that jugyou kenkyuu could be successful in all Iranian schools. We need the cooperation and support of many more Japanese educators and educational researchers, as well as funding, to help with adapting jugyou kenkyuu into a radically different educational system. Presently, in Iran, there is increasing interest in children's education, particularly in urban areas. Therefore, the mutual improvement of teachers, along with efforts for raising the status of teachers in society is expected to have a positive impact on the Iranian educational system as a whole.

The Challenges of Implementation “jugyou kenkyuu” in an Iran Education Setting

1) From a Cultural Education and Systematic Knowledge Perspective

The Japanese model of jugyou kenkyuu faces several challenges in its application to Iranian education. Challenges in the educational system, cultural

issues and other societal and economic problems can be foreseen. However, in my view we can make the following points.

- In order for Iranian teachers to utilize the *jogyou kenkyuu* model it is necessary for them to have basic educational knowledge, as well as essential fundamentals in the educational process, or in other words systematic knowledge of teaching and learning. As mentioned earlier, this is necessary because many teachers in Iran do not attend higher education.
- Iranian teachers must learn collaborative skills in order to carry out interactive decision-making at the school. They also need to understand the importance of the decision-making process as well as the significant role democracy plays in school educational activities.
- Iranian teachers and educational administrators must develop their understanding and attitudes toward improving teacher quality. Improving the quality of teaching should not be limited to raising the teaching and learning skills of individual teachers. Emphasis should be placed on collaborative workings within a group (Smyth, 1995; Lewis, 2002b).
- Iranian teachers do not have much freedom or authority to develop their own ideas within their educational practice. Teachers also do not have much authority for shared decision-making regarding school management or in developing curriculum. In short, teachers in Iran have not been able to engage in many collaborative activities.
- The age composition of young students is extremely varied, there is fierce competition in the entrance exams due to relatively few higher education opportunities, and these factors have a large impact on teacher training and the educational demands of parents. This results in differences of opinion regarding high school education, quality improvements, and the importance of entrance examinations.
- Compared with Japan, the Iranian educational system and school education puts more emphasis on individual capacity in regard to the issue of quality improvement. Educational practice in Iran must be directed toward a more cooperative learning system that includes mutual learning and team teaching.

- There are differences in school culture between Japan and Iran. Iranian educational planners need to reexamine how to narrow the gap between theory and practice, and how to create a democratic environment at school and for human relationships.

It was my intention that an examination of *jugyou kenkyuu* in Japan might have some application to the improvement of Iranian educational practice, and that it might reveal a new approach for raising the quality of teachers and improving teaching in Iran. Methods of improving Japanese educational practice can reveal new perspectives concerning teacher quality enhancement for Iranian policy makers, administrators, researchers and teachers.

The following thoughts concerning school-based research are often expressed not only by teachers in Iran, but those throughout the developed world: that it takes too much time; the research methods are not well understood; collaborative research with other teachers is impossible because of confusion at the school; research should be done at universities (Fueyo and Koorland, 1997: 341).

In my opinion collaborative school-based *jugyou kenkyuu* may serve as an effective solution to the tendencies described above. This is because, in *jugyou kenkyuu*, teachers who have different qualitative and quantitative experiences gather closely together to do work which is helpful for teachers having few pedagogical skills. In addition, such collaborative efforts will enhance the teachers' general knowledge of supplementary skills and their ability to collaborate professionally. Moreover, *jugyou kenkyuu* results in improving various skills of teachers as both practitioners and researchers.

2) From Professional Knowledge and Practice Perspective

A large number of school teachers in Iran have not studied education in university and since they have never engaged in teacher training for which they earn credit, they welcome this type of jugyou kenkyuu. From my own observations, jugyou kenkyuu receives higher praise from women than from men, from smaller schools rather than larger ones, from private schools rather than public schools and from younger teachers than it would from veterans.

However, as this model has just begun it is still at a trial and error stage. Teachers whose classrooms and teaching have never been recorded before have resisted being recorded. Also, some teachers have said that they do not know how and what they should discuss for improving each others' teaching in the reflective meetings. The possibility of jugyou kenkyuu becoming merely a personal attack must be avoided but the problem still remains that teachers do not know how to engage in constructive discussion. Furthermore, Iranian teachers have never had the experience of observing lessons and if people other than the teacher enter during lessons the class may fall apart because students become excited and in the event that video recording is done students are more likely to pay attention to the video than to the lesson. Such problems need to be addressed in our future accumulated experiences with jugyou kenkyuu.

