English Language & Literature Teaching, Vol. *15*, No. 2 Summer 2009

English Teachers' Responses to Doing Action Research

Taesun Yang
(Dongguk University)

Yang, Taesun. (2009). English teachers' responses to doing action research. *English Language & Literature Teaching, 15*(2), 245-259.

The purpose of this study was to investigate English teachers' perceptions about doing their own action research to find out the benefits of involvement in action research. I believe that teachers should engage in curriculum research and development because it relates to their own classrooms and because a primary aim for teacher education program is to give teachers ways of exploring their own classrooms. I focused on 17 graduate students who had undertaken action research during the fall semester of 2007 and administered a questionnaire about their perceptions of doing action research. The results revealed that their perceptions of doing action research fell into the following two categories, positive and negative aspects. For positive aspects, they experienced a sense of personal and professional growth and they underwent identity transformation from passive, etic-oriented, and uncritical to active, emic-oriented, and critical teachers. However, many of them expressed that major obstacles to doing action research were time constraints and lack of skills or training in conducting action research. Thus, it is suggested that both pre- and in-service teachers should consider conducting a language teaching diary study, doing collaborative action research, and acquiring all the necessary skills for conducting action research.

[action research/English education/teacher education]

I. INTRODUCTION

The teacher education is seen to be sources of knowledge, experience, and resources for teachers and student teachers to use in exploring and developing their own approaches to teaching. In the field of second language teaching, teacher education programs include a knowledge base drawn from linguistics and language learning theories, and a practical component based on language teaching methodology and a chance for practice teaching (Richards, 1997). In fact, a balance in these two components, theoretical knowledge and teaching practice, is important in teacher education programs (Chang, 1996).

There are two approaches to the study of teaching in teacher education programs, micro and macro teaching, to develop theories of effective teaching and to derive principles for teacher education. A micro approach is an analytical approach that focuses on directly observable characteristics, such as what the teacher does in the classroom. Discrete and trainable skills (i.e., setting up small group activities, etc.) are emphasized in activities and learning experiences in this approach, so it reflects the training view of teacher preparation.

On the other hand, a macro approach is holistic and involves making generalizations and inferences. This approach is about clarifying the concepts and thinking processes that guide effective second language teachers. Thus, most of the learning experiences in this approach is reflective, (i.e., self and peer observation). Therefore, if a primary goal of graduate teacher preparation programs is the preparation of effective language teachers, a balance needs to be struck between micro and macro approaches (Richards, 1997).

However, many graduate teacher preparation programs in Korea mostly focus on the micro approach to apprentice student teachers with less emphasis on the holistic approach. Last year, one of my graduate students who finished practice teaching in middle school emailed me that "I had a great experience. However, I felt that there is a huge gap in between what I studied at school and what happened in this teaching practice."

From my perspective, graduate teacher preparation programs should provide student teachers with more experiences drawn from the holistic approach where they can reflect their own teaching to minimize this gap. However, the field of teacher education in Korea is a relatively underexplored one and thus there has been little discussion of teacher preparation practices. Therefore, I investigated the following question, what are English teachers' perceptions about doing action research?, to emphasize the role of reflective teaching in teacher education programs in Korea. In what follows, the theoretical and empirical accounts of action research in second language teaching will be discussed.

II. LITERATURE REVIEW

In the 1940s, Lewin (1946) first started action research as a means of addressing social problems in the United States. It is an approach to collecting and interpreting data that involves a clear and repeated cycle of procedures. For instance, it starts by planning an intervention to address problems, the intervention is carried out, and then it systematically observes the outcomes of the intervention. After observing the results of the intervention, reflection on the outcomes and planning a subsequent intervention are necessary.

Its main goals are to seek local understanding and to bring about improvement in the context under study. In other words, it does not claim to contribute to obtaining generalizable scientific knowledge. Thus, it is situational, context-based, and self-

evaluative. Kemmis and McTaggart (1989) defined action research as "a form of self-reflective inquiry undertaken by participants in social situations in order to improve the rationality or justice of their social or educational practices as well as situations in which these practices are carried out" (p. 2). In fact, action research can be utilized towards five general ends:

> 1.as a means of remedying problems diagnosed in specific situation or improving in some way a given set of circumstances, 2. as a means of in-service training, providing teachers with new skills and methods and heightening self-awareness, 3. as a means of injecting additional or innovative approaches to teaching and learning into a system which normally inhibits innovation and change, 4. as a means of improving the normally poor communications between the practisizing teacher and academic research. 5. as a means of providing an alternative to the more subjective, impressionistic approach to problem solving in the classroom. (Cohen & Manion, 1980, p. 211)

In the field of second language teaching, many teachers and researchers are interested in the second of those outcomes and they have conducted action research to improve aspects of teaching and to evaluate the success and/or appropriacy of certain classroom activities and procedures. Through action research, they came to learn more about themselves as teachers and to understand how effective they were, how they looked to their students, and how they would look to themselves if they were observing their own teaching.

Some teachers in preparation or experienced professional teachers have kept journals or diaries as reflective teaching (Deen, 1987; Telatnik, 1977, 1978). They commented on the usefulness of conducting a diary study because it helped them clarify their thoughts and feelings about teaching and their way of handling problems drawn from their teaching contexts. In fact, they believe that these types of introspective journals can function as a self-evaluative tool. Therefore, teachers in pre- and in-service have kept journals or diaries for self-evaluation. Specifically, many teachers kept a diary to reflect their own teaching through self-observation because it was a useful exercise for teachers in generating behavioral changes and in developing self-confidence (Deen, 1987; Telatnik, 1977).

On the other hand, some classroom action research used multiple data collection methods to investigate what happened in classroom in great detail. For instance, Block (1996) used students' tape-recorded oral journal entries, observation, and the teacher's journal to compare the various points expressed in the classroom events. Shaw (1996) also used multiple sources of data, such as learners' diary entries, fieldnotes, and interview with teachers to understand graduate content-based language instruction in the United States.

Nunan (1997) was interested in action research and described the Australian Adult Immigrant Education Program (AMEP) designed to show teachers skills and knowledge in classroom observation and action research. He found that the stages (i.e., observing, finding issues for investigating, investigating classroom, and developing action research proposal) to this in-service program encouraged teachers to become their own classroom researchers, which facilitated a beneficial effect in all areas of the curriculum and eventually brought about potential for professional self-development and renewal.

Similarly, many teachers in Korea have conducted action research since 1950s to improve their teaching practices. In the past, teachers mainly conducted action research in an individual and quantitative manner and the reason of doing action research was to improve their teaching practices or to get promoted. However, new approaches to action research are popular in recent years. Many teachers carry out action research with collaboration of other teachers and by using a qualitative method, such as fieldnotes, observation, and interview (Yoon, Park, & Park, 1999).

In the field of English education in Korea, many teachers and educators have also carried out action research. By using an experience of a male elementary school teacher, Lee (1999) emphasized the importance of teachers' doing action research because it was the best way to solve problems in their teaching contexts, and suggested that they should develop knowledge and skills required for doing action research to be effective teachers. In a similar way, Park (2004) analyzed 128 action research papers submitted to the Kyeonggi Province Action Research contest from the year of 2001 to 2004 to figure out problems of action research papers on primary English education. She mainly suggested that more support for teachers' doing collaborative action research at national and public levels be necessary for primary English education in Korea.

In a middle school level, Chang and Song (2001) showed how a female middle school English teacher improved her students' speaking skills by adopting TBI (Task-based Instruction) and stressed the importance of collaborative action research with colleagues, administrators, and researchers. In the field of writing, both Chang (2003) and Oh (2003) thought that teacher and students interactions were beneficial to improving students' writing skills. Thus, both of them took action by implementing individual writing conferences in their teaching practices and found that teachers' process-oriented feedback from individual writing conferences and easy access to a teacher through individual writing conferences could facilitate students' processes of learning writing skills.

In sum, we can see that action research is connected with the concept of teacher development and empowerment and thus there are many benefits of conducting action research as teachers. Although many teachers have conducted action research, there has been little discussion of teachers' perceptions about doing action research in Korea. Thus, this study was designed to describe Korean pre- and in-service English teachers'

experiences of undertaking their own action research to understand their joy and dilemma of doing action research and to suggest a guideline of action research appropriate to Korean teaching context.

III. METHOD

1. Setting and Participants

The seventeen graduate students of A University taking an "English classroom management & supervision" class with English education major participated in the questionnaire (For sample, see Appendix). They are all female, studying for a degree, and currently teaching in different contexts with different students' English proficiency levels. Specifically, 10 students are English teachers at middle and high schools and 7 students are tutoring students in English. Their age ranges from 25 to 33.