In the implementation process of jugyou kenkyuu into Iran's education context there are many challenges for teachers, schools, Iranian educational researchers, boards of education, and the Ministry of Education. Some of these challenges are described below.

1) Since teachers' social status differs significantly between Iran and Japan, many Iranian teachers stated that the jugyou kenkyuu process is a model that is more suited to Japan. In Iran, within a poor economic situation for teachers, the problem arises of raising the necessary funds for daily life and for education. We do not have time in Iran for the Japanese methods of teacher professional development and we are hoping for training which results in a diploma or significant certification, better employment, salary increase and an improved economic situation. One teacher said to me "we have another job and no time to stay in school after class. We do not have time for jugyou kenkyuu, and have our own way of doing things in Iran. We have been teaching for a long time and nobody has asked us to improve our teaching style".

2) Teachers have a hard time forgetting that the examination of teaching practice is not the same as examining teachers. Subsequently, in a school culture in which teachers place more emphasis on teaching than they do on learning, rather than observing, listening to others, or thinking deeply, teachers prefer to speak critically about the merits of other teachers' lessons. This is another cultural challenge for the process of Iranian jugyou kenkyuu. In such conditions teachers are so anxious over their behavior and decision-making in the classroom, that they are not very concerned with the fundamental problem for discussion but would rather teach the "perfect lesson." The problem develops where teachers forget that they are not just teachers, but must also often examine their own teaching process. Rather than focusing on judging other teachers they should focus on the examining themselves. American scholars

also report the same challenges with the importation of *jugyou kenkyuu* (Chokshi and Fernandez, 2004).

3) School administrators worry about student achievement based on test scores, particularly in mathematics and the science subjects. They want immediate results. There were several administrators concerned with the teacher and student time spent on the process of *jugyou kenkyuu*. They sometimes told me with skepticism “Can *jugyou kenkyuu* really help to improve our school education?” Their situation and responsibilities encouraged their preference for tradition over accepting a new challenge. Moreover, one administrator expressed more interest in new ways of trying to raise student achievement based on standard achievement scores rather than on teacher development.

4) Educational researchers at Iranian universities, including my own colleagues, have usually emphasized the insufficient knowledge of teachers. Most of these scholars have graduated from American and other Western universities where they have learned this idea. Their interest lies in quantitative research methods rather than more qualitative approaches. They prefer to use a statistical analysis approach and in their minds a scientific research paper is one that analyzes and reports data statistically. Several of my colleagues in Iran have told me “teachers are not equipped with enough educational knowledge to carry out research on teaching. Because of this, they are unable to engage in collaborative activities which are part of the *jugyou kenkyuu* process, such as planning lesson, sharing experience and discussion on the lesson.” They think that if teachers have spare time, they should be doing in-depth investigations

into their subject matter, teaching methods, and improving educational knowledge. One professor asked me emphatically “Isn’t the most important thing for a teacher to have a model to develop their systematic knowledge on teaching?” I responded, “That’s correct. Jugyou kenkyuu is an effective opportunity for teachers to learn about knowledge of teaching, to develop their professional skills and to improve teaching in school.”

5) School principals are constantly wringing their hands over school trends, social problems, and the feelings of teachers. This situation is largely a result of the low social status held by teachers in Iran. I am always being asked by them “What will happen if a teacher leaves their class to go and observe another class? Who controls the students? We don’t have enough facilities for students. That’s why we cannot allow teachers to leave their classrooms.”

School principals are worried that jugyou kenkyuu will have a negative influence on the entire school, and on teacher’s feelings. They are against conducting school-based research and, in particular the adoption of jugyou kenkyuu. This is because they believe it will make teachers uncomfortable at school and in their classrooms. Factors that make teachers anxious arise while conducting jugyou kenkyuu, and this becomes a big challenge for administrators and school board members. Furthermore, reports and data from jugyou kenkyuu regarding other schools and school boards may cause school administrators to become too overly sensitive about jugyou kenkyuu.

6) Increasing globalization and information technology based on a knowledge economy and socio-economic changes are rapidly changing the goals, policies, curricula, content and methods of education. The need to

differentiate and to re-think education and learning, both within and outside the school system, has been gaining increased attention among education researchers, policy-makers and practitioners. In Japan a number of diverse educational reforms are underway because of research appropriate for a global information society. In Iran many educational challenges exist at the national and regional levels. We must also take under consideration global educational challenges. We are being confronted with various educational challenges including information technologies, educational reforms for the 21st century, democratic and human rights, decentralization of the educational system, an integrated and interdisciplinary curriculum, an emphasis on scientific thinking, the leadership and quality of schools, and the development of human resources and life skills.