2. Data Collection and Data Analysis Procedures

During the Fall semester of 2007, the participants undertook action research as part of the course requirements. Because the course focused on general teacher education in the field of second language acquisition, only three weeks in the beginning of the semester were assigned to dealing with how to do action research. During the weeks, the class reviewed the necessary readings regarding action research and had a chance to narrow down the students' topics of action research through class discussions where they received valuable feedback from their peers and me. In addition, each participant had a chance to have an individual conference where the participant and I met together for approximately 15 minutes and discussed challenges they encountered in doing action research.

Table 1 presents the areas and topics they chose to conduct their action research. As seen in Table 1, the research areas and topics they chose varied from affective domain, teaching the four English skills, to sociocultural domain. Specifically, many of them were interested in an integration of the four English skills.

The questionnaire was administered on the last of the class when they turned in their final projects, action research papers. Before administering the questionnaire, I gave the participants a clear direction to fill it out, and it lasted for approximately 35 minutes.

The questions listed in the questionnaire were categorized into two parts: closed and open-ended items. For the participants' general background information, closed items were used, such as multiple choice items, yes or no items, and so on. In addition, to fully understand the participants' feelings about the questions being asked, open-ended items

were used. To exactly reflect their perceptions of doing action research, they were asked to answer these open-ended questions in Korean. In fact, these open-format items could provide a far greater richness than fully quantitative data (Dornyei, 2003).

TABLE 1

Research Areas and Topics Identified by the Participants

Areas	Topics
Affective Domains	Learners' anxiety and motivation change in content-based instruction
	The relationship between giving feedback and teaching experiences
Feedback Treatment	Effects of immediate feedback
Integrative Teaching	Effects of content-based instruction
	Effects of dictation in listening comprehension
	Influence of pre-listening activity on reading efficiency
	Using storytelling for listening
	Explicit vocabulary teaching for speaking
Teaching Listening	Effects of topic familiarity on listening comprehension
Teaching Reading	Effects of reading aloud on reading comprehension
Teaching Vocabulary	Effective ways to present new vocabulary
Teaching Speaking	BICS(Basic Interpersonal Communicative Skill) Vs CALP(Cognitive Academic Language Proficiency)
Strategies-based Instruction	Effects of metacognitive instruction
	Effects of cognitive strategy
	Effects of prediction strategies
Using Multimedia	Usefulness of using multimedia
Sociolcultural Domain	Textbook review from an EIL (English as an International Language) perspective

In terms of data analysis, first of all, I read the collected questionnaires several times to look for words, phrases, or events that seemed to stand out and created categories and subcategories. Second, I looked for relationships among categories that might suggest generalizations. For instance, I compared each category to make sense of the meaning of the data and did creative thinking in order to articulate underlying concepts about what particular patterns emerged. Then, I interpreted the findings inductively, synthesized the information, and drew inferences (McMillan, 2000).

Specifically, I developed two big categories, positive and negative aspects of doing action research and also created sub-categories for each one: For positive aspects, personal and professional growth, and transformation of identities, and for negative aspects, time constraints, and needs of practical guidelines and training in action research.

IV. RESULTS AND DISCUSSION

1. Positive Aspects of Doing Action Research

1) Personal and Professional Growth

Many participants revealed that they experienced the sense of personal and professional growth through action research.

> Frankly, I did not really care about what went wrong and what went well in my class. However, it gave me a chance to reflect on what I did in classroom in depth, which eventually gave me an opportunity to closely look at strengths and weaknesses of my teaching practice. (Participant 1)

> I felt a degree of personal satisfaction through collecting data, analyzing the data collected, and writing up although it was not very easy. (Participant 5)

> Through action research, I felt that I challenged myself, which gave me a good feeling of being part of a progression. (Participant 3)

As shown in the comments above, they greatly valued doing action research in that it made them look at their classroom practices more closely. This closer look into what happened in their classroom gave them a chance to reflect what they did and through this self-reflection process, they examined strengths and weaknesses of their teaching.