The Iranian Ministry of Education is presently taking under careful consideration these challenges. In these circumstances *jugyou kenkyuu* is likely to be seen as easy to learn but difficult to adequately master. *Jugyou kenkyuu* is a very effective and appealing model, but there are many things that need to be done in teacher training to improve schools. *Jugyou kenkyuu* can be considered a cultural movement in Japanese schools and as such it will take time to effectively implement it in Iranian schools where teachers feel pressed for time. Behind this sentiment is the strong interest Iran currently has in information technology, school facilities and hardware which will bring about quick results.

Conclusion

The raising of the quality of teachers through SB-INSTT is a pressing issue for Iran. Of course, even in Iran, there are many kinds of INSTT programs being held. However, there are few examples of the SB-INSTT and jugyou kenkyuu that is done in Japan. In my opinion the adoption of jugyou kenkyuu as SB-INSTT can add a new approach to teacher training in Iran. However, there are many issues that require consideration when utilizing this type of training in various countries. For example, there are differences in teacher quality, educational systems, school culture, teaching style and social backgrounds of countries. I do not think it is possible to adopt the Japanese model of SB-INSTT, especially jugyou kenkyuu without making some adjustments. It is essential to carefully consider what parts are to be adopted and in what format. Empirical research is necessary to carry this out.

Furthermore, we may foresee some challenges when conducting such research. A relationship of trust between teachers and researchers is an extremely important factor in the methods used for doing research in Japanese schools. Communication between the researcher and the teacher heavily influences teachers' answers to the researcher's questions, especially during interviews with teachers discussing decision-making and self-reflection. I was thankfully able to gain the cooperation of teachers and able to have such relationships in the research I conducted in Japan. However, it is still a problem and a challenge to accomplish this in the Iranian educational context. Even more than in the case of Japan, we can foresee differences in academic backgrounds contributing to poor communication between Iranian teachers and

researchers. Also, the practice of teachers viewing each other's lessons is not very common. In fact, this is a universal issue in most countries and is not unique to Iran (Fernandez, et. al., 2003). Given these circumstances it is necessary to further examine how to carry out subsequent research.

Nevertheless, it is the opinion of many international researchers that excellent teachers in the 21st century "will be those who work together to infuse the best ideas into standard practice" (Stigler and Hiebert, 1999:179). Moreover, it is very important to develop a school culture that contributes to an effective environment for teachers to learn from each other and to continually improve teaching practice.

Jugyou kenkyuu represents an alternative approach to improve the teaching and learning process for teachers' professional development. Specifically, jugyou kenkyuu is based on a long-term continuous improvement model and focuses on student learning, teaching improvement, and collaborative activities. I believe that teachers throughout the world would respond positively to this kind of career professional development model.

To successfully transfer jugyou kenkyuu to other countries it is necessary to develop a culture conducive to collaborative activities, to write detailed instructional plans, to anticipate students' thinking, to learn how to observe classroom activities, and to give teachers a central role in developing these practices. Jugyou kenkyuu, is essentially a cultural activity that focuses on teacher-directed learning and classroom-based professional development (Lewis, et. al., 2004; Chokshi and Fernandez, 2004; Watanabe, 2002, Sarkar Arani, 1999a).

By analyzing fieldnotes, interviews, manuscripts, classroom discourses and other data I found that interpretations of classroom practice provided the best outcome of jugyou kenkyuu process in Iranian schools. Teachers learned how to learn from each other, to share experiences and to reflect on their work through jugyou kenkyuu. They reflected on jugyou kenkyuu as a shared professional culture that requires teachers to engage in a cycle of questioning, planning, reflecting, acting, observing, reflecting, revising, and often questioning future lesson plan. Kemmis and McTaggart (1988) have defended this quality circle as critical action research (Levin and Rock, 2003).

School boards in Iran also viewed jugyou kenkyuu as an alternative approach for the improvement of classroom teaching and as a model of action research. Collaborative research in the teaching-learning process and shared professional culture are seen to contribute the most to the implementation of jugyou kenkyuu in the Iran educational context. Lastly, this study has contributed to current methods of adapting and implementing Japanese jugyou kenkyuu by providing further support for the improvement of the teaching environment through the promotion of shared experiences, collaborative work and continuous improvement and reflection.

Acknowledgement

This paper is based on work supported by the Japan Society for the Promotion of Science (JSPS). The authors would like to acknowledge the JSPS for the research support.

Note

1) *Jugyou Kenkyu* is a collaborative research on teaching-learning process. The Nagoya University research group translates it as collaborative research on classroom activities and the United States scholars enlighten it "Lesson Study".