According to Burns (1998), classroom inquiry and self-reflection are critical parts of professional growth because it can provide teachers with a good source for pedagogical planning. In addition to professional growth, they also felt that they constantly challenged themselves and they were making progress, through which they could empower themselves as teachers. Through doing their own action research, they felt a sense of personal and professional growth.

2) Transformation of Identities

Moreover the participants underwent identity transformation through which they found themselves more active, emic-oriented, and critical.

(1) Becoming Teachers with Multiple Identities

Many of the participants revealed that they found themselves more active while they were involving in action research.

> Normally I considered myself passive because I just taught. I mean I did not try to think about problems my class might have...I found that I tried to do something that could make my class effective. (Participant 7)

> I used to apply what I had from my graduate courses to my class without an in-depth understanding of what happened in my class. I now consider myself a reflective teacher who tries to deeply understand what happened in classroom and to find an effective way of teaching. (Participant 11)

> What is good and what is bad in my class? These are two questions I keep asking myself nowadays. (Participant 13)

It is assumed that their job before doing action research was somewhat passive because they were trying to fulfill only one duty, teaching, without consideration of other duties, such as observing and reflecting their classrooms and so on. In fact, they became teachers with multiple identities through doing action research in that it could encourage them to participate in their teaching practices in a more holistic way. Thus, they not only teach but also observe, reflect, and investigate their teaching practices to provide their students with an optimal teaching environment. Through the experience of doing action research, they become teachers with multiple identities, such as teacher, observer, and reflector, all of which are conducive to making effective teaching atmosphere in their teaching contexts.

(2) Becoming Teachers with Emic Perspective

The students' active attitude towards their teaching enabled them to closely look at their classroom practices as well as explore the realities they encountered.

> I used to look my class with outsider's perspective. I paid little attention to what happened in my class. I was there as a teacher with a less understanding of classroom realities. (Participant 7)

> If something went wrong in my class, I used to refer to books...Now I try to solve the problems through an in-depth understanding of what happened in my class. (Participant 17)

> Talking with my students gave me some fresh ideas of how I teach class in a more effective way. (Participant 9)

As seen in the data above, before doing action research they were teachers with an etic perspective although they were insiders of their teaching contexts like their students. As a result, they saw what happened in their classroom through the lens of outsider, through which they only grasped a superficial understanding of their classrooms.

However, doing action research encouraged them to closely observe what happened in their classrooms over a long period of time with special insights. That is, they tried to seek not general but local and context-based understanding, which made them understand their classrooms and students in ways that outsiders cannot. In-depth looking at what happened in their classrooms made them more fully understand their students' needs and find a way to satisfy those needs in order to make more effective and productive classroom environments.

(3) Becoming Teachers with Critical Insight

They were also getting critical about what happened in the classroom.

> When I looked back, I was a teacher who just accepted effective teaching methods and theories from the books. I realize that what is effective and not effective is a matter of context. (Participant 2)

> I found myself an eclectic teacher who tries to fill the gap in between what I learned in class and what happened in my classroom. (Participant 11)

> I thought I was not qualified to teach because what is good in theories was not always workable in my class. Now I am a teacher with a "why" attitude. So I keep asking myself why some are workable and some aren't. Why? (Participant 15)

They used to be vulnerable and accept theories in an uncritical way. For instance, if they were not successful when they carried out their teaching practices by using some effective and/or innovative teaching methods including classroom materials and activities, they considered them insufficient or inexperienced as teachers. In other words, they had an OK attitude which made them passive accepters of theories from famous people.

However, it is noticeable that they started to change their attitudes towards what happened in their classrooms and tried to see it in a more broad perspective. In fact, they made efforts to bridge the gap between theory and practice. That is, they became critical in using and accepting current research findings and others' theories since carrying out their own action research might provide them with a chance to empower themselves as researchers.

2. Negative Aspect of Doing Action Research

In addition to positive aspects of doing action research, the participants revealed some obstacles they encountered in doing action research, which mainly fell into the following two categories, time constraints and insufficient training for doing action research.

1) Time Constraints

All of the participants are currently teaching and studying part-time or full-time and they have other responsibilities in addition to the duties as teachers. Thus, many of them expressed that it was hard to do two things at the same time.

> I understand that it is helpful to have a chance to do action research. However, I am a full time teacher and I also take graduate courses twice a week, which required many reading assignments. I don't really have enough time to do it. (Participant 12)

> I did it this time because it was part of my course assignments. I think I won't be able to do it again because I have many other responsibilities like rearing children, preparing classes, and so on. (Participant 16)

> If I had had enough time to conduct it, it would have been a great addition to others in my field. (Participant 14)

Therefore, it is noticeable that although they thought doing action research was beneficial to them, lack of time deterred their intention to carry out action research in the future.

2) Needs of Practical Guidelines and Training in Action Research

In addition to time constraints, the participants expressed that they did not exactly know how to do action research although they had a chance to understand how to do action research during the class.

> I think I do not have enough skills to conduct action research. I guess I do need some training. (Participant 15)

> Although I had a chance to understand how to carry it out, I still need a more understanding about doing it. (Participant 16)

> While I was conducting it, I kept asking myself a question "Am I on the right track?" (Participant 17)
>
> I think I need more skills about collecting data especially keeping a fieldnote. (Participant 7)
>
> I want to have a chance to talk with some people who did action research and to discuss some challenges we might encounter in doing action research. (Participant 9)

It is noticeable that they did not have enough skills, training or knowledge to carry out action research according to empirical requirements. If they had gone through intensive training about how to do action research, they could have undertaken their action research in a more successful way as well as the results of their research would have been fruitful. In addition, since they carried out their action research by themselves this time, some of them expressed that they wanted to feel a sense of collaboration with other teachers who were also involved in action research. That is, they felt that sharing common problems with other teachers and listening to their ideas might be a valuable asset in generating solutions to changes in their teaching context.

V. CONCLUSIONS AND SUGGESTIONS

The participants' perceptions of doing action research fell into two categories, positive and negative aspects. Most of them experienced a sense of personal and professional growth and they underwent identity transformation from passive, etic-oriented, and uncritical to active, emic-oriented, and critical teachers. Although they expressed some negative aspects of doing action research, time constraints and lack of skills or training in conducting action research, they thought doing action research gave them a valuable chance to reflect their own teaching, which eventually developed a greater understanding of dynamics of their teaching contexts.

In sum, these teachers' experiences recommend pre- and in-service teachers to consider the following three suggestions, conducting a language teaching diary study, doing collaborative action research, and acquiring all the necessary skills for conducting action research. First, there are many benefits of conducting a language teaching diary study. It helps teachers clarify their thoughts and feelings about their teaching and through this reflective process, teachers can gain powerful insights into their own classroom behavior and motivation (Bailey, 1997). Therefore, it is suggested that teachers keep a language

teaching diary based on the following steps, writing records, details, and feelings about the current language experience, revising the journal entries for the public version, looking for patterns and significant events from the entries to analyze them, and interpreting the important factors (Bailey, 1997).

Second, collaborative action research is a much more powerful form of teacher development than individual action research. According to Burns (1998), collaborative action research is a source of teacher empowerment because it develops teachers' abilities to evaluate curriculum policy decisions and to exercise professional judgment. Thus, it is recommended that teachers form a collaborative action research group with other teachers where they together examine their existing assumptions, values, and beliefs within which they work.

Third, acquiring all the necessary skills for conducting action research is needed in teacher preparation programs. For instance, many English teacher education programs in Korea mainly focus on theories from linguistics and second language acquisition and language teaching methods with opportunities for practice teaching. As a result, many of them in teacher education programs are uncertain about what action research involves and how to do it. Therefore, it is suggested that teacher education programs in Korea regularly offer some courses with practical guidelines of how to conduct action research. Those practical guidelines should include effective techniques (i.e., keeping a language teaching diary, interviewing, etc.) and instruments (i.e., audio & video recording, seating chart observation records, etc.) for classroom observation.

In sum, teachers' doing action research is a great way of reflecting one's own teaching practice, which eventually leads to professional self-development. Therefore, encouraging teachers to become their own classroom researchers can be a valuable asset in Korean teacher education programs.

REFERENCES

Baily, K. M. (1997). Dairy studies in teacher education programs. In J. C. Richards & D. Nunan (Eds.), *Second language teacher education* (pp. 215-226). New York: Cambridge University Press.

Block, D. (1996). A window on the classroom: classroom events viewed from different angles. In K. M. Bailey & D. Nunan (Eds.), *Voices from the language classroom: Qualitative research language education* (pp. 23-45). New York: Cambridge University Press.