References

- Chokshi, S.; Fernandez, C. (2004). "Challenges to Importing Japanese Lesson Study: Concerns, Misconceptions, and Nuances", *Phi Delta Kappan*, Mar2004, 85, 7: 520-525.
- Darling-Hammond, L. (1998). "Teacher Learning That Supports Student Learning", *Educational Leadership*, 55, 5: 6-11.
- Darling-Hammond, L., & McLaughlin, M. L. (1995). "Policies that Support Professional Development in an Era of Reform", *Phi Delta Kappan*, 76, 8:587-604.
- Dean, J. (1991). *Professional Development in School*, Philadelphia: Open University Press.
- Fernandez, C.; Cannon, J. & Chokshi, S. (2003). "A U.S.-Japan Lesson Study Collaboration Reveals Critical Lenses for Examining Practice", *Journal of Teaching and Teacher Education*, 19, 2: 171-185.
- Fernandez, C. & Chokshi, S. (2002). "A Practical Guide to Translating Lesson Study for a U.S. Setting", *Phi Delta Kappan*, 84, 2: 128-134.
- Frank, C. R. & Uy, F. L. (2004). "Ethnography for Teacher Education", *Journal of Teacher Education*, May 2004; 55, 269 - 283.
- Fueyo, V., & Koorland, A. M. (1997). "Teacher as Researcher: A Synonym for Professionallism", *Journal of Teacher Education*, 48, 5: 336-344.
- Hibi, Y. & Matoba, M. (Eds.) (2004). *jugyou Kiroku niyoru jugyou Kaikaku no Process* (Recording Lesson in Improving Teaching Process), Nagoya: Remeishobou Publisher.
- Imazu, K. (1996). *Hendo Shakai no Kyoshikyoiku* (Teacher Education in a Changing Society), Nagoya: Nagoya Daigaku Shuppansha.
- Inagaki, T. & Sato, M. (1996). *jugyou kenkyuu Nyu Mon* (Introduction to *jugyou kenkyuu*) Tokyo:Iwanami Shoten Publisher.

- Kelchtermans, G. & Vandenberghe, R. (1994). "Teachers' Professional Development: A Biographical Perspective", *Journal of Curriculum Studies*, 26, 1: 45-62.
- Kemmis & McTaggart (1988). *The Action research Planner* (3rd Ed.). Victoria, Australia: Deakin University Press.
- Lee S., Graham T. & Stevenson, W. H. (1996). "Teachers and Teaching: Elementary School in Japan and the United States", In Thomas P. Rohlen & Gerald K. LeTendre (Eds.), *Teaching and Learning in Japan* (157-189), USA: Cambridge University Press.
- Levin, B. B. & Rock, T. C. (2003). "The Effects of Collaborative Action Research on Pre-service and Experienced Teacher Partners in Professional Development Schools", *Journal of Teacher Education*, 54, 2:135-149.
- Lewis, C.; Perry, R. & Hurd, J. (2004). "A Deeper Look at Lesson Study", *Journal of Educational Leadership*, February 2004, 18-22.
- Lewis, C. (2002a). *Lesson Study: A Handbook of Teacher-Led Instructional Change*, Philadelphia, PA: Research for Better School, Inc.
- Lewis, C. (2002b). "Does Lesson Study Have a Future in The United States?" *Nagoya Journal of Education and Human Development*, Nagoya University, 1: 1-23.
- Lewis, C. & Tsuchida, I. (1998). "A lesson is Like a Swiftly Flowing River: How Research Lessons Improve Japanese Education", *American Educator*, winter, 1998: 14-17 & 50-52.
- Lieberman, A. (1995). "Practices that Support Teacher Development: Transforming Conceptions of Professional Learning", *Phi Delta Kappan*, 76, 8:591-596.
- Lunt, N. et. al. (1993). "The Right Track, Teacher Training and the New Right: Change and Review", *Educational Studies*, 19, 2: 143-161.
- Ota, H. (1989). "Kyoinkenshyu no Jittai to Kankeisha no Ishiki, In Genzai Kyoshoku Kenkyukai" (Ed.) *Kyoshikyoku no Renzokusei ni Kansuru Kenkyu*, (A Study of Continuity of Teacher Education in Japan), Tokyo: Taga Shuppan, 265-301.
- Sarkar Arani, M. R. (2004). "Teachers Learning From Each Other in Japan through *jugyou kenkyuu*: an Alternative Approach to Teachers' Professional Development", *Journal of Studies in International Relations*, 25,1: 191-210.
- Sarkar Arani, M. R. & Matoba, M. (2002). "School-Based In-Service Teacher Training in Japan: Perspectives on Teachers' Professional Development",

Bulletin of Graduate School of Education and Human Development, Nagoya University, 49, 1: 97-110.