Burns, A. (1998). *Collaborative action research for English teachers*. New York: Cambridge University Press.

Chang, K. S. (1996). Content and process in language teacher training. *English Language & Literature Teaching, 2*(1), 193-212.

Chang, K. S. (2003). Action research on effects of student-teacher writing conference. *English Language Teaching, 15*(19), 1-30.

Chang, K. S., & Song, Y. J. (2001). A teacher-initiated action research in a middle school. *English Language & Literature Teaching, 7*(1), 1-19.

Cohen, L., & Manion, L. (1980). *Research methods in education*. London: Crook Helm.

Deen, J. (1987). *A teacher's diary study of an experiment in project-based language learning*. Unpublished manuscript. TESL master's program, University of California, Los Angeles.

Dornyei, Z. (2003). *Questionnaires in second language research*. London. Mawah, NJ.

Kemmis, S., & McTaggart, R. (1989). Action research. *IATEFLE Newsletter, 102*, 2-3.

Lee, S. B. (1999). Teacher's own strategies for developing primary English teaching skills: Doing action research. *Primary English Education, 5*(2), 171-190.

Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues, 2*, 34-46.

McMillan, J. H. (2000). *Educational research: Fundamentals for the consumers*. New York: Longman.

Nunan, D. (1997). Action research in the language classroom. In J. C. Richards & D. Nunan (Eds.), *Second language teacher education* (pp. 62-81). New York: Cambridge University Press.

Oh, K. M. (2003). Individualized teacher-students interaction in EFL writing class: Action research. *English Teaching, 58*(4), 99-126.

Park, K. H. (2004). Some suggestions for action research on primary English education focused on Kyeonggi province. *Primary English Education, 10*(2), 97-125.

Richards, J. C. (1997). The dilemma of teacher education in second language teaching. In J. C. Richards & D. Nunan (Eds.), *Second language teacher education* (pp. 3-15). New York: Cambridge University Press.

Shaw, P. A. (1996). Voices for improved learning: The ethnographer as coagent of pedagogic change. In K. M. Bailey & D. Nunan (Eds.), *Voices from the language learning classroom: Qualitative research on language education* (pp. 157-177). New York: Cambridge University Press.

Telatnik, M. A. (1977). *The intensive journal as self-evaluative instrument for the ESL teacher*. Unpublished mater's thesis, University of California, Los Angeles.

Telatnik, M. A. (1978). *The intensive journal as self-evaluative instrument*. Paper presented at the 1978 annual ITESOL convention, Mexico City.

Yoon, K. D., Park, Y. L., & Park, S. Y. (1999). Elementary perceptions of action research in Korea. *Korean Journal of Comparative Education, 9*(1), 213-238.

APPENDIX

Questionnaire

1. Age:
2. Gender:
3. Major of Study

BA:

MA:

Ed.D/Ph.D.:

3. How long have you been teaching English?_____years
4. Please check your teaching context

Kindergarten:___

Elementary:___

Middle School:___

High School:___

University:___

Private Institute:___

Tutoring:___

5. Please check your students' proficiency level in English:

Low Novice:___

Mid Novice:___

High Novice:___

Low Intermediate:___

Mid Intermediate:___

High Intermediate:___

Low Advanced:___

Mid Advanced:___

High Advanced:___

6. What is your average teaching load a week?

Less than 10 hours a week:___

10-15 hours a week:___

15-20 hours a week:___

More than 20 hours a week:___

7. On the average, how many students are there in your class?

Less than 10:___

10-15:___

15-20:___

20-25:___

25-30:___

30-35:___
More than 35:___
8. Have you conducted action research before? Yes___ No___
9. If so, please explain why.
10. If not, please explain why.
11. What requirements do you think are necessary for doing action research?
12. What are the ways in which doing action research facilitated your teaching practice?
13. What are the ways in which doing action research constrained your teaching practice?
14. Do you intend to implement the results of your action research in your teaching practice? Yes___ No___
15. If so, please explain why.
16. If not, please explain why.

Examples in: English
Applicable Languages: English
Applicable Levels: College

Taesun Yang
Department of General Education, Dongguk University
L409 26, 3 Pildong, Junggu
Seoul, Korea
Tel: (02) 2260-8776
Email: tyang@dongguk.edu

Received in April, 2009
Reviewed in May, 2009
Revised version received in June, 2009