- Sarkar Arani, M. R. (1999a). *Nihon ni okeru Gakkou wo kisotoshita Gensyoku Kyouiku-Kyoujyu-Gakusyuu Katei no Kaizen niokeru Kyoushi no ishikettei no Shitsuteki Henka-* (The School Based In-Service Teacher Training in Japan-Enriching Teaching-Learning Process Through Improving Quality of Teacher's Decision-Making-), Unpublished Doctoral Dissertation, Graduate School of Education and Human Development, Nagoya University, Nagoya, Japan.
- Sarkar Arani, M. R. (1999b). "*jugyou* Jissen wo Kisotoshita Kounai Kensyu to Gakkou no Shitsuteki Kaizen", (Improving the Quality of School and School Based In-Service Teacher Training Through the Enrichment of Classroom Practice), In Y. Hibi & M. Matoba (Eds.), *Classroom Analysis Methods and Subjects* (114-126), Nagoya: Reimei Shobou Publishing.
- Sarkar Arani, M. R. (1998). "*Kyoshi no Ishiketei Kara Mita Kounai Kensyu to jugyou no Kaizen(2)*", (The Impact of the school-based In-service Teacher Training on Enriching Classroom Practices: A View from the Teachers' Decision-Making Perspective (2)-A Case Study on Japanese 5th Grade Mathematics Classroom Activities-), *Bulletin of Graduate School of Education and Human Development*, Nagoya University, 44, 2: 75-94.
- Sarkar Arani, M. R. (1997). "*Gakkou wo Kisotoshita Gensyoku Kyoiku to jugyoujissen no Kaizen-Nagoya Shiritsu Komono Syogakkou no Kounai Kensyu no Jirei Bunseki*"-The School Based In-Service Teacher Training for Improving Classroom Practices-A Case Study on Komono Elementary School-, *Bulletin of Graduate School of Education and Human Development*, Nagoya University, 43, 2:153-167.
- Sarkar Arani, M. R. (1996). "*Gensyoku Kyouiku niokeru Kounai Kensyu no jugyou Jissen ni tishite motsu Igi*", (The Significance of the School Based In-Service Teacher Training for Classroom Practice), *Bulletin of Graduate School of Education and Human Development*, Nagoya University, 43, 1:105-116.
- Schon, A. D. (1983). *The Reflective Practitioner How Professionals Think in Action*, New York: Basic Books, Inc.
- Smylie, M. A. (1995). "Teacher Learning in the Workplace-Implications for School Reform-". In T. R. Guskey & M. Huberman (Eds.), *Professional*

Development in Education-New Paradigms & Practices-(92-113), New York: Teachers College Press.

- Smyth, J. (1995). "Teachers' Work and the Labor Process of Teaching: Central Problematic in Professional Development", In Thomas R. Guskey & Michael Huberman(Eds.): *Professional Development in Education New Paradigms & Practices* (69-91), Teachers College, Columbia University, New York.
- Stigler, J.W. & Hiebert, J. (1999). *The Teaching Gap: Best Ideas from the World's Teachers for Improving Education in the Classroom*, New York: The Free Press.
- Stigler, W. J., Fernandez C. & Yoshida, M. (1996). "Cultures of Mathematics Instruction in Japanese and American Elementary Classrooms", In Thomas P. Rohlen & Gerald K. LeTendre (Eds.) *Teaching and Learning in Japan* (213-247), USA: Cambridge University Press.
- Tsuchida, I. & Lewis, C. C. (1996). "Responsibility and Learning: Some Preliminary Hypotheses about Japanese Elementary Classroom", In Thomas P. Rohlen & Gerald K. LeTendre (Eds.) *Teaching and Learning in Japan*(190-212), USA: Cambridge University Press.
- Watanabe, T. (2002). "Learning from Japanese Lesson Study", *Educational Leadership*, 59, 6: 36-39.
- Xu, J. (2003). "Promoting School-Centered professional Development through Teaching Portfolios: A Case Study", *Journal of Teacher Education*, 54, 4:347-361.
- Yoshimoto, J. (1986). "Kyoshi no Shishitsu to wa Nani ka", (What is Teacher Competency?), *Nihon Kyoiku Keiei Gakkai Kiyo*, (Journal of Japanese Association for the Study of Educational Administration), 28: 2-11.